COZEN O'CONNOR

June 27, 2024

David P. Zambito
Direct Phone 717-703-5892
Direct Fax 215-989-4216
dzambito@cozen.com

VIA E-FILING

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor North
Harrisburg, PA 17120

Re: Pennsylvania Public Utility Commission v. Veolia Water Pennsylvania, Inc.; Docket Nos. R-2024-3045192, R-2024-3045193, *et al*.

Joint Stipulation for the Admission of Evidence

Dear Secretary Chiavetta:

Enclosed for filing with the Pennsylvania Public Utility Commission is the Joint Stipulation for the Admission of Evidence, together with all testimony and exhibits of the parties. Confidential and Proprietary documents will be filed separately.

Copies have been served as shown on the attached Certificate of Service.

Thank you for your attention to this matter. Please do not hesitate to contact me if you have any questions.

Sincerely,

COZEN O'CONNOR

By: David P. Zambito
Counsel for *Veolia Water Pennsylvania, Inc.*

DPZ
Enclosures
cc: Per Certificate of Service
Administrative Law Judge Emily I. DeVoe
James C. Cagle, Vice President, Rates and Regulatory Affairs, Veolia
Maryanne Hatch, Senior Director, Rates and Regulatory Affairs, Veolia
Larry Finnicum, Vice President and General Manager, VWPA
David Njuguna, Senior Manager, Regulatory Business (Municipal Water), Veolia

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket Nos. R-2024-3045192
	:	and R-2024-3045193 *et al.*
Veolia Water Pennsylvania, Inc.	:	

CERTIFICATE OF SERVICE

I hereby certify that I have this 27th day of June, 2024, served a true copy of the foregoing **Joint Stipulation for the Admission of Evidence** upon the parties listed below, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a party).

VIA E-MAIL ONLY (with Attachments):

Christy M. Appleby, Esq.
Darryl Lawrence, Esq.
Barrett C. Sheridan, Esq.
Office of Consumer Advocate
555 Walnut Street
Forum Place, 5th Floor
Harrisburg, PA 17101-1923
E-mail: OCAVeolia2024@paoca.org
Counsel for *Office of Consumer Advocate*

Michael A. Podskoch, Jr., Esq.
Pennsylvania Public Utility Commission
Bureau of Investigation and Enforcement
Commonwealth Keystone Building
400 North Street – 2 West
Harrisburg, PA 17120
E-mail: mpodskoch@pa.gov
Counsel for *Bureau of Investigation and Enforcement*

Sharon E. Webb, Esq.
Rebecca Lyttle, Esq.
Office of Small Business Advocate
555 Walnut Street
Forum Place, 1st Floor
Harrisburg, PA 17101-1923
E-mail: swebb@pa.gov
E-mail: relyttle@pa.gov
Counsel for *Office of Small Business Advocate*

Kevin C. Higgins
Neal Townsend
Shantell Garrett
Energy Strategies
111 East Broadway, Suite 1200
Salt Lake City, Utah 84111
khiggins@energystrat.com
sgarrett@energystrat.com
ntownsend@energystrat.com
Consultants for *Office of Small Business Advocate*

PENNSYLVANIA UTILITY LAW PROJECT
Counsel for CAUSE-PA
John W. Sweet, Esq., PA ID: 320182
Lauren N. Berman, Esq., PA ID: 310116
Ria M. Pereira, Esq., PA ID: 316771
Elizabeth R. Marx, Esq., PA ID: 309014
118 Locust Street
Harrisburg, PA 17101
pulp@pautilitylawproject.org

Respectfully submitted,

David P. Zambito, Esq.
Counsel for *Veolia Water Pennsylvania, Inc.*

BEFORE THE
PENNSYLVANIA PUBLIC UTLITY COMMISSION

Administrative Law Judge Emily I. DeVoe

Pennsylvania Public Utility Commission	:	Docket Nos. R-2024-3045192 *et al.*,
	:	(Water)
v.	:	
	:	Docket No. R-2024-3045193, *et al.*
Veolia Water Pennsylvania, Inc.	:	(Wastewater)

JOINT STIPULATION FOR THE ADMISSION OF EVIDENCE

Veolia Water Pennsylvania, Inc. ("VWPA"), the Office of Consumer Advocate ("OCA"), the Office of Small Business Advocate ("OSBA"), the Bureau of Investigation and Enforcement ("I&E") of the Pennsylvania Public Utility Commission ("Commission"), and the Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania ("CAUSE-PA") (individually, a "Stipulating Party" and collectively, the "Stipulating Parties") hereby join in this Joint Stipulation for the Admission of Evidence ("Stipulation") in the above-captioned proceedings.

In support of the Stipulation, the Stipulating Parties represent as follows:

I. INTRODUCTION

1. On February 16, 2024, VWPA (Water Division) filed a general base rate proceeding at Docket No. R-2024-3045192. Also on February 16, 2024, VWPA (Wastewater Division) filed a general base rate proceeding at Docket No. R-2024-3045193.

2. On February 16, 2024, the OCA filed its Formal Complaint and Public Statement. The lead counsel for the OCA in this matter is Christy M. Appleby, Esq.

3. On February 20, 2024, Michael A. Podskoch, Jr. entered his Notice of Appearance on behalf of I&E.

4. On February 21, 2024, VWPA filed corrected cover letters for its water and wastewater general base rate cases.

5. On February 23, 2024, VWPA filed affidavits verifying compliance with the notice requirements for its water and wastewater filings.

6. On February 26, 2024, counsel for OSBA filed their Notices of Appearance. The lead counsel for the OSBA in this matter is Sharon E. Webb, Esq.

7. On March 4, 2024, VWPA filed a revised answer to minimum filing requirement II-8.

8. On March 8, 2024, CAUSE-PA filed a Petition to Intervene. The lead counsel for CAUSE-PA is John W. Sweet, Esq.

9. On March 14, 2024, the Commission issued orders suspending both the proposed water tariff and the proposed wastewater tariff until November 16, 2024, and directing VWPA to file suspension tariffs within ten days.

10. On March 20, 2024, the Commission issued a Call-In Telephone Prehearing Conference Notice advising the parties that a Prehearing Conference would be held on March 27, 2024. Also on March 20, 2024, Administrative Law Judge Emily I. DeVoe (the "ALJ") issued her Prehearing Conference Order.

11. On March 25, 2024, VWPA filed its suspension water tariff and its suspension wastewater tariff.

12. On March 26, 2024, VWPA, the OCA, the OSBA, I&E and CAUSE-PA filed Prehearing Conference Memoranda.

13. The Prehearing Conference was held as scheduled on March 27, 2024.

14. On March 28, 2024, VWPA filed a Petition for Protective Order. The Petition was granted by Order issued April 23, 2024.

15. On April 1, 2024, and again on April 2, 2024, VWPA re-filed the water tariff supplement to make minor language/formatting corrections at the request of Commission staff.

16. Also on April 1, 2024, the ALJ issued her Prehearing Order which, inter alia, granted CAUSE-PA's Petition to Intervene.

17. On April 2, 2024, the ALJ issued her Interim Order Approving VWPA's Request to Voluntarily Extend Suspension Period. On April 5, 2024, VWPA filed water and wastewater tariffs voluntarily extending the suspension period subject to the condition that, at the time compliance filings are approved by the Commission, the Company will recoup revenues lost for the period from November 16, 2024 through the date the Commission makes approved rates effective.

18. On April 8, 2024, the Commission issued a Public Input Hearings Notice, scheduling one in-person public input hearing to be held in Bloomsburg on April 29, 2024 and two hybrid public input hearings to be held in Harrisburg on April 30, 2024.

19. On April 18, 2024, the ALJ issued her Interim Order Adding Additional Complainants to Parties List and Providing Information to Customer Complainants.

20. On April 25, 2024, VWPA filed an Affidavit of Compliance with Public Notice Requirements for the Public Input Hearings

21. On June 17, 2024, the Commission issued a Hearing Type Change Notice, advising the parties that the hearing was changed from In-Person Evidentiary Hearings to Call-In Evidentiary Hearings.

22. By e-mail of June 25, 2024, counsel for VWPA notified the ALJ that the parties had reached a unanimous settlement of all issues (the "Settlement"). He requested that hearings be cancelled and the procedural schedule be suspended. The ALJ advised the parties that the hearings scheduled for June 26 and 27, 2024 would be cancelled, but the hearing scheduled for June 28, 2024 would not be cancelled unless a stipulation for the admission of evidence was filed by noon on June 27, 2024.

23. Consistent with the Prehearing Order, the parties will file the Settlement on or before August 2, 2024.

II. STIPULATION

24. The Stipulating Parties hereby jointly stipulate to the authenticity of and admission into the evidentiary record in this matter of the following testimony and exhibits:

PARTY	STATEMENT/EXHIBITS
VWPA	VWPA St. No. 1, Direct Testimony of Larry Finnicum, together with Exhibits LKF-1 through LKF-4
	VWPA Statement No. 1-R, Rebuttal Testimony of Larry Finnicum, together with Exhibits LKF-1-R through LKF-3-R
	VWPA Statement No. 2, Direct Testimony of Gregory R. Herbert, together with Appendix A and Exhibit GRH-1 through GRH-5
	VWPA Statement No. 2-R, Rebuttal Testimony of Gregory R. Herbert, together with Exhibits GRH-1-R through GRH-5-R
	VWPA Statement No. 3, Direct Testimony of Constance E. Heppenstall, together with Exhibit CEH-1 through CEH-4
	VWPA Statement No. 3-R, Rebuttal Testimony of Constance E. Heppenstall
	VWPA Statement No. 4, Direct Testimony of Harold Walker, III together with Exhibit HW-1 through HW-2
	VWPA Statement No. 4-R, Rebuttal Testimony of Harold Walker, III together with Exhibits HW-1R and HW-2R
	VWPA Statement No. 5, Direct Testimony of Dane Watson, together with Exhibit DAW-1 through DAW-2
	VWPA Statement No. 5-R, Rebuttal Testimony of Dane Watson together with Exhibits DAW-1-R through DAW-5-R
	VWPA Statement No. 6, Direct Testimony of James Cagle
	VWPA Statement No. 6-R, Rebuttal Testimony of James Cagle **(Public Version)**

	VWPA Statement No. 6-R, Rebuttal Testimony of James Cagle (**PROPRIETARY VERSION**)
	VWPA Statement No. 7, Direct Testimony of Judith McCoy Jordan
	VWPA Statement No. 7-R, Rebuttal Testimony of Judith McCoy Jordan together with Exhibits JMJ-1-R through JMJ-3-R
	VWPA Statement No. 8, Direct Testimony of Anupa Jacob
	VWPA Statement No. 8-R, Rebuttal Testimony of Anupa Jacob
CAUSE-PA	CAUSE-PA St. 1, Direct Testimony of Robert W. Ballenger, Esq. (as corrected June 7, 2024), together with Exhibit 1 (as corrected on June 7, 2024) and Appendices A and B
	CAUSE-PA St. 1-R (as corrected on June 12, 2024), Rebuttal Testimony of Robert W. Ballenger, Esq.
	CAUSE-PA St. 1-SR Surrebuttal Testimony of Robert W. Ballenger
	Verification of Robert W. Ballenger, Esq.
I&E	I&E Statement No. 1, Direct Testimony of Vanessa Okum (**Non-Proprietary Version**), together with I&E Exhibit No. 1
	I&E Statement No. 1, Direct Testimony of Vanessa Okum (**PROPRIETARY VERSION**), together with I&E Exhibit No. 1
	I&E Statement No. 2, Direct Testimony of D. C. Patel, together with I&E Exhibit No. 2
	I&E Statement No. 3, Direct Testimony of Esyan Sakaya, together with I&E Exhibit No. 3 (as corrected on May 24, 2024)
	I&E Exhibit No. 3-R, Rebuttal Testimony of Esyan Sakaya
	I&E Statement No. 1-SR, Surrebuttal Testimony of Vanessa Okum, together with I&E Exhibit No. 1-SR
	I&E Statement No. 2-SR, Surrebuttal Testimony of D. C. Patel
	I&E Statement No. 3-SR, Surrebuttal Testimony of Esyan Sakaya, together with I&E Exhibit No. 3-SR
OSBA	OSBA Statement No. 1, Direct Testimony of Neal Townsend, together with Attachment A
	OSBA St. No. 1-R, Rebuttal Testimony of Neal Townsend, together with Exhibit
	OSBA Statement No. 1-S, Surrebuttal Testimony of Neal Townsend
OCA	OCA St. 1, Direct Testimony of Morgan N. DeAngelo (**CONFIDENTIAL VERSION**), together with Appendices A and B and Exhibits MND-1 through MND-9 (Exhibits MND-4 through MND-6 are **CONFIDENTIAL**)
	OCA St. 1, Direct Testimony of Morgan N. DeAngelo (**Public Version**), together with Appendices A and B and Exhibits MND-1 through MND-3 and Exhibits MND-7 through MND-9
	OCA St. 2, Direct Testimony of Lafayette K. Morgan, together with Exhibits LKM-W-1 through LKM-W-19 and Exhibits LKM-WW-1 through LKM-WW-12
	OCA St. 3, Direct Testimony of David J. Garrett, together with Exhibits DJG-1 through DJG-27, and Appendices A through E
	OCA St. 4, Direct Testimony of Jerome D. Mierzwa, together with Exhibits JDM-1

	OCA St. 5, Direct Testimony of Terry L. Fought, together with Exhibits TLF-1 - 6 and TLF-8 - 19 (Exhibits TLF-2B and 7 are **CONFIDENTIAL**)
	OCA St. 6, Direct Testimony of Nicholas A. DeMarco, together with Exhibits NAD-1 through NAD-8
	OCA St. 2R, Rebuttal Testimony of Lafayette K. Morgan, together with Exhibits LKM-W-1R through LKM-W-20R and Exhibits LKM-WW-1R through LKM-WW-14R
	OCA St. 4R, Rebuttal Testimony of Jerome Mierzwa
	OCA St. 1SR, Surrebuttal Testimony of Morgan N. DeAngelo (**Public Version**), together with Exhibit MND-1SR
	OCA St. 1SR, Surrebuttal Testimony of Morgan N. DeAngelo, (**CONFIDENTIAL VERSION**), together with Exhibit MND-1SR
	OCA St. 2SR, Surrebuttal Testimony of Lafayette K. Morgan, together with Exhibits LKM-W-1S through LKM-W-20S, and Exhibits LKM-WW-1S through LKM-WW-14S
	OCA St. 3SR, Surrebuttal Testimony of David J. Garrett
	OCA St. 4SR, Surrebuttal Testimony of Jerome D. Mierzwa
	OCA St. 5SR, Surrebuttal Testimony of Terry L. Fought, together with Exhibits TLF-20 through TLF-22
	OCA St. 6SR, Surrebuttal Testimony of Nicholas A. DeMarco

25. This Stipulation is presented by the Stipulating Parties in conjunction with the Settlement, which is intended to settle all issues in the above-captioned proceedings. If the Commission rejects or otherwise modifies the Settlement, the Stipulating Parties reserve their respective procedural rights to object to the admission of the above-referenced testimony and exhibits, to submit testimony and additional exhibits, and to cross-examine witnesses, at on-the-record evidentiary hearings.

26. This Stipulation is being presented in conjunction with the Settlement only to resolve issues in the above-captioned proceedings. Regardless of whether this Stipulation is approved, no adverse inference shall be drawn, nor shall prejudice result to any Stipulating Party in this or any future proceeding as a consequence of this Stipulation, or any of its terms or conditions.

27. One copy of the foregoing testimony and exhibits are attached for filing with the Commission's Secretary, for inclusion in the official case record upon approval of this Stipulation.

28. Attached hereto as **Appendix A** is a proposed "Order Granting Joint Stipulation for the Admission of Evidence" for consideration by the Honorable Administrative Law Judge Emily I. DeVoe.

WHEREFORE the Stipulating Parties, by their respective counsel, respectfully request that the Honorable Administrative Law Judge Emily J. DeVoe admit the foregoing testimony and exhibits into the record in this proceeding on the terms and conditions set forth in the Stipulation.

Respectfully submitted,

Michael Podskoch

Michael A. Podskoch, Jr., Esq. (PA ID 330132)
Bureau of Investigation and Enforcement
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120
Telephone: (717) 783-6151
E-mail: mpodskoch@pa.gov

Counsel for *Bureau of Investigation and Enforcement*

David P. Zambito, Esq. (PA ID 80017)
Jonathan P. Nase, Esq. (PA ID 44003)
Cozen O'Connor
17 North Second Street, Suite 1401
Harrisburg, PA 17101
Telephone: (717) 703-5892
Facsimile: (215) 989-4216
E-mail: dzambito@cozen.com
E-mail: jnase@cozen.com

Counsel for *Veolia Water Pennsylvania, Inc.*

Sharon E. Webb, Esq. (PA ID 73995)
Rebecca Lyttle (PA ID 201399)
Office of Small Business Advocate
Forum Place
555 Walnut Street, 1st Floor
Harrisburg, PA 17101
Telephone: (717) 783-2525
Facsimile: (717) 783-2831
E-mail: swebb@pa.gov
E-mail: relyttle@pa.gov

Counsel for *Office of Small Business Advocate*

Christy M. Appleby, Esq. (PA ID 85824)
Darryl A. Lawrence, Esq. (PA ID 93682)
Barrett C. Sheridan, Esq. (PA ID 61138)
Office of Consumer Advocate
Forum Place
555 Walnut Street, 5th Floor
Harrisburg, PA 17101
Telephone: (717) 783-5048
E-mail: CAppleby@paoca.org
Email: DLawrence@paoca.org
E-mail: BSheridan@paoca.org

Counsel for *Office of Consumer Advocate*

28. Attached hereto as **Appendix A** is a proposed "Order Granting Joint Stipulation for the Admission of Evidence" for consideration by the Honorable Administrative Law Judge Emily I. DeVoe.

WHEREFORE the Stipulating Parties, by their respective counsel, respectfully request that the Honorable Administrative Law Judge Emily J. DeVoe admit the foregoing testimony and exhibits into the record in this proceeding on the terms and conditions set forth in the Stipulation.

Respectfully submitted,

Michael A. Podskoch, Jr., Esq. (PA ID 330132)
Bureau of Investigation and Enforcement
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120
Telephone: (717) 783-6151
E-mail: mpodskoch@pa.gov

Counsel for *Bureau of Investigation and Enforcement*

David P. Zambito, Esq. (PA ID 80017)
Jonathan P. Nase, Esq. (PA ID 44003)
Cozen O'Connor
17 North Second Street, Suite 1401
Harrisburg, PA 17101
Telephone: (717) 703-5892
Facsimile: (215) 989-4216
E-mail: dzambito@cozen.com
E-mail: jnase@cozen.com

Counsel for *Veolia Water Pennsylvania, Inc.*

Sharon E. Webb, Esq. (PA ID 73995)
Rebecca Lyttle (PA ID 201399)
Office of Small Business Advocate
Forum Place
555 Walnut Street, 1st Floor
Harrisburg, PA 17101
Telephone: (717) 783-2525
Facsimile: (717) 783-2831
E-mail: swebb@pa.gov
E-mail: relyttle@pa.gov

Counsel for *Office of Small Business Advocate*

Christy M. Appleby, Esq. (PA ID 85824)
Darryl A. Lawrence, Esq. (PA ID 93682)
Barrett C. Sheridan, Esq. (PA ID 61138)
Office of Consumer Advocate
Forum Place
555 Walnut Street, 5th Floor
Harrisburg, PA 17101
Telephone: (717) 783-5048
E-mail: CAppleby@paoca.org
Email: DLawrence@paoca.org
E-mail: BSheridan@paoca.org

Counsel for *Office of Consumer Advocate*

28. Attached hereto as **Appendix A** is a proposed "Order Granting Joint Stipulation for the Admission of Evidence" for consideration by the Honorable Administrative Law Judge Emily I. DeVoe.

WHEREFORE the Stipulating Parties, by their respective counsel, respectfully request that the Honorable Administrative Law Judge Emily J. DeVoe admit the foregoing testimony and exhibits into the record in this proceeding on the terms and conditions set forth in the Stipulation.

Respectfully submitted,

Michael A. Podskoch, Jr., Esq. (PA ID 330132)
Bureau of Investigation and Enforcement
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120
Telephone: (717) 783-6151
E-mail: mpodskoch@pa.gov

Counsel for *Bureau of Investigation and Enforcement*

David P. Zambito, Esq. (PA ID 80017)
Jonathan P. Nase, Esq. (PA ID 44003)
Cozen O'Connor
17 North Second Street, Suite 1401
Harrisburg, PA 17101
Telephone: (717) 703-5892
Facsimile: (215) 989-4216
E-mail: dzambito@cozen.com
E-mail: jnase@cozen.com

Counsel for *Veolia Water Pennsylvania, Inc.*

Sharon E. Webb, Esq. (PA ID 73995)
Rebecca Lyttle (PA ID 201399)
Office of Small Business Advocate
Forum Place
555 Walnut Street, 1st Floor
Harrisburg, PA 17101
Telephone: (717) 783-2525
Facsimile: (717) 783-2831
E-mail: swebb@pa.gov
E-mail: relyttle@pa.gov

Counsel for *Office of Small Business Advocate*

Christy M. Appleby, Esq. (PA ID 85824)
Darryl A. Lawrence, Esq. (PA ID 93682)
Barrett C. Sheridan, Esq. (PA ID 61138)
Office of Consumer Advocate
Forum Place
555 Walnut Street, 5th Floor
Harrisburg, PA 17101
Telephone: (717) 783-5048
E-mail: CAppleby@paoca.org
Email: DLawrence@paoca.org
E-mail: BSheridan@paoca.org

Counsel for *Office of Consumer Advocate*

28. Attached hereto as **Appendix A** is a proposed "Order Granting Joint Stipulation for the Admission of Evidence" for consideration by the Honorable Administrative Law Judge Emily I. DeVoe.

WHEREFORE the Stipulating Parties, by their respective counsel, respectfully request that the Honorable Administrative Law Judge Emily J. DeVoe admit the foregoing testimony and exhibits into the record in this proceeding on the terms and conditions set forth in the Stipulation.

Respectfully submitted,

Michael A. Podskoch, Jr., Esq. (PA ID 330132)
Bureau of Investigation and Enforcement
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120
Telephone: (717) 783-6151
E-mail: mpodskoch@pa.gov

Counsel for *Bureau of Investigation and Enforcement*

David P. Zambito, Esq. (PA ID 80017)
Jonathan P. Nase, Esq. (PA ID 44003)
Cozen O'Connor
17 North Second Street, Suite 1401
Harrisburg, PA 17101
Telephone: (717) 703-5892
Facsimile: (215) 989-4216
E-mail: dzambito@cozen.com
E-mail: jnase@cozen.com

Counsel for *Veolia Water Pennsylvania, Inc.*

Christy M. Appleby

Sharon E. Webb, Esq. (PA ID 73995)
Rebecca Lyttle (PA ID 201399)
Office of Small Business Advocate
Forum Place
555 Walnut Street, 1st Floor
Harrisburg, PA 17101
Telephone: (717) 783-2525
Facsimile: (717) 783-2831
E-mail: swebb@pa.gov
E-mail: relyttle@pa.gov

Counsel for *Office of Small Business Advocate*

Christy M. Appleby, Esq. (PA ID 85824)
Darryl A. Lawrence, Esq. (PA ID 93682)
Barrett C. Sheridan, Esq. (PA ID 61138)
Office of Consumer Advocate
Forum Place
555 Walnut Street, 5th Floor
Harrisburg, PA 17101
Telephone: (717) 783-5048
E-mail: CAppleby@paoca.org
Email: DLawrence@paoca.org
E-mail: BSheridan@paoca.org

John W. Sweet, Esq. (PA ID 320182)
Lauren M. Berman, Esq. (PA ID 310116)
Ria M. Pereira, Esq. (PA ID 316771)
Elizabeth Marx, Esq. (PA ID 309014)
118 Locust St.
Harrisburg, PA 17101
Telephone: (717) 236-9486
Facsimile: (717) 233-4088
E-mail: pulp@pautilitylawproject.org

Counsel for *CAUSE-PA*

BEFORE THE
PENNSYLVANIA PUBLIC UTLITY COMMISSION

Pennsylvania Public Utility Commission	:	Docket Nos. R-2024-3045192 *et al.*,
	:	(Water)
v.	:	
	:	Docket No. R-2024-3045193, *et al.*
Veolia Water Pennsylvania, Inc.	:	(Wastewater)

ORDER GRANTING JOINT STIPULATION FOR THE ADMISSION OF EVIDENCE

On June 27, 2024, Veolia Water Pennsylvania, Inc., the Office of Consumer Advocate, the Office of Small Business Advocate, the Bureau of Investigation and Enforcement of the Pennsylvania Public Utility Commission, and the Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania, (singularly, a "Stipulating Party" and collectively, the "Stipulating Parties") filed a Joint Stipulation for the Admission of Evidence ("Stipulation") in the above-captioned proceeding.

Each of the Stipulating Parties stipulated to the authenticity of the testimony and exhibits listed in the Stipulation and requested that they be admitted into the record of this proceeding on the terms and conditions set forth in the Stipulation. The Stipulation is attached to this Order.

As this request is reasonable, it will be granted.

THEREFORE,

IT IS ORDERED:

1. That the Stipulation, filed on June 27, 2024, is APPROVED;

2. That the statements and exhibits listed therein are admitted into the record of this proceeding on the terms and conditions set forth in the Stipulation.

Date: _____

_____
Emily I DeVoe
Administrative Law Judge

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

PREPARED DIRECT TESTIMONY

OF

LARRY FINNICUM

REGARDING

RATE CASE STRUCTURE & WITNESSES, NEED FOR RATE RELIEF, COMPANY DESCRIPTION, OPERATIONS, EDUCATIONAL EFFORTS, CAPITAL ADDITIONS, COST CONTROL, ORGANIZATIONAL CHANGES, CUSTOMER SERVICE, NON-REVENUE WATER, AND PROPOSED CHANGES TO TARIFF RULES AND REGULATIONS

VEOLIA WATER PENNSYLVANIA, INC.

February 2024

I. Introduction

Q. What is your name and business address?

A. Larry Finnicum. My business address is 6310 Allentown Blvd., PA 17112.

Q. By whom are you employed and in what capacity?

A. I am employed by Veolia Water Pennsylvania, Inc. ("VWPA" or the "Company") as General Manager and Vice President.

Q. What is your education background?

A. I received a Bachelor of Science Degree in Business Administration from Drexel University.

Q. Please describe your work experience.

A. I have twenty years of experience in the water utility sector starting in 2003 with Aqua America, Inc. as a Continuing Property Records Analyst. I was hired by the former United Water Pennsylvania, Inc. as Company Superintendent in 2012, and have held multiple positions of increasing responsibility since then, being promoted to Vice President and General Manager in 2022.

Q. Have you previously testified before any regulatory commissions?

A. No.

Q. What is the subject of your testimony?

A. In addition to a general overview of the Company's operations, I will present testimony on the following:

- An outline of the Company's rate case and sponsoring witnesses.
- The Company's need for rate relief and the rate impact to its customers;
- A description of the Company;
- The Company's educational efforts regarding conservation and the value of water;
- The Company's capital additions through the fully-projected future test year ending October, 2025 (the "FPFTY") as well as a review of its capital expenditures under its rate filing;
- The Company's Long Term Infrastructure Investment Plan ("LTIIP");
- The Company's efforts to control costs and maintain rate stability;
- The Company's organizational changes since the last base rate case;
- The Company's safety and compliance culture;
- The Company's customer service;
- The Company's non-revenue water program; and
- The proposed changes to the Company's tariff Rules and Regulations.

Q. Please identify the exhibits you are sponsoring.

A. I am sponsoring the following exhibits:

- LKF-1 - Plant in Service as at end of HTY 09/30/2023, FTY 09/30/2024 and FPFTY 10/31/2025.
- LKF-2 - A comparison of estimated versus actual capital expenditures, as required in the terms of the settlement in the Company's previous base rate case.
- LKF-3 - Text of the bill insert for customer notification.
- LKF-4 - Customer complaint log from 2019 to present, as required in the terms of the settlement in the Company's previous base rate case.

II. Other Witnesses

Q. Please identify the other VWPA witnesses being presented in VWPA's direct case and their subject matter areas.

A. The other VWPA witnesses in this case are listed below:

- Greg Herbert, Gannett Fleming- – Income Statement, Operating Revenue, Expense Adjustment and Rate Base.
- Constance Heppenstall, Gannett Fleming - Cost of Service Allocation & Customer Rate Design.
- Herbert Walker, III.-Cost of Capital and Lead Lag Study/Working Capital.

- Dane Watson, Alliance Consulting Group - Depreciation Study.
- Jim Cagle, Veolia VP of Rates and Regulatory Affairs – Income Taxes, CTA, TCJA, and terms of the Suez-Veolia Merger Agreement.
- Judith Jordan, Veolia Director of Programs - Low Income Assistance Program.
- Anupa Jacob, Veolia VP and Chief Accounting Officer - M&S Expenses, M&S fee benefits, shared assets.

III. VWPA's Need for Rate Relief

Q. Why is VWPA seeking rate relief at this time?

A. VWPA's last base rate case was filed nearly six years ago in Docket Number. R-2018-3000834 on April 30, 2018 ("2018 Base Rate Case"). The case was settled and rates became effective February 1, 2019. Veolia Water Bethel, whose merger with VWPA was approved by Commission Order issued on February 9, 2023, [1] last filed a base rate case over thirteen years ago on October 28, 2011 in Docket Number R-2011-2770261 ("2011 Base Rate Case"). The rates became effective March 16, 2012. Since the 2018 Base Rate Case and 2011 Base Rate Case, the Company has invested approximately $84.6 million in water and wastewater infrastructure through the end of the historic test year (HTY) ended September 30,

[1] *See, Joint Application of Veolia Water Pennsylvania, Inc. and Veolia Water Bethel, Inc., Pursuant to Section 1102(a)(3) of the Pennsylvania Public Utility Code, 66 Pa. C.S. § 1102(a)(3), for Approval of a Change of Control of Veolia Water Bethel. Inc. through a Merger,* Docket Nos. A-2022-3035967 et al. (Order entered February 9, 2023).

2023. The company projects that it will invest an additional $85.7 million through the end of the fully projected test year ("FPFTY").

Q. What are the major drivers of the Company's request for rate relief?

A. The most significant driver for the request is the Company's continuing infrastructure investments to improve the safety, security, environmental and regulatory compliance, reliability, and efficiency of our systems, all in an effort to enhance the quality of service to our customers. As noted above, the Company's infrastructure investments have been, and will continue to be, significant, as evidenced by the Company's two most recent Distribution System Improvement Charge ("DSIC") filings in which the Commission-approved cap was reached earlier this year.

Q. Please summarize the rate increase being requested by VWPA.

A. VWPA is requesting a rate increase for its water and wastewater services that will generate an additional $16 million, or 26.7% over VWPA's current annualized revenues, including DSIC revenues. Constituting the $16 million increase is the requested increase for water services of $15.4 million, or 26% over current annualized revenues, including DSIC revenues, and the requested increase for wastewater services of $568 thousand, or 35% over current annualized revenues.

Q. What is the current consumption water rate per hundred gallons?

A. The residential rate is $0.90510 per hundred gallons, which means that one penny will buy 1.1 gallons of water. All other classifications have the same rate ($0.90510) for the first 25,000 gallons. For additional usage, the commercial rate is $0.65790 per hundred gallons, and the industrial rate is $0.74700 per hundred gallons.

Q. How much does an average residential customer use per day for water service and what does that equate to on a cost per day under current rates?

A. In 2023, a residential customer used approximately 115 gallons per day or 3500 gallons per month which equated to one dollar and four cents ($1.04) per day plus an additional forty-eight cents ($0.48) per day for customer charge.

Q. How would the Company's proposed increase impact the residential customer?

A. The cost for 115 gallons per day, not including DSIC surcharges, would increase by approximately thirty-seven cents ($0.37) per day.

Q. How much does an average residential customer use per day for wastewater service and what does that equate to on a cost per day under current rates?

A. In 2023, a residential customer paid a monthly flat rate of fifty-six dollars and twenty cents ($56.20) for wastewater service, or one dollar and eighty-five cents ($1.85) per day.

Q. How would the Company's proposed increase impact the residential customer?

A. The cost for wastewater service would increase by approximately sixty-eight ($0.68) cents per day.

Q. Is VWPA proposing to spread any wastewater costs to its water customers under Act 11 of 2012?

A. No.

IV. Description of the Company

Q. Please give a general description of VWPA.

A. VWPA provides water service to approximately 69,800 customers in 11 counties and 49 municipalities throughout Pennsylvania. It operates five surface water treatment plants ranging in size from three quarters to twelve million gallons per day. It also operates 36 wells with varying degrees of treatment, 30 booster stations and 42 storage facilities. Its infrastructure includes over 900 miles of main, 14,000 valves and 4,400 hydrants. In addition, VWPA provides wastewater

services to approximately 1,600 customers in 2 counties. It operates 1 wastewater treatment plant along with a collection system of over 2 miles.

V. Acquisitions

Q. Please discuss acquisitions made by VWPA since the last base rate case.

A. There have been three acquisitions since the last base rate case proceeding that are not yet reflected in rate base: the water and wastewater systems of the Township of Mahoning ("Mahoning"), the Kensington Water Company ("Kensington"), and the Overbrook Water Company ("Overbrook").

Q. Please discuss the Mahoning acquisition and how the Company proposes to treat this transaction for rate purposes.

A. The Mahoning systems serve approximately 1,200 water customers and 1,200 wastewater customers. The systems were acquired under section 1329 of the Pennsylvania Public Utility Code ("Code")[2], which was approved by the Commission on December 20, 2018 in Docket Nos. A-2018-3003517 and A-2018-3003519. The Commission approved a rate base addition of $9.5 million for ratemaking rate base purposes, with $4,734,800 of that amount being allocated to water rate base and $4,765,200 being allocated to wastewater rate base. The assets acquired were recorded on the Company's regulatory books of accounts at

[2] 66 Pa. C.S. § 1329. Hereafter all references to a "Section" are to the Code, 66 Pa. C.S. §§ 101 *et seq*., unless indicated otherwise

the depreciated original cost. The Company requests a return on and return of this purchase price, which is reflected as a "positive" acquisition adjustment to be amortized over a ten year period.

Q. Please discuss the Kensington acquisition and how the Company proposes to treat this transaction for rate purposes.

A. VWPA's acquisition of Kensington was approved by the Commission on October 24, 2019 in Docket Nos. A-2019-3012193 and A-2019-3012194. Kensington, which has been fully depreciated since 2011, was purchased for $265,000 and serves approximately sixty-five (65) customers. The resulting positive acquisition adjustment was booked in the Company's regulatory books as a regulatory asset. For purposes of this base rate case, the Company has elected to rely on the original cost records of Kensington and the Commission. The Company requests a return on and return of the purchase price (plus acquisition costs) pursuant to section 1327 and proposes to amortize the positive acquisition adjustment over ten years and the acquisition costs over a five year period as shown in Exhibit GRH-3, Schedule 30 and Schedule 34 and Exhibit GRH-5, Schedule 20.

Q. Please discuss the Overbrook acquisition and how the Company proposes to treat this transaction for rate purposes.

A. VWPA's acquisition of Overbrook was approved by the Commission on October 24, 2019 in Docket Nos. A-2019-3014990 and A-2019-3014991. Overbrook was

purchased for $324,000 and serves approximately one hundred seventy-three (173) residential and seven (7) non-residential customers. The resulting positive acquisition adjustment was booked in the Company's regulatory books as a regulatory asset. For purposes of this base rate case, the Company has elected to rely on the original cost records of Overbrook and the Commission. The Company requests a return on and return of the purchase price (plus acquisition costs) pursuant to section 1327 and proposes to amortize the positive acquisition adjustment over ten years and the acquisition costs over a five year period as shown in Exhibit GRH-3, Schedule 30 and Schedule 34.

Q. Do the Kensington and Overbrook acquisitions meet the criteria included in Section 1327 for the recovery of an acquisition adjustment?

A. Yes, I believe they do. I am advised by counsel that Section 1327 creates a rebuttable presumption that a purchase price in excess of the original cost less depreciation of an acquired system is reasonable and should be included in rate base if certain conditions are met. Those conditions are: (1) the property is used and useful in providing water or wastewater service; (2) the acquired system had 3,300 or fewer customer connections or was not viable; (3) the acquired system was not providing adequate, efficient, safe and reasonable service and facilities; (4) reasonable and prudent investments will be made to provide adequate, efficient, safe and reasonable service and facilities; (5) the acquired entity agrees to the acquisition and the negotiations were conducted at arm's length; (6) the

actual purchase price is reasonable; (7) the acquiring public utility is not affiliated with the acquired entity; (8) the rates charged to the acquiring utility's preacquisition customers will not increase unreasonably because of the acquisition; and (9) the excess of the acquisition cost over depreciated original cost will be added to rate base to be amortized over a reasonable period with corresponding reductions in the rate base.

With respect to the Kensington system:

(1) The property is used and useful in providing water service.

(2) The acquired system had fewer than 3,300 customers (it had only 67 residential customers).

(3) The acquired system was not providing safe, adequate and efficient service because the existing treatment was not removing manganese from the water which was over the stated EPA Ten Day Health Advisory Level of 0.3 mg/l. This triggered a Tier 1 notification to all customers stating a do not consume for infants under the age of 6 months. Additionally, it did not have a business license and had exhibited insufficient cash for certain operating expenses in the past.

(4) Reasonable and prudent investments will be made to provide adequate, efficient, safe and reasonable service, including interconnecting the system with the Bear Valley Water Authority that did not have the water quality issues with manganese.

(5) Kensington agreed to the acquisition and negotiations were conducted at arm's length.

(6) The actual purchase price ($265,000) was reasonable, as demonstrated by the acquisition cost of approximately $4,000 per customer, which is less than the per-customer net-utility plant investment of approximately $5,000 per customer in the VWPA system.

(7) Kensington was not affiliated with SUEZ Water Pennsylvania Inc.

(8) The rates charged to Kensington's customers will not increase unreasonably. SUEZ Water Pennsylvania Inc. adopted Kensington's rates for metered service for all classes of service at the time of the acquisition ($15 per month for the first 1,667 gallons per month and $7.10 per thousand gallons above that). VWPA proposes that the rates to Kensington's residential customers utilizing a 5/8"-3/4" meter increase to a $19.80 meter charge plus $11.71 per thousand gallons, and rates to Kensington's Commercial customers utilizing a 5/8"-3/4" meter increase to a $19.80 meter charge plus $11.71 per thousand for the first twenty-five thousand gallons, and $9.32 per thousand gallons for all additional consumption. These proposed rates are reasonable because these customers' rates have not increased since the acquisition, the proposed rates are more reflective of the cost of providing service, the proposed rates are moving toward

harmonization with the rest of VWPA's system, and, the proposed rates are designed to encourage conservation.

(9) the excess of the acquisition cost over depreciated original cost will be added to rate base to be amortized over a reasonable period of ten years with corresponding reductions in the rate base.

With respect to the Overbrook system:

(1) The property is used and useful in providing water service.

(2) The acquired system had fewer than 3,300 customers (it had approximately 180 residential and non-residential customers).

(3) The acquired system was not providing safe, adequate and efficient service because the it did not properly install and permit water treatment equipment with PA DEP, the system did not have proper 4 log ground water calculations in place, and it was viewed as a 'troubled' water system by PA DEP.

(4) Reasonable and prudent investments will be made to provide adequate, efficient safe and reasonable service, including over $2.4 million of investment since acquiring the system in water mains and services as well as an interconnection with our Dallas system and upgrades to the wells as it relates to water quality and SCADA in Overbrook.

(5) Overbrook agreed to the acquisition and negotiations were conducted at arm's length.

(6) The actual purchase price ($324,000) was reasonable, as demonstrated by the acquisition cost of approximately $1,800 per customer, which is less than the per-customer net-utility plant investment of approximately $5,000 per customer in the VWPA system.

(7) Overbrook was not affiliated with SUEZ Water Pennsylvania Inc.

(8) The rates charged to Overbrook's customers will not increase unreasonably because of the acquisition. SUEZ Water Pennsylvania Inc. adopted Overbrook's rates, which were billed on a per-fixture basis (e.g., per spigot, bathtub, lavatory, automatic dishwasher, etc.) resulting in flat rates, for all classes of service at the time of the acquisition. VWPA proposes that the rates to Overbrook's residential customers utilizing a 5/8"-3/4" meter structurally change and increase to a $19.80 meter charge plus a consumption charge of $11.71 per thousand gallons. These proposed rates are reasonable because the rates of these customers have not increased since the acquisition, the proposed rates are more reflective of the cost of providing service, the proposed rates are moving toward harmonization with the rest of VWPA's system, and, the proposed rates are designed to encourage conservation.

(9) The excess of the acquisition cost over depreciated original cost will be added to rate base to be amortized over a reasonable period of ten years with corresponding reductions in the rate base.

Q. Why is the Company presenting a separate Cost of Service study for Mahoning?

A. As presented by company witness Constance Heppenstall, the Company is presenting a separate Cost of Service study for Mahoning to satisfy the terms of the Commission's approval under Section 1329 to acquire the Mahoning systems, which required that at the time of filing its next base rate case, the Company shall submit a cost of service study that removes all costs and revenues associated with the Mahoning systems and also provide separate water and wastewater cost of service studies for the Mahoning systems.

VI. Outreach and Education

Q. Describe the Company's efforts to educate the public in conservation and the value of water.

A. The Company knows that water is one of our most precious natural resources. As a responsible steward of this resource, the Company is committed to educating the public about the value of water and the importance of conservation. See Minimum Filing Requirement XI.06 for a more-complete description of the Company's efforts in this regard.

Q. Please describe in general the Company's outreach program to customers.

A. The Company has taken several proactive steps not only to educate its customers, but also to receive input and feedback from its customers. These steps are listed below:

- Social Media – The Company routinely posts customer-centric information related to operations and services on our Facebook and Twitter sites. In addition to notifying customers of events that may impact their water service, the posts include seasonal, weather-related tips, such as how to avert frozen indoor pipes and when to avoid watering lawns and gardens during summer.
- Customer Emergency Notification System – A system, known as "Notify," which interfaces with the Company's GIS platform, was implemented in 2018 and allows for notification via text and email in addition to phone to alert customers of service-related urgencies. These include water main breaks, boil water advisories, water conservation requests, and urgent operational issues such a spot flushing of hydrants in a small area.
- Web Alerts - Website messages are routinely posted to detail water service-related urgencies, including those listed above. The website link is included within the Company's social media posts regarding the same information.

- The Company has invited Legislators to visit the operations in their respective territory and has provided tours of the Water Treatment Facilities in their area.
- The Company has done special engagements with local non-profits such as the Fishing Creek Watershed Association, Columbia County Conservation District, and Salvation Army Harrisburg hosting residents for informal educational opportunities.
- The Company has hosted educational opportunities for youth, from plant tours to classroom lessons on water conservation, in addition to attending youth job fairs and discussing the types of jobs available in the water industry.
- The Company has participated in several community events to increase public engagement including Mechanicsburg's Annual Jubilee Day, touting over 70,000 guests each year; Representative Fleming's Annual Senior Fair; as well as Water Education Day hosted by Columbia County Conservation District.

Q. How has the Company promoted environmental causes within the community?

A. The Company routinely works with regional environmental preservation organizations intent on promoting natural resources. We have collaborated with the Columbia County Conservation District to promote water conservation and

protection of drinking water sources. In addition, the Company provided financial resources to Columbia County Conservation District in 2023 for a streambank restoration project in Fishing Creek (the source water for the Company's Bloomsburg Water Treatment Plant). Also, in the Columbia County region, the Company has actively supported the Fishing Creek Watershed Association, through educational opportunities for the community and through participation at local community events. The Company participated in a streambank clean up that was coordinated by the Manada Conservancy and financially supported the Conservancy's educational public outreach efforts, impacting the Harrisburg area and more specifically the Swatara creek (the source water for the Company's Hummelstown Treatment Plant). Since 2001, the Company has also partnered with the Yellow Breeches Watershed Association ("YBWA") to promote watershed protection through an annual "Trout Day" community environmental preservation event held at one of our surface water treatment plants on the first day of trout season in South Central Pennsylvania. Anglers and other event attendees are provided with educational information by Veolia and YBWA that stress the value of recycling and water conservation. This event has resulted in regional news media coverage regarding the vitality of environmental preservation.

VII. Prudent Management of Costs and Promotion of Efficiency

Q. Please describe how the Company has prudently managed its costs.

A. The Company recognizes that overall costs are going to increase each year. Labor, material costs, health insurance, etc. are some examples of annual cost increases that cannot be avoided or, even in some circumstances, mitigated. The Company also understands its responsibility to provide an excellent level of services to its customers. Cutting costs simply to keep rates low is not an option where the public is dependent upon the quality and reliability of the services. Therefore, the Company must find ways to operate more efficiently. The Company strives to continuously improve its service level by utilizing new technology, changing business processes and continuing to invest prudently in its assets.

The Corporate Procurement department at Veolia secures chemicals for the Company through a centralized process and continues to bid out pricing for the majority of its chemicals annually. Annual bidding achieves the best market price at the time of the bid, aggregates volume among locations, and presents a wide range of suppliers opportunities to quote on VWPA chemical requirements. Please note that aggregating volume doesn't necessarily allow for uniform pricing across all Company locations due to the variable cost of transportation and delivery of these products. Capital improvement projects and subcontractor work are bid out and selection is based on a combination of qualifications and price to ensure the best value for the Company and its ratepayers. The Company also continues to manage its vehicle fleet through Element, which reviews repairs and assists in recommending which repairs should be made and which suggested repairs are not necessary. Pipeline repair and construction components are sourced with a

preference for lower priced vendors whenever possible, taking into consideration lead time and supply chain constraints as evidenced during the Covid-19 Pandemic. Regional and national contracts for these items are negotiated, leveraging the volume of Veolia's operations across the Mid-Atlantic region. The Company's Procurement team actively uses 3rd party purchased power contracts to manage electricity prices and establishes fixed pricing by executing advance purchases at three separate points over a rolling 18 month period. This hedging strategy provides the following benefits: it establishes a steady annual budget for a purchased power price that can rapidly fluctuate, allows the Company to employ a consistent methodology to avoid buying all electricity at the top or the bottom of the market, and minimizes year over year price volatility.

Q. Can you give a few examples of how the Company is utilizing new technology to reduce costs, improve business efficiency, or meet regulatory requirements?

A. Yes**,** I will highlight the following:

- **SCADA** - The company has begun the process to update its existing Supervisory Control And Data Acquisition ("SCADA") system to the Veolia National Standard. This will update the nearly 30 year old technologies to modern standards. The Company is transitioning from Emerson Controls to GeoSCADA. The new system will provide operators the same control and communication with assets they are

used to, but will provide a greater reliability to our customers because of communication redundancy, spare part optimization as all parts will be standard, and increased cyber security through the use of the most up to date technology.

- **GIS –** The Company has updated its GIS to a real-time cloud based system and has provided all of its utility employees with laptop computers or IPADs to view the Company's linear assets. The ability to both view and edit assets in the field has resulted in a number of benefits; namely a paperless system, the ability to "facetime" others for advice -- thus reducing the number of trips and allowing for timely decisions, and empowering the field employees to make decisions resulting in better customer service. In support of the GIS program the Company has also equipped the field personnel with GPS devices to capture assets within a several inches accuracy. The data captured in the field is then updated regularly, providing field employees with accurate and reliable data.
- **Asset Management –** The Company's asset management utilizes the HEXAGON computer software to capture vertical assets. To date, over 2,650 assets have been inputted into the system generating approximately 400 work orders per month capturing both preventative maintenance on assets along with correct actions taken on failed assets.

- **Radio Read Meter Program –** The Company has continued transitioning to an Advanced Metering Infrastructure ("AMI") meter reading system, where fixed towers capture reads from customer meters on a daily basis. As of December 2023 the Company has 57% of its customer meters on AMI. The Company can use this data to improve customer service by 1) reducing a truck roll to visit a customer site to obtain a meter reading and 2) collecting readings in district metered areas to evaluate unaccounted for water on a daily basis.
- **Strategic Metering -** The Company to date is in the process of identifying key customers, *i.e.* large users, medical facilities, etc., to install meters that allow for real-time flow data that the Company can access via software. The data from strategic meters is enhanced by the AMI technology because it provides the Company insights into when and how water is being used by our largest customers, and prevents unnecessary truck rolls previously caused by large customer usage that had the appearance of a leak. The data collected by these meters help evaluate unaccounted for water, optimize our hydraulic model, and provide valuable information to the customer.
- **Energy Efficiency** – The Company is using digital technologies to improve energy efficiency. Power meters have been installed on

strategic pumps to track the real time power usage of the pumps. Strategic pumps are identified as higher horsepower pumps that operate more than half of the year. Of the 30 strategic pumps identified, 20 now have power metering with the remaining to be completed this year. The power meters are connected to SCADA and our online database, eOps. The Company is working on comparing field flow data to energy data to learn how increased flows and demands impact electric costs. Once the comparisons are complete, the Company will be able to learn to optimize operations of its pumps and motors.

VIII. Customer Service Improvements

Q. Please describe the Company's ongoing efforts to measure and provide continuous improvement in the services that it delivers to its customers.

A. In addition to previous information provided in my testimony about customer outreach, the Company has taken the following steps to improve customer relations:

- Customer service personnel attended training workshops on the AMI system as well as enhancements made on the website.
- AMI Enhancements - as customers are moved to the AMI system, they can review monthly, daily and hourly water usage. This helps to assist customers in understanding the time of day when water

usage occurs, and in determining if there may be abnormal water usage or potential leakage at a property. AMI data can also assist our billing department in recognizing higher than normal usage when processing high bills and alert customers of this usage by sending a high bill letter to the customer.

- Process improvements have been developed with a focus on reducing field service orders and the amount of “truck rolls” for field staff. This is achieved by continuously revising and training customer service representatives on the AMI system, and improving process flows for our customer service representatives when scheduling field service orders.
- Web Enhancements - after the Veolia Merger, mysuezwater.com was rebranded in May of 2022 to mywater.veolia.us. Customers are encouraged to register on mywater.veolia.us and login to manage their account. Customers can view bill and payment history and print their current and previous bills. Customers can view water usage, enroll in paperless billing, set up automatic payments, make one-time payments, and start and stop water service. Customers can sign up for alert messages by telephone, text, or email. The customer can also obtain information through the “Amazon Alexa" application. The customer-facing website offers our registered and non-registered customers access to additional resources such as the

water quality reports, water conservation tools and tips and a conservation survey. Customers can also view alerts about outages, water flushing, and other water related topics specific to their zip code area.

Another way the Company gauges its customer satisfaction is the number of informal and formal complaints the Company receives. The company received a total of 160 informal complaints from 2019 thru December of 2023, averaging 32 informal complaints per year. From 2019 through December of 2023, the Company received 29 Formal complaints averaging 5.8 formal complaints per year. Ten of the formal complaints received were related to customers responding to an engineering project that reduced the pressure to customers in the Mechanicsburg area; the Company was unable to settle two of those complaints. Additional detail on formal complaints since the last rate proceeding can be found in Minimum Filing Requirement IX.04 and in Exhibit LKF-4, which provides a complaint log as required in the settlement terms of the 2018 Base Rate Case.

Q. What other initiatives has VWPA promoted to improve service to its customers?

A. The Company has, among other things, implemented the following initiatives for customers:

- **E-billing** -- The Company offers e-billing to its customers. As of December 2023, 26,338 customers were utilizing e-billing to realize

a "Green" solution to routine billing. E-billing adds customer convenience and reduces the cost of bill procurement. The Company also offers direct debit and as of December 2023, 18,150 customers were enrolled.

- **Customer Inquiries** -- The Company utilizes its call center located near Harrisburg. The Company has a goal of answering all customer calls in less than thirty (30) seconds. This is monitored on a weekly basis. The average speed to answer from January 2019 through December 2023 was 24 seconds.
- **Abandoned Phone Call Rate** -- The Company has set a goal for having an abandoned phone call rate of three percent. This is monitored on a daily basis. The average abandoned rate from January 2019 through December of 2023 was 2.4% percent.
- **VEOLIA Cares** -- The Company maintains a customer assistance program called "Veolia Cares" (formerly called "SUEZ Cares") for those genuinely impacted by challenging economic times. A total of 471 grants were issued to customers between January 2019 through December 2023, totaling $80,906.06.

IX. Personnel Requirements

Q. What organizational changes has the Company made to ensure that its operations remain current?

A. In 2022, the Company reorganized to regionalize the Engineering Department - Mid Atlantic Region of the Company, which covers the Company Operations in Delaware and Pennsylvania. Prior to this, the department was much more siloed in resources between Delaware and Pennsylvania. The Company made this organizational change to ensure that best practice management and efficiencies are in place in the delivery of the Company's capital plan. Another organizational change that the Company made in 2022 was the addition of a Director of Operational Technology for the Mid Atlantic Division. This role leads the execution of strategy and work in the areas of Operational Technology for the Division which will include Non-Revenue Water ("NRW"), AMI, Asset Management, SCADA, and Data Analytics. Lastly, in 2023, the Company reorganized customer service at a regional level under a regional Customer Service Manager for the Mid Atlantic Region. Prior to this both Delaware and Pennsylvania had their own Customer Service Supervisor. The Company made this organizational change to ensure that standardization of policy and procedures are in place throughout the Region to ensure a positive and effective customer experience to the Company's customers.

Q. Has the Company laid off any employees since the last base rate filing?

A. No.

Q. Has the Company eliminated or reduced any positions since the last rate filing?

A. No.

Q. Is the Company planning on adding any new full time positions by the end of the FPFTY to its current operations?

A. Yes, there are eleven full time new positions approved for hire: (1) SCADA/Electrician; (2) Engineer Manager; (3) Plant Operator-Bloomsburg; (4) Project Manager (PFAS); (5) Project Manager (PFAS); (6) GIS Technician; (7) Capital Investment Accounting Analyst; (8) Program Manager (PFAS); (9) Business Development Manager; (10) Engineering Associate; (11) Treatment Project Engineer. These positions are necessary to ensure continuous improvement and oversight of the Company's operations.

Q. Have any of these positions been filled?

A. Yes, the Plant Operator in Bloomsburg, GIS Technician, and Program Manager (PFAS) have been filled. The Company's goal is to recruit and on-board the new positions within the first quarter of 2024.

X. Unaccounted for Water

Q. Please discuss the Company's efforts to reduce Unaccounted for Water.

A. The Company continues to implement standard and innovative approaches to reduce Unaccounted for Water ("UFW"). Please reference MFR XI.05 for a basic understanding of how UFW is calculated. In the next three paragraphs, I will share the basis of our UFW reduction program, the recent innovative technologies we

have used to combat this challenge, and our plans going forward to continue making progress.

The basis for our UFW program revolves around the accurate capture and reporting of data. To begin at the production facilities, at least every 5 years we calibrate our production meters to ensure that the amount of water put into the system is accurately measured. Moving on to the distribution systems, we continue to install additional meters to create district metered areas ("DMA's") which are smaller zones that allow us to see variations or anomalies faster. On the customer side, we continue to replace customer meters as they age, and relocate meters to property lines to properly meter all water going onto a customer's property. In areas where AMI has been installed, customer data can be obtained on a daily basis versus a monthly basis. Data from DMA zones comparing production and sales volumes are gathered in databases and compiled for weekly analysis. These comparisons of each DMA provide clear data indicating where UFW is likely to be found.

To investigate UFW, VWPA uses innovative leak detection technologies to locate leaks. The company has experienced success with the implementation of Aquarius Spectrum Sensors. These permanent leak detection loggers work very well on metal pipes and accurately pinpoint leaks within a few days of occurrence. In areas of the system that are not primarily metal pipe, standard field techniques for locating leaks using acoustical devices continue to be deployed.

VWPA has spent significant time trying to locate long-running and difficult-to-find leaks. In Hummelstown for example, leaks were located and repaired in late 2022 and early 2023, which reduced low flows in the Borough to levels not seen since before 2007. Learning from the data collected, daily comparison of water lost, allows the UFW team to react faster when leaks occur, and assists field teams in prioritizing where to be looking for leaks. Finally and critically, having the proper staff in the field is critical to achieving the mission to reduce UFW.

XI. Quality and Reliability of Service

Q. Has the Company had any Tier One or Tier Two violations since its last rate case proceeding?

A. Yes. See MFR IX-01.

Q. Has the Company had any informal or formal PUC complaints regarding water quality since its last rate proceeding?

A. Yes, the Company received 3 Formal complaints. One 1 was settled and 2 went to hearing, resulting in Company fines.

Q. Did the Company have any customers out of service for a period longer than 24 hours?

A. No.

XII. Capital Additions

Q. Please discuss the Company's capital additions through the end of the FPFTY.

A. Exhibit LKF-1 is a list of capital improvement projects to be placed in service after the end of the historic test year, but prior to the end of the FPFTY, and budgeted for 2024 and 2025, which are projected to be in service within the FPFTY. Associated plant retirements, advances, contributions, and costs to remove related to these projects are also included in this Exhibit. This information was used by Company Witness Greg Herbert in his rate base calculations.

Q. How many individual projects are over $5,000,000?

A. There are four projects budgeted over $5,000,000 as follows:

- Rabold Water Treatment Plant Upgrade - $21,200,000.
- South Centre Township main extension - $8,900,000.
- SCADA Implementation of National Standards - $8,100,000.
- SR 83 Sect. 78 - $6,600,000.

Q. What is the status of the four projects to date?

A. The Company has awarded the Rabold Water Treatment Plant Upgrade design to AECOM Engineers. To date, they have completed about 60 percent of the design, and construction is planned for 2024 - 2025. The South Centre Township main extension project is in the second year of the three-year planned construction. The

SCADA Implementation of National Standards is in the second year of the four-year planned construction. The Company has awarded the design of the SR 83 Sect. 78 water main replacement project to Gannet Fleming. To date, they have completed about 90 percent of the design; construction is planned for 2024 - 2025.

Q. Did SWPA submit a Long Term Infrastructure Improvement Plan ("LTIIP")?

A. Yes, the Company filed its second LTIIP on August 31, 2021, which was amended in a November 4, 2021 filing. It was subsequently approved by the Commission on December 16, 2021, at Docket No. P-2021-3028256.

Q. Did the Company file its Annual Asset Optimization Plan ("AAOP") and, if so, what in summary did the AAOP conclude?

A. Yes, the Company filed its 2022 AAOP on February 23, 2023. It demonstrated that, due to the unavailability of both material and contractors due to the lingering effects of the COVID-19 Pandemic, the Company was able to replace only 7.4 miles of main and invest $11.8 million in infrastructure improvements, falling short of its 2022 projection of $13.6 million. Although the Company fell short of this projection due to the effects of the Pandemic in 2022, the Company still plans to meet the total overall goals of the Second LTIIP.

Q. Does VWPA anticipate any material deviations from its LTIIP in the future test year and fully projected future test year?

A. No. The Company's capital investment for infrastructure improvements in both the future test year and the fully projected future test year are aligned with the LTIIP plan approved by the Commission.

Q. Please discuss the 2018 Base Rate Case Settlement provision that requires a comparison of projected capital expenditures in that case and actual expenditures.

A. Specifically, the settlement language states:

"In SWPA's next base rate proceeding, SWPA shall prepare and submit a comparison of its actual expenditures and rate base additions for the twelve months ending December 31, 2019, to its projections in this case."

Q. Please provide the comparison.

A. In the 2018 Base Rate Case, the Company estimated that it would spend a net dollar amount of $43.8 million through the FPFTY, which ended December 31, 2019. The Company's Actual Plant in Service Expenditures was $4.2 million less than the Company's estimated expenditures, which is presented in Exhibit LFK-2. Of that $4.2 million difference, $2.2 million relates to the Adams Drive project, which was canceled due to the decision to rent office space rather than build, bringing the difference to $2 million. The remaining $2 million consists of delayed projects and the following canceled projects:

- Sixth St. Enhanced Coagulation – $0.3 million

- Disinfection Rule - $0.45 million
- Stonehenge Tank - $0.45 million
- Sixth St. Chemical Injection Revisions - $0.2 million

XIII. Changes to Tariff Rules and Regulations

Q. Please discuss the proposed changes to the Company's tariff Rules and Regulations.

A. The Company is proposing several changes to its tariff. The proposals are as follows:

1. The Company proposes reducing the due date of bills from twenty days (20) to fifteen days (15) for all customer classes other than the residential class, which will remain at twenty days (20). This proposal is intended to improve Company cash flow.
2. The Company proposes to remove all language regarding charges for testing of unmetered firelines. The Company has not found an efficient way to monitor this activity and assess these charges.
3. The Company proposes a fee for hydrant flow testing of $455.00 to be charged to the customer or party requesting the test. The Company believes that charging for the testing is consistent with cost-causation principles.
4. The Company proposes a fee for meter tampering or theft with the first occurrence being $250.00 and subsequent occurrences being

$500.00. The Company intends for this fee to serve as a behavioral deterrence.

5. The Company proposes to provide clarity on the grounds for rejecting applications for service. Additional clarity benefits both customers and the Company.

6. The Company proposes to revise the section referring to the Federal Tax Adjustment Credit ("FTAC") as further described in Mr. Cagle's testimony.

7. The Company proposes various "housekeeping" revisions to the wastewater tariff to bring it into closer alignment with the water tariff, to remove certain elements that are not appliable to wastewater service, and to provide additional clarifications specific to wastewater service.

XIV. Customer Notification of New Rates

Q. How will the Company inform customers of the base rate case filing and the need to increase rates?

A. In compliance with the Commission's notice requirements, the Company will inform customers of our rate filing by mailing each customer a printed notice 61 days prior to the proposed effective date of the tariff. The text of the customer notice is attached to this testimony as Exhibit LKF-3. New customers who enroll after the filing is made will be informed of the filing in accordance with the Commission's

regulations. We will also provide information about our rate request by way of a letter that will be mailed to selected public officials who represent districts that include areas that we serve. Internally, and in addition to our in-state call center staff, all Company employees will be briefed on the rate filing and the drivers for the increase. They will be provided with the name of a VWPA contact in order to elevate any customer questions if there are customer inquiries they are unable to fully answer. Field employees will be provided with a customer handout that includes facts about our rate filing. These handouts can be given to customers that have questions. A “Statement of Reasons” for the rate increase will be provided to any customer upon request. Finally, a news release, describing the rate request and the reasons for the request, will be distributed to the news media on the day of filing to ensure that the facts of the case are accurately described. This news release will also be posted on VWPA’s website.

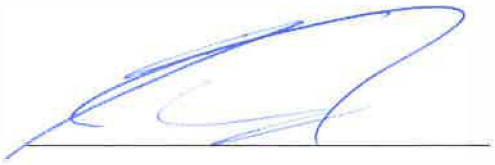
Q. Does this conclude your direct testimony?

A. Yes. However, I reserve the right to supplement my testimony as additional issues arise during the course of this proceeding.

VERIFICATION

I, Larry Finnicum, hereby state that the facts set forth above are true and correct to the best of my knowledge, information and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: February 16, 2024



BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

EXHIBITS TO ACCOMPANY DIRECT TESTIMONY

OF

LARRY FINNICUM

VEOLIA WATER PENNSYLVANIA, INC.

February 2024

SUMMARY OF PLANT IN SERVICE ACTIVITY FOR THE YEARS ENDED SEPTEMBER 30, 2024 AND OCTOBER 31, 2025

			2024				2025			
	ACCOUNT	BALANCE AS OF 9/30/2023	ADDITIONS	RETIREMENTS	TRANSFERS, ADJUSTMENTS AND ACQUISITIONS	BALANCE AS OF 9/30/2024	ADDITIONS	RETIREMENTS	TRANSFERS, ADJUSTMENTS AND ACQUISITIONS	BALANCE AS OF 10/31/2025
	(1)	(2)	+ (3)	- (4)	+ (5)	= (6)	+ (7)	- (8)	+ (9)	= (10)
301.10	ORGANIZATION	32,469	-	-	-	32,469	-	-	-	32,469
302.10	FRANCHISES AND CONSENTS	65,436	-	-	-	65,436	-	-	-	65,436
303.20	MISCELLANEOUS INTANGIBLE PLANT	3,068,761	616,081	-	-	3,684,842	-	-	-	3,684,842
303.30	LAND AND LAND RIGHTS	1,149,369	-	-	-	1,149,369	-	-	-	1,149,369
303.40	RESERVOIRS AND STANDPIPES LAND	900,725	-	-	-	900,725	-	-	-	900,725
303.50	LAND AND LAND RIGHTS	935,368	-	-	-	935,368	-	-	-	935,368
304.20	PUMPING STRUCTURES	6,860,690	2,011,495	21,000	-	8,851,185	2,021,690	376,000	-	10,496,875
304.30	WATER TREATMENT PLANT STRUCTURES	17,937,051	-	-	-	17,937,051	-	-	-	17,937,051
304.40	TRANSMISSION AND DISTRIBUTION STRUCTURES	3,003,944	-	-	-	3,003,944	-	-	-	3,003,944
304.50	OFFICE STRUCTURES	12,447,129	890,061	54,000	-	13,283,190	1,663,788	-	-	14,946,978
304.50	MISCELLANEOUS STRUCTURES	48,859	-	-	-	48,859	-	-	-	48,859
305.20	COLLECTING AND IMPOUNDING RESERVOIRS	425,522	279,088		-	704,610	1,635,000	600,000	-	1,739,610
306.20	LAKE, RIVER AND OTHER INTAKES	4,788,459	-	-	-	4,788,459	-	-	-	4,788,459
307.20	WELLS AND SPRINGS	1,322,103	610,462	3,000	-	1,929,565	817,500	-	-	2,747,065
308.20	INFILTRATION GALLERIES AND TUNNELS	10,312	1,773,970	-	-	1,784,282	947,850	-	-	2,732,132
310.20	POWER GENERATION EQUIPMENT	159,191	77,390	-	-	236,581	-	-	-	236,581
311.20	ELECTRIC PUMPING EQUIPMENT	10,312,804	130,026	1,100	-	10,441,730	109,000	-	-	10,550,730
311.20	OIL ENGINE PUMPING EQUIPMENT	314,156	-	-	-	314,156	-	-	-	314,156
311.40	PUMPING EQUIPMENT	568,582	-	-	-	568,582	-	-	-	568,582
320.30	WATER TREATMENT EQUIPMENT	40,102,339	7,233,625	40,000	-	47,295,965	13,093,800	214,500	-	60,175,265
320.30	PAINTING	82,943	463,036	16,000	-	529,979	-	-	-	529,979
320.30	CHEMICAL EQUIPMENT	4,745,460	-	-	-	4,745,460	-	-	-	4,745,460
330.40	DISTRIBUTION RESERVOIRS AND STANDPIPES	18,221,163	-	-	-	18,221,163	-	-	-	18,221,163
330.40	DISTRIBUTION RESERVOIRS AND STANDPIPES PAINTING	-	1,557,614	281,600	-	1,276,014	2,180,000	400,000	-	3,056,014
331.40	TRANSMISSION AND DISTRIBUTION MAINS	241,727,965	25,557,745	1,440,100	-	265,845,610	13,120,670	1,383,900	-	277,582,380
333.40	SERVICES	65,113,709	1,298,637	59,220	-	66,353,126	1,355,960	34,220	-	67,674,866
334.40	METERS	25,706,269	2,092,012	101,350	-	27,696,931	1,827,930	70,600	-	29,454,261
335.00	HYDRANTS	11,448,935	151,733	12,000	-	11,588,667	136,250	8,000	-	11,716,917
340.50	COMPUTER HARDWARE	379,170	-	-	-	379,170	-	-	-	379,170
340.50	COMPUTER SOFTWARE	217,105	-	-	-	217,105	-	-	-	217,105
340.50	COMPUTER SOFTWARE - LIGHTHOUSE	150,121	-	150,121	-	-	-	-	-	-
340.50	FURNITURE	682,567	-	-	-	682,567	-	-	-	682,567
341.50	TRANSPORTATION EQUIPMENT	2,936	-	-	-	2,936	-	-	-	2,936
342.50	STORES EQUIPMENT	7,543	-	-	-	7,543	-	-	-	7,543
343.50	SHOP AND GARAGE EQUIPMENT	665,079	-	-	-	665,079	-	-	-	665,079
343.50	TOOLS AND WORK EQUIPMENT	3,987,476	286,755	6,500	-	4,267,730	327,000	14,000	-	4,580,730
344.50	LABORATORY EQUIPMENT	58,432	-	-	-	58,432	-	-	-	58,432
345.50	POWER OPERATED EQUIPMENT	7,046	-	-	-	7,046	-	-	-	7,046
346.00	COMMUNICATION EQUIPMENT	5,483,221	2,284,835	5,000	-	7,763,056	1,746,500	5,000	-	9,504,556
347.00	MISCELLANEOUS EQUIPMENT	1,255,590	279,437	12,500	-	1,522,527	218,001	2,500	-	1,738,028
	TOTAL WATER PLANT	**484,395,999**	**47,594,000**	**2,203,491**	**-**	**529,786,508**	**41,200,939**	**3,108,720**	**-**	**567,878,727**

SUMMARY OF PLANT IN SERVICE ACTIVITY FOR THE YEARS ENDED SEPTEMBER 30, 2024 AND OCTOBER 31, 2025

			2024				2025			
	ACCOUNT	BALANCE AS OF 9/30/2023	ADDITIONS	RETIREMENTS	TRANSFERS, ADJUSTMENTS AND ACQUISITIONS	BALANCE AS OF 9/30/2024	ADDITIONS	RETIREMENTS	TRANSFERS, ADJUSTMENTS AND ACQUISITIONS	BALANCE AS OF 10/31/2025
	(1)	(2)	+ (3)	- (4)	+ (5)	= (6)	+ (7)	- (8)	+ (9)	= (10)
354.40	STRUCTURES AND IMPROVEMENTS	18,450	-	-	-	18,450	-	-	-	18,450
360.20	PUMP STATION FORCE MAINS	169,734	-	-	-	169,734	-	-	-	169,734
361.20	COLLECTION SEWERS - GRAVITY	4,512,102	2,131,603	600	-	6,643,105	54,500	500	-	6,697,105
371.40	PUMPING EQUIPMENT	654,507	-	-	-	654,507	-	-	-	654,507
380.40	TREATMENT AND DISPOSAL EQUIPMENT	34,282	-	-	-	34,282	-	-	-	34,282
393.70	TOOLS, SHOP AND GARAGE EQUIPMENT	3,800	-	-	-	3,800	-	-	-	3,800
396.70	COMMUNICATION EQUIPMENT	16,876	-	-	-	16,876	-	-	-	16,876
	TOTAL SEWER PLANT	**5,409,751**	**2,131,603**	**600**	**-**	**7,540,754**	**54,500**	**500**	**-**	**7,594,754**

Veolia Water Pennsylvania, Inc.
Comparison of Actual Plant in Service Expenditures to Projections in Rate Case R-2018-300834
12-months ending December 31, 2019

	ACCOUNT	CASE R-2018-3000834	ACTUALS	Comparison
	(1)	(2)	(3)	(4)
301.00	ORGANIZATION	-	-	-
302.00	FRANCHISES AND CONSENTS	-	-	-
303.00	MISCELLANEOUS INTANGIBLE PLANT	-	757,561	757,561
304.20	PUMPING STRUCTURES	-	1,521,964	1,521,964
304.30	WATER TREATMENT PLANT STRUCTURES	-	26,252	26,252
304.40	TRANSMISSION AND DISTRIBUTION STRUCTURES	-	499,075	499,075
304.51	OFFICE STRUCTURES	231,906	148,353	(83,553)
304.52	STORES, SHOP AND GARAGE STRUCTURES	2,730,421	-	(2,730,421)
304.53	MISCELLANEOUS STRUCTURES	8,282	-	(8,282)
305.00	COLLECTING AND IMPOUNDING RESERVOIRS	-	-	-
306.00	LAKE, RIVER AND OTHER INTAKES	3,232,333	1,077,793	(2,154,539)
307.00	WELLS AND SPRINGS	-	262,011	262,011
308.00	INFILTRATION GALLERIES AND TUNNELS	-	-	-
311.20	ELECTRIC PUMPING EQUIPMENT	1,628,866	1,588,056	(40,810)
311.30	OIL ENGINE PUMPING EQUIPMENT	-	-	-
320.10	STRUCTURES AND IMPROVEMENTS	662,590	428,498	(234,092)
320.20	PAINTING	-	-	-
320.30	CHEMICAL EQUIPMENT	1,822,121	130,245	(1,691,876)
330.00	DISTRIBUTION RESERVOIRS AND STANDPIPES	2,319,064	2,156,755	(162,309)
331.00	TRANSMISSION AND DISTRIBUTION MAINS	28,695,650	23,610,766	(5,084,884)
333.00	SERVICES	750,935	4,187,318	3,436,383
334.00	METERS	1,242,355	1,353,018	110,662
335.00	HYDRANTS	99,388	547,648	448,260
339.00	OTHER PLANT AND MISCELLANEOUS EQUIPMENT	-	-	-
340.10	COMPUTERS AND SOFTWARE	-	44,856	44,856
340.11	SOFTWARE - LARGE	-	-	-
340.20	FURNITURE	-	565,702	565,702
341.00	TRANSPORTATION EQUIPMENT - TRUCKS	-	-	-
342.50	STORE EQUIPMENT	-	4,601	4,601
343.10	SHOP AND GARAGE EQUIPMENT	-	14,282	14,282
343.20	TOOLS AND WORK EQUIPMENT	132,518	348,452	215,934
344.00	LABORATORY EQUIPMENT	-	-	-
346.00	COMMUNICATION EQUIPMENT	242,950	263,105	20,155
347.00	MISCELLANEOUS EQUIPMENT	-	988	988
	TOTAL WATER PLANT	**$ 43,799,380**	**$ 39,537,299**	**$ (4,262,081)**

NOTICE OF PROPOSED RATE CHANGES

To Our Customers:

Veolia Water Pennsylvania has filed a request with the Pennsylvania Public Utility Commission (PUC) on February 16, 2024, to increase your water/wastewater rates as of April 16, 2024. This notice describes the company's rate request, the PUC's role, and what actions you can take.

Veolia Water Pennsylvania has requested an overall rate increase of approximately $16 million per year. Since the last rate case, the company will have invested over $167 million to enhance service reliability and water quality.

If the company's entire request is approved, the total water bill for a residential customer using an average of 3,500 gallons per month would increase from $49.64 to $60.79 per month or by 22%. The total water bill for an average commercial customer using 25,000 gallons per month would increase from $353.93 to $433.34 per month or by 22%. The total water bill for an industrial customer using 225,000 gallons per month would increase from $2,195.34 to $2,818.17 per month or by 28%.

If the company's entire request is approved, the total wastewater bill for a residential customer would increase from a flat rate of $46.50 to a flat rate of $77.00 per month or by 37%. The total wastewater bill for an average commercial customer using 25,000 gallons per month would increase from $197.32 to $225.33 per month or by 14%. Rates for an industrial customer using 225,000 gallons per month would increase from $683.82 to $2,295.95 per month or by 235%.

To find out your customer class or how the requested increase may affect your water or wastewater bill, contact Veolia Customer Service at 888-299-8972. The rates requested by the company may be found in Supplement No. 68 Water Tariff PA P.U.C. No.7 & Supplement No.5 Wastewater Tariff PA P.U.C. No.2. You may examine the material filed with the PUC which explains the requested increase and the reasons for it. A copy of this material is kept at Veolia's Harrisburg Office, 6310 Allentown Blvd, Suite 104, Harrisburg, PA 17112. Upon request, the company will send you the Statement of Reasons, explaining why the rate increase has been requested.

The state agency which approves rates for public utilities is the PUC. The PUC will examine the requested rate increase and can prevent existing rates from changing until it investigates and/or holds hearings on the request. The company must prove that the requested rates are reasonable. After examining the evidence, the PUC may grant all, some, or none of the request or may reduce existing rates. The PUC may change the amount of the rate increase or decrease requested by the utility for each customer class. As a result, the rate charged to you may be different than the rate requested by the company and shown above.

There are three ways to challenge a company's request to change its rates:

1. You can file a formal complaint. If you want a hearing before a judge, you must file a formal complaint. By filing a formal complaint, you assure yourself the opportunity to take part in hearings about the rate increase request. All complaints should be filed with the PUC before April 16, 2024. If no formal complaints are filed, the Commission may grant all, some or none of the request without holding a hearing before a judge.

Notice of Proposed Rate Changes
2024

2. You can send us a letter telling why you object to the requested rate increase. Sometimes there is information in these letters that makes us aware of problems with the company's service or management. This information can be helpful when we investigate the rate request. Send your letter or request for a formal complaint form to the Pennsylvania Public Utility Commission, PO Box 3265, Harrisburg, PA 17105-3265.

3. You can be a witness at a public input hearing. Public input hearings are held if the Commission opens an investigation of the company's rate increase request and if there is a large number of customers interested in the case. At these hearings you have the opportunity to present your views in person to the PUC judge hearing the case and the company representatives. All testimony given "under oath" becomes part of the official rate case record. These hearings are held in the service area of the company.

For more information, call the PUC at 1-800-692-7380. You may leave your name and address so you can be notified of any public input hearing that may be scheduled in this case.

Veolia North America
Pennsylvania Operations
6310 Allentown Blvd., Suite 104,
Harrisburg, PA 17112
www.veolianorthamerica.com

	BCS #	Complaint	Complaint	Responded	Special Remarks	Action Taken	Date Closed	Category
2019								
	3676024	Cust was victim of abuse so he moved to this address recently and tried to get water on in her name	1/22/2019	2/22/2019	ecision Issued- company granting a PA	1404 (a.1), 56.1, 56.141 (2)New PAR provided; cust did not inform company they were a victim of abuse.	3/28/2019	Applicant
	3677352	Customer is attempting to obtain service at location but company wants him to pay balance of old bill	5/2/2019	11/2/2019	ase Sustained- reduced restoration tern	56.191 .c.2.iv - Customer has unpaid balance from another address; no payments for 18 months; reduced payment terms offered	2/13/2019	Applicant
	3677593	Cust had to pay 2860 to replace water heater	7/2/2019	8/3/2019	Verbal Close	Property vacant: Meter Pit installed with backflow; customer experiencing thermal expansion	9/20/2019	Service
	3678036	Denial of Service/On Customer	12/2/2019	3/15/2019	Dismissed- Cust not eligible	PAR needs to be established to gain consistency in monthly payments and to pay down the large balance. Prior cases dismissed; customer not eligible for a new PUC PAR	6/8/2019	Applicant
	3678257	Service Issue Customer is disputing the issue of lower water pressure	2/13/2019	3/15/2019	Dismissal Letter Issued	Customer can install a booster to increase the pressure. Customers were moved from the Grantham system to the Center Square system lowering their pressure; interconnect crossing Route 15 Cust hs 40 -50 psi	2/5/2019	Service
	3678124	Our community water pressure has been drastically reduced and all of the neighbors are complaining	2/13/2019	3/15/2019	Verbal Close	Customer can install a booster for increased pressure. Customers were moved from the Grantham system to the Center Square system lowering their pressure; interconnect crossing Route 15; Cust currrently has 40 to 40 psi	3/20/2019	Service
	3681336	Billing Dispute, Customer is disputing that the co is telling her she has not paid a water bill since 2017	8/3/2019	5/4/2019	Verbal Close	Adjustment applied to the account. Customer account was not billing for water consumption. Investigated and found the ERT wire was in need of repair and the ERT needed to be re-attached to the side of the home. Water meter continued to record actual water consumption; customer backbilled	11/13/2019	Billing
	3685141	Billing Dispute -- Customer is being back-billed for 3 months of zero consumption due to water meter not working	3/28/2019	4/29/2019	Case Dismissed	Payment plan oferred. Meter stopped working company calculated back bill accurately and customer was offered a payment plan	2/1/2020	Billing
	3687003	Billing Dispute, Customer is disputing bill in the amount of 1500.00 (credit was taken off) for 170,000 gallons	2/4/2019	1/5/2019	Case Dismissed	Company will set up a PAR and waive LPC's. Water usage started to increase 1/24 and stayed elevated through 3/6 - 41 days indicaing something in the home running.	2/20/2020	Billing
	3689849	I returned home from work one day to find that my yard was dug up and half of the side of my path	10/4/2019	10/5/2019	Verbal Close	Restoration has begun as communicated and plannd in the Spring of 2019. Customers ERT stopped working and they were not billed for water consumption; with various notifications to fix.	12/17/2019	Service
	3690717	Rebill dispute. Meter broken for 3 months and customer rebilled 258.00 unbilled usage based on estimate	11/4/2019	10/5/2019	Decision Letter Issued	Customer backbilled based on equipment failure. Company offered the customer a payment plan. Cust feels she should not be responsible.	1/17/2020	Billing
	3692443	CU states utility came out to put in new water meter into the house, and a new line in the ground	4/17/2019	7/24/2019	Verbal Close	Pressure tested at 125 psi which was withing the guidelines of the PUC. Company reccommended customer to install a pressure release valve. Project completed in 2015; 4 years ago where a meter pit was installed for the customer with a backflow preventer.	7/25/2019	Service
	3695749	Applicant- Service is off	4/25/2019	4/29/2019	Verbal Close	Company resolved issue with the tenant and the water was restored. Landlord is the ratepayer and tenant filed the complaint.	4/30/2019	Applicant

BCS #	Complaint	Complaint	Responded	Special Remarks	Action Taken	Date Closed	Category
3695540	Received bill dated 03/25/2019 for $957.93. The bill claims our usage was 109,700 gallons in a 32 day period	4/25/2019	5/24/2019	Case Dismissed	One time leak adjustment being offered once customer provides the plumbing receipt. Company showed cusotmer daily water usage for 2 month period; meter tested and results passed. Cust claims plumber found nothing	2/15/2020	Billing
3697115	Cust wants to put in a dispute about damage to his property when they were putting in new water line	4/30/2019	5/31/2019	Dismissed	Proper repairs will be made as soon as weather permits. Customers were moved from the Grantham system to the Center Square system lowering their pressure; interconnect crossing Route 15 Cust has 40 -50 psi. Restoration has begun.	8/14/2019	Service
3697026	Customer is disputing that back in November, 2018 the water main pipe broke, which erupted and caused damage	4/30/2019	5/31/2019	Dismissed	This is an insurance claim under Liberty Mutual	8/27/2019	Service
3697625	Front yard was destroyed by water line installation. Ned final grading, top soil, and grass replanting	1/5/2019	5/31/2019	Verbal Close	Contractor made 3 attempts to satisfy the customer; customer indicated they were satisified then stated thats not how they want it.	7/31/2019	Service
3699771	Company replaced the water pipe system in 2018-2019 and the main line ran past the front of the customers prop.	8/5/2019	6/6/2019	Dismissal Letter Issued	Company followed up with the contractor and customer to resolve the restoration complaint.	9/18/2019	Service
3701100	There was a water main break in late April which caused damage to the customers property.	5/13/2019	6/13/2019	Verbal Close	Damage claim has been issued to the insurance company	7/8/2019	Service
3706471	Received "10 day shutoff notice for past due amount. Notice date on letter: 05/21/19. Notice delivered to my home by USPS on 5/30/19.	5/31/2019	1/7/2019	Case Dismissed	Customers past due billing was from March 2019; close to 90 days past due; any delay in mail delivery is outside of the companay's control	5/2/2020	Billing
3709004	Company's contractor put a new water line around the neighborhood last year, causing water pressure to drop drasticially.	10/6/2019	10/7/2019	Verbal Close	The water pressure for this system is within the regulated range established by the PUC. Customer moved from Grantham water system to Center Square System.	9/13/2019	Service
3712855	28 – Denial of service. Service. Service is on. The applicant is disputing the balance of $937.00. This balance accrued at 17 Hamilton Rd--Dallas PA	6/24/2019	7/24/2019	Case Dissmissed	Company willing to add another name to the existing account. No payment for 7 months. The account is still active because the same occupants are living in the household. Previous ratepayer request service in her name again	10/28/2019	Applicant
3717749	Customer received June bill and it was reported usage of $635.18 which is the equivalent of 72,200 gallons. Customer believes this bill is excessive and nothing changed from household from last year to this year.	7/15/2019	8/15/2019	Verbal Close	Balance paid by customer. Endpoint data shows leak fixed and customers plubing bill reflects a faulty valve. Company issued a standard leak adjustment	6/2/2020	Billing
3717628	Every month my bills gets higher and higher especially when my actual usage is low. Relief sought - I'm looking for a solution	7/15/2019	8/13/2019	Verbal Close	Customer advised the PUC he is no longer at the property. Customers bill continues to increase because the usage has increased. All meter reads and billings are correcr	8/13/2019	Billing
3720443	I got a call from a Suez Water rep on 7/24/2019 saying that their computer system had a glitch and several hundred customers haven't been charged correctly for the past 2 years	7/25/2019	8/27/2019	Verbal Close	This customers meter malfunctioned; customer is being backbilled to cover the previous zero usage	12/2/2020	Billing
3720768	Discolored water from July 19th - present-Relief Sought - Suez should check for a crack in their line, flush the line. Test water to ensure its safe for drinking	7/26/2019	7/26/2019	Dismissal Letter Issued	Company provided an adjustment for discolored water. The company does no flushing over the weekend and no other reports from neighbors in the area. Issue isolated to this property.	4/9/2019	Disclored Water
3723962	Customer is a landlord at this address. It is a main property with 2 rear apartments attached. Landlord states that had been paying the bill since Aug 2018 and about 6 months prior to that and bill was between 20 -30 a month.	7/8/2019	6/9/2019	Customer Service Line Leak	Company removing the usage during the time the meter stopped .Customer had 2 different leaks at the property; the meter was stopped.	5/22/2020	Billing
3730692	Suez Water is billing me for $1,006.77 for one month's usage. The previous month I was billed $259.24. I had a toilet that waw running off and on	8/29/2019	9/26/2019	Case Closed	Company is willing to offer the cusotmer a one time only adjustment on the highest excess usage. Higher than normal bills based on a toilet issue plus the customer went several billings without paying.	3/13/2020	Billing
3731433	Customer paid her bills as she receives them. Customer states she received a letter stating there was a leak last month along with a high bill	4/9/2019	3/10/2019	Verbal Close	The endpoint extraction provided data that supported the high usage and no billing error occurred; bills correct as rendered	2/27/2020	Billing
3731709	Billing Dispute, Cu is disputing that her bill increased by 30.00 monthly and she has not changed anything. Cu states this happened two years ago when co was doing work to the systems	5/9/2019	3/10/2019	Case Dismissed	Endpoint data revealed shows usage occured outside of the working hours of the company. Flushing and construction work would not have an imact.	3/19/2020	Billing

	BCS #	Complaint	Complaint	Responded	Special Remarks	Action Taken	Date Closed	Category
	3732350	Service Issue Customer is disputing the water leak caused from pipes and something doing for flushing the water pipes. Customer disputing the billing for 700.	6/9/2019	3/10/2019	Verbal Close	Leak adjustment provided to customer. Company verified service line leak after the meter. The line broke most likely due to ate as most of the pipes in the area are older	4/10/2019	Service
	3732886	Cu is disputing that co sent a five day notice informing consumers that the co found a leak. The water pressure was over 100 psi two years ago and cu put in an air hammer.	10/9/2019	10/10/2019	Verbal Close	Customer installed a pressure reducing valve to address the high pressure issue.	11/27/2019	Service
	3734173	Cust failed to provide acct #. Cust claims Util sent her a term notice to swith her meter , after new meter installed, catch up for 996 sent for 19 months of backbilling	9/13/2019	10/10/2019	Decision Issued	56.1 (conservation credit)Ert replaced, customer backbilled based on the usage of the meter of record	11/3/2020	Billing
	3735153	Customer is disputing one high monthly bill. Bill is on average was always 40.00 - 50.00 a month. Customer received August bill and was 82.00 after the month before being 46.00	9/18/2019	10/17/2019	Verbal Close	Adjusted bill to equal customers 6 month average credited 26.68	10/3/2020	Billing
	3740028	Customer had dispute with water co regarding large bill and usag of over 90,000 gallons. Disput was resolved an updated bill was sent out and customer paid bill	8/10/2019	7/11/2019	Verbal Close	Customer no longer living at the property; account balance at the time of the complaint was satisfied;no active severence	4/27/2020	Billing
	3741772	18 – High bill dispute. The customer is disputing the bill from the month of September. Relief Sought. Investigate why water bill so high	10/16/2019		Verbal Close	Customer having property inspected. Previous month billed for zero usage; customers ert failed; meter of record was accurately recording usage.	6/17/2020	Billing
	3743462	Has 96 different accounts. Company has refused to reverse late fees. Sent a check for $1,996.60, which company misapplied to this account in June and it took the company till September, 2019 to appropriately apply	10/22/2019	11/22/2019	Commercial Acct	Late penalties waived; 96 payments sent to company lock box when there is an error; lock box sends to local office for processing; descrepancies reviewed	7/24/2020	Billing
	3743184	Customer is not requesting a PAR. Monthly bill has been 26.06 monthly, water used only to do dishes when heat is needed, need water for radiators. All of a sudden, they are charging me almost $00 for last month's bill.	10/22/2019	11/21/2019	Case Dismissed	Customer can provide a repair bill for one time adjustment on 50% of the excess usageEndpoint Extraction on 11/20/2019 clearly shows that something is running after the meter and it was fixed/stopped on 10/21/19. One meter servicing 2 properties.	9/6/2020	Billing
	3745102	In August 2019 customer paid 136.00 at an authorized payment location (Weis Market) and called the company after the payment was made to give them the confirmation number. In september someone came to shut the services off. Customer had no prior notice.	10/28/2019	11/26/2019	Case Dismissed	Customer to contact Weis markets and get their payment refunded. Weis confirmed they would refund the money. Cust are advised to pay at Giant	3/6/2020	Billing
2020								
	3755017	LEAK-On 11/25/2019 the water company left a notice	3/1/2020	1/30/2020	Verbal Close	Company is requesting confirmation of repairs or have repairs completed. Water continues to run and is not metered which could cause damage to the property and street	4/2/2020	LEAK
	3755689	LEAK-customer is disputing that there is proof that sound is from this property	10/1/2020	7/2/2020	Verbal Close	Customer has since located the service line leak and is working with a plumber to fix the leak	2/21/2020	LEAK
	3755677	BILLING-The water bill increased by an abnormally large amount while the usage remained the same	10/1/2020	7/2/2020	COMMERCIAL	PUC sent Small Business Mediation Form - language barrier. The endpoint shows that something was running in the property. They need to have their water fixtures inspected and fixed	9/6/2020	BILLING
	3756306	LEAK-Im currently experiencing high water bills due to something in my home	1/17/2020	2/13/2020	Case is Dismissed in Part	Customer can send a copy of the repair bill once leak is fixed for a one time leak adjustment on the highest bill. Customer needs to have a plumber identify the issue that is causing the high water bills ; the endpoint extraction clearly shows higher than normal usage.	5/28/2020	LEAK
	3757703	BILLING-I have paid 13.79 for water a month since I moved into my house 17 months ago	3/2/2020	2/27/2020	Verbal Close	Customer would not agree to a payment arrangment. Bill correct; customer does not agree with the estimate back bill when customers usage is higher per month since the new meter was installed	6/22/2020	BILLING
	3758060	BILLING-Cu called co in 2018 about getting low bills, stated something is wrong with the meter	6/2/2020	2/3/2020	Verbal Close	A payment arrangement can be set up for the back bill. Equipment failure creating zero usage; it was fixed and the previous unbilled consumption was billed.	6/18/2020	BILLING

BCS #	Complaint	Complaint	Responded	Special Remarks	Action Taken	Date Closed	Category
3759828	PRESSURE-Suez Water has contracted E&K	2/21/2020	3/24/2020	Verbal Close	Because this issue is inside the home, company recommends the customer get a plumber to investigate and correct the low pressure issue	6/30/2020	PRESSURE
3759842	BILLING-Cu is disputing a high bill	2/24/2020	3/24/2020	Verbal Close	Company is willing to work with the customer to resolve the billings. The billing would have een easier to resolve if the account was estalished in July 2019 instead o f 6 months later	6/15/2020	BILLING
3763659	ODOR-The consumer says that her water smells like bleach	4/20/2020	4/23/2020	Verbal Close	Customer informed the PUCj her water no longer had a strong chlorine taste.Water quality report indicates chlorine residuals were within typical ranges	4/24/2020	ODOR
3764936	TECHNICAL-The water lines inside my home started to hum b loudly and vibrate	5/15/2020	5/20/2020	Case Closed by Cust	Customer requested the case be closed. No report, company resolved the issue with customer	5/20/2020	TECHNICAL
3766711	BILLING-I made an on-line payment of $14.60 for my April water usage.	6/22/2020	6/26/2020	Verbal Close	Company cancelled NSF fee for $20. Issue has been resolved and payment posted	7/23/2020	BILLING
3767274	DISCOLORED WATER-As of 7/2/20 4 houses on the 5000 block of Colorado Ave, Lower Paxton Twp. have had discoloration	6/7/2020	7/20/2020	Verbal Close	66 PA: 1501 No other reports of discolored water since this incident,	8/20/2020	DISCOLORED WATER
3767575	Service issue customer is disputing if she is responsible for water connection for line or another line.	9/7/2020	6/8/2020	Case closed.	Customer has service line leak between curb box and residence. Per company tariff this is the customers responsibility	7/8/2020	LEAK
3769757	BILLING-HIGH BILL Dispute: Cu disputing $85.10 current billing charge	8/17/2020	9/14/2020	Decision Issued	Bill Correct: Customer received a bill 7/14/20 for $85.10. Customers bill was higher in July because his prior billing in June was estimated too low.	10/15/2020	BILLING
3771110	BILLING-18 – High bill dispute. The customer is disputing the bill for 376.54 from the month of Sept	9/9/2020	9/30/2020	Case Dismissed	Meter tested accuraate. The meter readings are actual readings and the meter did not fail. Customer can hae the meter tested as well.	6/11/2020	BILLING
3771772	N/A-Customer is disputing that landlord is using their water to water her plants	9/21/2020	12/10/2020	Case Dismissed	This is a tenant/Landlord issue and the company request this case be dismissed.	10/29/2020	N/A-Not a company issue
3772491	LEAK-Cu has had leakage and basement flooding since the co moved pipes that moved to his old pipes	5/10/2020	4/11/2020	Verbal Close	Company has no part in the repair of the service line to the home. Customer had insurance to repair the service line twice.	9/12/2020	LEAK
3772969	BILLING-18 – High bill dispute. The customer is disputing the bill from the month of September 2020	10/14/2020	11/13/2020	Decision Issued	Customer claims that a backflow preventer is not needed and should not be at his expense. Company has witnessed backward flow for several years.	11/19/2020	BILLING
3773398	Cu stated she and a neighbor submitted requests for FC at the same time. Cu did not receive a response.	10/22/2020	xx/xx/xxxx	Formal Complaint Notice	A complaint that they did not receive a response from us. No complaint filed back in July.	xx/xx/xxxx	inquiry to FC
3773464	DISCOLORED WATER-We have been having water clarity issues	10/23/2020	11/23/2020	Dismissal Letter Issued	Flushing credit offered for customer to flushing their internal line. No work done in the area to cause discoloration.. Asking customer to contact the company immediately to investigate and flush the lines if needed to alleviate the issue. If needed testing of the water can also be done	10/12/2020	DISCOLORED WATER
3773763	BILLING-Customer paid Sept. bill for $26.27 and Oct. bill for $36.49 by money order and co never received	10/29/2020	11/25/2020	Verbal Close	Payments were received and processed on 10/30 and 11/10; balance zero. No penalties were applied during Covid	2/12/2020	BILLING
3774697	Billing: High bill Customer bill is $88.81 with $15.00 service fee and $21 insurance	11/13/2020	11/12/2020	Verbal Close	Customer advised to contact a plumber. Two reports submitted with this response show that there is hourly consumption and indicates that something is running Inside the home; possibly- a toilet.	12/15/2020	BILLING
3775202	Service: Suez moved and placed water meter; compensation of repair and water leakage	11/19/2020	12/16/2020	Dismissal Letter Issued	Leak started several months after the meter pit and sidewalk were installed. Leak was somewhere on the service line and not at the connection to the meter or pit	1/27/2021	SERVICE
3776250	Billing: Issue: Cu says the bills are incorrect	10/12/2020	8/1/2021	Dismissal Letter Issued	The billing is correct at the commercial laundromat was being underbilled. When this was corrected, the laundromat experienced higher water bills.	1/14/2021	BILLING

	BCS #	Complaint	Complaint	Responded	Special Remarks	Action Taken	Date Closed	Category
2021	3776476	Service: Back in the summer Suez was putting in new water meters and new water main lines in our dev.	12/15/2020	1/14/2021	Verbal Close	Restoration is complete. Company did their part to restore the property once the ground settled. Some of the work by the township may have been done after the complaint filed.	1/28/2021	SERVICE
	3777618	We pay our water bill on line thru the company ebilling for Suez Water. This is the second time in the last 3 months they have taken multiple payments out of our bank account for the same payment	8/1/2021	1/20/2021	Verbal Close	Refund issued on overpayment. No issues with the online payment system; company has found that some customers hit the submit button more than once which causes multiple payments	1/29/2021	Billing/Payments
	3777673	For almost 2 full years, I have been paying water bills that range from $70 to $160. The property is rented and has a kitchen, 1 bath, and a washer.	11/1/2021	8/2/2021	Dismissed	Plumber onsite for repairs of a leak. The meter was not overbilling the customer. The consumption was captured accurately and the increase in consumption was a leak	2/24/2021	Billing
	3778495	On October 12, 2020 I noticed water spraying from my hot water heater and immediately turned off the water on the inside unit at 771 Old Silver Springs Rd; the following day Dirk Johnson replaced the water heater and I meediately forwarded the invoice	1/25/2021	2/23/2021	Decision Issued	The meter test results passed as accurate and the first endpoint extraction showed a leak.The meter performed as it should. The meter test results passed as accurate and the first endpoint extraction showed a leak.	3/23/2021	Billing
	3778705	18 – High bill dispute. The customer is disputing the bill for 395.00 from the month of March 26th-April 28th 2020. The charges were for 32,800 gallons of water.	1/27/2021	2/26/2021	Case Dismissed	The bills and balance are correct. There was something running. The person on this complaint was not living at the property, they live in Florida	3/16/2021	Billing
	3778842	Water pressure has been decreasing once or twice a day, lasting one to two hours, since January 2nd. I checked with 2 neighbors, they are having the same problem.	1/29/2021	1/3/2021	Verbal Close	Pressure issue resolved; company made changes to operation and fixed two leaks.	3/17/2021	Service/Pressure
	3779114	Cu stated charges have gone from $80 - $380 monthly. Business is a laundromat, currently closed	2/26/20211	3/22/2021	ommercial - Reported on PUC #377625	Data supports billing is correct. Customer was set up incorrectly and was not being billed correctly. That was corrected. Billing is correct and supporting data provided.	1/14/2021	Billing
	3779792	Service was interpreted without notification causing downtime and loss of product to our manufacturing process. We have communicated with Suez starting in November but there has been no resolution	2/15/2021	12/3/2021	Verbal Close - Industrial	This Industrial Customers issue is in the hands of the insurance company	3/19/2021	Service
	3780912	Customer found sediment in the water and the water is light tan. Customer wants the issue resolved	2/3/2021	2/3/2021	Verbal Close	Company to provide treatment to rid the system of manganese and iron deposits. This will improve the water quality	5/4/2021	Service/Water Quality
	3782096	Billing Dispute Customer is disputing the payments for 23.55 and 21.74 was not processed on the account. Customer stated the check numbers for February and March of 1219 and 1123.	3/15/2021	8/4/2021	Verbal Close	Autopay is now functioning for customer; numerous auto pay forms were mailed to customer. All payments are accounted for and processed correctly leaving the customer with a $21.74 credit.	4/28/2021	Billing/Payments
	3784563	Over billing, started in 10/230/20 charged $48.01 on 11/24/20 billed $157.51 on 12/23/20 billed 315.92 on 2/24/21 billed 624.55 and on 3/31/21 billed 764.83	6/4/2021	4/15/2021	Verbal Close	The endpoint was reporgrammed to the 1 gallon resolution. Customers high bills were also the result of a customer side water leak.	5/5/2021	Billing
	3784730	Billing dispute. Customer established service on 1/24/2020. The company claims that the customer hyas been underbilled on a broken meter and a make-up bill will be issued for 59,200 gallons	7/4/2021	4/23/2021	Verbal Close	Backbilling completed in accordance to regulation 56.264.	1/11/2021	Billing
	3785403	18 – High bill dispute. The customer is disputing that co only took off 50% of the highest bill. Customer had a main water leak on her property and it caused her bill to increase in Nov. Dec. and January; the customer gave a reduction but customer also received higher increase from sewer.	4/15/2021	11/5/2021	Complaint Dismissed	A leak in the service line between the meter and the customer' s house. One time courtesy leak adustment applied and payment arrangements can be established on the outstanding balance.	6/29/2021	Billing
	3786549	Due to water line damage (that we believe was caused by Suez} we had astronomical bill for February. We had to pay almost $6k to have water line fixed. We applied & were approved for leak adjustment	4/28/2021	5/26/2021	Case Dismissed	A leak adjustment was applied and the customer was refunded the difference. Service line leak was not caused by company. Leak did not happen until late winter 2021. One time leak adjustment was issued.	6/24/2021	Leak
	3790746	Customer received a bill from company shows 0 reading for the last 3 months.	4/6/2021	2/7/2021	Decision Issued	Customer informed that we would follow PUC guidelines to determine a back bill; this is based on the meter reading zero	7/20/2021	Billing
	3790741	Customer received a bill for $338.53 showing that he used 35,800 gallons of water for the Month of May.	4/6/2021	2/7/2021	Verbal Close	Company billed for previously unbilled usage in accordance to the regulation	7/21/2021	Billing

BCS #	Complaint	Complaint	Responded	Special Remarks	Action Taken	Date Closed	Category
3791616	Customer states that he is disputing his monthly bill. Customer states that his monthly bill is usually around $40 to $70 monthly. In May his bill for 1 meter escalated to $231 from L& 77.00 and the bill for the other meter escalated $112.00 from $44.00	6/14/2021	12/7/2021	Verbal Close/Dismissed	Company provided two endpoint reports for unit 4 and 5 showing that there was hourly consumption for several days up to May 10th 2021 when consumption went back to normal	7/30/2021	Billing
3793293	Customer states that he is getting dirty water in his home for more than a year. Customer states thata 6 inch cast iron pipe neeeds to be replaced	6/29/2021	7/28/2021	Complaint Dismissed	Company is working with the customer to remedy the situation. Flushing credits were given. Water samples taken and results provided. Fushing of the system was done to eliminate the discoloration.	8/25/2021	Service/Water Quality
3794065	18 – High bill dispute. The customer is disputing the bill from the month of March 2021. On March 1, 2021 we received an invoice from Suez in the amount of $1,427.2. By check dated March 12,2021 we paid the amount owed	7/7/2021	5/8/2021	Verbal Close	Missing payment was applied to the customers account.	8/13/2021	Billing
3794795	18 - High bill dispute. The customer is disputing the bill from the month of June. The bill ususally average 28.98 which was for th emonth of May. The bil jumped up to 208.60	7/13/2021	11/8/2021	Verbal Close	According to the data and meter reads, the reads are accurate and show that water flowed through the meter. It is reccomended the customer contact a plumber	8/19/2021	Billing
3795405	18 – High bill dispute. The customer is disputing the bill from the month of...Customer called regarding a high bill that was from a 29th month period. The meter was only charging a service amount of $13.70 a month.	7/19/2021	8/17/2021	Verbal Close	Company agreed to split the back billing with the customer and an adjustment is being applied to the account.	8/19/2021	Billing
3795733	Cu disputes the difference in charges for Fire Protection (122.08 compared to their home charge of 47.97 on their water bill when they are told that they only have to supply enough pressure/flow for potable water.	7/21/2021	8/20/2021	Verbal Close	Tariff outlines the charge for service. Customer has a 6 inch fire line and the monthly charge is correct.	8/25/2021	Billing
3796859	I would like an approximated 2-day window when they are flushing water tanks. The utility contradicts itself precise two week period when speaking to a CSR and on website.	7/30/2021	8/26/2021	Verbal Close	Company provided notificaiton of flushing for a large area in Lower Paxton Twp, which included this customer.	8/26/2021	Service/Water Quality
3798204	On July 1st our neighbors notified us that York Excavating had been digging in our front yard earlier that morning and were claimed that our water bill was astronomical because there had been a leak. We were unaware that there was anything going on and later that night when flushing the toilet there was debris coming up through our pipes and our water pressure was greatly decreased.	10/8/2021	8/31/2021	Verbal Close	Pressure to the residence is acceptable at 110 psi; a plumber may be needed if the low pressure is still an issue	2/9/2021	Service
3799900	Cust stated for the past 5 months, due to working being done by the company, cust. will go without water, cust. stated sometime I could last half the day and never notified of shut off.	8/20/2021	9/15/2021	Verbal Close	Company updated the correct cell phone number moving forward. Records attached show numerous contacts regarding repairs, shut downs and the impact of the shut down.	6/10/2021	Service
3799842	Dispute - customer said he received a term notice randomly for needing to provide application information. The customer called in to provide that and they told him the termination was cancelled but that he is responsible for $900 that acqulired in the last 2 years.	8/20/2021	9/15/2021	Verbal Close	Customer contacting the company for a paryment arrangement. Customer was contacted 3 times before an account was established. Company could not shut off water due to COVID-19. The only course of action was to post the property.	9/28/2021	Billing
3800358	Service Issue customer is disputing the water is not drinking water. Customer stated the water can not drink from because it is muggy.	8/24/2021	9/17/2021	Verbal Close	Company is working with DEP on a permit to start the interconnect project which wil bring an improvement to the water quality for this water system.Company purchased January 2020	1/11/2021	Service/Water Quality
3800626	Customer complained that Suez workers removed a 25 ft x4 ft section of asphalt from her driveway to rectify the leaking from her neighbor across the street on Nov 23rd 2021. Cust stated that prior to Suez commencing the work she just top coated her driveway with new ashphalt	8/25/2021	9/24/2021	Case Dismissed	The patch where the company conducted the work has been paved and the sealing around the patch is scheduled to be completed by the end of the month. Cracks, pits and chipped ashphalt that extended down the entire length of the driveway were not caused by the company. Photos show the condition of the driveway prior to construction.	10/18/2021	Service
3801029	Legislative referral - Suez is repairing approximately 15 curb stops in a condominium complex at 5813 Hidden Lake Drive. The company is digging up the curb stops and filling the areas in with stones	8/27/2021	9/24/2021	Verbal Close	Company completed the project as planned. No further action required.	9/24/2021	Service

BCS #	Complaint	Complaint	Responded	Special Remarks	Action Taken	Date Closed	Category
3806098	18 Customer says about 18 months ago her billing started to come in a little low. 4 months ago customer received 800.00 billing. When contacting company customer was told that meter was probably not reading right because some squirrels probably got in and mess with wires. Customer is disputing company not contacting about low reads before 18 months and now billing of catch up.	9/29/2021	10/27/2021	Case Dismissed	Adjustment made towards the bacbilling; Ert/wire issue. Company extended a pay plan of $20 per month	11/18/2021	Billing
3817279	There was a main line break on 12/24, on the street and the garage was filled with 18 feet of water. Company was working on the pipe for 3 weeks in the street, water damaged the driveway, garage entrie first floor of living damaged	12/28/2021	xx/xx/xxxx	Verbal close pursuing a formal Comp	Complaint closed verbally; customer wanted to pursue a Formal Complaint	6/1/2022	Service
3817016	The cusotmer is disputing Suez Water's policy of making phone calls and leaving voicemails to notify consumers of a planned water shut off affect his neighborhood on 12/16/21. The customer states that the policy does not provide consumers satisfactory notice as many consumers no longer have landlines and use cell phones	12/22/2021	1/20/2022	Case Dismissed	Customer updating their cell phone number for future calls and text; company previously contacting a landline that was answered. Our Notify system will then call, text, and email this customer with impportant timely updates.	1/2/2022	Service
3813286	Dispute - customer said that she had a leak occur which caused her bill to skyrocket up. she called the company and on Oct 20th spoke to a worker who told her that if she got the leak stopped they would reduce the charges of the bill. After she got the leak stopped she called back about her bill and the company told her thay can reduce the amount by $25. The cust feels that is unacceptable.	11/15/2021	6/12/2021	Verbal Close	Upon receipt of a repair invoice the company will adjust 50% of the excess leakage on the highest bill only.	12/22/2021	On PAR/Billing Dispute
3812773	I paid my bill in the amount of 33.58 and accidently entered $3,359.00 which was transferred from my bank to Suez. I contacted Suez on 11/8/21 and spoke with Tom who confirmed my payment was received and posted.	9/11/2021	2/12/2021	Dismissal Letter	Company processd the refund immediately upon haearing about the overpayment. Delays can happen when 4 different people need to approve. In addrition, caution is also taken as to not do a refund before the customer is able to stop payment with their bank	1/24/2022	Payments
3812705	The company shut customer off in October and customer paid balance to have service reconnected. Customer wants her reconnection fee credited back to account since she did not get shut off notice or anything stating her services would be discontinued.	9/11/2021	1/12/2021	Verbal Closed	Company refutes customer's complaint. Company made all the proper contacts needed to assis customer with making a timely payment to avoid shut off.	12/15/2021	Service
3812474	18- High bill dispute. The customer is disputing the bills from the month of May, June, July, August, September. Meter was reading zero in those months, company states he used ten thousand gallon of water during thos months. Cust would like to know if the utility is taking the right steps	8/11/2021	1/12/2021	Verbal Closed	Backbilling bill is accurate. and rebilled in accodance to regulation. .	12/15/2021	Billing
3812208	I am disputing my bill from May 2021 to August 2021. My meter stopped working sometime in May, 2021. Suez is retro-billing me for $143.93 in water charges. My bills for May, June, July, August are based on an estimated usage of 3,225 gallons per month.	5/11/2021	11/30/2021	Case Dismissed	Make up bill in accordance to 56.14.Company contacted customer to resolve the billing issue. Customer was satisfied with resolution..	1/13/2022	Billing
3811599	Customer purchased two lots there is a water line in the front of the property there is also a fire hydrant there as well as the company will not let him hook into the water main already there; instead they are requesting he extend a waterline across the front of the property	3/11/2021	3/12/2021	Case Dismissed	Company will go ahead with the new service from the main that partially fronts the new combined property.	12/15/2021	Service
3809632	18- High bill dispute. The customer is disputing the bill from the mont of 8/2020 until 11/6/2020 for $14,727.85. Customer is disputing the 3/2021 bill for $1,946.87 wiht no explanation	10/21/2021	11/19/2021	Case Dismissed	The leak has been fixed and a leak adjustment provided. Company had made several communication attempts that went unanswered for nearly 7 months.	4/1/2022	Billing
3809461	Dispute - customer wants to change banks and close out his old bank account. He is trying to call the utility company to inform them to close out that bank info (has auto -deduction) but he is unavle to reach anyone there.	10/20/2021	11/15/2021	Verbal Close	Customer is going to reach out to company to change the checking account routing number.; company will assist with the change of their payment banking., Customer will also assist the customer to create an online account and make these changes themselves.	11/29/2021	Billing
3808435	For months Suez has been unavle to generate a timely bill. I must call Suez and get them to manually generate a bill	10/14/2021	11/11/2021	Verbal Close	Endpoint resolution corrected: Company made resolution correction from 2 digits to 3 digits on the endpoint equipment. All bills were accurate.	12/15/2021	Billing

	BCS #	Complaint	Complaint	Responded	Special Remarks	Action Taken	Date Closed	Category
2022	3806764	Customer is disputing that co is billing her more for water and are saying the meter was not working. The tech came out last week or so and found the meter was broke	4/10/2021	10/29/2021	Case Dismissed	The Ert/endpoint wire was fixed. It wasn't making good contact with the meter. Once the wire made connection a good reading was attained.	11/23/2021	On PAR/Billing Dispute
	3818630	I am disputing my Suez water bill in the amount of $374.42. Suez claimed that the meter was not working for the months of August,, September and October.	1/19/2022	2/18/2022	Verbal Close	Company adjusted off the backbill for leakage/water running because customer had no prior knowledge as bills were reading zero consumption. Custome rsatisfied.	3/16/2022	Billing
	3819087	Billing Dispute # 18 The Cell Phone Number (570) 262-2182 has been allowed to be shared	1/25/2022	1/27/2022	Verbal Close Dispute Dismissed	56.14 - Billing corrected on the meter mix up; The consumption billed to customer in the rear apartment is their consumption. Any leakage that appeared in billing was adjusted and a pay plan was offered for 60 months	1/28/2022	Billing
	3820066	For the past three weeks I have had discolored water	7/2/2022	4/3/2022	Verbal Close	Company proided customer with a 2,000 gallon flushing credit for any increase in water consumption. one customer reported activity at the fire station at the beginning of the discolored water	7/3/2022	Water Quality
	3821492	Customer says on 2/16/2022 tech came to home to do a check because billing was high	2/24/2022	3/17/2022	Verbal Close	Customer leak was confirmed by company endpoint data. Customer confimed they had a leak. Comany will provide a one-time leak adjustment once repairs are completed and an invoice provided.	3/25/2022	Billing
	3822200	18 – High bill dispute. The customer is disputing the bill for 430 plus because th eco said the meter has not been working since Nov or Dec 2020.	3/3/2022	3/25/2022	Case Dismissed	Company calculated back billing accurately and in accordance to regulation. Company will provide a monthly payment arrangement.	4/4/2022	Billing
	3823217	18 – High bill dispute. The customer is disputing that the co turned off the meter reader in July 2021 and now they are trying to bill her for usage they are saying she owes	3/14/2022	12/4/2022	Case Dismissed	The meter failed and the back bill was calculated according to regulation. A pay plan is available for the customer if needed.	5/13/2022	Billing
	3824239	Customer disputing bills of May 2021 to current	3/22/2022	4/20/2022	Verbal Dismissal	Company made changes to this account premise to reflect 2 units on one meter. The account is in the owners name. Laurie Swank no longer has a balance and the billing was cancelled.	4/21/2022	Billing
	3826545	Service ON. Cust states that the utilities meter stop working in Feb. 2022	1/4/2022	4/29/2022	Decision Issued	Company issued a credit of $57.02 for correction on the make up billing.	5/20/2022	Billing
	3827830	48 - Customer said Company did work in the area on 3/25 and stated water was discolored and taste like chlorine	6/4/2022	6/5/2022	Verbal Close	Water quality analysis was completed. The chlorine residual was 0.90 mg/L; typical of the area and well withing the regulatory limits.	5/20/2022	Water Quality
	3839551	18 – High bill dispute. The customer is disputing the bills from the month of April 2022 in the amount of $1,100	5/18/2022	6/14/2022	Decision Issued	56.1 - conservation credit of the rebilling to be given. Payment arrangements offered on the back billing based on the cut wire	7/22/2022	Billing
	3842386	Suez replaced my water line and installed an exterior water meter and there was a leak	3/6/2022	6/30/2022	Verbal Close	Customer has filed a civil law suit and the PUC has limited jurisdiction over this service issue.	7/20/2022	Service/Leak
	3844096	18 – High bill dispute. The customer disputing the $300 bill from the months of April, March & May 2022.	6/13/2022	12/7/2022	Decision Issued	PUC has jurisdiction over this commerical account with residential end use. Make-Up bill authorized in accordance to 56.14 and 65.9	12/9/2022	Billing
	3851864	Customer complained that she had 2 different account balances from SUEZ $400.00 and $824	7/20/2022	4/8/2022	Verbal Close	Customer has had several pay plans, each broken. Customer was given information for LIHWAP. There has always been one balance which is at $915.60	8/17/2022	Billing
	3856320	Customer reported he had Suez Water company. He called to pay his bill and was informed that Veolia bought out Suez. Customer paid the bill, then on his account it says that he paid his Suez water bill then after that he got another bill from Veolia.	9/8/2022	5/9/2022	Verbal Close	Billing correct. No duplication of billing. SUEZ and Veolia mergeed. All bills afterwards show Veolia; Zero balance	4/10/2022	Payments
	3861324	I had an exterior water line leak. The leak was reported as soon as I identified it to HomeServ on 7/20/2022. Contractor repaired leak on 8/5/2022. My monthly bill was 785.06 due to the leac.	8/31/2022	9/29/2022	Verbal Close - Case Dismissed	Company provided a one-time leak adjustment.	6/10/2022	Billing/Leak

	BCS #	Complaint	Complaint	Responded	Special Remarks	Action Taken	Date Closed	Category
	3867223	18 – High bill dispute. The customer is disputing the bill from the month of Sept. 2022. I have lived at the residence since 2019. I have always paid my bill on time with no issues. In August 2022 I receivred the first notice stating that my water was going to be shut off as Veolia needed to change something.	9/26/2022	10/10/2022	Decision Issued	The termination of service for non-access was authorized under 56.81. The make-up bill was authorized under 52 Pa. code 56.14. Company offered a 50% reduction in the amount of the back bill.	12/14/2022	Billing
	3869353	Customer is disputing company attempting to terminate water service prior to vacating the property. Customer say property was sold to PennDot for their expansion project and business is scheduled to move on 10/28/2022	4/10/2022	10/31/2022	Verbal Close	Cust reports that the nonprofit has now moved and the issue has been resolved and agreed to close.	11/23/2022	Service/Termination
	3871437	18 – High bill dispute. The customer is disputing the bill from the month of September- October. Customer moved into this apartment in July 2022. A pipe had burst underground causing her to have a bill of $507.93. Company repaired pipe and adjusted bill	10/13/2022	3/11/2022	Case Dismissed	Usage valid, leak repaired. company issue leak adjustment for $285.56.	11/30/2022	Billing
	3876159	18 – High bill dispute. The customer is disputing the bill from her previous address account. Customer said she moved about a year ago (Oct 2021) closed water account and paid final bill.	4/11/2022	2/12/2022	Case Dismissed	The customer balance was transferred in accordance with PA Regulation. Cust is responsible for the disputed $29.11 balance.	12/20/2022	Billing
	3878716	Approximately 8pm on 11/19/22 our water service was disrupted. I attempted to call the emergency contact number of 888-299-8972 and spent 20 minutes, 55 seconds on hold before being disconnected.	11/21/2022	xx/xx/xxxx	erbal Close- Cust Reports issued resolv	Cust reports that the issue has been resolved and requests that the case be closed.	11/23/2022	Service/Leak
	3879110	Veolia Water has not communicated with its customers affected by the water main break on 11/19/2022 located at Colonia Rd & Rt 39 (Linglestown Rd) Harrisburg. I was unsuccessful reaching a live representative to answer questions. No advisories were issued during the event:	11/22/2022	xx/xx/xxxx	bal Close Cust has spoken to the Comp	Cust states he has spoken to company and they are going to update their website. case closed.	11/23/2022	Service/Leak
	3879378	I am writing regarding the water main break on Colonial Rd/Linglestown Rd. On 11/19. I lost water pressure that same evening and tried to contact Veolia to see if there was a problem in the area. After being on hold for 20 minutes I gave up. My ring doorbell camera had a message from aonter homeowner asking if anyone lost water pressure. Somone near Colonia road sent a message thru NexDoor that there was awater main break.	11/28/2022	12/27/2022	Dismissal Letter Issued	Company provided notice of main break. Complaint closed without decision.	1/20/2023	Service/Leak
	3881053	18 – High bill dispute. The customer is disputing the 736.40 bill from the month of . Customer disputes receiving charges attached to her balance from an address where she previously resided (Jeremiah Boyer was tenant - 141 N Maine St)	12/14/2022	1/17/2023	Verbal Close	Transferred balance was valid. Company offered PAR.	1/19/2023	Billing
	3881335	18 – High bill dispute. The customer is disputing the bill from when the meter stopped working. The water meter on my residential property stopped working last year unbeknownst to me.	12/19/2022	1/17/2023	Decision Issued	customer is eligible for PUC ordered conservation credit of 10% of rebilled amount.	2/2/2023	Billing
	3882106	BILLING DISPUTE: Today I received my water bill which is extremely high. I have been living in the house for over 15-months. I live in a new house alone. I only used the toilet in my room.	12/29/2022	1/24/2023	Case Dismissed	Bills based on actual meter readings and are correct as rendered. Leak repair offered with submission of repair receipt.	2/13/2023	Billing
2023								
	3882222	I have had many complaints with the water company. Frozen Meter issue.	3/1/2023	3/1/2023	Decision Issued- Sustained in part	163 (1) & 191 c (2)Termination was valid. Frozen meter charge is in accordance with company tariff.	5/1/2023	Billing
	3882599	Our water pressure in our house is low.	5/1/2023	1/2/2023	Dismissed	Affirmed Company position that customer will need to contact a certified plumber to adjust the PRV on the customer side of the meter.	2/27/2023	Service
	3891539	The customer stated that the Company recently installed a new main water line in the area which caused the increase in water pressure to the house.	2/3/2023	3/27/2023	Dismissal	No increases of pressure in in the area and if customer has an increase in their home, it is due to thermal expansion; which is why company urged customer to put in a thermal expansion tank.	5/25/2023	Service
	3891568	Cust states that a technician from the utility came to the home unannounced to check the meter.	2/3/2023	3/27/2023	Dismissed	Customer has a service line leak. Veolia PA advised the customer to have the leak fixed as letting the water run could create damage to the customer's property and is wasting water in large amounts.	12/6/2023	Leak

BCS #	Complaint	Complaint	Responded	Special Remarks	Action Taken	Date Closed	Category
3892120	Customer is disputing company leaving a term notice on the door for a meter inspection and did not ring doorbell when placing the notice.	7/3/2023	6/4/2023	No decision	Customer was told that if he put in a meter pit, the door hanger to gain access would go away.	5/15/23	Service
3893447	Cu has not have a working mete for 6 months and the meter was just removed on 3/14/23.	3/16/2023	11/4/2023	No decision	Meter pit was installed after company representative visited the property and advised that the meter pit was the best option.	5/15/2023	Service
3894218	Problem with meter in Unit 5 and 7 of rental property.	3/22/2023	4/21/2023	Dismissed	56.1, 65.9 (c),65.8(d) (2), & 56.163 (1) The bill is correct; customer billed for previusly unbilled usage.	6/15/2023	Billing
3902651	18 – High bill dispute. The customer is disputing the bill from the month of.	4/19/2023	5/17/2023	Verbal Close	Company will do a one-time leak adjustment on the highest bill. Company will also do a pay plan for the balance (the bills should be much lower and easier to maintain a pay plan).	7/20/2023	Billing
3903420	I received an email from Veolia stating its subcontract's water meter failed and Veolia is going to extrapolate from a 15 day period to back bill me for apparent undercharges.	4/20/2023	5/20/2023	Dismissed	163 (1)The Company rebilled the account in accordance with regulation.	7/21/2023	Billing
3907440	Customer stated prior to termination, no notice was received.	4/5/2023	10/5/2023	Dismissed in part.	56.163 (1) Customers service is bak on. Company provided proper notice. Company acted within right to terminate service. Customer responsible for total account balance of $198.95 as of 05/10/2023. PUC PAR: Level 1, Budget 63.20 + 4.00 = 67.20 beginning Jun 2023 due date.	5/23/2023	Termination
3917537	Since Veolia forced me to pay for faulty equipment back in December I have been on a payment plan.	6/15/2023	6/16/2023	Decision Issued - Case Sustained	The pending termination was voided, and the payment arrangement was reinstated.	6/29/2023	Billing
3917579	Our neighborhood has been subjected to dirty water issues.	6/15/2023	7/15/2023	Verbal Close	Informed customer that the company does strive to provide the most up to date communications but is sometimes made aware of issues only by customer reports and encourage customer to report any further issues. Customer was satisfied	10/18/2023	Water Quality
3920095	Received a postcard from an unknown company wanting me to call them so they can change my meter.	6/27/2023	7/27/2023	Verbal Close	Company took the steps to help reduce any confusion and/or concern regarding National Metering and their participation in changing the meter reading endpoint device.	10/24/2023	Service
3923659	April 2022 747 Garden Dr caught fire. All utilities were shut down in the entire building.	12/7/2023	11/8/2023	Decision Issued - Case Dismissed	The Company may bill the customer for any water usage that passed through the meter.	3/1/2024	Billing
3927619	18 – High bill dispute. The customer is disputing the $300-$400 bills from Jan-July 2023.	7/25/2023	8/24/2023	Dismissed	Commercial account. Case dismissed	5/10/2023	Billing
3927651	18 – High bill dispute. The customer is disputing the $300-$400 bills from Jan-July 2023.	7/25/2023	8/24/2023	Dismissed	Commercial account. Case dismissed	5/10/2023	Billing
3927666	19 – High bill dispute. The customer is disputing the $300-$400 bills from Jan-July 2023.	7/25/2023	8/24/2023	Dismissed	Commercial account. Case dismissed	5/10/2023	Billing
3927827	18 – Billing dispute. Customer is disputing termination notice.	7/26/2023	8/25/2023	Dismissed	Customer has prior PUC PAR that has not been satisfied. Customer has missed several payments and has not paid a full payment since. Termination notice was valid.	11/14/2023	Billing
3935124	Customer had advised water company that there was a payment coming from LIHWAP last week.	8/17/2023	9/18/2023	Verbal Close	PUC explained: The door hanger is standard operating procedure for utility companies.	10/18/2023	Payments
3937283	Water Leak - Company is not responding to issue.	8/25/2023	9/24/2023	Verbal Close	Company made adjustement to cover the leakage. Issue resolved.	10/30/2023	Leak
3941721	Customer has been receiving incorrect billing amounts since June.	9/13/2023	10/13/2023		Company corrected 3 high bills due to faulty endpoint. Issue resolved.		Billing
3941744	Billing Dispute-cu reports company changed meter and advised meter stuck, and cu was to be/was rebilled for previously unbilled usage from 9/2022 to 8/2023.	9/13/2023	10/13/2023	Verbal Close	Customer will pay $350.00 followed by two payments of $175.00. Customer satisfied.	10/27/2023	Billing
3941750	Customer says he was notified that his meter was not working for over a year and was sent 3 bills, one as high as $300.00..	9/13/2023	9/14/2023	Verbal Close	Customer confirmed the company placing his acct on a PAR and stated he would pay the billing.	9/14/2023	Billing
3943991	Billing Dispute- On September5, I received 22 different emails regarding my bill for Veolia.	9/21/2023	10/21/2023		Company will split the back billed amount in half, lower the PAR and keep it at 26 months.		Billing
3944328	18 – High bill dispute. The customer is disputing the $271.34 bill from the months of August-September1.	9/25/2023	10/25/2023		Veolia Cares paid for leakage. Customer moved out. Balance is zero.		Billing
3944719	OFF- The customer states that her service was terminated on 9/23/2023 customer states no one called or emailed that her service was being terminated.	9/25/2023	9/26/2023	Dismissed	56.163(1), 56.191 (C)(2)(I) Termination was valid. Cust's service restored with med cert.	9/27/2023	Termination

BCS #	Complaint	Complaint	Responded	Special Remarks	Action Taken	Date Closed	Category
3949242	Billing Dispute- Bill includes a flat standard service charge for each billing cycle.	10/16/2023	11/20/2023		Billing is accurate. Company suggested cust pay in advance or set up recurring payment .		Billing
3955074	Customer had Veolia come to property and replaced 3 lines on property and tore up parking area where customer parks to get into home.	11/14/2023	12/14/2023		Complaint was satisfied. The parking area was fixed and in better condition than it was previously.		Service
3959103	18 – High bill dispute. The customer is disputing the bill for $393.67 since the company replaced the meter in November 2023.	12/14/2023					Billing
3959516	18- Billing Dispute: 7 yrs ago I purchased a home with a brand new well system.	12/19/2023					Billing

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NOS. R-2024-3045192-Water R-2024-3045193 WW

REBUTTAL TESTIMONY

OF

LARRY FINNICUM

REGARDING

OPERATIONS & CAPITAL ADDITIONS

VEOLIA WATER PENNSYLVANIA, INC.

June 7, 2024

Q. What is your name and business address?

A. Larry Finnicum, 6310 Allentown Blvd Suite 104 Harrisburg, PA 17112.

Q. Are you the same Larry Finnicum that submitted direct testimony in this docket?

A. Yes.

Q. What is the purpose of your rebuttal testimony in this proceeding?

A. The purpose of my rebuttal testimony is to respond to operational and quality of service discussions in the direct testimony of Office of Consumer Advocate ("OCA") witness Mr. Terry Fought, customer notice discussions in the direct testimony of Ms. Morgan DeAngelo, tariff concerns raised by Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania ("CAUSE-PA") witness Mr. Robert Ballenger, and certain elements related to acquisition adjustments.

Introduction

Q. Please summarize the rate increase being requested by VWPA.

A. As stated in VWPA Statement No. 1, VWPA is requesting a rate increase for its water and wastewater services that will generate an additional approximately $16 million, or 26.7% over VWPA's current annualized revenues, including DSIC

revenues. Constituting the $16 million increase is the requested increase for water services of $15.4 million, or 26% over current annualized revenues, including DSIC revenues, and the requested increase for wastewater services of $568 thousand, or 35% over current annualized revenues. As discussed in VWPA witness Herbert's rebuttal testimony, the Company is also proposing to equalize, or consolidate, rates among certain systems which can help to, among other things, aid in rate stability and facilitate a consolidated tariff thus reducing administrative burdens.

Q. Please summarize the rate increase recommended by other parties in this proceeding.

A. I&E's total recommended revenue requirement for VWPA water and wastewater operations represents an increase of $9.7 million or 16% over VWPA's current annualized revenues, including DSIC revenues.[1] OCA's total revenue requirement for VWPA water and wastewater operations represents an increase of $4.9 million or 8% over VWPA's current annualized revenues, including DSIC revenues.[2] CAUSE-PA and OSBA did not make similar overall, system-wide rate increase recommendations; rather, their recommendations were focused on certain issues and customer groups.

[1] I&E Statement No. 1 at p. 9.
[2] OCA St. 1 at p. 3.

Q. Do you have any observations you would like to share about I&E's recommendation?

A. Yes. The major drivers supporting the differences between I&E's recommendation and the Company's request are ROE, which will be addressed by Company witness Walker; revenue adjustment and O&M expenses which will be addressed by Company witness Herbert; and M&S costs, which will be addressed by Company witness Jacob.

Q. Do you have any observations you would like to share about OCA's recommendation?

A. Yes. OCA's recommendation of a $4.9 million increase is untenable, as demonstrated by rebuttal testimony filed by the Company. OCA's recommendation does not adequately account for the reasons articulated by the Statement of Reasons included in VWPA's initial filing for this proceeding or in my direct testimony; capital investments made across the Company's system or cost changes since the Company's last base rate increase became effective February 1, 2019; or capital investments that will be made in the system through the end of the Fully Projected Future Test Year ("FPFTY") ending October 31, 2025.[3]

[3] VWPA Statement No. 1; Statement of reasons filed February 16, 2024.

The major drivers supporting the differences between OCA's recommendation and the Company's request are ROE and capital structure, which will be addressed by Company witness Walker; recommended changes to the depreciation methodology, as well as certain depreciation rates, which will be addressed by Company witness Watson; and various O&M expenses, which will be addressed by Company witness Herbert.

Q. Have the major drivers of the Company's request for rate relief changed since the initial filing?

A. No. The most significant driver for the request is the Company's continuing infrastructure investments to improve the safety, security, environmental and regulatory compliance, reliability, and efficiency of our systems, all in an effort to enhance the quality of service to our customers.[4] Of significant note, however, subsequent to the Company's initial filing, the EPA finalized the PFAS rule. The Company is assessing the impacts of this final rule and anticipates increased capital investments and operating expenses will be necessary.

[4] VWPA Statement No. 1

Q. What concerns do you have, should VWPA not be awarded the full revenue increase requested?

A. Revenue increases that are less than what the Company requested can limit the Company's ability to deliver safe, affordable, reliable water to customers while maintaining compliance; and earning a fair rate of return necessary to attract capital.

I. Operations and Quality of Service

Q. Do you agree with Mr. Fought's recommendation on page 11 of OCA St. 5 regarding fire hydrants that cannot provide the minimum fire flow of 500 gallons per minute at 20 pounds per square inch for a 2-hour duration?

A. Yes, I agree with Mr. Fought's recommendation in part and the Company will move forward in painting the bonnets of the identified fire hydrants on mains less than 6 inches in diameter in the color red as per the NFPA coding. However, the Company will not move forward with Mr. Fought's recommendation in hiring a qualified engineer to prepare a hydraulic analysis of its public fire hydrants as the Company already has a hydraulic model of its distribution system. Compliance with Mr. Fought's recommendation would result in unnecessary costs for the Company and its ratepayers.

Q. Do you agree with Mr. Fought's recommendation on page 17 of OCA St. 5 regarding adding flushing devices to those dead end lines that do not have flushing devices currently installed on them?

A. No, I do not agree with Mr. Fought's recommendation. For several years now, VWPA has executed a flushing program that is designed to remove sediments from its mains. This program is run annually starting in early spring and wrapping up in late summer. In addition to this one-time flushing, areas of concern of the distribution system are flushed on a six month or quarterly basis as system conditions warrant. VWPA staff also actively flush lines in response to customer complaints using hydrants or installing blow offs if needed. In addition, as part of VWPA's capital infrastructure replacement program, the elimination of dead ends via line extension or "looping" is examined as part of the planning process and included in construction when practical or necessary. Finally, depending on the location of the water main, the installation of a blow off or flushing device can run $3,000 to $7,000 per location.

Q. Do you agree with Mr. Fought's recommendation on page 22 of OCA St. 5 as it relates to distribution storage tank maintenance and inspection?

A. Yes, I agree with Mr. Fought's recommendation as it relates to distribution storage tank maintenance and inspection. The Company will work to ensure that, when a distribution storage tank is more than 15 years old, it will be inspected by an experienced tank inspection contractor who will submit an inspection report as well

as existing distribution storage tanks that have not been repainted for over 20 years will be inspected as well.

Q. At OCA St. 5, page 13, Mr. Fought recommended the Company provide certain information about customers. Has the Company been able to provide the information?

A. Yes, please see Attachment LKF-1-R.

Q. With respect to Mr. Fought's discussion about unaccounted for water ("UFW") in his testimony, please explain the discrepancies in UFW as it relates to the Company's annual filings and the Company's responses to OCA data requests, and address Mr. Fought's comments regarding UFW.

A. In the opening question, "What is meant by the term 'Unaccounted for Water'" on OCA St. 5 at page 17, Veolia agrees with Mr. Fought's definitions and specifically the inclusion of "Unavoidable Leakage" in the calculation of Non-Revenue Usage and Allowance. Of note, VWPA has received comments from the PUC requesting "Unavoidable Leakage" not be included in UFW calculations.

Referring to OCA St. 5, page 19, starting at line 11 regarding Chapter 110 Reports and Form 500, due to employee turnover, current Non-Revenue Water staff at the Company were not aware of the requirement that Form 500 be separated and submitted for each system where the Company completes its

Chapter 110 Report. This will be corrected going forward starting with the 2024 reports.

Referring to OCA St. 5, page 20, starting at line 2, discrepancies were noted between the Company's response to OCA 4-14 and the Annual Schedule 500 reports. These discrepancies can be explained. Schedule 500 reports in 2020 and 2021 for the VWBE system contained a typo in the water delivered and total sales. These numbers were listed in 1,000's of gallons instead of gallons.

Also, as shown in OCA 4-14, VWPA does not include unavoidable annual real loss (UARL) for 2021 and 2022. VWPA's UARL was included in 2023. TLF-15 includes UARL for both VWPA and VWBE for 2020-2022. The Schedule 500 reports submitted break out UFW with and without UARL.

As discussed above, UFW is negative in Bethel for 2020 and 2021 because the water delivered and total sales were provided in 1,000 gallons instead of gallons. 2022 water delivered and total sales were correctly provided in gallons in the Schedule 500 but were incorrectly recorded in 1,000 gallons on the TLF-15.

In conclusion, the ExhibitLKF-2-R is included, which shows the corrected units for PA and Bethel. The corrected water delivered and total sales for Bethel is accurate in 2020 and 2021. For PA Total Allowances and Adjustments, include UARL for consistency. Corrected Schedule 500 forms will be submitted to the PUC for Bethel sfor years 2020 and 2021. In the future, VWPA will continue to submit Schedule 500 forms showing UARL included in Total Allowances and Adjustments.

Q. Regarding Mr. Fought's recommendation on page 23 of OCA St. 5, has the Company had an opportunity to review and prepare a response to the customer complaints regarding quality of service contained in formal and informal complaints as well as the public input hearings testimony that occurred during the rate case?

A. Yes. During the Public Input Hearing, there was one service quality complaint from Mr. Hassenbein. It should be noted that Mr. Hassenbein is not a customer of record for VWPA because he lives in an apartment building and the owner of the building is the customer of record with VWPA. I will address his comments in detail below.

In response to the effects of "ice blockages" on the 6th St. Plant operations, temporary restrictions of the intake piping caused by icing should have little to no effect upon the water quality within the greater system. The plant fills two (2) "clearwell" finished water tanks which are then pumped out to supply the distribution system. These tanks provide a buffer preventing a momentary intake disruption from "rippling" through the entire system. The 6th St. Plant also has a secondary source that can be utilized if there is an extended issue with the primary intake.

In response to the effects of "power outages" on the 6th St Plant operations, VWPA, like nearly all consumers, is reliant upon an electric utility to provide the power needed to operate our equipment. In the past six months, the 6th St Plant

has experienced a higher-than-normal number of electric outages. These outages cause the finished water pumps at the 6th St. Plant to stop pumping and allow for water within the distribution system to move in ways that can stir up sediments. Once either grid power is restored or onsite backup generators come online, the pumps are restarted, causing both water and sediment to move through the distribution system. It is important to point out that, while the 6th St. Plant has automatic onsite backup generators, it takes time for them to start, come up to the appropriate engine rpms to provide power, and then engage the transfer switch to begin providing that backup power.

In response to "fire hydrant usage" affecting water quality: Use of hydrants increases both flow volume and velocity which can stir up sediments leading to cloudy water. While public hydrants on public water mains are meant for fire department and Company operational use, some areas such as the apartment complexes like the one Mr. Hassenbein lives in, have private hydrants on private mains owned by the property owner. These mains and hydrants reside mostly outside of VWPA's control. While investigating Mr. Hassenbein's concerns, VWPA personnel noted that several of those private hydrants had loose caps, potentially indicating that someone other than the Company or fire department had been using them. It should be noted that the apartment complex in which Mr. Hassenbein currently lives is still under construction and that this private water main is a dead end and the use of these private hydrants and its impact on the water main are most likely causing the discolored water that is being experienced.

In response to the integrity of the water line on Linglestown Road, the water main on Linglestown Rd has been in service, either in whole or part since the 1960s and remains an integral part of the Harrisburg distribution system. The water main's size, volume of water transported, number of customers served, and location under a busy state road make maintenance difficult and replacement a costly endeavor. However, this water main continues to provide our customers with reliable service and VWPA will continue to monitor, maintain, and operate this main for the benefit of our customers throughout the remainder of its useful life. VWPA Operations and Engineering departments continually review the distribution system, planning out improvement projects that seek to harden the system and build redundancy. Long term planning for the renewal of this important infrastructure has not been left out of those discussions.

Related to formal quality of service complaints in this docket, only one has been submitted to date, by Mr. Solbergin regarding the removal of fluoride in the Mechanicsburg system. VWPA removed fluoride from the Mechanicsburg system in 2021 during a project to consolidate the Mechanicsburg, Center Square, and Grantham systems. The Company followed proper notice and meeting protocols and was approved by the Pennsylvania Department of Environmental Protection ("PA DEP") through a permit dated May 24, 2021. All other formal and informal customer complaints under this docket and public input hearing comments dealt with the overall size of the requested rate increase for which I would like to refer

back to the Company's "Statement of Reasons" filed as part of this case and discussed in my direct testimony.[5]

II. Customer Notices

Q. Please summarize OCA Witness DeAngelo's concerns about customer notices.

A. Witness DeAngelo raises two concerns in OCA St. 1; I will address them in order. As a preliminary matter, regarding both concerns, Ms. DeAngelo does not allege that the Company has violated the Pennsylvania Public Utility Code ("Code") or the Commission's regulations.

First, because the Company's notice used an average of 3,500 gallons per month in usage level, she is concerned that customers that have different usage levels will not be able to calculate their bill impact. If I understand her recommendation correctly, she is recommending that notices be provided at the 5,000 and 10,000 gallons per month level.[6] Ms. DeAngelo's second concern is that the customer notice provides the rate impact on proposed rates only for the Main VWPA customers, and that it provides an inaccurate representation of the rate impact for customers for the Company's Bethel, Overbrook, Kensington, and Mahoning customers, which have different proposed rate increases.

[5] VWPA St. No. 1. at p 37.
[6] OCA St. 1 p. 11-12.

Q. What is your response?

A. Ms. DeAngelo mischaracterizes the Notice, which, in fact, provides customers an opportunity to more specifically see how the requested increase may affect their water or wastewater bill by contacting Veolia Customer Service.[7] It is impractical to expect the Company to essentially provide written notice for each customer on the system. Next, the average residential usage of 3,500 gallons per month is based on average residential usage; *i.e.*, total residential consumption divided by total number of residential customers. By its very nature, the average will always be between the smallest and largest values in a data sample. The fact that there are customers that use more or less than the average is not striking. Ms. DeAngelo included only a portion of OCA-5-30 in Exhibit MND-3, and noted that in February 2024, "there were over 21,000 bills at usage levels of 3,600 or higher," without providing context.[8] For context, the majority, or 64% of bills in February 2024, were below 3,600 gallons. This is consistent with an entire year's worth of data. When OCA-5-30 is examined in its entirety as provided in Exhibit LKF-3-R, for the Main VWPA system, for the twelve months ending February, 2024, approximately 63% of residential water bills have a consumption level of 3,500 to 3,600 gallons per month or less. Looking at Ms. DeAngelo's higher consumption levels of 5,000 and 10,000 gallons per month were used, approximately 82% and 97.5% of

[7] Exhibit LKF-3 Notice to Customers, p. 1 at P 5.

[8] OCA St. 1 p. 11-12.

customers respectively would have less consumption and therefore an overstated bill impact estimate.

Rate harmonization, as proposed by the Company, would further reduce Ms. DeAngelo's perceived disparities across systems, as there would be a single rate increase for which to provide notice (also reducing administrative costs to the benefit of all customers).

III. Acquisition Adjustments

Q. Please summarize I&E's position regarding the inclusion of acquisition costs for Kensington and Overbrook.

A. I&E witness Sakaya recommended that the acquisition adjustment for the Kensington acquisition be accepted with a FPFTY plant claim of $202,500 because it was clearly established that the system was distressed.[9] Witness Sakaya also recommends that the acquisition adjustment for the Overbrook acquisition be accepted with a FPFTY plant claim of $245,970 because it was viewed by the PA DEP as a troubled water system.

Q. Do you agree with these recommendations?

A. Yes.

[9] I&E Statement 3 at p. 7.

Q. Please summarize OCA's position regarding the inclusion of acquisition costs for Kensington and Overbrook.

A. OCA Witness DeAngelo recommends VWPA's proposal for a positive acquisition adjustment be rejected because she finds that the Company failed to satisfy the requirements under Section 1327(a) showing that Kensington and Overbrook were not providing adequate service to their customers at the time of the acquisition and that it couldn't continue providing adequate service to their customers.[10] Ms. DeAngelo also references OCA Witness Fought's testimony regarding quality of service issues for the system.[11]

Q. Do you agree with this recommendation?

A. No. I&E's recommendation does not coincide with this recommendation either. For all the reasons stated in my direct testimony, VWPA Statement No. 1 at pages 9 through 16, VWPA clearly has adequately satisfied the requirements of Section 1327 and should be allowed by the Commission to recover an acquisition adjustment as proposed by the Company.

[10] OCA St. 1 at p. 18 – 19.

[11] *Id.*

Q. Please summarize the positions of I&E and OCA regarding the inclusion of acquisition costs for Mahoning.

A. I&E witness Sakaya recommends that the Commission reject the Company's FPFTY acquisition adjustment claims of $1,104,896 for Water and $1,377,307 for Wastewater, finding that there should be no acquisition adjustment in rate base since the original cost of the acquisition should have been adjusted to reflect the purchase price within specific asset categories per the original fair market valuation.[12] The OCA does not challenge that the full $9,500,000 can be placed into ratemaking rate base, nor does the OCA challenge the amortization of the related acquisition adjustment. Regarding the $543,227 of acquisition transaction costs the Company included in the filing, OCA does not challenge the cost itself, but recommends normalization over 10 years rather than amortization over 5 years.

Q. Do you agree with these recommendations?

A. No. Company witnesses Jacob and Herbert address these recommendations in their testimony.

[12] I&E Statement 3 at p. 8.

IV. Tariff

Q. On pages 34-37 of CAUSE-PA St. 1, witness Ballenger expresses concern about Veolia's proposed tariff. He recommends that the Company review the provisions of its tariff to ensure that it does not conflict with or authorize Company actions that violate the Commission's regulations in Chapter 56 of the Commission's regulations. Please respond.

A. In this proceeding, VWPA has proposed changes in both its water tariff and its wastewater tariff. I believe Mr. Ballenger's testimony is only addressing VWPA's proposed water tariff.

It is important to note that Mr. Ballenger does not allege that the Company has violated the Code or the Commission's regulations. For example, Mr. Ballenger states that the tariff does not mention the statutory or regulatory provisions extending protections to survivors of domestic violence, but he does not allege that VWPA has failed to provide those protections to survivors of domestic violence. VWPA complies with those statutory and regulatory provisions.

I specifically disagree with Mr. Ballenger that the tariff in any way "authorizes" the Company to take actions that violate statutes or regulations. However, I agree with Mr. Ballenger that the Company's tariff cannot contradict the Code or the Commission's regulations, but I am advised by counsel that VWPA's tariff does not need to re-state every applicable provision in Pennsylvania law. The Company is bound by pertinent statutes and regulations, even if those statutes and regulations are not reiterated in the tariff. The tariff explicitly states "Company

will comply with all Pennsylvania law or regulations regarding grounds for termination," Paragraph 31, and "Company will comply with all current termination procedures as established by Pennsylvania law or regulations." Paragraph 32.

One of Mr. Ballenger's recommendations is to incorporate by reference portions of the Commission's regulations at Chapter 56 in its tariff. CAUSE-PA St. No. 1 pp. 36-37. Chapter 56, however, only applies to residential customers. VWPA's tariff applies to both residential and non-residential customers. The Company is reluctant to simply incorporate Chapter 56 in its tariff, unless the tariff is specifically addressing a topic or a situation that only pertains to residential customers.

Q. Mr. Ballenger discusses several specific tariff provisions in his testimony. Please respond.

A. Mr. Ballenger correctly notes that the definition of "customer" contains typographical errors. The proposed definition is: "A Customer shall mean a customer of record, or end user, or both the party contracting for a supply of water through a connection to a.:" Supplement No. 46, Sixth Revised Page 17. The red-lined version of the tariff clearly shows that the Company is proposing a substantial revision of the definition, but the Company's proposal was not accurately reflected in the proposed changes to the existing tariff. The revised definition should read: "A Customer shall mean a customer of record, or end user, or both, contracting for a supply of water."

I disagree with Mr. Ballenger that the tariff must restate the definition of "Customer" as contained in Chapter 56. In Chapter 65 of the Commission's regulations (relating to water service), "customer" is defined as "[a] party contracting with a public utility for service." For a utility such as VWPA that provides service to non-residential customers, the definition in Chapter 65 seems more appropriate than the definition in Chapter 56, which was only intended for residential customers.

The Commission has a model water tariff on its website,[13] and this definition is simply "A person or entity who is an owner or occupant and who contracts with the Company for water service." In addition, the Commission-approved definition of "customer" in the Company's current water tariff, and in the current water tariff of The York Water Company[14] is different from the definition of "customer" in Chapter 56. These facts indicate that a public utility is not required to define "customer" using the definition in Chapter 56.

Mr. Ballenger claims that the tariff authorizes estimated billing "so long as the Company has undertaken reasonable alternative measures to obtain a meter reading." CAUSE-PA St. No. 1 p. 35. I do not believe that is a fair reading of the tariff. The proposed tariff states:

> 28. Except as provided in this section, the Company shall render bills based on actual meter readings by company personnel.
>
> …
>
> (4) The Company may estimate the bill of any customer if Company personnel are unable to gain access to obtain

[13] https://www.puc.pa.gov/documents/utility-files/344/Water_Model_Tariff2022.pdf
[14] https://www.yorkwater.com/wp-content/uploads/tariff.pdf

an actual meter reading so long as the Company has undertaken reasonable alternative measures to obtain a meter reading.

Paragraph 28(4) is very similar to the regulation at 52 Pa. Code § 56.12(4), which probably explains why the Commission approved this tariff language in the past (the Company is not proposing any changes in Paragraph 28 at this time). I see no reason why the tariff needs to be changed now.

Mr. Ballenger also discusses Paragraph 41 of the tariff, concerning the termination of service to persons who obtain a certificate that they have a medical condition that will be aggravated by a cessation of service or a failure to restore service. In pertinent part, Paragraph 41 states "Procedures set forth in Section 56.112 through 56.118 of 76 P.R.M.D. – 10 will be followed." I agree with Mr. Ballenger that the citation to 76 P.R.M.D. should be replaced. The Company proposes to revise this sentence to read: "Procedures set forth in 52 Pa. Code § 56.111 through 56.118 will be followed." The referenced regulations contain all of the Commission's regulations concerning emergency provisions (including allowing a medical certificate to be issued by a physician assistant or nurse practitioner). This change should address all of Mr. Ballenger's concerns about Paragraph 41.

Mr. Ballenger also discusses Paragraphs 33 and 42 of the tariff (concerning "Procedures Upon Customer or Occupant Prior to Termination" and "Termination at Any Premises Than the Customer Residence," respectively). Mr. Ballenger does not identify anything in Paragraphs 33 and 42 that conflicts with pertinent statutes and regulations; he simply notes that these tariff paragraphs do

not reiterate the pertinent statutes and regulations in full. I believe this situation is adequately addressed by Paragraphs 31 ("Company will comply with all Pennsylvania law or regulations regarding grounds for termination") and 32 ("Company will comply with all current termination procedures as established by Pennsylvania law or regulations."). Even if the tariff does not re-state pertinent statutes and regulations in their entirety, the tariff clearly states that the Company will comply with all applicable statutes and regulations.[15]

Q. Does this complete your rebuttal testimony?

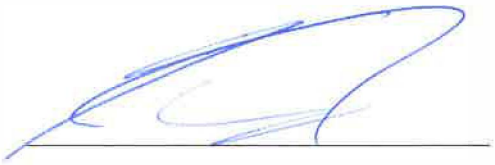
A. Yes it does, however I reserve the right to supplement my testimony as additional issues arise within this proceeding. Thank you.

[15] VWPA agrees with Mr. Ballenger that the reference to "information complaints" in Paragraph 33 should be changed to "informal complaints." CAUSE-PA St. No. 1 pp. 35-36.

VERIFICATION

I, Larry Finnicum, hereby state that the facts set forth above are true and correct to the best of my knowledge, information and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: June 7, 2024



BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

EXHIBITS TO ACCOMPANY REBUTTAL TESTIMONY

OF

LARRY FINNICUM

REGARDING

OPERATIONS & CAPITAL ADDITIONS

VEOLIA WATER PENNSYLVANIA, INC.

June 2024

#	Meter Size	Total Number	Average Age (years)	Maximun Age (years)
1	5/8-inch	63,603	10.14	41.00
2	3/4-inch	1,803	4.03	13.00
3	1-inch	1,801	8.97	31.00
4	> 1-inch	1,666	6.27	35.00
5	There are 66,319 meter records in PA (including Bethel), with all meters having installation dates and all meters having installation locations.			

Updated TLF-15

Year 2020	PA	BE	PA & BE
Water Delivered	6,047,500,000	416,483,000	6,463,983,000
Total Sales	4,373,986,800	371,960,000	4,745,946,800
Total Allowances & Adjustments	883,926,000	14,992,000	898,918,000
Unaccounted for Water (UFW)	789,587,200	29,531,000	819,118,200
Percentage UFW	13.06%	7.09%	12.67%

Year 2021	PA	BE	PA & BE
Water Delivered	6,100,457,000	404,730,000	6,505,187,000
Total Sales	4,424,348,800	372,073,000	4,796,421,800
Total Allowances & Adjustments	939,325,000	16,029,000	955,354,000
Unaccounted for Water (UFW)	736,783,200	16,628,000	753,411,200
Percentage UFW	12.08%	4.11%	11.58%

Year 2022	PA	BE	PA & BE
Water Delivered	6,181,561,000	406,538,000	6,588,099,000
Total Sales	4,451,955,100	378,610,000	4,830,565,100
Total Allowances & Adjustments	942,354,000	16,032,000	958,386,000
Unaccounted for Water (UFW)	787,251,900	11,896,000	799,147,900
Percentage UFW	12.74%	2.93%	12.13%

Pa. P.U.C. v. Veolia Water Pennsylvania, Inc.
Docket Nos. R-2024-3045192 (Water) R-2024-3045193 (Wastewater)
Interrogatories of the Office of Consumer Advocate
Set 5 to Veolia

OCA-5-30 By month for the recent 24 months, please provide a distribution of residential account by their usage in 1,000 gallon ranges as follows:

a. 0 gallons

b. 1-1000 gallons

c. 1001 – 2000 gallons;

d. 2001 – 3000 gallons;

e. 3001 – 4000 gallons;

f. 4001 – 5000 gallons;

g. 5001 – 6000 gallons

h. 6001 gallons or more..

Answer: Please see OCA-5-30 Attachments 1 through 4

Answer provided by: Larry Finnicum
Title: Vice President and General Manager
Address: 6310 Allentown Blvd Suite 104 Harrisburg PA 17112
Date: March 13, 2024

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF JANUARY 2022
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	2,069	-	2,069	-	-	3.59%
1	465	465	2,534	465	55,589	4.39%
2	289	578	2,823	1,043	110,713	4.90%
3	316	948	3,139	1,991	165,548	5.44%
4	316	1,264	3,455	3,255	220,067	5.99%
5	396	1,980	3,851	5,235	274,270	6.68%
6	496	2,976	4,347	8,211	328,077	7.54%
7	549	3,843	4,896	12,054	381,388	8.49%
8	575	4,600	5,471	16,654	434,150	9.49%
9	726	6,534	6,197	23,188	486,337	10.75%
10	808	8,080	7,005	31,268	537,798	12.15%
11	825	9,075	7,830	40,343	588,451	13.58%
12	858	10,296	8,688	50,639	638,279	15.07%
13	898	11,674	9,586	62,313	687,249	16.63%
14	1,028	14,392	10,614	76,705	735,321	18.41%
15	949	14,235	11,563	90,940	782,365	20.05%
16	1,032	16,512	12,595	107,452	828,460	21.84%
17	1,043	17,731	13,638	125,183	873,523	23.65%
18	1,126	20,268	14,764	145,451	917,543	25.61%
19	1,057	20,083	15,821	165,534	960,437	27.44%
20	1,108	22,160	16,929	187,694	1,002,274	29.36%
21	1,149	24,129	18,078	211,823	1,043,003	31.35%
22	1,085	23,870	19,163	235,693	1,082,583	33.24%
23	1,141	26,243	20,304	261,936	1,121,078	35.21%
24	1,160	27,840	21,464	289,776	1,158,432	37.23%
25	1,214	30,350	22,678	320,126	1,194,626	39.33%
26	1,132	29,432	23,810	349,558	1,229,606	41.30%
27	1,163	31,401	24,973	380,959	1,263,454	43.31%
28	1,237	34,636	26,210	415,595	1,296,139	45.46%
29	1,230	35,670	27,440	451,265	1,327,587	47.59%
30	1,153	34,590	28,593	485,855	1,357,805	49.59%
31	1,143	35,433	29,736	521,288	1,386,870	51.57%
32	1,113	35,616	30,849	556,904	1,414,792	53.50%
33	1,113	36,729	31,962	593,633	1,441,601	55.43%
34	1,045	35,530	33,007	629,163	1,467,297	57.25%
35	1,016	35,560	34,023	664,723	1,491,948	59.01%
36	1,033	37,188	35,056	701,911	1,515,583	60.80%
37	982	36,334	36,038	738,245	1,538,185	62.50%
38	928	35,264	36,966	773,509	1,559,805	64.11%
39	920	35,880	37,886	809,389	1,580,497	65.71%
40	905	36,200	38,791	845,589	1,600,269	67.28%
41	806	33,046	39,597	878,635	1,619,136	68.68%
42	821	34,482	40,418	913,117	1,637,197	70.10%
43	730	31,390	41,148	944,507	1,654,437	71.37%
44	720	31,680	41,868	976,187	1,670,947	72.61%

45	727	32,715	42,595	1,008,902	1,686,737	73.88%
46	703	32,338	43,298	1,041,240	1,701,800	75.09%
47	677	31,819	43,975	1,073,059	1,716,160	76.27%
48	637	30,576	44,612	1,103,635	1,729,843	77.37%
49	588	28,812	45,200	1,132,447	1,742,889	78.39%
50	544	27,200	45,744	1,159,647	1,755,347	79.34%
51	595	30,345	46,339	1,189,992	1,767,261	80.37%
52	544	28,288	46,883	1,218,280	1,778,580	81.31%
53	508	26,924	47,391	1,245,204	1,789,355	82.19%
54	494	26,676	47,885	1,271,880	1,799,622	83.05%
55	438	24,090	48,323	1,295,970	1,809,395	83.81%
56	487	27,272	48,810	1,323,242	1,818,730	84.65%
57	403	22,971	49,213	1,346,213	1,827,578	85.35%
58	411	23,838	49,624	1,370,051	1,836,023	86.07%
59	371	21,889	49,995	1,391,940	1,844,057	86.71%
60	371	22,260	50,366	1,414,200	1,851,720	87.35%
61	343	20,923	50,709	1,435,123	1,859,012	87.95%
62	327	20,274	51,036	1,455,397	1,865,961	88.52%
63	344	21,672	51,380	1,477,069	1,872,583	89.11%
64	300	19,200	51,680	1,496,269	1,878,861	89.63%
65	272	17,680	51,952	1,513,949	1,884,839	90.10%
66	264	17,424	52,216	1,531,373	1,890,545	90.56%
67	248	16,616	52,464	1,547,989	1,895,987	90.99%
68	246	16,728	52,710	1,564,717	1,901,181	91.42%
69	239	16,491	52,949	1,581,208	1,906,129	91.83%
70	204	14,280	53,153	1,595,488	1,910,838	92.19%
71	202	14,342	53,355	1,609,830	1,915,343	92.54%
72	196	14,112	53,551	1,623,942	1,919,646	92.88%
73	169	12,337	53,720	1,636,279	1,923,753	93.17%
74	196	14,504	53,916	1,650,783	1,927,691	93.51%
75	159	11,925	54,075	1,662,708	1,931,433	93.79%
76	160	12,160	54,235	1,674,868	1,935,016	94.06%
77	148	11,396	54,383	1,686,264	1,938,439	94.32%
78	146	11,388	54,529	1,697,652	1,941,714	94.57%
79	130	10,270	54,659	1,707,922	1,944,843	94.80%
80	129	10,320	54,788	1,718,242	1,947,842	95.02%
81	110	8,910	54,898	1,727,152	1,950,712	95.21%
82	107	8,774	55,005	1,735,926	1,953,472	95.40%
83	117	9,711	55,122	1,745,637	1,956,125	95.60%
84	123	10,332	55,245	1,755,969	1,958,661	95.81%
85	103	8,755	55,348	1,764,724	1,961,074	95.99%
86	95	8,170	55,443	1,772,894	1,963,384	96.16%
87	99	8,613	55,542	1,781,507	1,965,599	96.33%
88	87	7,656	55,629	1,789,163	1,967,715	96.48%
89	65	5,785	55,694	1,794,948	1,969,744	96.59%
90	71	6,390	55,765	1,801,338	1,971,708	96.72%
91	79	7,189	55,844	1,808,527	1,973,601	96.85%
92	55	5,060	55,899	1,813,587	1,975,415	96.95%
93	60	5,580	55,959	1,819,167	1,977,174	97.05%
94	57	5,358	56,016	1,824,525	1,978,873	97.15%
95	53	5,035	56,069	1,829,560	1,980,515	97.24%
96	56	5,376	56,125	1,834,936	1,982,104	97.34%
97	66	6,402	56,191	1,841,338	1,983,637	97.46%
98	71	6,958	56,262	1,848,296	1,985,104	97.58%
99	37	3,663	56,299	1,851,959	1,986,500	97.64%

100	38	3,800	56,337	1,855,759	1,987,859	97.71%
101	43	4,343	56,380	1,860,102	1,989,180	97.78%
102	42	4,284	56,422	1,864,386	1,990,458	97.86%
103	40	4,120	56,462	1,868,506	1,991,694	97.93%
104	44	4,576	56,506	1,873,082	1,992,890	98.00%
105	29	3,045	56,535	1,876,127	1,994,042	98.05%
106	32	3,392	56,567	1,879,519	1,995,165	98.11%
107	28	2,996	56,595	1,882,515	1,996,256	98.16%
108	31	3,348	56,626	1,885,863	1,997,319	98.21%
109	29	3,161	56,655	1,889,024	1,998,351	98.26%
110	37	4,070	56,692	1,893,094	1,999,354	98.32%
111	29	3,219	56,721	1,896,313	2,000,320	98.37%
112	20	2,240	56,741	1,898,553	2,001,257	98.41%
113	24	2,712	56,765	1,901,265	2,002,174	98.45%
114	25	2,850	56,790	1,904,115	2,003,067	98.49%
115	20	2,300	56,810	1,906,415	2,003,935	98.53%
116	30	3,480	56,840	1,909,895	2,004,783	98.58%
117	17	1,989	56,857	1,911,884	2,005,601	98.61%
118	26	3,068	56,883	1,914,952	2,006,402	98.66%
119	15	1,785	56,898	1,916,737	2,007,177	98.68%
120	13	1,560	56,911	1,918,297	2,007,937	98.70%
121	22	2,662	56,933	1,920,959	2,008,684	98.74%
122	23	2,806	56,956	1,923,765	2,009,409	98.78%
123	22	2,706	56,978	1,926,471	2,010,111	98.82%
124	21	2,604	56,999	1,929,075	2,010,791	98.86%
125	15	1,875	57,014	1,930,950	2,011,450	98.88%
126	20	2,520	57,034	1,933,470	2,012,094	98.92%
127	15	1,905	57,049	1,935,375	2,012,718	98.94%
128	14	1,792	57,063	1,937,167	2,013,327	98.97%
129	13	1,677	57,076	1,938,844	2,013,922	98.99%
130	19	2,470	57,095	1,941,314	2,014,504	99.02%
131	9	1,179	57,104	1,942,493	2,015,067	99.04%
132	13	1,716	57,117	1,944,209	2,015,621	99.06%
133	6	798	57,123	1,945,007	2,016,162	99.07%
134	12	1,608	57,135	1,946,615	2,016,697	99.09%
135	11	1,485	57,146	1,948,100	2,017,220	99.11%
136	13	1,768	57,159	1,949,868	2,017,732	99.13%
137	14	1,918	57,173	1,951,786	2,018,231	99.16%
138	11	1,518	57,184	1,953,304	2,018,716	99.18%
139	10	1,390	57,194	1,954,694	2,019,190	99.20%
140	11	1,540	57,205	1,956,234	2,019,654	99.21%
141	12	1,692	57,217	1,957,926	2,020,107	99.24%
142	10	1,420	57,227	1,959,346	2,020,548	99.25%
143	6	858	57,233	1,960,204	2,020,979	99.26%
144	10	1,440	57,243	1,961,644	2,021,404	99.28%
145	6	870	57,249	1,962,514	2,021,819	99.29%
146	12	1,752	57,261	1,964,266	2,022,228	99.31%
147	7	1,029	57,268	1,965,295	2,022,625	99.32%
148	7	1,036	57,275	1,966,331	2,023,015	99.34%
149	11	1,639	57,286	1,967,970	2,023,398	99.35%
150	7	1,050	57,293	1,969,020	2,023,770	99.37%
151	15	2,265	57,308	1,971,285	2,024,135	99.39%
152	7	1,064	57,315	1,972,349	2,024,485	99.41%
153	8	1,224	57,323	1,973,573	2,024,828	99.42%
154	8	1,232	57,331	1,974,805	2,025,163	99.43%

155	7	1,085	57,338	1,975,890	2,025,490	99.45%
156	7	1,092	57,345	1,976,982	2,025,810	99.46%
157	12	1,884	57,357	1,978,866	2,026,123	99.48%
158	10	1,580	57,367	1,980,446	2,026,424	99.50%
159	9	1,431	57,376	1,981,877	2,026,715	99.51%
161	4	644	57,380	1,982,521	2,027,279	99.52%
162	6	972	57,386	1,983,493	2,027,557	99.53%
163	7	1,141	57,393	1,984,634	2,027,829	99.54%
164	5	820	57,398	1,985,454	2,028,094	99.55%
165	3	495	57,401	1,985,949	2,028,354	99.55%
166	2	332	57,403	1,986,281	2,028,611	99.56%
167	7	1,169	57,410	1,987,450	2,028,866	99.57%
168	4	672	57,414	1,988,122	2,029,114	99.58%
169	1	169	57,415	1,988,291	2,029,358	99.58%
170	5	850	57,420	1,989,141	2,029,601	99.59%
171	4	684	57,424	1,989,825	2,029,839	99.59%
172	5	860	57,429	1,990,685	2,030,073	99.60%
173	4	692	57,433	1,991,377	2,030,302	99.61%
174	1	174	57,434	1,991,551	2,030,527	99.61%
175	7	1,225	57,441	1,992,776	2,030,751	99.62%
176	1	176	57,442	1,992,952	2,030,968	99.63%
177	5	885	57,447	1,993,837	2,031,184	99.63%
178	4	712	57,451	1,994,549	2,031,395	99.64%
179	3	537	57,454	1,995,086	2,031,602	99.65%
180	4	720	57,458	1,995,806	2,031,806	99.65%
181	7	1,267	57,465	1,997,073	2,032,006	99.67%
182	3	546	57,468	1,997,619	2,032,199	99.67%
183	4	732	57,472	1,998,351	2,032,389	99.68%
184	2	368	57,474	1,998,719	2,032,575	99.68%
185	2	370	57,476	1,999,089	2,032,759	99.68%
187	4	748	57,480	1,999,837	2,033,123	99.69%
188	3	564	57,483	2,000,401	2,033,301	99.70%
189	4	756	57,487	2,001,157	2,033,476	99.70%
190	5	950	57,492	2,002,107	2,033,647	99.71%
192	3	576	57,495	2,002,683	2,033,979	99.72%
193	1	193	57,496	2,002,876	2,034,142	99.72%
194	2	388	57,498	2,003,264	2,034,304	99.72%
195	2	390	57,500	2,003,654	2,034,464	99.73%
196	4	784	57,504	2,004,438	2,034,622	99.73%
197	3	591	57,507	2,005,029	2,034,776	99.74%
198	2	396	57,509	2,005,425	2,034,927	99.74%
199	2	398	57,511	2,005,823	2,035,076	99.75%
200	1	200	57,512	2,006,023	2,035,223	99.75%
201	3	603	57,515	2,006,626	2,035,369	99.75%
202	3	606	57,518	2,007,232	2,035,512	99.76%
204	4	816	57,522	2,008,048	2,035,792	99.76%
205	3	615	57,525	2,008,663	2,035,928	99.77%
206	4	824	57,529	2,009,487	2,036,061	99.78%
207	2	414	57,531	2,009,901	2,036,190	99.78%
208	2	416	57,533	2,010,317	2,036,317	99.78%
209	3	627	57,536	2,010,944	2,036,442	99.79%
210	1	210	57,537	2,011,154	2,036,564	99.79%
211	2	422	57,539	2,011,576	2,036,685	99.79%
212	2	424	57,541	2,012,000	2,036,804	99.80%
213	3	639	57,544	2,012,639	2,036,921	99.80%

214	1	214	57,545	2,012,853	2,037,035	99.80%
215	1	215	57,546	2,013,068	2,037,148	99.81%
216	4	864	57,550	2,013,932	2,037,260	99.81%
217	2	434	57,552	2,014,366	2,037,368	99.82%
220	1	220	57,553	2,014,586	2,037,686	99.82%
221	2	442	57,555	2,015,028	2,037,791	99.82%
222	2	444	57,557	2,015,472	2,037,894	99.82%
223	1	223	57,558	2,015,695	2,037,995	99.83%
224	1	224	57,559	2,015,919	2,038,095	99.83%
226	1	226	57,560	2,016,145	2,038,293	99.83%
227	2	454	57,562	2,016,599	2,038,391	99.83%
228	2	456	57,564	2,017,055	2,038,487	99.84%
230	1	230	57,565	2,017,285	2,038,675	99.84%
231	2	462	57,567	2,017,747	2,038,768	99.84%
232	2	464	57,569	2,018,211	2,038,859	99.85%
233	3	699	57,572	2,018,910	2,038,948	99.85%
234	2	468	57,574	2,019,378	2,039,034	99.85%
235	2	470	57,576	2,019,848	2,039,118	99.86%
236	2	472	57,578	2,020,320	2,039,200	99.86%
239	3	717	57,581	2,021,037	2,039,440	99.87%
242	1	242	57,582	2,021,279	2,039,671	99.87%
244	-	-	57,582	2,021,279	2,039,823	99.87%
248	1	248	57,583	2,021,527	2,040,127	99.87%
250	6	1,500	57,589	2,023,027	2,040,277	99.88%
252	1	252	57,590	2,023,279	2,040,415	99.88%
255	2	510	57,592	2,023,789	2,040,619	99.89%
258	1	258	57,593	2,024,047	2,040,817	99.89%
261	1	261	57,594	2,024,308	2,041,012	99.89%
268	2	536	57,596	2,024,844	2,041,460	99.89%
269	2	538	57,598	2,025,382	2,041,522	99.90%
270	1	270	57,599	2,025,652	2,041,582	99.90%
272	1	272	57,600	2,025,924	2,041,700	99.90%
273	1	273	57,601	2,026,197	2,041,758	99.90%
274	1	274	57,602	2,026,471	2,041,815	99.90%
278	1	278	57,603	2,026,749	2,042,039	99.90%
279	1	279	57,604	2,027,028	2,042,094	99.91%
284	1	284	57,605	2,027,312	2,042,364	99.91%
286	1	286	57,606	2,027,598	2,042,470	99.91%
292	1	292	57,607	2,027,890	2,042,782	99.91%
294	1	294	57,608	2,028,184	2,042,884	99.91%
296	1	296	57,609	2,028,480	2,042,984	99.92%
298	1	298	57,610	2,028,778	2,043,082	99.92%
299	1	299	57,611	2,029,077	2,043,130	99.92%
307	1	307	57,612	2,029,384	2,043,506	99.92%
312	1	312	57,613	2,029,696	2,043,736	99.92%
313	1	313	57,614	2,030,009	2,043,781	99.92%
318	4	1,272	57,618	2,031,281	2,044,001	99.93%
321	1	321	57,619	2,031,602	2,044,121	99.93%
322	1	322	57,620	2,031,924	2,044,160	99.93%
323	2	646	57,622	2,032,570	2,044,198	99.94%
327	1	327	57,623	2,032,897	2,044,342	99.94%
329	2	658	57,625	2,033,555	2,044,412	99.94%
334	2	668	57,627	2,034,223	2,044,577	99.95%
336	1	336	57,628	2,034,559	2,044,639	99.95%
341	1	341	57,629	2,034,900	2,044,789	99.95%

346	(1)	(346)	57,628	2,034,554	2,044,934	99.95%
355	1	355	57,629	2,034,909	2,045,204	99.95%
358	1	358	57,630	2,035,267	2,045,291	99.95%
359	1	359	57,631	2,035,626	2,045,319	99.95%
364	2	728	57,633	2,036,354	2,045,454	99.96%
371	1	371	57,634	2,036,725	2,045,629	99.96%
376	1	376	57,635	2,037,101	2,045,749	99.96%
378	1	378	57,636	2,037,479	2,045,795	99.96%
384	1	384	57,637	2,037,863	2,045,927	99.96%
391	(1)	(391)	57,636	2,037,472	2,046,074	99.96%
393	1	393	57,637	2,037,865	2,046,118	99.96%
396	1	396	57,638	2,038,261	2,046,181	99.97%
399	(1)	(399)	57,637	2,037,862	2,046,241	99.96%
410	2	820	57,639	2,038,682	2,046,472	99.97%
418	1	418	57,640	2,039,100	2,046,624	99.97%
422	1	422	57,641	2,039,522	2,046,696	99.97%
423	1	423	57,642	2,039,945	2,046,713	99.97%
440	1	440	57,643	2,040,385	2,046,985	99.97%
441	1	441	57,644	2,040,826	2,047,000	99.98%
447	1	447	57,645	2,041,273	2,047,084	99.98%
465	1	465	57,646	2,041,738	2,047,318	99.98%
468	1	468	57,647	2,042,206	2,047,354	99.98%
486	1	486	57,648	2,042,692	2,047,552	99.98%
506	1	506	57,649	2,043,198	2,047,752	99.98%
516	1	516	57,650	2,043,714	2,047,842	99.99%
522	1	522	57,651	2,044,236	2,047,890	99.99%
563	1	563	57,652	2,044,799	2,048,177	99.99%
573	-	-	57,652	2,044,799	2,048,237	99.99%
578	1	578	57,653	2,045,377	2,048,267	99.99%
596	-	-	57,653	2,045,377	2,048,357	99.99%
632	1	632	57,654	2,046,009	2,048,537	99.99%
633	1	633	57,655	2,046,642	2,048,541	99.99%
674	(1)	(674)	57,654	2,045,968	2,048,664	99.99%
679	(1)	(679)	57,653	2,045,289	2,048,684	99.99%
687	1	687	57,654	2,045,976	2,048,724	99.99%
744	1	744	57,655	2,046,720	2,048,952	99.99%
753	1	753	57,656	2,047,473	2,048,979	100.00%
1,164	1	1,164	57,657	2,048,637	2,049,801	100.00%
1,348	(1)	(1,348)	57,656	2,047,289	2,049,985	100.00%
1,355	-	-	57,656	2,047,289	2,049,999	100.00%
1,550	1	1,550	57,657	2,048,839	2,050,389	100.00%
1,745	1	1,745	57,658	2,050,584	2,050,584	100.00%
2,221	1	2,221	57,659	2,052,805	2,050,584	100.00%
2,565	(1)	(2,565)	57,658	2,050,240	2,050,240	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF FEBRUARY 2022
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	2,362	-	2,362	-	-	4.05%
1	477	477	2,839	477	55,905	4.87%
2	332	664	3,171	1,141	111,333	5.44%
3	342	1,026	3,513	2,167	166,429	6.03%
4	370	1,480	3,883	3,647	221,183	6.66%
5	469	2,345	4,352	5,992	275,567	7.47%
6	558	3,348	4,910	9,340	329,482	8.43%
7	677	4,739	5,587	14,079	382,839	9.59%
8	830	6,640	6,417	20,719	435,519	11.01%
9	870	7,830	7,287	28,549	487,369	12.51%
10	964	9,640	8,251	38,189	538,349	14.16%
11	955	10,505	9,206	48,694	588,365	15.80%
12	1,115	13,380	10,321	62,074	637,426	17.71%
13	1,135	14,755	11,456	76,829	685,372	19.66%
14	1,138	15,932	12,594	92,761	732,183	21.61%
15	1,230	18,450	13,824	111,211	777,856	23.73%
16	1,188	19,008	15,012	130,219	822,299	25.76%
17	1,246	21,182	16,258	151,401	865,554	27.90%
18	1,272	22,896	17,530	174,297	907,563	30.09%
19	1,329	25,251	18,859	199,548	948,300	32.37%
20	1,280	25,600	20,139	225,148	987,708	34.56%
21	1,268	26,628	21,407	251,776	1,025,836	36.74%
22	1,291	28,402	22,698	280,178	1,062,696	38.96%
23	1,289	29,647	23,987	309,825	1,098,265	41.17%
24	1,293	31,032	25,280	340,857	1,132,545	43.39%
25	1,331	33,275	26,611	374,132	1,165,532	45.67%
26	1,335	34,710	27,946	408,842	1,197,188	47.96%
27	1,320	35,640	29,266	444,482	1,227,509	50.23%
28	1,263	35,364	30,529	479,846	1,256,510	52.40%
29	1,228	35,612	31,757	515,458	1,284,248	54.50%
30	1,172	35,160	32,929	550,618	1,310,758	56.51%
31	1,171	36,301	34,100	586,919	1,336,096	58.52%
32	1,153	36,896	35,253	623,815	1,360,263	60.50%
33	1,057	34,881	36,310	658,696	1,383,277	62.32%
34	1,071	36,414	37,381	695,110	1,405,234	64.15%
35	1,081	37,835	38,462	732,945	1,426,120	66.01%
36	937	33,732	39,399	766,677	1,445,925	67.62%
37	897	33,189	40,296	799,866	1,464,793	69.16%
38	863	32,794	41,159	832,660	1,482,764	70.64%
39	861	33,579	42,020	866,239	1,499,872	72.12%
40	767	30,680	42,787	896,919	1,516,119	73.43%
41	817	33,497	43,604	930,416	1,531,599	74.83%
42	734	30,828	44,338	961,244	1,546,262	76.09%
43	673	28,939	45,011	990,183	1,560,191	77.25%
44	717	31,548	45,728	1,021,731	1,573,447	78.48%

45	617	27,765	46,345	1,049,496	1,585,986	79.54%
46	624	28,704	46,969	1,078,200	1,597,908	80.61%
47	586	27,542	47,555	1,105,742	1,609,206	81.62%
48	524	25,152	48,079	1,130,894	1,619,918	82.51%
49	537	26,313	48,616	1,157,207	1,630,106	83.44%
50	537	26,850	49,153	1,184,057	1,639,757	84.36%
51	454	23,154	49,607	1,207,211	1,648,871	85.14%
52	476	24,752	50,083	1,231,963	1,657,531	85.95%
53	392	20,776	50,475	1,252,739	1,665,715	86.63%
54	380	20,520	50,855	1,273,259	1,673,507	87.28%
55	393	21,615	51,248	1,294,874	1,680,919	87.95%
56	329	18,424	51,577	1,313,298	1,687,938	88.52%
57	345	19,665	51,922	1,332,963	1,694,628	89.11%
58	321	18,618	52,243	1,351,581	1,700,973	89.66%
59	307	18,113	52,550	1,369,694	1,706,997	90.19%
60	290	17,400	52,840	1,387,094	1,712,714	90.69%
61	273	16,653	53,113	1,403,747	1,718,141	91.15%
62	269	16,678	53,382	1,420,425	1,723,295	91.62%
63	266	16,758	53,648	1,437,183	1,728,180	92.07%
64	220	14,080	53,868	1,451,263	1,732,799	92.45%
65	196	12,740	54,064	1,464,003	1,737,198	92.79%
66	210	13,860	54,274	1,477,863	1,741,401	93.15%
67	184	12,328	54,458	1,490,191	1,745,394	93.46%
68	186	12,648	54,644	1,502,839	1,749,203	93.78%
69	158	10,902	54,802	1,513,741	1,752,826	94.05%
70	185	12,950	54,987	1,526,691	1,756,291	94.37%
71	161	11,431	55,148	1,538,122	1,759,571	94.65%
72	129	9,288	55,277	1,547,410	1,762,690	94.87%
73	133	9,709	55,410	1,557,119	1,765,680	95.10%
74	116	8,584	55,526	1,565,703	1,768,537	95.30%
75	130	9,750	55,656	1,575,453	1,771,278	95.52%
76	112	8,512	55,768	1,583,965	1,773,889	95.71%
77	112	8,624	55,880	1,592,589	1,776,388	95.90%
78	89	6,942	55,969	1,599,531	1,778,775	96.06%
79	103	8,137	56,072	1,607,668	1,781,073	96.23%
80	89	7,120	56,161	1,614,788	1,783,268	96.39%
81	74	5,994	56,235	1,620,782	1,785,374	96.51%
82	83	6,806	56,318	1,627,588	1,787,406	96.66%
83	86	7,138	56,404	1,634,726	1,789,355	96.80%
84	83	6,972	56,487	1,641,698	1,791,218	96.95%
85	58	4,930	56,545	1,646,628	1,792,998	97.04%
86	55	4,730	56,600	1,651,358	1,794,720	97.14%
87	66	5,742	56,666	1,657,100	1,796,387	97.25%
88	45	3,960	56,711	1,661,060	1,797,988	97.33%
89	47	4,183	56,758	1,665,243	1,799,544	97.41%
90	53	4,770	56,811	1,670,013	1,801,053	97.50%
91	48	4,368	56,859	1,674,381	1,802,509	97.58%
92	57	5,244	56,916	1,679,625	1,803,917	97.68%
93	34	3,162	56,950	1,682,787	1,805,268	97.74%
94	60	5,640	57,010	1,688,427	1,806,585	97.84%
95	42	3,990	57,052	1,692,417	1,807,842	97.91%
96	38	3,648	57,090	1,696,065	1,809,057	97.98%
97	40	3,880	57,130	1,699,945	1,810,234	98.05%
98	37	3,626	57,167	1,703,571	1,811,371	98.11%
99	32	3,168	57,199	1,706,739	1,812,471	98.17%

100	29	2,900	57,228	1,709,639	1,813,539	98.22%
101	32	3,232	57,260	1,712,871	1,814,578	98.27%
102	25	2,550	57,285	1,715,421	1,815,585	98.31%
103	23	2,369	57,308	1,717,790	1,816,567	98.35%
104	25	2,600	57,333	1,720,390	1,817,526	98.40%
105	33	3,465	57,366	1,723,855	1,818,460	98.45%
106	27	2,862	57,393	1,726,717	1,819,361	98.50%
107	26	2,782	57,419	1,729,499	1,820,235	98.54%
108	30	3,240	57,449	1,732,739	1,821,083	98.60%
109	26	2,834	57,475	1,735,573	1,821,901	98.64%
110	15	1,650	57,490	1,737,223	1,822,693	98.67%
111	31	3,441	57,521	1,740,664	1,823,470	98.72%
112	19	2,128	57,540	1,742,792	1,824,216	98.75%
113	20	2,260	57,560	1,745,052	1,824,943	98.79%
114	21	2,394	57,581	1,747,446	1,825,650	98.82%
115	16	1,840	57,597	1,749,286	1,826,336	98.85%
116	16	1,856	57,613	1,751,142	1,827,006	98.88%
117	19	2,223	57,632	1,753,365	1,827,660	98.91%
118	10	1,180	57,642	1,754,545	1,828,295	98.93%
119	7	833	57,649	1,755,378	1,828,920	98.94%
120	21	2,520	57,670	1,757,898	1,829,538	98.98%
121	12	1,452	57,682	1,759,350	1,830,135	99.00%
122	16	1,952	57,698	1,761,302	1,830,720	99.02%
123	15	1,845	57,713	1,763,147	1,831,289	99.05%
124	16	1,984	57,729	1,765,131	1,831,843	99.08%
125	12	1,500	57,741	1,766,631	1,832,381	99.10%
126	14	1,764	57,755	1,768,395	1,832,907	99.12%
127	13	1,651	57,768	1,770,046	1,833,419	99.14%
128	14	1,792	57,782	1,771,838	1,833,918	99.17%
129	9	1,161	57,791	1,772,999	1,834,403	99.18%
130	7	910	57,798	1,773,909	1,834,879	99.20%
131	10	1,310	57,808	1,775,219	1,835,348	99.21%
132	10	1,320	57,818	1,776,539	1,835,807	99.23%
133	11	1,463	57,829	1,778,002	1,836,256	99.25%
134	11	1,474	57,840	1,779,476	1,836,694	99.27%
135	12	1,620	57,852	1,781,096	1,837,121	99.29%
136	3	408	57,855	1,781,504	1,837,536	99.29%
137	6	822	57,861	1,782,326	1,837,948	99.30%
138	10	1,380	57,871	1,783,706	1,838,354	99.32%
139	13	1,807	57,884	1,785,513	1,838,750	99.34%
140	6	840	57,890	1,786,353	1,839,133	99.35%
141	9	1,269	57,899	1,787,622	1,839,510	99.37%
142	5	710	57,904	1,788,332	1,839,878	99.38%
143	5	715	57,909	1,789,047	1,840,241	99.39%
144	6	864	57,915	1,789,911	1,840,599	99.40%
145	2	290	57,917	1,790,201	1,840,951	99.40%
146	6	876	57,923	1,791,077	1,841,301	99.41%
147	2	294	57,925	1,791,371	1,841,645	99.41%
148	8	1,184	57,933	1,792,555	1,841,987	99.43%
149	7	1,043	57,940	1,793,598	1,842,321	99.44%
150	5	750	57,945	1,794,348	1,842,648	99.45%
151	7	1,057	57,952	1,795,405	1,842,970	99.46%
152	7	1,064	57,959	1,796,469	1,843,285	99.47%
153	9	1,377	57,968	1,797,846	1,843,593	99.49%
154	7	1,078	57,975	1,798,924	1,843,892	99.50%

155	1	155	57,976	1,799,079	1,844,184	99.50%
156	7	1,092	57,983	1,800,171	1,844,475	99.51%
157	5	785	57,988	1,800,956	1,844,759	99.52%
158	8	1,264	57,996	1,802,220	1,845,038	99.53%
159	2	318	57,998	1,802,538	1,845,309	99.54%
160	6	960	58,004	1,803,498	1,845,578	99.55%
161	2	322	58,006	1,803,820	1,845,841	99.55%
162	3	486	58,009	1,804,306	1,846,102	99.56%
163	5	815	58,014	1,805,121	1,846,360	99.57%
164	1	164	58,015	1,805,285	1,846,613	99.57%
165	1	165	58,016	1,805,450	1,846,865	99.57%
166	2	332	58,018	1,805,782	1,847,116	99.57%
167	5	835	58,023	1,806,617	1,847,365	99.58%
168	2	336	58,025	1,806,953	1,847,609	99.58%
169	1	169	58,026	1,807,122	1,847,851	99.59%
170	2	340	58,028	1,807,462	1,848,092	99.59%
171	2	342	58,030	1,807,804	1,848,331	99.59%
172	3	516	58,033	1,808,320	1,848,568	99.60%
173	3	519	58,036	1,808,839	1,848,802	99.60%
174	3	522	58,039	1,809,361	1,849,033	99.61%
175	5	875	58,044	1,810,236	1,849,261	99.62%
176	3	528	58,047	1,810,764	1,849,484	99.62%
177	5	885	58,052	1,811,649	1,849,704	99.63%
178	3	534	58,055	1,812,183	1,849,919	99.64%
179	2	358	58,057	1,812,541	1,850,131	99.64%
180	-	-	58,057	1,812,541	1,850,341	99.64%
181	3	543	58,060	1,813,084	1,850,551	99.64%
182	3	546	58,063	1,813,630	1,850,758	99.65%
183	7	1,281	58,070	1,814,911	1,850,962	99.66%
184	3	552	58,073	1,815,463	1,851,159	99.67%
186	2	372	58,075	1,815,835	1,851,547	99.67%
187	3	561	58,078	1,816,396	1,851,739	99.68%
188	5	940	58,083	1,817,336	1,851,928	99.68%
189	3	567	58,086	1,817,903	1,852,112	99.69%
190	1	190	58,087	1,818,093	1,852,293	99.69%
191	4	764	58,091	1,818,857	1,852,473	99.70%
192	2	384	58,093	1,819,241	1,852,649	99.70%
193	1	193	58,094	1,819,434	1,852,823	99.70%
194	2	388	58,096	1,819,822	1,852,996	99.71%
195	3	585	58,099	1,820,407	1,853,167	99.71%
196	2	392	58,101	1,820,799	1,853,335	99.72%
197	2	394	58,103	1,821,193	1,853,501	99.72%
198	1	198	58,104	1,821,391	1,853,665	99.72%
199	3	597	58,107	1,821,988	1,853,828	99.73%
200	2	400	58,109	1,822,388	1,853,988	99.73%
201	2	402	58,111	1,822,790	1,854,146	99.73%
202	1	202	58,112	1,822,992	1,854,302	99.73%
203	3	609	58,115	1,823,601	1,854,457	99.74%
204	1	204	58,116	1,823,805	1,854,609	99.74%
205	1	205	58,117	1,824,010	1,854,760	99.74%
206	3	618	58,120	1,824,628	1,854,910	99.75%
207	2	414	58,122	1,825,042	1,855,057	99.75%
208	1	208	58,123	1,825,250	1,855,202	99.75%
210	5	1,050	58,128	1,826,300	1,855,490	99.76%
211	3	633	58,131	1,826,933	1,855,629	99.77%

213	1	213	58,132	1,827,146	1,855,901	99.77%
214	1	214	58,133	1,827,360	1,856,036	99.77%
215	1	215	58,134	1,827,575	1,856,170	99.77%
216	1	216	58,135	1,827,791	1,856,303	99.77%
217	2	434	58,137	1,828,225	1,856,435	99.78%
218	2	436	58,139	1,828,661	1,856,565	99.78%
219	1	219	58,140	1,828,880	1,856,693	99.78%
221	1	221	58,141	1,829,101	1,856,947	99.78%
223	1	223	58,142	1,829,324	1,857,199	99.79%
224	1	224	58,143	1,829,548	1,857,324	99.79%
226	4	904	58,147	1,830,452	1,857,572	99.79%
227	2	454	58,149	1,830,906	1,857,692	99.80%
229	4	916	58,153	1,831,822	1,857,928	99.80%
233	-	-	58,153	1,831,822	1,858,384	99.80%
234	1	234	58,154	1,832,056	1,858,498	99.81%
236	1	236	58,155	1,832,292	1,858,724	99.81%
237	1	237	58,156	1,832,529	1,858,836	99.81%
238	1	238	58,157	1,832,767	1,858,947	99.81%
239	2	478	58,159	1,833,245	1,859,057	99.81%
241	3	723	58,162	1,833,968	1,859,273	99.82%
247	1	247	58,163	1,834,215	1,859,903	99.82%
248	1	248	58,164	1,834,463	1,860,007	99.82%
249	2	498	58,166	1,834,961	1,860,110	99.83%
250	4	1,000	58,170	1,835,961	1,860,211	99.83%
252	1	252	58,171	1,836,213	1,860,405	99.84%
255	(1)	(255)	58,170	1,835,958	1,860,693	99.83%
256	1	256	58,171	1,836,214	1,860,790	99.84%
258	1	258	58,172	1,836,472	1,860,982	99.84%
259	-	-	58,172	1,836,472	1,861,077	99.84%
260	2	520	58,174	1,836,992	1,861,172	99.84%
265	1	265	58,175	1,837,257	1,861,637	99.84%
266	1	266	58,176	1,837,523	1,861,729	99.84%
267	1	267	58,177	1,837,790	1,861,820	99.85%
269	1	269	58,178	1,838,059	1,862,000	99.85%
270	2	540	58,180	1,838,599	1,862,089	99.85%
272	1	272	58,181	1,838,871	1,862,263	99.85%
275	1	275	58,182	1,839,146	1,862,521	99.85%
278	1	278	58,183	1,839,424	1,862,776	99.86%
280	1	280	58,184	1,839,704	1,862,944	99.86%
281	1	281	58,185	1,839,985	1,863,027	99.86%
289	2	578	58,187	1,840,563	1,863,683	99.86%
291	1	291	58,188	1,840,854	1,863,843	99.86%
293	1	293	58,189	1,841,147	1,864,001	99.87%
294	1	294	58,190	1,841,441	1,864,079	99.87%
296	1	296	58,191	1,841,737	1,864,233	99.87%
297	1	297	58,192	1,842,034	1,864,309	99.87%
298	1	298	58,193	1,842,332	1,864,384	99.87%
299	1	299	58,194	1,842,631	1,864,458	99.87%
301	1	301	58,195	1,842,932	1,864,604	99.88%
303	1	303	58,196	1,843,235	1,864,748	99.88%
304	1	304	58,197	1,843,539	1,864,819	99.88%
306	2	612	58,199	1,844,151	1,864,959	99.88%
307	1	307	58,200	1,844,458	1,865,027	99.89%
308	1	308	58,201	1,844,766	1,865,094	99.89%
309	2	618	58,203	1,845,384	1,865,160	99.89%

315	2	630	58,205	1,846,014	1,865,544	99.89%
316	2	632	58,207	1,846,646	1,865,606	99.90%
318	(1)	(318)	58,206	1,846,328	1,865,726	99.90%
320	1	320	58,207	1,846,648	1,865,848	99.90%
321	1	321	58,208	1,846,969	1,865,908	99.90%
324	1	324	58,209	1,847,293	1,866,085	99.90%
326	3	978	58,212	1,848,271	1,866,201	99.91%
328	(1)	(328)	58,211	1,847,943	1,866,311	99.90%
333	1	333	58,212	1,848,276	1,866,591	99.91%
334	1	334	58,213	1,848,610	1,866,646	99.91%
337	1	337	58,214	1,848,947	1,866,808	99.91%
338	1	338	58,215	1,849,285	1,866,861	99.91%
340	(1)	(340)	58,214	1,848,945	1,866,965	99.91%
344	2	688	58,216	1,849,633	1,867,177	99.91%
345	2	690	58,218	1,850,323	1,867,228	99.92%
354	1	354	58,219	1,850,677	1,867,669	99.92%
362	1	362	58,220	1,851,039	1,868,053	99.92%
364	1	364	58,221	1,851,403	1,868,147	99.92%
368	1	368	58,222	1,851,771	1,868,331	99.92%
374	1	374	58,223	1,852,145	1,868,601	99.92%
377	1	377	58,224	1,852,522	1,868,733	99.93%
381	1	381	58,225	1,852,903	1,868,905	99.93%
382	1	382	58,226	1,853,285	1,868,947	99.93%
384	1	384	58,227	1,853,669	1,869,029	99.93%
385	1	385	58,228	1,854,054	1,869,069	99.93%
386	1	386	58,229	1,854,440	1,869,108	99.93%
390	1	390	58,230	1,854,830	1,869,260	99.94%
392	1	392	58,231	1,855,222	1,869,334	99.94%
394	1	394	58,232	1,855,616	1,869,406	99.94%
397	1	397	58,233	1,856,013	1,869,511	99.94%
400	1	400	58,234	1,856,413	1,869,613	99.94%
406	1	406	58,235	1,856,819	1,869,811	99.95%
415	1	415	58,236	1,857,234	1,870,099	99.95%
423	1	423	58,237	1,857,657	1,870,347	99.95%
430	1	430	58,238	1,858,087	1,870,557	99.95%
439	1	439	58,239	1,858,526	1,870,818	99.95%
444	1	444	58,240	1,858,970	1,870,958	99.95%
451	1	451	58,241	1,859,421	1,871,147	99.96%
470	1	470	58,242	1,859,891	1,871,641	99.96%
476	1	476	58,243	1,860,367	1,871,791	99.96%
489	1	489	58,244	1,860,856	1,872,103	99.96%
497	1	497	58,245	1,861,353	1,872,287	99.96%
503	1	503	58,246	1,861,856	1,872,419	99.96%
506	1	506	58,247	1,862,362	1,872,482	99.97%
521	1	521	58,248	1,862,883	1,872,782	99.97%
538	1	538	58,249	1,863,421	1,873,105	99.97%
556	1	556	58,250	1,863,977	1,873,429	99.97%
563	(1)	(563)	58,249	1,863,414	1,873,548	99.97%
566	-	-	58,249	1,863,414	1,873,602	99.97%
598	1	598	58,250	1,864,012	1,874,178	99.97%
613	1	613	58,251	1,864,625	1,874,433	99.97%
635	1	635	58,252	1,865,260	1,874,785	99.97%
672	1	672	58,253	1,865,932	1,875,340	99.98%
695	1	695	58,254	1,866,627	1,875,662	99.98%
721	1	721	58,255	1,867,348	1,876,000	99.98%

727	1	727	58,256	1,868,075	1,876,072	99.98%
769	-	-	58,256	1,868,075	1,876,534	99.98%
782	1	782	58,257	1,868,857	1,876,677	99.98%
994	1	994	58,258	1,869,851	1,878,797	99.98%
998	1	998	58,259	1,870,849	1,878,833	99.99%
1,018	1	1,018	58,260	1,871,867	1,878,993	99.99%
1,101	-	-	58,260	1,871,867	1,879,574	99.99%
1,128	1	1,128	58,261	1,872,995	1,879,763	99.99%
1,152	1	1,152	58,262	1,874,147	1,879,907	99.99%
1,302	1	1,302	58,263	1,875,449	1,880,657	99.99%
1,369	1	1,369	58,264	1,876,818	1,880,925	99.99%
2,025	1	2,025	58,265	1,878,843	1,882,893	100.00%
2,501	1	2,501	58,266	1,881,344	1,883,845	100.00%
2,999	-	-	58,266	1,881,344	1,884,343	100.00%
3,867	1	3,867	58,267	1,885,211	1,885,211	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF MARCH 2022
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	2,999	-	2,999	-	-	5.05%
1	483	483	3,482	483	56,364	5.87%
2	365	730	3,847	1,213	112,245	6.48%
3	326	978	4,173	2,191	167,761	7.03%
4	398	1,592	4,571	3,783	222,951	7.70%
5	467	2,335	5,038	6,118	277,743	8.49%
6	555	3,330	5,593	9,448	332,068	9.42%
7	705	4,935	6,298	14,383	385,838	10.61%
8	824	6,592	7,122	20,975	438,903	12.00%
9	939	8,451	8,061	29,426	491,144	13.58%
10	1,014	10,140	9,075	39,566	542,446	15.29%
11	1,015	11,165	10,090	50,731	592,734	17.00%
12	1,113	13,356	11,203	64,087	642,007	18.87%
13	1,202	15,626	12,405	79,713	690,167	20.90%
14	1,207	16,898	13,612	96,611	737,125	22.93%
15	1,195	17,925	14,807	114,536	782,876	24.94%
16	1,310	20,960	16,117	135,496	827,432	27.15%
17	1,299	22,083	17,416	157,579	870,678	29.34%
18	1,280	23,040	18,696	180,619	912,625	31.49%
19	1,276	24,244	19,972	204,863	953,292	33.64%
20	1,405	28,100	21,377	232,963	992,683	36.01%
21	1,355	28,455	22,732	261,418	1,030,669	38.29%
22	1,386	30,492	24,118	291,910	1,067,300	40.63%
23	1,354	31,142	25,472	323,052	1,102,545	42.91%
24	1,341	32,184	26,813	355,236	1,136,436	45.17%
25	1,408	35,200	28,221	390,436	1,168,986	47.54%
26	1,349	35,074	29,570	425,510	1,200,128	49.81%
27	1,358	36,666	30,928	462,176	1,229,921	52.10%
28	1,280	35,840	32,208	498,016	1,258,356	54.26%
29	1,246	36,134	33,454	534,150	1,285,511	56.35%
30	1,175	35,250	34,629	569,400	1,311,420	58.33%
31	1,226	38,006	35,855	607,406	1,336,154	60.40%
32	1,086	34,752	36,941	642,158	1,359,662	62.23%
33	1,127	37,191	38,068	679,349	1,382,084	64.13%
34	1,040	35,360	39,108	714,709	1,403,379	65.88%
35	999	34,965	40,107	749,674	1,423,634	67.56%
36	916	32,976	41,023	782,650	1,442,890	69.11%
37	920	34,040	41,943	816,690	1,461,230	70.66%
38	912	34,656	42,855	851,346	1,478,650	72.19%
39	845	32,955	43,700	884,301	1,495,158	73.61%
40	779	31,160	44,479	915,461	1,510,821	74.93%
41	791	32,431	45,270	947,892	1,525,705	76.26%
42	727	30,534	45,997	978,426	1,539,798	77.48%
43	697	29,971	46,694	1,008,397	1,553,164	78.66%
44	671	29,524	47,365	1,037,921	1,565,833	79.79%

45	653	29,385	48,018	1,067,306	1,577,831	80.89%
46	600	27,600	48,618	1,094,906	1,589,176	81.90%
47	563	26,461	49,181	1,121,367	1,599,921	82.85%
48	573	27,504	49,754	1,148,871	1,610,103	83.81%
49	505	24,745	50,259	1,173,616	1,619,712	84.66%
50	487	24,350	50,746	1,197,966	1,628,816	85.48%
51	457	23,307	51,203	1,221,273	1,637,433	86.25%
52	438	22,776	51,641	1,244,049	1,645,593	86.99%
53	402	21,306	52,043	1,265,355	1,653,315	87.67%
54	367	19,818	52,410	1,285,173	1,660,635	88.29%
55	362	19,910	52,772	1,305,083	1,667,588	88.90%
56	347	19,432	53,119	1,324,515	1,674,179	89.48%
57	295	16,815	53,414	1,341,330	1,680,423	89.98%
58	319	18,502	53,733	1,359,832	1,686,372	90.52%
59	302	17,818	54,035	1,377,650	1,692,002	91.02%
60	249	14,940	54,284	1,392,590	1,697,330	91.44%
61	237	14,457	54,521	1,407,047	1,702,409	91.84%
62	251	15,562	54,772	1,422,609	1,707,251	92.27%
63	210	13,230	54,982	1,435,839	1,711,842	92.62%
64	219	14,016	55,201	1,449,855	1,716,223	92.99%
65	191	12,415	55,392	1,462,270	1,720,385	93.31%
66	180	11,880	55,572	1,474,150	1,724,356	93.61%
67	193	12,931	55,765	1,487,081	1,728,147	93.94%
68	172	11,696	55,937	1,498,777	1,731,745	94.23%
69	150	10,350	56,087	1,509,127	1,735,171	94.48%
70	164	11,480	56,251	1,520,607	1,738,447	94.76%
71	154	10,934	56,405	1,531,541	1,741,559	95.02%
72	154	11,088	56,559	1,542,629	1,744,517	95.28%
73	126	9,198	56,685	1,551,827	1,747,321	95.49%
74	107	7,918	56,792	1,559,745	1,749,999	95.67%
75	123	9,225	56,915	1,568,970	1,752,570	95.88%
76	94	7,144	57,009	1,576,114	1,755,018	96.03%
77	79	6,083	57,088	1,582,197	1,757,372	96.17%
78	89	6,942	57,177	1,589,139	1,759,647	96.32%
79	88	6,952	57,265	1,596,091	1,761,833	96.47%
80	110	8,800	57,375	1,604,891	1,763,931	96.65%
81	78	6,318	57,453	1,611,209	1,765,919	96.78%
82	53	4,346	57,506	1,615,555	1,767,829	96.87%
83	60	4,980	57,566	1,620,535	1,769,686	96.97%
84	51	4,284	57,617	1,624,819	1,771,483	97.06%
85	63	5,355	57,680	1,630,174	1,773,229	97.16%
86	53	4,558	57,733	1,634,732	1,774,912	97.25%
87	60	5,220	57,793	1,639,952	1,776,542	97.36%
88	55	4,840	57,848	1,644,792	1,778,112	97.45%
89	51	4,539	57,899	1,649,331	1,779,627	97.53%
90	51	4,590	57,950	1,653,921	1,781,091	97.62%
91	51	4,641	58,001	1,658,562	1,782,504	97.71%
92	43	3,956	58,044	1,662,518	1,783,866	97.78%
93	60	5,580	58,104	1,668,098	1,785,185	97.88%
94	50	4,700	58,154	1,672,798	1,786,444	97.96%
95	44	4,180	58,198	1,676,978	1,787,653	98.04%
96	38	3,648	58,236	1,680,626	1,788,818	98.10%
97	34	3,298	58,270	1,683,924	1,789,945	98.16%
98	30	2,940	58,300	1,686,864	1,791,038	98.21%
99	32	3,168	58,332	1,690,032	1,792,101	98.26%

100	26	2,600	58,358	1,692,632	1,793,132	98.31%
101	29	2,929	58,387	1,695,561	1,794,137	98.36%
102	31	3,162	58,418	1,698,723	1,795,113	98.41%
103	21	2,163	58,439	1,700,886	1,796,058	98.44%
104	34	3,536	58,473	1,704,422	1,796,982	98.50%
105	22	2,310	58,495	1,706,732	1,797,872	98.54%
106	20	2,120	58,515	1,708,852	1,798,740	98.57%
107	19	2,033	58,534	1,710,885	1,799,588	98.60%
108	16	1,728	58,550	1,712,613	1,800,417	98.63%
109	22	2,398	58,572	1,715,011	1,801,230	98.67%
110	12	1,320	58,584	1,716,331	1,802,021	98.69%
111	17	1,887	58,601	1,718,218	1,802,800	98.72%
112	20	2,240	58,621	1,720,458	1,803,562	98.75%
113	13	1,469	58,634	1,721,927	1,804,304	98.77%
114	23	2,622	58,657	1,724,549	1,805,033	98.81%
115	24	2,760	58,681	1,727,309	1,805,739	98.85%
116	19	2,204	58,700	1,729,513	1,806,421	98.88%
117	12	1,404	58,712	1,730,917	1,807,084	98.90%
118	13	1,534	58,725	1,732,451	1,807,735	98.93%
119	11	1,309	58,736	1,733,760	1,808,373	98.94%
120	14	1,680	58,750	1,735,440	1,809,000	98.97%
121	10	1,210	58,760	1,736,650	1,809,613	98.98%
122	5	610	58,765	1,737,260	1,810,216	98.99%
123	7	861	58,772	1,738,121	1,810,814	99.00%
124	11	1,364	58,783	1,739,485	1,811,405	99.02%
125	12	1,500	58,795	1,740,985	1,811,985	99.04%
126	12	1,512	58,807	1,742,497	1,812,553	99.06%
127	17	2,159	58,824	1,744,656	1,813,109	99.09%
128	13	1,664	58,837	1,746,320	1,813,648	99.11%
129	5	645	58,842	1,746,965	1,814,174	99.12%
130	11	1,430	58,853	1,748,395	1,814,695	99.14%
131	7	917	58,860	1,749,312	1,815,205	99.15%
132	9	1,188	58,869	1,750,500	1,815,708	99.17%
133	12	1,596	58,881	1,752,096	1,816,202	99.19%
134	11	1,474	58,892	1,753,570	1,816,684	99.21%
135	6	810	58,898	1,754,380	1,817,155	99.22%
136	10	1,360	58,908	1,755,740	1,817,620	99.23%
137	4	548	58,912	1,756,288	1,818,075	99.24%
138	12	1,656	58,924	1,757,944	1,818,526	99.26%
139	7	973	58,931	1,758,917	1,818,965	99.27%
140	9	1,260	58,940	1,760,177	1,819,397	99.29%
141	6	846	58,946	1,761,023	1,819,820	99.30%
142	10	1,420	58,956	1,762,443	1,820,237	99.31%
143	9	1,287	58,965	1,763,730	1,820,644	99.33%
144	6	864	58,971	1,764,594	1,821,042	99.34%
145	11	1,595	58,982	1,766,189	1,821,434	99.36%
146	5	730	58,987	1,766,919	1,821,815	99.37%
147	13	1,911	59,000	1,768,830	1,822,191	99.39%
148	6	888	59,006	1,769,718	1,822,554	99.40%
149	6	894	59,012	1,770,612	1,822,911	99.41%
150	3	450	59,015	1,771,062	1,823,262	99.41%
151	6	906	59,021	1,771,968	1,823,610	99.42%
152	4	608	59,025	1,772,576	1,823,952	99.43%
153	7	1,071	59,032	1,773,647	1,824,290	99.44%
154	2	308	59,034	1,773,955	1,824,621	99.45%

155	6	930	59,040	1,774,885	1,824,950	99.46%
156	2	312	59,042	1,775,197	1,825,273	99.46%
157	4	628	59,046	1,775,825	1,825,594	99.47%
158	2	316	59,048	1,776,141	1,825,911	99.47%
159	4	636	59,052	1,776,777	1,826,226	99.48%
160	7	1,120	59,059	1,777,897	1,826,537	99.49%
161	4	644	59,063	1,778,541	1,826,841	99.49%
163	4	652	59,067	1,779,193	1,827,441	99.50%
164	4	656	59,071	1,779,849	1,827,737	99.51%
165	6	990	59,077	1,780,839	1,828,029	99.52%
166	1	166	59,078	1,781,005	1,828,315	99.52%
167	2	334	59,080	1,781,339	1,828,600	99.52%
168	3	504	59,083	1,781,843	1,828,883	99.53%
169	3	507	59,086	1,782,350	1,829,163	99.53%
170	5	850	59,091	1,783,200	1,829,440	99.54%
171	-	-	59,091	1,783,200	1,829,712	99.54%
172	2	344	59,093	1,783,544	1,829,984	99.55%
173	4	692	59,097	1,784,236	1,830,254	99.55%
174	2	348	59,099	1,784,584	1,830,520	99.56%
175	3	525	59,102	1,785,109	1,830,784	99.56%
176	6	1,056	59,108	1,786,165	1,831,045	99.57%
177	3	531	59,111	1,786,696	1,831,300	99.58%
178	4	712	59,115	1,787,408	1,831,552	99.58%
179	1	179	59,116	1,787,587	1,831,800	99.58%
180	1	180	59,117	1,787,767	1,832,047	99.59%
181	3	543	59,120	1,788,310	1,832,293	99.59%
182	4	728	59,124	1,789,038	1,832,536	99.60%
183	4	732	59,128	1,789,770	1,832,775	99.60%
184	4	736	59,132	1,790,506	1,833,010	99.61%
185	1	185	59,133	1,790,691	1,833,241	99.61%
186	2	372	59,135	1,791,063	1,833,471	99.62%
187	5	935	59,140	1,791,998	1,833,699	99.62%
188	1	188	59,141	1,792,186	1,833,922	99.63%
189	2	378	59,143	1,792,564	1,834,144	99.63%
190	1	190	59,144	1,792,754	1,834,364	99.63%
192	3	576	59,147	1,793,330	1,834,802	99.64%
193	6	1,158	59,153	1,794,488	1,835,018	99.65%
194	4	776	59,157	1,795,264	1,835,228	99.65%
195	3	585	59,160	1,795,849	1,835,434	99.66%
196	1	196	59,161	1,796,045	1,835,637	99.66%
197	1	197	59,162	1,796,242	1,835,839	99.66%
198	1	198	59,163	1,796,440	1,836,040	99.66%
199	1	199	59,164	1,796,639	1,836,240	99.66%
200	2	400	59,166	1,797,039	1,836,439	99.67%
201	1	201	59,167	1,797,240	1,836,636	99.67%
202	1	202	59,168	1,797,442	1,836,832	99.67%
204	1	204	59,169	1,797,646	1,837,222	99.67%
205	1	205	59,170	1,797,851	1,837,416	99.67%
206	2	412	59,172	1,798,263	1,837,609	99.68%
207	2	414	59,174	1,798,677	1,837,800	99.68%
208	4	832	59,178	1,799,509	1,837,989	99.69%
209	3	627	59,181	1,800,136	1,838,174	99.69%
210	2	420	59,183	1,800,556	1,838,356	99.70%
211	1	211	59,184	1,800,767	1,838,536	99.70%
213	1	213	59,185	1,800,980	1,838,894	99.70%

214	5	1,070	59,190	1,802,050	1,839,072	99.71%
215	2	430	59,192	1,802,480	1,839,245	99.71%
216	3	648	59,195	1,803,128	1,839,416	99.72%
217	3	651	59,198	1,803,779	1,839,584	99.72%
218	-	-	59,198	1,803,779	1,839,749	99.72%
219	-	-	59,198	1,803,779	1,839,914	99.72%
220	1	220	59,199	1,803,999	1,840,079	99.72%
221	3	663	59,202	1,804,662	1,840,243	99.73%
222	2	444	59,204	1,805,106	1,840,404	99.73%
225	1	225	59,205	1,805,331	1,840,881	99.73%
229	4	916	59,209	1,806,247	1,841,513	99.74%
230	1	230	59,210	1,806,477	1,841,667	99.74%
232	2	464	59,212	1,806,941	1,841,973	99.75%
233	1	233	59,213	1,807,174	1,842,124	99.75%
234	-	-	59,213	1,807,174	1,842,274	99.75%
235	3	705	59,216	1,807,879	1,842,424	99.75%
236	1	236	59,217	1,808,115	1,842,571	99.75%
237	2	474	59,219	1,808,589	1,842,717	99.76%
239	1	239	59,220	1,808,828	1,843,005	99.76%
240	1	240	59,221	1,809,068	1,843,148	99.76%
241	1	241	59,222	1,809,309	1,843,290	99.76%
243	4	972	59,226	1,810,281	1,843,572	99.77%
244	2	488	59,228	1,810,769	1,843,709	99.77%
245	2	490	59,230	1,811,259	1,843,844	99.78%
246	1	246	59,231	1,811,505	1,843,977	99.78%
247	1	247	59,232	1,811,752	1,844,109	99.78%
248	(1)	(248)	59,231	1,811,504	1,844,240	99.78%
250	7	1,750	59,238	1,813,254	1,844,504	99.79%
251	1	251	59,239	1,813,505	1,844,629	99.79%
252	1	252	59,240	1,813,757	1,844,753	99.79%
253	2	506	59,242	1,814,263	1,844,876	99.80%
254	1	254	59,243	1,814,517	1,844,997	99.80%
255	1	255	59,244	1,814,772	1,845,117	99.80%
259	1	259	59,245	1,815,031	1,845,593	99.80%
260	2	520	59,247	1,815,551	1,845,711	99.80%
264	2	528	59,249	1,816,079	1,846,175	99.81%
265	1	265	59,250	1,816,344	1,846,289	99.81%
267	2	534	59,252	1,816,878	1,846,515	99.81%
269	1	269	59,253	1,817,147	1,846,737	99.81%
270	1	270	59,254	1,817,417	1,846,847	99.82%
272	1	272	59,255	1,817,689	1,847,065	99.82%
273	1	273	59,256	1,817,962	1,847,173	99.82%
274	2	548	59,258	1,818,510	1,847,280	99.82%
275	2	550	59,260	1,819,060	1,847,385	99.83%
277	2	554	59,262	1,819,614	1,847,591	99.83%
279	3	837	59,265	1,820,451	1,847,793	99.83%
280	2	560	59,267	1,821,011	1,847,891	99.84%
281	2	562	59,269	1,821,573	1,847,987	99.84%
286	1	286	59,270	1,821,859	1,848,457	99.84%
287	1	287	59,271	1,822,146	1,848,550	99.85%
289	2	578	59,273	1,822,724	1,848,734	99.85%
295	2	590	59,275	1,823,314	1,849,274	99.85%
296	1	296	59,276	1,823,610	1,849,362	99.85%
299	-	-	59,276	1,823,610	1,849,623	99.85%
300	1	300	59,277	1,823,910	1,849,710	99.86%

304	(1)	(304)	59,276	1,823,606	1,850,054	99.85%
305	1	305	59,277	1,823,911	1,850,141	99.86%
306	2	612	59,279	1,824,523	1,850,227	99.86%
307	1	307	59,280	1,824,830	1,850,311	99.86%
310	1	310	59,281	1,825,140	1,850,560	99.86%
313	1	313	59,282	1,825,453	1,850,806	99.86%
315	1	315	59,283	1,825,768	1,850,968	99.87%
316	1	316	59,284	1,826,084	1,851,048	99.87%
317	1	317	59,285	1,826,401	1,851,127	99.87%
319	2	638	59,287	1,827,039	1,851,283	99.87%
327	1	327	59,288	1,827,366	1,851,891	99.87%
328	3	984	59,291	1,828,350	1,851,966	99.88%
329	1	329	59,292	1,828,679	1,852,038	99.88%
330	1	330	59,293	1,829,009	1,852,109	99.88%
334	1	334	59,294	1,829,343	1,852,389	99.88%
340	1	340	59,295	1,829,683	1,852,803	99.89%
341	2	682	59,297	1,830,365	1,852,871	99.89%
346	1	346	59,298	1,830,711	1,853,201	99.89%
347	1	347	59,299	1,831,058	1,853,266	99.89%
354	2	708	59,301	1,831,766	1,853,714	99.90%
358	1	358	59,302	1,832,124	1,853,962	99.90%
360	1	360	59,303	1,832,484	1,854,084	99.90%
362	1	362	59,304	1,832,846	1,854,204	99.90%
373	1	373	59,305	1,833,219	1,854,853	99.90%
376	1	376	59,306	1,833,595	1,855,027	99.90%
378	-	-	59,306	1,833,595	1,855,141	99.90%
379	1	379	59,307	1,833,974	1,855,198	99.91%
380	1	380	59,308	1,834,354	1,855,254	99.91%
382	1	382	59,309	1,834,736	1,855,364	99.91%
399	1	399	59,310	1,835,135	1,856,282	99.91%
403	1	403	59,311	1,835,538	1,856,494	99.91%
405	2	810	59,313	1,836,348	1,856,598	99.92%
410	1	410	59,314	1,836,758	1,856,848	99.92%
411	1	411	59,315	1,837,169	1,856,897	99.92%
417	1	417	59,316	1,837,586	1,857,185	99.92%
423	(1)	(423)	59,315	1,837,163	1,857,467	99.92%
430	1	430	59,316	1,837,593	1,857,803	99.92%
431	1	431	59,317	1,838,024	1,857,850	99.92%
434	1	434	59,318	1,838,458	1,857,988	99.92%
435	1	435	59,319	1,838,893	1,858,033	99.93%
451	2	902	59,321	1,839,795	1,858,737	99.93%
459	1	459	59,322	1,840,254	1,859,073	99.93%
464	1	464	59,323	1,840,718	1,859,278	99.93%
465	(1)	(465)	59,322	1,840,253	1,859,318	99.93%
474	1	474	59,323	1,840,727	1,859,687	99.93%
479	(1)	(479)	59,322	1,840,248	1,859,887	99.93%
485	1	485	59,323	1,840,733	1,860,133	99.93%
491	1	491	59,324	1,841,224	1,860,373	99.93%
495	-	-	59,324	1,841,224	1,860,529	99.93%
502	1	502	59,325	1,841,726	1,860,802	99.94%
509	1	509	59,326	1,842,235	1,861,068	99.94%
514	1	514	59,327	1,842,749	1,861,253	99.94%
556	(1)	(556)	59,326	1,842,193	1,862,765	99.94%
572	1	572	59,327	1,842,765	1,863,357	99.94%
574	1	574	59,328	1,843,339	1,863,429	99.94%

577	1	577	59,329	1,843,916	1,863,534	99.94%
583	1	583	59,330	1,844,499	1,863,738	99.94%
584	1	584	59,331	1,845,083	1,863,771	99.95%
593	(1)	(593)	59,330	1,844,490	1,864,059	99.94%
597	1	597	59,331	1,845,087	1,864,191	99.95%
614	1	614	59,332	1,845,701	1,864,735	99.95%
630	1	630	59,333	1,846,331	1,865,231	99.95%
656	1	656	59,334	1,846,987	1,866,011	99.95%
671	1	671	59,335	1,847,658	1,866,446	99.95%
679	1	679	59,336	1,848,337	1,866,670	99.95%
680	1	680	59,337	1,849,017	1,866,697	99.96%
702	1	702	59,338	1,849,719	1,867,269	99.96%
703	1	703	59,339	1,850,422	1,867,294	99.96%
714	1	714	59,340	1,851,136	1,867,558	99.96%
726	1	726	59,341	1,851,862	1,867,834	99.96%
730	1	730	59,342	1,852,592	1,867,922	99.96%
732	1	732	59,343	1,853,324	1,867,964	99.97%
734	1	734	59,344	1,854,058	1,868,004	99.97%
774	-	-	59,344	1,854,058	1,868,764	99.97%
784	1	784	59,345	1,854,842	1,868,954	99.97%
794	1	794	59,346	1,855,636	1,869,134	99.97%
796	1	796	59,347	1,856,432	1,869,168	99.97%
816	1	816	59,348	1,857,248	1,869,488	99.97%
828	1	828	59,349	1,858,076	1,869,668	99.98%
853	1	853	59,350	1,858,929	1,870,018	99.98%
870	1	870	59,351	1,859,799	1,870,239	99.98%
1,077	-	-	59,351	1,859,799	1,872,723	99.98%
1,179	1	1,179	59,352	1,860,978	1,873,947	99.98%
1,229	1	1,229	59,353	1,862,207	1,874,497	99.98%
1,337	-	-	59,353	1,862,207	1,875,577	99.98%
1,376	1	1,376	59,354	1,863,583	1,875,967	99.98%
1,418	1	1,418	59,355	1,865,001	1,876,345	99.99%
1,629	1	1,629	59,356	1,866,630	1,878,033	99.99%
2,057	1	2,057	59,357	1,868,687	1,881,029	99.99%
2,154	1	2,154	59,358	1,870,841	1,881,611	99.99%
2,201	1	2,201	59,359	1,873,042	1,881,846	99.99%
2,455	1	2,455	59,360	1,875,497	1,882,862	99.99%
2,656	1	2,656	59,361	1,878,153	1,883,465	100.00%
2,994	-	-	59,361	1,878,153	1,884,141	100.00%
3,417	1	3,417	59,362	1,881,570	1,884,987	100.00%
3,797	1	3,797	59,363	1,885,367	1,885,367	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF APRIL 2022
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	2,084	-	2,084	-	-	3.57%
1	506	506	2,590	506	56,281	4.44%
2	308	616	2,898	1,122	112,056	4.97%
3	375	1,125	3,273	2,247	167,523	5.61%
4	387	1,548	3,660	3,795	222,615	6.27%
5	474	2,370	4,134	6,165	277,320	7.08%
6	605	3,630	4,739	9,795	331,551	8.12%
7	683	4,781	5,422	14,576	385,177	9.29%
8	783	6,264	6,205	20,840	438,120	10.63%
9	863	7,767	7,068	28,607	490,280	12.11%
10	988	9,880	8,056	38,487	541,577	13.80%
11	1,036	11,396	9,092	49,883	591,886	15.58%
12	1,072	12,864	10,164	62,747	641,159	17.41%
13	1,113	14,469	11,277	77,216	689,360	19.32%
14	1,119	15,666	12,396	92,882	736,448	21.24%
15	1,175	17,625	13,571	110,507	782,417	23.25%
16	1,271	20,336	14,842	130,843	827,211	25.43%
17	1,252	21,284	16,094	152,127	870,734	27.57%
18	1,264	22,752	17,358	174,879	913,005	29.74%
19	1,295	24,605	18,653	199,484	954,012	31.96%
20	1,309	26,180	19,962	225,664	993,724	34.20%
21	1,343	28,203	21,305	253,867	1,032,127	36.50%
22	1,404	30,888	22,709	284,755	1,069,187	38.91%
23	1,334	30,682	24,043	315,437	1,104,843	41.19%
24	1,365	32,760	25,408	348,197	1,139,165	43.53%
25	1,303	32,575	26,711	380,772	1,172,122	45.77%
26	1,372	35,672	28,083	416,444	1,203,776	48.12%
27	1,342	36,234	29,425	452,678	1,234,058	50.42%
28	1,223	34,244	30,648	486,922	1,262,998	52.51%
29	1,251	36,279	31,899	523,201	1,290,715	54.65%
30	1,200	36,000	33,099	559,201	1,317,181	56.71%
31	1,193	36,983	34,292	596,184	1,342,447	58.75%
32	1,103	35,296	35,395	631,480	1,366,520	60.64%
33	1,081	35,673	36,476	667,153	1,389,490	62.50%
34	1,066	36,244	37,542	703,397	1,411,379	64.32%
35	1,093	38,255	38,635	741,652	1,432,202	66.20%
36	970	34,920	39,605	776,572	1,451,932	67.86%
37	926	34,262	40,531	810,834	1,470,692	69.44%
38	894	33,972	41,425	844,806	1,488,526	70.98%
39	910	35,490	42,335	880,296	1,505,466	72.53%
40	855	34,200	43,190	914,496	1,521,496	74.00%
41	772	31,652	43,962	946,148	1,536,671	75.32%
42	714	29,988	44,676	976,136	1,551,074	76.55%
43	765	32,895	45,441	1,009,031	1,564,763	77.86%
44	661	29,084	46,102	1,038,115	1,577,687	78.99%

45	693	31,185	46,795	1,069,300	1,589,950	80.18%
46	596	27,416	47,391	1,096,716	1,601,520	81.20%
47	552	25,944	47,943	1,122,660	1,612,494	82.14%
48	527	25,296	48,470	1,147,956	1,622,916	83.05%
49	528	25,872	48,998	1,173,828	1,632,811	83.95%
50	482	24,100	49,480	1,197,928	1,642,178	84.78%
51	457	23,307	49,937	1,221,235	1,651,063	85.56%
52	440	22,880	50,377	1,244,115	1,659,491	86.31%
53	475	25,175	50,852	1,269,290	1,667,479	87.13%
54	388	20,952	51,240	1,290,242	1,674,992	87.79%
55	392	21,560	51,632	1,311,802	1,682,117	88.46%
56	339	18,984	51,971	1,330,786	1,688,850	89.04%
57	320	18,240	52,291	1,349,026	1,695,244	89.59%
58	327	18,966	52,618	1,367,992	1,701,318	90.15%
59	289	17,051	52,907	1,385,043	1,707,065	90.65%
60	307	18,420	53,214	1,403,463	1,712,523	91.17%
61	268	16,348	53,482	1,419,811	1,717,674	91.63%
62	264	16,368	53,746	1,436,179	1,722,557	92.09%
63	253	15,939	53,999	1,452,118	1,727,176	92.52%
64	201	12,864	54,200	1,464,982	1,731,542	92.86%
65	210	13,650	54,410	1,478,632	1,735,707	93.22%
66	200	13,200	54,610	1,491,832	1,739,662	93.57%
67	180	12,060	54,790	1,503,892	1,743,417	93.87%
68	172	11,696	54,962	1,515,588	1,746,992	94.17%
69	163	11,247	55,125	1,526,835	1,750,395	94.45%
70	165	11,550	55,290	1,538,385	1,753,635	94.73%
71	159	11,289	55,449	1,549,674	1,756,710	95.00%
72	149	10,728	55,598	1,560,402	1,759,626	95.26%
73	149	10,877	55,747	1,571,279	1,762,393	95.51%
74	129	9,546	55,876	1,580,825	1,765,011	95.74%
75	106	7,950	55,982	1,588,775	1,767,500	95.92%
76	85	6,460	56,067	1,595,235	1,769,883	96.06%
77	106	8,162	56,173	1,603,397	1,772,181	96.24%
78	105	8,190	56,278	1,611,587	1,774,373	96.42%
79	78	6,162	56,356	1,617,749	1,776,460	96.56%
80	89	7,120	56,445	1,624,869	1,778,469	96.71%
81	76	6,156	56,521	1,631,025	1,780,389	96.84%
82	63	5,166	56,584	1,636,191	1,782,233	96.95%
83	75	6,225	56,659	1,642,416	1,784,014	97.08%
84	61	5,124	56,720	1,647,540	1,785,720	97.18%
85	62	5,270	56,782	1,652,810	1,787,365	97.29%
86	76	6,536	56,858	1,659,346	1,788,948	97.42%
87	62	5,394	56,920	1,664,740	1,790,455	97.52%
88	38	3,344	56,958	1,668,084	1,791,900	97.59%
89	45	4,005	57,003	1,672,089	1,793,307	97.67%
90	47	4,230	57,050	1,676,319	1,794,669	97.75%
91	40	3,640	57,090	1,679,959	1,795,984	97.82%
92	55	5,060	57,145	1,685,019	1,797,259	97.91%
93	53	4,929	57,198	1,689,948	1,798,479	98.00%
94	46	4,324	57,244	1,694,272	1,799,646	98.08%
95	30	2,850	57,274	1,697,122	1,800,767	98.13%
96	33	3,168	57,307	1,700,290	1,801,858	98.19%
97	29	2,813	57,336	1,703,103	1,802,916	98.24%
98	31	3,038	57,367	1,706,141	1,803,945	98.29%
99	36	3,564	57,403	1,709,705	1,804,943	98.35%

100	37	3,700	57,440	1,713,405	1,805,905	98.42%
101	25	2,525	57,465	1,715,930	1,806,830	98.46%
102	25	2,550	57,490	1,718,480	1,807,730	98.50%
103	22	2,266	57,512	1,720,746	1,808,605	98.54%
104	33	3,432	57,545	1,724,178	1,809,458	98.60%
105	32	3,360	57,577	1,727,538	1,810,278	98.65%
106	23	2,438	57,600	1,729,976	1,811,066	98.69%
107	29	3,103	57,629	1,733,079	1,811,831	98.74%
108	17	1,836	57,646	1,734,915	1,812,567	98.77%
109	21	2,289	57,667	1,737,204	1,813,286	98.80%
110	24	2,640	57,691	1,739,844	1,813,984	98.85%
111	15	1,665	57,706	1,741,509	1,814,658	98.87%
112	18	2,016	57,724	1,743,525	1,815,317	98.90%
113	21	2,373	57,745	1,745,898	1,815,958	98.94%
114	13	1,482	57,758	1,747,380	1,816,578	98.96%
115	17	1,955	57,775	1,749,335	1,817,185	98.99%
116	16	1,856	57,791	1,751,191	1,817,775	99.02%
117	13	1,521	57,804	1,752,712	1,818,349	99.04%
118	14	1,652	57,818	1,754,364	1,818,910	99.06%
119	17	2,023	57,835	1,756,387	1,819,457	99.09%
120	11	1,320	57,846	1,757,707	1,819,987	99.11%
121	13	1,573	57,859	1,759,280	1,820,506	99.13%
122	9	1,098	57,868	1,760,378	1,821,012	99.15%
123	10	1,230	57,878	1,761,608	1,821,509	99.17%
124	10	1,240	57,888	1,762,848	1,821,996	99.18%
125	11	1,375	57,899	1,764,223	1,822,473	99.20%
126	15	1,890	57,914	1,766,113	1,822,939	99.23%
127	14	1,778	57,928	1,767,891	1,823,390	99.25%
128	8	1,024	57,936	1,768,915	1,823,827	99.26%
129	10	1,290	57,946	1,770,205	1,824,256	99.28%
130	4	520	57,950	1,770,725	1,824,675	99.29%
131	3	393	57,953	1,771,118	1,825,090	99.29%
132	18	2,376	57,971	1,773,494	1,825,502	99.32%
133	7	931	57,978	1,774,425	1,825,896	99.34%
134	13	1,742	57,991	1,776,167	1,826,283	99.36%
135	6	810	57,997	1,776,977	1,826,657	99.37%
136	10	1,360	58,007	1,778,337	1,827,025	99.39%
137	5	685	58,012	1,779,022	1,827,383	99.40%
138	9	1,242	58,021	1,780,264	1,827,736	99.41%
139	8	1,112	58,029	1,781,376	1,828,080	99.42%
140	10	1,400	58,039	1,782,776	1,828,416	99.44%
141	12	1,692	58,051	1,784,468	1,828,742	99.46%
142	10	1,420	58,061	1,785,888	1,829,056	99.48%
143	9	1,287	58,070	1,787,175	1,829,360	99.49%
144	4	576	58,074	1,787,751	1,829,655	99.50%
145	7	1,015	58,081	1,788,766	1,829,946	99.51%
146	2	292	58,083	1,789,058	1,830,230	99.52%
147	4	588	58,087	1,789,646	1,830,512	99.52%
148	3	444	58,090	1,790,090	1,830,790	99.53%
149	7	1,043	58,097	1,791,133	1,831,065	99.54%
150	2	300	58,099	1,791,433	1,831,333	99.54%
151	5	755	58,104	1,792,188	1,831,599	99.55%
152	4	608	58,108	1,792,796	1,831,860	99.56%
153	3	459	58,111	1,793,255	1,832,117	99.56%
154	6	924	58,117	1,794,179	1,832,371	99.58%

155	3	465	58,120	1,794,644	1,832,619	99.58%
156	5	780	58,125	1,795,424	1,832,864	99.59%
157	5	785	58,130	1,796,209	1,833,104	99.60%
158	7	1,106	58,137	1,797,315	1,833,339	99.61%
159	7	1,113	58,144	1,798,428	1,833,567	99.62%
160	3	480	58,147	1,798,908	1,833,788	99.63%
161	3	483	58,150	1,799,391	1,834,006	99.63%
162	2	324	58,152	1,799,715	1,834,221	99.64%
163	3	489	58,155	1,800,204	1,834,434	99.64%
164	2	328	58,157	1,800,532	1,834,644	99.64%
165	5	825	58,162	1,801,357	1,834,852	99.65%
166	4	664	58,166	1,802,021	1,835,055	99.66%
167	3	501	58,169	1,802,522	1,835,254	99.66%
168	2	336	58,171	1,802,858	1,835,450	99.67%
169	2	338	58,173	1,803,196	1,835,644	99.67%
170	3	510	58,176	1,803,706	1,835,836	99.68%
172	3	516	58,179	1,804,222	1,836,214	99.68%
173	1	173	58,180	1,804,395	1,836,400	99.68%
174	5	870	58,185	1,805,265	1,836,585	99.69%
175	1	175	58,186	1,805,440	1,836,765	99.69%
176	3	528	58,189	1,805,968	1,836,944	99.70%
177	1	177	58,190	1,806,145	1,837,120	99.70%
179	5	895	58,195	1,807,040	1,837,470	99.71%
180	4	720	58,199	1,807,760	1,837,640	99.72%
181	8	1,448	58,207	1,809,208	1,837,806	99.73%
182	2	364	58,209	1,809,572	1,837,964	99.73%
183	3	549	58,212	1,810,121	1,838,120	99.74%
184	2	368	58,214	1,810,489	1,838,273	99.74%
185	3	555	58,217	1,811,044	1,838,424	99.75%
186	2	372	58,219	1,811,416	1,838,572	99.75%
188	4	752	58,223	1,812,168	1,838,864	99.76%
189	2	378	58,225	1,812,546	1,839,006	99.76%
190	1	190	58,226	1,812,736	1,839,146	99.76%
191	1	191	58,227	1,812,927	1,839,285	99.76%
192	3	576	58,230	1,813,503	1,839,423	99.77%
193	1	193	58,231	1,813,696	1,839,558	99.77%
194	3	582	58,234	1,814,278	1,839,692	99.78%
195	5	975	58,239	1,815,253	1,839,823	99.78%
197	3	591	58,242	1,815,844	1,840,075	99.79%
198	2	396	58,244	1,816,240	1,840,198	99.79%
199	1	199	58,245	1,816,439	1,840,319	99.79%
200	1	200	58,246	1,816,639	1,840,439	99.80%
202	1	202	58,247	1,816,841	1,840,677	99.80%
203	1	203	58,248	1,817,044	1,840,795	99.80%
205	3	615	58,251	1,817,659	1,841,029	99.80%
206	3	618	58,254	1,818,277	1,841,143	99.81%
207	2	414	58,256	1,818,691	1,841,254	99.81%
208	1	208	58,257	1,818,899	1,841,363	99.81%
209	-	-	58,257	1,818,899	1,841,471	99.81%
211	1	211	58,258	1,819,110	1,841,687	99.82%
213	3	639	58,261	1,819,749	1,841,901	99.82%
214	1	214	58,262	1,819,963	1,842,005	99.82%
216	1	216	58,263	1,820,179	1,842,211	99.83%
217	2	434	58,265	1,820,613	1,842,313	99.83%
219	1	219	58,266	1,820,832	1,842,513	99.83%

220	1	220	58,267	1,821,052	1,842,612	99.83%
221	1	221	58,268	1,821,273	1,842,710	99.83%
222	1	222	58,269	1,821,495	1,842,807	99.84%
223	1	223	58,270	1,821,718	1,842,903	99.84%
224	2	448	58,272	1,822,166	1,842,998	99.84%
225	2	450	58,274	1,822,616	1,843,091	99.84%
226	1	226	58,275	1,822,842	1,843,182	99.85%
229	1	229	58,276	1,823,071	1,843,452	99.85%
232	(1)	(232)	58,275	1,822,839	1,843,719	99.85%
233	1	233	58,276	1,823,072	1,843,809	99.85%
235	1	235	58,277	1,823,307	1,843,987	99.85%
238	2	476	58,279	1,823,783	1,844,251	99.85%
239	2	478	58,281	1,824,261	1,844,337	99.86%
240	3	720	58,284	1,824,981	1,844,421	99.86%
241	1	241	58,285	1,825,222	1,844,502	99.86%
244	1	244	58,286	1,825,466	1,844,742	99.86%
249	1	249	58,287	1,825,715	1,845,137	99.87%
250	7	1,750	58,294	1,827,465	1,845,215	99.88%
257	1	257	58,295	1,827,722	1,845,712	99.88%
260	1	260	58,296	1,827,982	1,845,922	99.88%
261	1	261	58,297	1,828,243	1,845,991	99.88%
262	1	262	58,298	1,828,505	1,846,059	99.89%
263	1	263	58,299	1,828,768	1,846,126	99.89%
264	1	264	58,300	1,829,032	1,846,192	99.89%
265	1	265	58,301	1,829,297	1,846,257	99.89%
266	1	266	58,302	1,829,563	1,846,321	99.89%
267	-	-	58,302	1,829,563	1,846,384	99.89%
271	2	542	58,304	1,830,105	1,846,636	99.90%
272	1	272	58,305	1,830,377	1,846,697	99.90%
284	1	284	58,306	1,830,661	1,847,417	99.90%
286	1	286	58,307	1,830,947	1,847,535	99.90%
287	1	287	58,308	1,831,234	1,847,593	99.90%
289	1	289	58,309	1,831,523	1,847,707	99.90%
290	2	580	58,311	1,832,103	1,847,763	99.91%
291	1	291	58,312	1,832,394	1,847,817	99.91%
292	2	584	58,314	1,832,978	1,847,870	99.91%
293	1	293	58,315	1,833,271	1,847,921	99.91%
295	1	295	58,316	1,833,566	1,848,021	99.92%
296	1	296	58,317	1,833,862	1,848,070	99.92%
297	1	297	58,318	1,834,159	1,848,118	99.92%
298	1	298	58,319	1,834,457	1,848,165	99.92%
300	1	300	58,320	1,834,757	1,848,257	99.92%
304	2	608	58,322	1,835,365	1,848,437	99.93%
307	2	614	58,324	1,835,979	1,848,566	99.93%
316	1	316	58,325	1,836,295	1,848,935	99.93%
319	1	319	58,326	1,836,614	1,849,055	99.93%
320	1	320	58,327	1,836,934	1,849,094	99.93%
321	1	321	58,328	1,837,255	1,849,132	99.94%
325	1	325	58,329	1,837,580	1,849,280	99.94%
329	1	329	58,330	1,837,909	1,849,424	99.94%
331	1	331	58,331	1,838,240	1,849,494	99.94%
333	1	333	58,332	1,838,573	1,849,562	99.94%
339	1	339	58,333	1,838,912	1,849,760	99.95%
341	(1)	(341)	58,332	1,838,571	1,849,824	99.94%
344	(1)	(344)	58,331	1,838,227	1,849,923	99.94%

350	1	350	58,332	1,838,577	1,850,127	99.94%
354	(1)	(354)	58,331	1,838,223	1,850,259	99.94%
355	1	355	58,332	1,838,578	1,850,293	99.94%
361	2	722	58,334	1,839,300	1,850,491	99.95%
362	1	362	58,335	1,839,662	1,850,522	99.95%
367	1	367	58,336	1,840,029	1,850,672	99.95%
374	1	374	58,337	1,840,403	1,850,875	99.95%
403	1	403	58,338	1,840,806	1,851,687	99.95%
407	-	-	58,338	1,840,806	1,851,795	99.95%
411	1	411	58,339	1,841,217	1,851,903	99.96%
418	1	418	58,340	1,841,635	1,852,085	99.96%
421	1	421	58,341	1,842,056	1,852,160	99.96%
424	1	424	58,342	1,842,480	1,852,232	99.96%
430	(1)	(430)	58,341	1,842,050	1,852,370	99.96%
477	1	477	58,342	1,842,527	1,853,498	99.96%
478	1	478	58,343	1,843,005	1,853,521	99.96%
481	1	481	58,344	1,843,486	1,853,587	99.96%
571	1	571	58,345	1,844,057	1,855,477	99.97%
575	1	575	58,346	1,844,632	1,855,557	99.97%
585	1	585	58,347	1,845,217	1,855,747	99.97%
611	1	611	58,348	1,845,828	1,856,215	99.97%
624	1	624	58,349	1,846,452	1,856,436	99.97%
635	1	635	58,350	1,847,087	1,856,612	99.97%
674	1	674	58,351	1,847,761	1,857,197	99.98%
703	1	703	58,352	1,848,464	1,857,603	99.98%
751	1	751	58,353	1,849,215	1,858,227	99.98%
789	1	789	58,354	1,850,004	1,858,683	99.98%
814	1	814	58,355	1,850,818	1,858,958	99.98%
816	1	816	58,356	1,851,634	1,858,978	99.98%
861	1	861	58,357	1,852,495	1,859,383	99.99%
956	1	956	58,358	1,853,451	1,860,143	99.99%
1,024	1	1,024	58,359	1,854,475	1,860,619	99.99%
1,051	1	1,051	58,360	1,855,526	1,860,781	99.99%
1,201	1	1,201	58,361	1,856,727	1,861,531	99.99%
1,229	1	1,229	58,362	1,857,956	1,861,643	99.99%
1,230	1	1,230	58,363	1,859,186	1,861,646	100.00%
1,289	-	-	58,363	1,859,186	1,861,764	100.00%
1,418	(1)	(1,418)	58,362	1,857,768	1,862,022	99.99%
1,530	1	1,530	58,363	1,859,298	1,862,358	100.00%
2,008	1	2,008	58,364	1,861,306	1,863,314	100.00%
3,604	1	3,604	58,365	1,864,910	1,864,910	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF MAY 2022
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	1,949	-	1,949	-	-	3.34%
1	478	478	2,427	478	56,355	4.16%
2	348	696	2,775	1,174	112,232	4.76%
3	333	999	3,108	2,173	167,761	5.33%
4	352	1,408	3,460	3,581	222,957	5.93%
5	433	2,165	3,893	5,746	277,801	6.68%
6	518	3,108	4,411	8,854	332,212	7.57%
7	625	4,375	5,036	13,229	386,105	8.64%
8	746	5,968	5,782	19,197	439,373	9.92%
9	853	7,677	6,635	26,874	491,895	11.38%
10	918	9,180	7,553	36,054	543,564	12.95%
11	992	10,912	8,545	46,966	594,315	14.66%
12	1,007	12,084	9,552	59,050	644,074	16.38%
13	1,046	13,598	10,598	72,648	692,826	18.18%
14	1,130	15,820	11,728	88,468	740,532	20.12%
15	1,095	16,425	12,823	104,893	787,108	21.99%
16	1,177	18,832	14,000	123,725	832,589	24.01%
17	1,200	20,400	15,200	144,125	876,893	26.07%
18	1,201	21,618	16,401	165,743	919,997	28.13%
19	1,239	23,541	17,640	189,284	961,900	30.26%
20	1,283	25,660	18,923	214,944	1,002,564	32.46%
21	1,289	27,069	20,212	242,013	1,041,945	34.67%
22	1,275	28,050	21,487	270,063	1,080,037	36.85%
23	1,224	28,152	22,711	298,215	1,116,854	38.95%
24	1,325	31,800	24,036	330,015	1,152,447	41.23%
25	1,290	32,250	25,326	362,265	1,186,715	43.44%
26	1,350	35,100	26,676	397,365	1,219,693	45.75%
27	1,269	34,263	27,945	431,628	1,251,321	47.93%
28	1,223	34,244	29,168	465,872	1,281,680	50.03%
29	1,276	37,004	30,444	502,876	1,310,816	52.22%
30	1,214	36,420	31,658	539,296	1,338,676	54.30%
31	1,140	35,340	32,798	574,636	1,365,322	56.25%
32	1,155	36,960	33,953	611,596	1,390,828	58.23%
33	1,093	36,069	35,046	647,665	1,415,179	60.11%
34	1,090	37,060	36,136	684,725	1,438,437	61.98%
35	1,034	36,190	37,170	720,915	1,460,605	63.75%
36	1,033	37,188	38,203	758,103	1,481,739	65.52%
37	967	35,779	39,170	793,882	1,501,840	67.18%
38	905	34,390	40,075	828,272	1,520,974	68.73%
39	902	35,178	40,977	863,450	1,539,203	70.28%
40	866	34,640	41,843	898,090	1,556,530	71.77%
41	832	34,112	42,675	932,202	1,572,991	73.19%
42	765	32,130	43,440	964,332	1,588,620	74.51%
43	736	31,648	44,176	995,980	1,603,484	75.77%
44	725	31,900	44,901	1,027,880	1,617,612	77.01%

45	676	30,420	45,577	1,058,300	1,631,015	78.17%
46	641	29,486	46,218	1,087,786	1,643,742	79.27%
47	625	29,375	46,843	1,117,161	1,655,828	80.34%
48	580	27,840	47,423	1,145,001	1,667,289	81.34%
49	532	26,068	47,955	1,171,069	1,678,170	82.25%
50	516	25,800	48,471	1,196,869	1,688,519	83.13%
51	501	25,551	48,972	1,222,420	1,698,352	83.99%
52	475	24,700	49,447	1,247,120	1,707,684	84.81%
53	432	22,896	49,879	1,270,016	1,716,541	85.55%
54	395	21,330	50,274	1,291,346	1,724,966	86.23%
55	403	22,165	50,677	1,313,511	1,732,996	86.92%
56	347	19,432	51,024	1,332,943	1,740,623	87.51%
57	386	22,002	51,410	1,354,945	1,747,903	88.18%
58	363	21,054	51,773	1,375,999	1,754,797	88.80%
59	318	18,762	52,091	1,394,761	1,761,328	89.34%
60	283	16,980	52,374	1,411,741	1,767,541	89.83%
61	296	18,056	52,670	1,429,797	1,773,471	90.34%
62	289	17,918	52,959	1,447,715	1,779,105	90.83%
63	256	16,128	53,215	1,463,843	1,784,450	91.27%
64	255	16,320	53,470	1,480,163	1,789,539	91.71%
65	208	13,520	53,678	1,493,683	1,794,373	92.07%
66	216	14,256	53,894	1,507,939	1,798,999	92.44%
67	214	14,338	54,108	1,522,277	1,803,409	92.80%
68	200	13,600	54,308	1,535,877	1,807,605	93.15%
69	158	10,902	54,466	1,546,779	1,811,601	93.42%
70	190	13,300	54,656	1,560,079	1,815,439	93.74%
71	172	12,212	54,828	1,572,291	1,819,087	94.04%
72	143	10,296	54,971	1,582,587	1,822,563	94.28%
73	158	11,534	55,129	1,594,121	1,825,896	94.55%
74	126	9,324	55,255	1,603,445	1,829,071	94.77%
75	130	9,750	55,385	1,613,195	1,832,120	94.99%
76	139	10,564	55,524	1,623,759	1,835,039	95.23%
77	137	10,549	55,661	1,634,308	1,837,819	95.47%
78	109	8,502	55,770	1,642,810	1,840,462	95.65%
79	112	8,848	55,882	1,651,658	1,842,996	95.85%
80	90	7,200	55,972	1,658,858	1,845,418	96.00%
81	116	9,396	56,088	1,668,254	1,847,750	96.20%
82	89	7,298	56,177	1,675,552	1,849,966	96.35%
83	78	6,474	56,255	1,682,026	1,852,093	96.49%
84	82	6,888	56,337	1,688,914	1,854,142	96.63%
85	81	6,885	56,418	1,695,799	1,856,109	96.77%
86	86	7,396	56,504	1,703,195	1,857,995	96.91%
87	68	5,916	56,572	1,709,111	1,859,795	97.03%
88	70	6,160	56,642	1,715,271	1,861,527	97.15%
89	56	4,984	56,698	1,720,255	1,863,189	97.25%
90	68	6,120	56,766	1,726,375	1,864,795	97.36%
91	60	5,460	56,826	1,731,835	1,866,333	97.47%
92	54	4,968	56,880	1,736,803	1,867,811	97.56%
93	50	4,650	56,930	1,741,453	1,869,235	97.64%
94	58	5,452	56,988	1,746,905	1,870,609	97.74%
95	46	4,370	57,034	1,751,275	1,871,925	97.82%
96	43	4,128	57,077	1,755,403	1,873,195	97.90%
97	34	3,298	57,111	1,758,701	1,874,422	97.95%
98	34	3,332	57,145	1,762,033	1,875,615	98.01%
99	38	3,762	57,183	1,765,795	1,876,774	98.08%

100	34	3,400	57,217	1,769,195	1,877,895	98.14%
101	41	4,141	57,258	1,773,336	1,878,982	98.21%
102	32	3,264	57,290	1,776,600	1,880,028	98.26%
103	37	3,811	57,327	1,780,411	1,881,042	98.32%
104	25	2,600	57,352	1,783,011	1,882,019	98.37%
105	27	2,835	57,379	1,785,846	1,882,971	98.41%
106	34	3,604	57,413	1,789,450	1,883,896	98.47%
107	23	2,461	57,436	1,791,911	1,884,787	98.51%
108	28	3,024	57,464	1,794,935	1,885,655	98.56%
109	16	1,744	57,480	1,796,679	1,886,495	98.59%
110	26	2,860	57,506	1,799,539	1,887,319	98.63%
111	21	2,331	57,527	1,801,870	1,888,117	98.67%
112	27	3,024	57,554	1,804,894	1,888,894	98.71%
113	22	2,486	57,576	1,807,380	1,889,644	98.75%
114	17	1,938	57,593	1,809,318	1,890,372	98.78%
115	19	2,185	57,612	1,811,503	1,891,083	98.81%
116	25	2,900	57,637	1,814,403	1,891,775	98.86%
117	12	1,404	57,649	1,815,807	1,892,442	98.88%
118	18	2,124	57,667	1,817,931	1,893,097	98.91%
119	12	1,428	57,679	1,819,359	1,893,734	98.93%
120	18	2,160	57,697	1,821,519	1,894,359	98.96%
121	14	1,694	57,711	1,823,213	1,894,966	98.98%
122	11	1,342	57,722	1,824,555	1,895,559	99.00%
123	13	1,599	57,735	1,826,154	1,896,141	99.02%
124	16	1,984	57,751	1,828,138	1,896,710	99.05%
125	16	2,000	57,767	1,830,138	1,897,263	99.08%
126	8	1,008	57,775	1,831,146	1,897,800	99.09%
127	6	762	57,781	1,831,908	1,898,329	99.10%
128	12	1,536	57,793	1,833,444	1,898,852	99.12%
129	15	1,935	57,808	1,835,379	1,899,363	99.15%
130	16	2,080	57,824	1,837,459	1,899,859	99.18%
131	18	2,358	57,842	1,839,817	1,900,339	99.21%
132	12	1,584	57,854	1,841,401	1,900,801	99.23%
133	15	1,995	57,869	1,843,396	1,901,251	99.25%
134	8	1,072	57,877	1,844,468	1,901,686	99.27%
135	9	1,215	57,886	1,845,683	1,902,113	99.28%
136	6	816	57,892	1,846,499	1,902,531	99.29%
137	5	685	57,897	1,847,184	1,902,943	99.30%
138	10	1,380	57,907	1,848,564	1,903,350	99.32%
139	9	1,251	57,916	1,849,815	1,903,747	99.33%
140	6	840	57,922	1,850,655	1,904,135	99.34%
141	11	1,551	57,933	1,852,206	1,904,517	99.36%
142	5	710	57,938	1,852,916	1,904,888	99.37%
143	12	1,716	57,950	1,854,632	1,905,254	99.39%
144	4	576	57,954	1,855,208	1,905,608	99.40%
145	3	435	57,957	1,855,643	1,905,958	99.40%
146	9	1,314	57,966	1,856,957	1,906,305	99.42%
147	6	882	57,972	1,857,839	1,906,643	99.43%
148	8	1,184	57,980	1,859,023	1,906,975	99.44%
149	6	894	57,986	1,859,917	1,907,299	99.45%
150	4	600	57,990	1,860,517	1,907,617	99.46%
151	6	906	57,996	1,861,423	1,907,931	99.47%
152	8	1,216	58,004	1,862,639	1,908,239	99.49%
153	4	612	58,008	1,863,251	1,908,539	99.49%
154	5	770	58,013	1,864,021	1,908,835	99.50%

155	3	465	58,016	1,864,486	1,909,126	99.51%
156	1	156	58,017	1,864,642	1,909,414	99.51%
157	4	628	58,021	1,865,270	1,909,701	99.51%
158	5	790	58,026	1,866,060	1,909,984	99.52%
159	6	954	58,032	1,867,014	1,910,262	99.53%
160	7	1,120	58,039	1,868,134	1,910,534	99.55%
161	3	483	58,042	1,868,617	1,910,799	99.55%
162	6	972	58,048	1,869,589	1,911,061	99.56%
163	1	163	58,049	1,869,752	1,911,317	99.56%
164	3	492	58,052	1,870,244	1,911,572	99.57%
165	7	1,155	58,059	1,871,399	1,911,824	99.58%
166	3	498	58,062	1,871,897	1,912,069	99.58%
167	3	501	58,065	1,872,398	1,912,311	99.59%
168	9	1,512	58,074	1,873,910	1,912,550	99.61%
169	2	338	58,076	1,874,248	1,912,780	99.61%
171	3	513	58,079	1,874,761	1,913,236	99.61%
172	3	516	58,082	1,875,277	1,913,461	99.62%
173	5	865	58,087	1,876,142	1,913,683	99.63%
174	7	1,218	58,094	1,877,360	1,913,900	99.64%
175	1	175	58,095	1,877,535	1,914,110	99.64%
176	(1)	(176)	58,094	1,877,359	1,914,319	99.64%
177	6	1,062	58,100	1,878,421	1,914,529	99.65%
178	5	890	58,105	1,879,311	1,914,733	99.66%
179	3	537	58,108	1,879,848	1,914,932	99.66%
180	3	540	58,111	1,880,388	1,915,128	99.67%
181	4	724	58,115	1,881,112	1,915,321	99.68%
182	1	182	58,116	1,881,294	1,915,510	99.68%
183	4	732	58,120	1,882,026	1,915,698	99.68%
184	1	184	58,121	1,882,210	1,915,882	99.69%
185	1	185	58,122	1,882,395	1,916,065	99.69%
186	2	372	58,124	1,882,767	1,916,247	99.69%
187	3	561	58,127	1,883,328	1,916,427	99.70%
188	1	188	58,128	1,883,516	1,916,604	99.70%
189	4	756	58,132	1,884,272	1,916,780	99.70%
190	2	380	58,134	1,884,652	1,916,952	99.71%
191	3	573	58,137	1,885,225	1,917,122	99.71%
192	4	768	58,141	1,885,993	1,917,289	99.72%
193	3	579	58,144	1,886,572	1,917,452	99.73%
195	1	195	58,145	1,886,767	1,917,772	99.73%
196	2	392	58,147	1,887,159	1,917,931	99.73%
197	4	788	58,151	1,887,947	1,918,088	99.74%
198	4	792	58,155	1,888,739	1,918,241	99.74%
200	3	600	58,158	1,889,339	1,918,539	99.75%
201	2	402	58,160	1,889,741	1,918,685	99.75%
202	1	202	58,161	1,889,943	1,918,829	99.75%
203	1	203	58,162	1,890,146	1,918,972	99.76%
204	4	816	58,166	1,890,962	1,919,114	99.76%
205	3	615	58,169	1,891,577	1,919,252	99.77%
206	5	1,030	58,174	1,892,607	1,919,387	99.78%
207	3	621	58,177	1,893,228	1,919,517	99.78%
208	1	208	58,178	1,893,436	1,919,644	99.78%
209	4	836	58,182	1,894,272	1,919,770	99.79%
210	1	210	58,183	1,894,482	1,919,892	99.79%
211	1	211	58,184	1,894,693	1,920,013	99.79%
212	1	212	58,185	1,894,905	1,920,133	99.80%

213	2	426	58,187	1,895,331	1,920,252	99.80%
214	1	214	58,188	1,895,545	1,920,369	99.80%
215	2	430	58,190	1,895,975	1,920,485	99.80%
217	1	217	58,191	1,896,192	1,920,713	99.81%
218	1	218	58,192	1,896,410	1,920,826	99.81%
219	1	219	58,193	1,896,629	1,920,938	99.81%
220	1	220	58,194	1,896,849	1,921,049	99.81%
221	3	663	58,197	1,897,512	1,921,159	99.82%
224	1	224	58,198	1,897,736	1,921,480	99.82%
225	2	450	58,200	1,898,186	1,921,586	99.82%
226	3	678	58,203	1,898,864	1,921,690	99.83%
227	1	227	58,204	1,899,091	1,921,791	99.83%
228	1	228	58,205	1,899,319	1,921,891	99.83%
232	1	232	58,206	1,899,551	1,922,287	99.83%
233	1	233	58,207	1,899,784	1,922,385	99.83%
235	1	235	58,208	1,900,019	1,922,579	99.84%
238	1	238	58,209	1,900,257	1,922,867	99.84%
239	1	239	58,210	1,900,496	1,922,962	99.84%
240	2	480	58,212	1,900,976	1,923,056	99.84%
242	1	242	58,213	1,901,218	1,923,240	99.84%
244	1	244	58,214	1,901,462	1,923,422	99.85%
245	2	490	58,216	1,901,952	1,923,512	99.85%
247	1	247	58,217	1,902,199	1,923,688	99.85%
249	2	498	58,219	1,902,697	1,923,862	99.85%
250	11	2,750	58,230	1,905,447	1,923,947	99.87%
251	-	-	58,230	1,905,447	1,924,021	99.87%
252	1	252	58,231	1,905,699	1,924,095	99.87%
254	1	254	58,232	1,905,953	1,924,241	99.88%
258	1	258	58,233	1,906,211	1,924,529	99.88%
259	1	259	58,234	1,906,470	1,924,600	99.88%
260	1	260	58,235	1,906,730	1,924,670	99.88%
261	1	261	58,236	1,906,991	1,924,739	99.88%
262	1	262	58,237	1,907,253	1,924,807	99.89%
264	-	-	58,237	1,907,253	1,924,941	99.89%
265	1	265	58,238	1,907,518	1,925,008	99.89%
268	1	268	58,239	1,907,786	1,925,206	99.89%
273	1	273	58,240	1,908,059	1,925,531	99.89%
274	1	274	58,241	1,908,333	1,925,595	99.89%
278	1	278	58,242	1,908,611	1,925,847	99.89%
282	1	282	58,243	1,908,893	1,926,095	99.90%
283	1	283	58,244	1,909,176	1,926,156	99.90%
284	1	284	58,245	1,909,460	1,926,216	99.90%
285	2	570	58,247	1,910,030	1,926,275	99.90%
289	1	289	58,248	1,910,319	1,926,503	99.90%
292	1	292	58,249	1,910,611	1,926,671	99.91%
295	-	-	58,249	1,910,611	1,926,836	99.91%
296	1	296	58,250	1,910,907	1,926,891	99.91%
300	2	600	58,252	1,911,507	1,927,107	99.91%
303	2	606	58,254	1,912,113	1,927,263	99.91%
306	1	306	58,255	1,912,419	1,927,413	99.92%
309	1	309	58,256	1,912,728	1,927,560	99.92%
317	1	317	58,257	1,913,045	1,927,944	99.92%
318	1	318	58,258	1,913,363	1,927,991	99.92%
319	1	319	58,259	1,913,682	1,928,037	99.92%
320	1	320	58,260	1,914,002	1,928,082	99.92%

323	1	323	58,261	1,914,325	1,928,214	99.93%
325	1	325	58,262	1,914,650	1,928,300	99.93%
326	2	652	58,264	1,915,302	1,928,342	99.93%
328	1	328	58,265	1,915,630	1,928,422	99.93%
329	(1)	(329)	58,264	1,915,301	1,928,461	99.93%
332	1	332	58,265	1,915,633	1,928,581	99.93%
333	1	333	58,266	1,915,966	1,928,620	99.93%
334	1	334	58,267	1,916,300	1,928,658	99.94%
337	1	337	58,268	1,916,637	1,928,769	99.94%
338	1	338	58,269	1,916,975	1,928,805	99.94%
350	1	350	58,270	1,917,325	1,929,225	99.94%
353	1	353	58,271	1,917,678	1,929,327	99.94%
354	1	354	58,272	1,918,032	1,929,360	99.95%
356	1	356	58,273	1,918,388	1,929,424	99.95%
359	1	359	58,274	1,918,747	1,929,517	99.95%
365	1	365	58,275	1,919,112	1,929,697	99.95%
366	1	366	58,276	1,919,478	1,929,726	99.95%
380	1	380	58,277	1,919,858	1,930,118	99.95%
383	1	383	58,278	1,920,241	1,930,199	99.96%
384	1	384	58,279	1,920,625	1,930,225	99.96%
388	1	388	58,280	1,921,013	1,930,325	99.96%
392	1	392	58,281	1,921,405	1,930,421	99.96%
396	1	396	58,282	1,921,801	1,930,513	99.96%
403	1	403	58,283	1,922,204	1,930,667	99.96%
410	1	410	58,284	1,922,614	1,930,814	99.97%
427	1	427	58,285	1,923,041	1,931,154	99.97%
429	-	-	58,285	1,923,041	1,931,192	99.97%
431	1	431	58,286	1,923,472	1,931,230	99.97%
442	1	442	58,287	1,923,914	1,931,428	99.97%
443	1	443	58,288	1,924,357	1,931,445	99.97%
464	1	464	58,289	1,924,821	1,931,781	99.97%
514	1	514	58,290	1,925,335	1,932,531	99.98%
532	1	532	58,291	1,925,867	1,932,783	99.98%
542	1	542	58,292	1,926,409	1,932,913	99.98%
552	1	552	58,293	1,926,961	1,933,033	99.98%
557	1	557	58,294	1,927,518	1,933,088	99.98%
578	1	578	58,295	1,928,096	1,933,298	99.98%
584	1	584	58,296	1,928,680	1,933,352	99.99%
588	1	588	58,297	1,929,268	1,933,384	99.99%
635	(1)	(635)	58,296	1,928,633	1,933,713	99.99%
640	1	640	58,297	1,929,273	1,933,753	99.99%
656	1	656	58,298	1,929,929	1,933,865	99.99%
668	1	668	58,299	1,930,597	1,933,937	99.99%
739	-	-	58,299	1,930,597	1,934,292	99.99%
789	(1)	(789)	58,298	1,929,808	1,934,542	99.99%
795	1	795	58,299	1,930,603	1,934,578	99.99%
805	1	805	58,300	1,931,408	1,934,628	99.99%
813	1	813	58,301	1,932,221	1,934,660	99.99%
861	(1)	(861)	58,300	1,931,360	1,934,804	99.99%
887	-	-	58,300	1,931,360	1,934,908	99.99%
893	1	893	58,301	1,932,253	1,934,932	99.99%
979	1	979	58,302	1,933,232	1,935,190	100.00%
1,101	1	1,101	58,303	1,934,333	1,935,434	100.00%
1,169	1	1,169	58,304	1,935,502	1,935,502	100.00%
1,229	(1)	(1,229)	58,303	1,934,273	1,935,502	100.00%

1,329	1	1,329	58,304	1,935,602	1,935,602	100.00%
1,345	1	1,345	58,305	1,936,947	1,935,602	100.00%
1,369	(1)	(1,369)	58,304	1,935,578	1,935,578	100.00%
1,629	(1)	(1,629)	58,303	1,933,949	1,935,578	100.00%
1,760	1	1,760	58,304	1,935,709	1,935,709	100.00%
2,063	-	-	58,304	1,935,709	1,935,709	100.00%
2,124	(1)	(2,124)	58,303	1,933,585	1,935,709	100.00%
2,466	-	-	58,303	1,933,585	1,936,051	100.00%
3,865	1	3,865	58,304	1,937,450	1,937,450	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF JUNE 2022
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	2,033	-	2,033	-	-	3.47%
1	548	548	2,581	548	56,531	4.41%
2	361	722	2,942	1,270	112,514	5.02%
3	344	1,032	3,286	2,302	168,136	5.61%
4	389	1,556	3,675	3,858	223,414	6.28%
5	463	2,315	4,138	6,173	278,303	7.07%
6	534	3,204	4,672	9,377	332,729	7.98%
7	620	4,340	5,292	13,717	386,621	9.04%
8	751	6,008	6,043	19,725	439,893	10.32%
9	811	7,299	6,854	27,024	492,414	11.70%
10	870	8,700	7,724	35,724	544,124	13.19%
11	972	10,692	8,696	46,416	594,964	14.85%
12	1,060	12,720	9,756	59,136	644,832	16.66%
13	1,081	14,053	10,837	73,189	693,640	18.50%
14	1,169	16,366	12,006	89,555	741,367	20.50%
15	1,121	16,815	13,127	106,370	787,925	22.41%
16	1,146	18,336	14,273	124,706	833,362	24.37%
17	1,177	20,009	15,450	144,715	877,653	26.38%
18	1,160	20,880	16,610	165,595	920,767	28.36%
19	1,179	22,401	17,789	187,996	962,721	30.38%
20	1,198	23,960	18,987	211,956	1,003,496	32.42%
21	1,341	28,161	20,328	240,117	1,043,073	34.71%
22	1,262	27,764	21,590	267,881	1,081,309	36.87%
23	1,264	29,072	22,854	296,953	1,118,283	39.02%
24	1,221	29,304	24,075	326,257	1,153,993	41.11%
25	1,235	30,875	25,310	357,132	1,188,482	43.22%
26	1,198	31,148	26,508	388,280	1,221,736	45.26%
27	1,199	32,373	27,707	420,653	1,253,792	47.31%
28	1,247	34,916	28,954	455,569	1,284,649	49.44%
29	1,167	33,843	30,121	489,412	1,314,259	51.43%
30	1,153	34,590	31,274	524,002	1,342,702	53.40%
31	1,120	34,720	32,394	558,722	1,369,992	55.31%
32	1,087	34,784	33,481	593,506	1,396,162	57.17%
33	1,058	34,914	34,539	628,420	1,421,245	58.98%
34	984	33,456	35,523	661,876	1,445,270	60.66%
35	949	33,215	36,472	695,091	1,468,311	62.28%
36	956	34,416	37,428	729,507	1,490,403	63.91%
37	900	33,300	38,328	762,807	1,511,539	65.45%
38	820	31,160	39,148	793,967	1,531,775	66.85%
39	847	33,033	39,995	827,000	1,551,191	68.29%
40	795	31,800	40,790	858,800	1,569,760	69.65%
41	764	31,324	41,554	890,124	1,587,534	70.95%
42	784	32,928	42,338	923,052	1,604,544	72.29%
43	728	31,304	43,066	954,356	1,620,770	73.54%
44	726	31,944	43,792	986,300	1,636,268	74.78%

45	685	30,825	44,477	1,017,125	1,651,040	75.95%
46	595	27,370	45,072	1,044,495	1,665,127	76.96%
47	575	27,025	45,647	1,071,520	1,678,619	77.94%
48	552	26,496	46,199	1,098,016	1,691,536	78.89%
49	530	25,970	46,729	1,123,986	1,703,901	79.79%
50	548	27,400	47,277	1,151,386	1,715,736	80.73%
51	485	24,735	47,762	1,176,121	1,727,023	81.56%
52	447	23,244	48,209	1,199,365	1,737,825	82.32%
53	465	24,645	48,674	1,224,010	1,748,180	83.11%
54	418	22,572	49,092	1,246,582	1,758,070	83.83%
55	395	21,725	49,487	1,268,307	1,767,542	84.50%
56	399	22,344	49,886	1,290,651	1,776,619	85.18%
57	359	20,463	50,245	1,311,114	1,785,297	85.80%
58	352	20,416	50,597	1,331,530	1,793,616	86.40%
59	329	19,411	50,926	1,350,941	1,801,583	86.96%
60	324	19,440	51,250	1,370,381	1,809,221	87.51%
61	330	20,130	51,580	1,390,511	1,816,535	88.07%
62	292	18,104	51,872	1,408,615	1,823,519	88.57%
63	275	17,325	52,147	1,425,940	1,830,211	89.04%
64	287	18,368	52,434	1,444,308	1,836,628	89.53%
65	245	15,925	52,679	1,460,233	1,842,758	89.95%
66	264	17,424	52,943	1,477,657	1,848,643	90.40%
67	224	15,008	53,167	1,492,665	1,854,264	90.78%
68	248	16,864	53,415	1,509,529	1,859,661	91.21%
69	221	15,249	53,636	1,524,778	1,864,810	91.59%
70	223	15,610	53,859	1,540,388	1,869,738	91.97%
71	178	12,638	54,037	1,553,026	1,874,443	92.27%
72	165	11,880	54,202	1,564,906	1,878,970	92.55%
73	177	12,921	54,379	1,577,827	1,883,332	92.85%
74	135	9,990	54,514	1,587,817	1,887,517	93.08%
75	158	11,850	54,672	1,599,667	1,891,567	93.35%
76	155	11,780	54,827	1,611,447	1,895,459	93.62%
77	141	10,857	54,968	1,622,304	1,899,196	93.86%
78	138	10,764	55,106	1,633,068	1,902,792	94.10%
79	129	10,191	55,235	1,643,259	1,906,250	94.32%
80	133	10,640	55,368	1,653,899	1,909,579	94.54%
81	114	9,234	55,482	1,663,133	1,912,775	94.74%
82	107	8,774	55,589	1,671,907	1,915,857	94.92%
83	98	8,134	55,687	1,680,041	1,918,832	95.09%
84	95	7,980	55,782	1,688,021	1,921,709	95.25%
85	92	7,820	55,874	1,695,841	1,924,491	95.41%
86	93	7,998	55,967	1,703,839	1,927,181	95.57%
87	92	8,004	56,059	1,711,843	1,929,778	95.72%
88	86	7,568	56,145	1,719,411	1,932,283	95.87%
89	76	6,764	56,221	1,726,175	1,934,702	96.00%
90	52	4,680	56,273	1,730,855	1,937,045	96.09%
91	86	7,826	56,359	1,738,681	1,939,336	96.23%
92	71	6,532	56,430	1,745,213	1,941,541	96.36%
93	69	6,417	56,499	1,751,630	1,943,675	96.47%
94	72	6,768	56,571	1,758,398	1,945,740	96.60%
95	82	7,790	56,653	1,766,188	1,947,733	96.74%
96	59	5,664	56,712	1,771,852	1,949,644	96.84%
97	55	5,335	56,767	1,777,187	1,951,496	96.93%
98	64	6,272	56,831	1,783,459	1,953,293	97.04%
99	48	4,752	56,879	1,788,211	1,955,026	97.12%

100	56	5,600	56,935	1,793,811	1,956,711	97.22%
101	43	4,343	56,978	1,798,154	1,958,340	97.29%
102	48	4,896	57,026	1,803,050	1,959,926	97.37%
103	44	4,532	57,070	1,807,582	1,961,464	97.45%
104	48	4,992	57,118	1,812,574	1,962,958	97.53%
105	42	4,410	57,160	1,816,984	1,964,404	97.60%
106	41	4,346	57,201	1,821,330	1,965,808	97.67%
107	37	3,959	57,238	1,825,289	1,967,171	97.74%
108	35	3,780	57,273	1,829,069	1,968,497	97.80%
109	29	3,161	57,302	1,832,230	1,969,788	97.85%
110	37	4,070	57,339	1,836,300	1,971,050	97.91%
111	34	3,774	57,373	1,840,074	1,972,275	97.97%
112	35	3,920	57,408	1,843,994	1,973,466	98.03%
113	30	3,390	57,438	1,847,384	1,974,622	98.08%
114	18	2,052	57,456	1,849,436	1,975,748	98.11%
115	24	2,760	57,480	1,852,196	1,976,856	98.15%
116	25	2,900	57,505	1,855,096	1,977,940	98.19%
117	19	2,223	57,524	1,857,319	1,978,999	98.22%
118	26	3,068	57,550	1,860,387	1,980,039	98.27%
119	38	4,522	57,588	1,864,909	1,981,053	98.33%
120	23	2,760	57,611	1,867,669	1,982,029	98.37%
121	31	3,751	57,642	1,871,420	1,982,982	98.43%
122	22	2,684	57,664	1,874,104	1,983,904	98.46%
123	16	1,968	57,680	1,876,072	1,984,804	98.49%
124	21	2,604	57,701	1,878,676	1,985,688	98.53%
125	17	2,125	57,718	1,880,801	1,986,551	98.56%
126	12	1,512	57,730	1,882,313	1,987,397	98.58%
127	13	1,651	57,743	1,883,964	1,988,231	98.60%
128	16	2,048	57,759	1,886,012	1,989,052	98.63%
129	31	3,999	57,790	1,890,011	1,989,857	98.68%
130	19	2,470	57,809	1,892,481	1,990,631	98.71%
131	13	1,703	57,822	1,894,184	1,991,386	98.73%
132	16	2,112	57,838	1,896,296	1,992,128	98.76%
133	26	3,458	57,864	1,899,754	1,992,854	98.80%
134	13	1,742	57,877	1,901,496	1,993,554	98.83%
135	14	1,890	57,891	1,903,386	1,994,241	98.85%
136	20	2,720	57,911	1,906,106	1,994,914	98.88%
137	14	1,918	57,925	1,908,024	1,995,567	98.91%
138	12	1,656	57,937	1,909,680	1,996,206	98.93%
139	17	2,363	57,954	1,912,043	1,996,833	98.96%
140	11	1,540	57,965	1,913,583	1,997,443	98.98%
141	13	1,833	57,978	1,915,416	1,998,042	99.00%
142	12	1,704	57,990	1,917,120	1,998,628	99.02%
143	13	1,859	58,003	1,918,979	1,999,202	99.04%
144	16	2,304	58,019	1,921,283	1,999,763	99.07%
145	13	1,885	58,032	1,923,168	2,000,308	99.09%
146	8	1,168	58,040	1,924,336	2,000,840	99.11%
147	13	1,911	58,053	1,926,247	2,001,364	99.13%
148	9	1,332	58,062	1,927,579	2,001,875	99.14%
149	8	1,192	58,070	1,928,771	2,002,377	99.16%
150	6	900	58,076	1,929,671	2,002,871	99.17%
151	6	906	58,082	1,930,577	2,003,359	99.18%
152	5	760	58,087	1,931,337	2,003,841	99.19%
153	10	1,530	58,097	1,932,867	2,004,318	99.20%
154	8	1,232	58,105	1,934,099	2,004,785	99.22%

155	6	930	58,111	1,935,029	2,005,244	99.23%
156	10	1,560	58,121	1,936,589	2,005,697	99.24%
157	15	2,355	58,136	1,938,944	2,006,140	99.27%
158	12	1,896	58,148	1,940,840	2,006,568	99.29%
159	6	954	58,154	1,941,794	2,006,984	99.30%
160	3	480	58,157	1,942,274	2,007,394	99.31%
161	11	1,771	58,168	1,944,045	2,007,801	99.32%
162	5	810	58,173	1,944,855	2,008,197	99.33%
163	5	815	58,178	1,945,670	2,008,588	99.34%
164	6	984	58,184	1,946,654	2,008,974	99.35%
165	7	1,155	58,191	1,947,809	2,009,354	99.36%
166	6	996	58,197	1,948,805	2,009,727	99.37%
167	11	1,837	58,208	1,950,642	2,010,094	99.39%
168	6	1,008	58,214	1,951,650	2,010,450	99.40%
169	5	845	58,219	1,952,495	2,010,800	99.41%
170	5	850	58,224	1,953,345	2,011,145	99.42%
171	6	1,026	58,230	1,954,371	2,011,485	99.43%
172	5	860	58,235	1,955,231	2,011,819	99.44%
173	8	1,384	58,243	1,956,615	2,012,148	99.45%
174	9	1,566	58,252	1,958,181	2,012,469	99.47%
175	4	700	58,256	1,958,881	2,012,781	99.47%
176	9	1,584	58,265	1,960,465	2,013,089	99.49%
177	6	1,062	58,271	1,961,527	2,013,388	99.50%
178	2	356	58,273	1,961,883	2,013,681	99.50%
179	1	179	58,274	1,962,062	2,013,972	99.50%
180	5	900	58,279	1,962,962	2,014,262	99.51%
181	2	362	58,281	1,963,324	2,014,547	99.52%
182	5	910	58,286	1,964,234	2,014,830	99.53%
183	3	549	58,289	1,964,783	2,015,108	99.53%
184	3	552	58,292	1,965,335	2,015,383	99.54%
185	3	555	58,295	1,965,890	2,015,655	99.54%
186	4	744	58,299	1,966,634	2,015,924	99.55%
187	7	1,309	58,306	1,967,943	2,016,189	99.56%
188	7	1,316	58,313	1,969,259	2,016,447	99.57%
189	6	1,134	58,319	1,970,393	2,016,698	99.58%
190	7	1,330	58,326	1,971,723	2,016,943	99.59%
191	4	764	58,330	1,972,487	2,017,181	99.60%
192	8	1,536	58,338	1,974,023	2,017,415	99.61%
193	1	193	58,339	1,974,216	2,017,641	99.62%
194	4	776	58,343	1,974,992	2,017,866	99.62%
195	1	195	58,344	1,975,187	2,018,087	99.62%
196	3	588	58,347	1,975,775	2,018,307	99.63%
197	5	985	58,352	1,976,760	2,018,524	99.64%
198	4	792	58,356	1,977,552	2,018,736	99.64%
199	5	995	58,361	1,978,547	2,018,944	99.65%
200	2	400	58,363	1,978,947	2,019,147	99.66%
201	2	402	58,365	1,979,349	2,019,348	99.66%
202	4	808	58,369	1,980,157	2,019,547	99.67%
203	3	609	58,372	1,980,766	2,019,742	99.67%
204	3	612	58,375	1,981,378	2,019,934	99.68%
205	3	615	58,378	1,981,993	2,020,123	99.68%
206	6	1,236	58,384	1,983,229	2,020,309	99.69%
207	1	207	58,385	1,983,436	2,020,489	99.69%
208	1	208	58,386	1,983,644	2,020,668	99.70%
209	1	209	58,387	1,983,853	2,020,846	99.70%

210	4	840	58,391	1,984,693	2,021,023	99.70%
211	4	844	58,395	1,985,537	2,021,196	99.71%
212	2	424	58,397	1,985,961	2,021,365	99.71%
214	3	642	58,400	1,986,603	2,021,699	99.72%
215	3	645	58,403	1,987,248	2,021,863	99.73%
216	1	216	58,404	1,987,464	2,022,024	99.73%
217	3	651	58,407	1,988,115	2,022,184	99.73%
218	2	436	58,409	1,988,551	2,022,341	99.74%
219	2	438	58,411	1,988,989	2,022,496	99.74%
221	2	442	58,413	1,989,431	2,022,802	99.74%
222	2	444	58,415	1,989,875	2,022,953	99.75%
223	4	892	58,419	1,990,767	2,023,102	99.75%
224	1	224	58,420	1,990,991	2,023,247	99.75%
225	2	450	58,422	1,991,441	2,023,391	99.76%
226	2	452	58,424	1,991,893	2,023,533	99.76%
228	1	228	58,425	1,992,121	2,023,813	99.76%
229	3	687	58,428	1,992,808	2,023,952	99.77%
231	2	462	58,430	1,993,270	2,024,224	99.77%
233	(1)	(233)	58,429	1,993,037	2,024,492	99.77%
234	1	234	58,430	1,993,271	2,024,627	99.77%
235	2	470	58,432	1,993,741	2,024,761	99.77%
236	1	236	58,433	1,993,977	2,024,893	99.78%
237	2	474	58,435	1,994,451	2,025,024	99.78%
238	1	238	58,436	1,994,689	2,025,153	99.78%
239	2	478	58,438	1,995,167	2,025,281	99.78%
240	(1)	(240)	58,437	1,994,927	2,025,407	99.78%
241	1	241	58,438	1,995,168	2,025,534	99.78%
242	1	242	58,439	1,995,410	2,025,660	99.79%
244	1	244	58,440	1,995,654	2,025,910	99.79%
245	1	245	58,441	1,995,899	2,026,034	99.79%
246	3	738	58,444	1,996,637	2,026,157	99.80%
247	2	494	58,446	1,997,131	2,026,277	99.80%
248	1	248	58,447	1,997,379	2,026,395	99.80%
249	2	498	58,449	1,997,877	2,026,512	99.80%
250	9	2,250	58,458	2,000,127	2,026,627	99.82%
251	1	251	58,459	2,000,378	2,026,733	99.82%
252	2	504	58,461	2,000,882	2,026,838	99.82%
253	1	253	58,462	2,001,135	2,026,941	99.83%
254	1	254	58,463	2,001,389	2,027,043	99.83%
255	1	255	58,464	2,001,644	2,027,144	99.83%
256	1	256	58,465	2,001,900	2,027,244	99.83%
259	2	518	58,467	2,002,418	2,027,541	99.83%
261	1	261	58,468	2,002,679	2,027,735	99.84%
267	1	267	58,469	2,002,946	2,028,311	99.84%
273	2	546	58,471	2,003,492	2,028,881	99.84%
275	1	275	58,472	2,003,767	2,029,067	99.84%
277	2	554	58,474	2,004,321	2,029,251	99.85%
278	1	278	58,475	2,004,599	2,029,341	99.85%
279	1	279	58,476	2,004,878	2,029,430	99.85%
280	1	280	58,477	2,005,158	2,029,518	99.85%
281	1	281	58,478	2,005,439	2,029,605	99.85%
282	1	282	58,479	2,005,721	2,029,691	99.85%
284	(1)	(284)	58,478	2,005,437	2,029,861	99.85%
285	1	285	58,479	2,005,722	2,029,947	99.85%
294	1	294	58,480	2,006,016	2,030,712	99.86%

296	2	592	58,482	2,006,608	2,030,880	99.86%
297	1	297	58,483	2,006,905	2,030,962	99.86%
299	1	299	58,484	2,007,204	2,031,124	99.86%
301	2	602	58,486	2,007,806	2,031,284	99.87%
302	1	302	58,487	2,008,108	2,031,362	99.87%
307	2	614	58,489	2,008,722	2,031,747	99.87%
308	1	308	58,490	2,009,030	2,031,822	99.87%
310	1	310	58,491	2,009,340	2,031,970	99.88%
311	1	311	58,492	2,009,651	2,032,043	99.88%
320	1	320	58,493	2,009,971	2,032,691	99.88%
325	2	650	58,495	2,010,621	2,033,046	99.88%
327	1	327	58,496	2,010,948	2,033,184	99.88%
328	2	656	58,498	2,011,604	2,033,252	99.89%
330	1	330	58,499	2,011,934	2,033,384	99.89%
331	2	662	58,501	2,012,596	2,033,449	99.89%
333	1	333	58,502	2,012,929	2,033,575	99.89%
335	2	670	58,504	2,013,599	2,033,699	99.90%
336	1	336	58,505	2,013,935	2,033,759	99.90%
337	1	337	58,506	2,014,272	2,033,818	99.90%
340	3	1,020	58,509	2,015,292	2,033,992	99.91%
342	1	342	58,510	2,015,634	2,034,102	99.91%
345	1	345	58,511	2,015,979	2,034,264	99.91%
348	1	348	58,512	2,016,327	2,034,423	99.91%
350	1	350	58,513	2,016,677	2,034,527	99.91%
356	1	356	58,514	2,017,033	2,034,833	99.91%
371	1	371	58,515	2,017,404	2,035,583	99.92%
372	3	1,116	58,518	2,018,520	2,035,632	99.92%
373	1	373	58,519	2,018,893	2,035,678	99.92%
375	1	375	58,520	2,019,268	2,035,768	99.92%
379	1	379	58,521	2,019,647	2,035,944	99.93%
380	1	380	58,522	2,020,027	2,035,987	99.93%
389	1	389	58,523	2,020,416	2,036,365	99.93%
392	1	392	58,524	2,020,808	2,036,488	99.93%
397	1	397	58,525	2,021,205	2,036,688	99.93%
398	1	398	58,526	2,021,603	2,036,727	99.94%
416	1	416	58,527	2,022,019	2,037,411	99.94%
420	1	420	58,528	2,022,439	2,037,559	99.94%
435	1	435	58,529	2,022,874	2,038,099	99.94%
440	1	440	58,530	2,023,314	2,038,274	99.94%
443	1	443	58,531	2,023,757	2,038,376	99.94%
468	1	468	58,532	2,024,225	2,039,201	99.95%
486	1	486	58,533	2,024,711	2,039,777	99.95%
496	1	496	58,534	2,025,207	2,040,087	99.95%
503	1	503	58,535	2,025,710	2,040,297	99.95%
518	1	518	58,536	2,026,228	2,040,732	99.95%
526	1	526	58,537	2,026,754	2,040,956	99.95%
541	1	541	58,538	2,027,295	2,041,361	99.96%
544	1	544	58,539	2,027,839	2,041,439	99.96%
600	1	600	58,540	2,028,439	2,042,839	99.96%
606	1	606	58,541	2,029,045	2,042,983	99.96%
639	1	639	58,542	2,029,684	2,043,742	99.96%
641	1	641	58,543	2,030,325	2,043,786	99.96%
708	1	708	58,544	2,031,033	2,045,193	99.97%
733	1	733	58,545	2,031,766	2,045,693	99.97%
739	1	739	58,546	2,032,505	2,045,807	99.97%

747	1	747	58,547	2,033,252	2,045,951	99.97%
762	1	762	58,548	2,034,014	2,046,206	99.97%
784	1	784	58,549	2,034,798	2,046,558	99.97%
866	1	866	58,550	2,035,664	2,047,788	99.98%
868	1	868	58,551	2,036,532	2,047,816	99.98%
894	1	894	58,552	2,037,426	2,048,154	99.98%
914	-	-	58,552	2,037,426	2,048,394	99.98%
917	-	-	58,552	2,037,426	2,048,430	99.98%
929	1	929	58,553	2,038,355	2,048,574	99.98%
942	1	942	58,554	2,039,297	2,048,717	99.98%
987	1	987	58,555	2,040,284	2,049,167	99.98%
1,175	1	1,175	58,556	2,041,459	2,050,859	99.99%
1,303	-	-	58,556	2,041,459	2,051,883	99.99%
1,369	-	-	58,556	2,041,459	2,052,411	99.99%
1,456	1	1,456	58,557	2,042,915	2,053,107	99.99%
1,493	1	1,493	58,558	2,044,408	2,053,366	99.99%
1,705	1	1,705	58,559	2,046,113	2,054,638	99.99%
1,789	1	1,789	58,560	2,047,902	2,055,058	99.99%
2,910	1	2,910	58,561	2,050,812	2,059,542	99.99%
3,092	1	3,092	58,562	2,053,904	2,060,088	100.00%
3,105	-	-	58,562	2,053,904	2,060,114	100.00%
3,727	1	3,727	58,563	2,057,631	2,061,358	100.00%
4,455	-	-	58,563	2,057,631	2,062,086	100.00%
5,303	1	5,303	58,564	2,062,934	2,062,934	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF JULY 2022
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	2,017	-	2,017	-	-	3.45%
1	556	556	2,573	556	56,382	4.41%
2	352	704	2,925	1,260	112,208	5.01%
3	375	1,125	3,300	2,385	167,682	5.65%
4	379	1,516	3,679	3,901	222,781	6.30%
5	401	2,005	4,080	5,906	277,501	6.99%
6	511	3,066	4,591	8,972	331,820	7.86%
7	629	4,403	5,220	13,375	385,628	8.94%
8	762	6,096	5,982	19,471	438,807	10.24%
9	801	7,209	6,783	26,680	491,224	11.61%
10	909	9,090	7,692	35,770	542,840	13.17%
11	976	10,736	8,668	46,506	593,547	14.84%
12	1,068	12,816	9,736	59,322	643,278	16.67%
13	1,035	13,455	10,771	72,777	691,941	18.44%
14	1,099	15,386	11,870	88,163	739,569	20.33%
15	1,048	15,720	12,918	103,883	786,098	22.12%
16	1,104	17,664	14,022	121,547	831,579	24.01%
17	1,187	20,179	15,209	141,726	875,956	26.04%
18	1,120	20,160	16,329	161,886	919,146	27.96%
19	1,171	22,249	17,500	184,135	961,216	29.97%
20	1,228	24,560	18,728	208,695	1,002,115	32.07%
21	1,237	25,977	19,965	234,672	1,041,786	34.19%
22	1,203	26,466	21,168	261,138	1,080,220	36.25%
23	1,270	29,210	22,438	290,348	1,117,451	38.42%
24	1,234	29,616	23,672	319,964	1,153,412	40.53%
25	1,213	30,325	24,885	350,289	1,188,139	42.61%
26	1,216	31,616	26,101	381,905	1,221,653	44.69%
27	1,209	32,643	27,310	414,548	1,253,951	46.76%
28	1,139	31,892	28,449	446,440	1,285,040	48.71%
29	1,125	32,625	29,574	479,065	1,314,990	50.64%
30	1,116	33,480	30,690	512,545	1,343,815	52.55%
31	1,088	33,728	31,778	546,273	1,371,524	54.42%
32	963	30,816	32,741	577,089	1,398,145	56.06%
33	1,053	34,749	33,794	611,838	1,423,803	57.87%
34	976	33,184	34,770	645,022	1,448,408	59.54%
35	930	32,550	35,700	677,572	1,472,037	61.13%
36	968	34,848	36,668	712,420	1,494,736	62.79%
37	935	34,595	37,603	747,015	1,516,467	64.39%
38	918	34,884	38,521	781,899	1,537,263	65.96%
39	869	33,891	39,390	815,790	1,557,141	67.45%
40	850	34,000	40,240	849,790	1,576,150	68.91%
41	756	30,996	40,996	880,786	1,594,309	70.20%
42	671	28,182	41,667	908,968	1,611,712	71.35%
43	715	30,745	42,382	939,713	1,628,444	72.57%
44	712	31,328	43,094	971,041	1,644,461	73.79%

45	679	30,555	43,773	1,001,596	1,659,766	74.96%
46	642	29,532	44,415	1,031,128	1,674,392	76.05%
47	609	28,623	45,024	1,059,751	1,688,376	77.10%
48	554	26,592	45,578	1,086,343	1,701,751	78.05%
49	557	27,293	46,135	1,113,636	1,714,572	79.00%
50	529	26,450	46,664	1,140,086	1,726,836	79.91%
51	525	26,775	47,189	1,166,861	1,738,571	80.80%
52	481	25,012	47,670	1,191,873	1,749,781	81.63%
53	446	23,638	48,116	1,215,511	1,760,510	82.39%
54	425	22,950	48,541	1,238,461	1,770,793	83.12%
55	403	22,165	48,944	1,260,626	1,780,651	83.81%
56	402	22,512	49,346	1,283,138	1,790,106	84.50%
57	397	22,629	49,743	1,305,767	1,799,159	85.18%
58	330	19,140	50,073	1,324,907	1,807,815	85.74%
59	356	21,004	50,429	1,345,911	1,816,141	86.35%
60	337	20,220	50,766	1,366,131	1,824,111	86.93%
61	302	18,422	51,068	1,384,553	1,831,744	87.45%
62	297	18,414	51,365	1,402,967	1,839,075	87.96%
63	289	18,207	51,654	1,421,174	1,846,109	88.45%
64	293	18,752	51,947	1,439,926	1,852,854	88.95%
65	245	15,925	52,192	1,455,851	1,859,306	89.37%
66	231	15,246	52,423	1,471,097	1,865,513	89.77%
67	249	16,683	52,672	1,487,780	1,871,489	90.19%
68	209	14,212	52,881	1,501,992	1,877,216	90.55%
69	232	16,008	53,113	1,518,000	1,882,734	90.95%
70	214	14,980	53,327	1,532,980	1,888,020	91.31%
71	205	14,555	53,532	1,547,535	1,893,092	91.67%
72	170	12,240	53,702	1,559,775	1,897,959	91.96%
73	178	12,994	53,880	1,572,769	1,902,656	92.26%
74	168	12,432	54,048	1,585,201	1,907,175	92.55%
75	133	9,975	54,181	1,595,176	1,911,526	92.78%
76	157	11,932	54,338	1,607,108	1,915,744	93.05%
77	144	11,088	54,482	1,618,196	1,919,805	93.29%
78	149	11,622	54,631	1,629,818	1,923,722	93.55%
79	127	10,033	54,758	1,639,851	1,927,490	93.77%
80	143	11,440	54,901	1,651,291	1,931,131	94.01%
81	109	8,829	55,010	1,660,120	1,934,629	94.20%
82	95	7,790	55,105	1,667,910	1,938,018	94.36%
83	99	8,217	55,204	1,676,127	1,941,312	94.53%
84	110	9,240	55,314	1,685,367	1,944,507	94.72%
85	100	8,500	55,414	1,693,867	1,947,592	94.89%
86	100	8,600	55,514	1,702,467	1,950,577	95.06%
87	93	8,091	55,607	1,710,558	1,953,462	95.22%
88	76	6,688	55,683	1,717,246	1,956,254	95.35%
89	59	5,251	55,742	1,722,497	1,958,970	95.45%
90	74	6,660	55,816	1,729,157	1,961,627	95.58%
91	74	6,734	55,890	1,735,891	1,964,210	95.70%
92	64	5,888	55,954	1,741,779	1,966,719	95.81%
93	75	6,975	56,029	1,748,754	1,969,164	95.94%
94	63	5,922	56,092	1,754,676	1,971,534	96.05%
95	75	7,125	56,167	1,761,801	1,973,841	96.18%
96	60	5,760	56,227	1,767,561	1,976,073	96.28%
97	53	5,141	56,280	1,772,702	1,978,245	96.37%
98	63	6,174	56,343	1,778,876	1,980,364	96.48%
99	37	3,663	56,380	1,782,539	1,982,420	96.54%

100	61	6,100	56,441	1,788,639	1,984,439	96.65%
101	62	6,262	56,503	1,794,901	1,986,397	96.75%
102	51	5,202	56,554	1,800,103	1,988,293	96.84%
103	60	6,180	56,614	1,806,283	1,990,138	96.94%
104	36	3,744	56,650	1,810,027	1,991,923	97.01%
105	39	4,095	56,689	1,814,122	1,993,672	97.07%
106	44	4,664	56,733	1,818,786	1,995,382	97.15%
107	44	4,708	56,777	1,823,494	1,997,048	97.22%
108	43	4,644	56,820	1,828,138	1,998,670	97.30%
109	37	4,033	56,857	1,832,171	2,000,249	97.36%
110	39	4,290	56,896	1,836,461	2,001,791	97.43%
111	42	4,662	56,938	1,841,123	2,003,294	97.50%
112	38	4,256	56,976	1,845,379	2,004,755	97.56%
113	42	4,746	57,018	1,850,125	2,006,178	97.64%
114	34	3,876	57,052	1,854,001	2,007,559	97.69%
115	22	2,530	57,074	1,856,531	2,008,906	97.73%
116	28	3,248	57,102	1,859,779	2,010,231	97.78%
117	17	1,989	57,119	1,861,768	2,011,528	97.81%
118	38	4,484	57,157	1,866,252	2,012,808	97.87%
119	43	5,117	57,200	1,871,369	2,014,050	97.95%
120	36	4,320	57,236	1,875,689	2,015,249	98.01%
121	22	2,662	57,258	1,878,351	2,016,412	98.05%
122	21	2,562	57,279	1,880,913	2,017,553	98.08%
123	12	1,476	57,291	1,882,389	2,018,673	98.10%
124	19	2,356	57,310	1,884,745	2,019,781	98.14%
125	37	4,625	57,347	1,889,370	2,020,870	98.20%
126	16	2,016	57,363	1,891,386	2,021,922	98.23%
127	27	3,429	57,390	1,894,815	2,022,958	98.27%
128	24	3,072	57,414	1,897,887	2,023,967	98.31%
129	16	2,064	57,430	1,899,951	2,024,952	98.34%
130	21	2,730	57,451	1,902,681	2,025,921	98.38%
131	18	2,358	57,469	1,905,039	2,026,869	98.41%
132	18	2,376	57,487	1,907,415	2,027,799	98.44%
133	18	2,394	57,505	1,909,809	2,028,711	98.47%
134	11	1,474	57,516	1,911,283	2,029,605	98.49%
135	14	1,890	57,530	1,913,173	2,030,488	98.51%
136	21	2,856	57,551	1,916,029	2,031,357	98.55%
137	21	2,877	57,572	1,918,906	2,032,205	98.58%
138	17	2,346	57,589	1,921,252	2,033,032	98.61%
139	20	2,780	57,609	1,924,032	2,033,842	98.65%
140	12	1,680	57,621	1,925,712	2,034,632	98.67%
141	19	2,679	57,640	1,928,391	2,035,410	98.70%
142	14	1,988	57,654	1,930,379	2,036,169	98.72%
143	13	1,859	57,667	1,932,238	2,036,914	98.75%
144	20	2,880	57,687	1,935,118	2,037,646	98.78%
145	19	2,755	57,706	1,937,873	2,038,358	98.81%
146	18	2,628	57,724	1,940,501	2,039,051	98.84%
147	13	1,911	57,737	1,942,412	2,039,726	98.87%
148	10	1,480	57,747	1,943,892	2,040,388	98.88%
149	19	2,831	57,766	1,946,723	2,041,040	98.92%
150	11	1,650	57,777	1,948,373	2,041,673	98.93%
151	9	1,359	57,786	1,949,732	2,042,295	98.95%
152	11	1,672	57,797	1,951,404	2,042,908	98.97%
153	11	1,683	57,808	1,953,087	2,043,510	98.99%
154	6	924	57,814	1,954,011	2,044,101	99.00%

155	8	1,240	57,822	1,955,251	2,044,686	99.01%
156	4	624	57,826	1,955,875	2,045,263	99.02%
157	19	2,983	57,845	1,958,858	2,045,836	99.05%
158	7	1,106	57,852	1,959,964	2,046,390	99.06%
159	7	1,113	57,859	1,961,077	2,046,937	99.08%
160	11	1,760	57,870	1,962,837	2,047,477	99.09%
161	5	805	57,875	1,963,642	2,048,006	99.10%
162	11	1,782	57,886	1,965,424	2,048,530	99.12%
163	10	1,630	57,896	1,967,054	2,049,043	99.14%
164	7	1,148	57,903	1,968,202	2,049,546	99.15%
165	6	990	57,909	1,969,192	2,050,042	99.16%
166	8	1,328	57,917	1,970,520	2,050,532	99.17%
167	6	1,002	57,923	1,971,522	2,051,014	99.18%
168	10	1,680	57,933	1,973,202	2,051,490	99.20%
169	5	845	57,938	1,974,047	2,051,956	99.21%
170	4	680	57,942	1,974,727	2,052,417	99.22%
171	3	513	57,945	1,975,240	2,052,874	99.22%
172	5	860	57,950	1,976,100	2,053,328	99.23%
173	7	1,211	57,957	1,977,311	2,053,777	99.24%
174	2	348	57,959	1,977,659	2,054,219	99.25%
175	5	875	57,964	1,978,534	2,054,659	99.26%
176	7	1,232	57,971	1,979,766	2,055,094	99.27%
177	5	885	57,976	1,980,651	2,055,522	99.28%
178	7	1,246	57,983	1,981,897	2,055,945	99.29%
179	6	1,074	57,989	1,982,971	2,056,361	99.30%
180	4	720	57,993	1,983,691	2,056,771	99.30%
181	6	1,086	57,999	1,984,777	2,057,177	99.32%
182	3	546	58,002	1,985,323	2,057,577	99.32%
183	11	2,013	58,013	1,987,336	2,057,974	99.34%
184	11	2,024	58,024	1,989,360	2,058,360	99.36%
185	3	555	58,027	1,989,915	2,058,735	99.36%
186	3	558	58,030	1,990,473	2,059,107	99.37%
187	7	1,309	58,037	1,991,782	2,059,476	99.38%
188	5	940	58,042	1,992,722	2,059,838	99.39%
189	3	567	58,045	1,993,289	2,060,195	99.39%
190	6	1,140	58,051	1,994,429	2,060,549	99.40%
191	7	1,337	58,058	1,995,766	2,060,897	99.42%
192	2	384	58,060	1,996,150	2,061,238	99.42%
193	4	772	58,064	1,996,922	2,061,577	99.43%
194	7	1,358	58,071	1,998,280	2,061,912	99.44%
195	7	1,365	58,078	1,999,645	2,062,240	99.45%
196	6	1,176	58,084	2,000,821	2,062,561	99.46%
197	2	394	58,086	2,001,215	2,062,876	99.46%
198	3	594	58,089	2,001,809	2,063,189	99.47%
199	6	1,194	58,095	2,003,003	2,063,499	99.48%
200	2	400	58,097	2,003,403	2,063,803	99.48%
201	4	804	58,101	2,004,207	2,064,105	99.49%
202	2	404	58,103	2,004,611	2,064,403	99.49%
203	1	203	58,104	2,004,814	2,064,699	99.49%
204	6	1,224	58,110	2,006,038	2,064,994	99.51%
205	3	615	58,113	2,006,653	2,065,283	99.51%
206	3	618	58,116	2,007,271	2,065,569	99.52%
207	3	621	58,119	2,007,892	2,065,852	99.52%
208	1	208	58,120	2,008,100	2,066,132	99.52%
209	3	627	58,123	2,008,727	2,066,411	99.53%

210	2	420	58,125	2,009,147	2,066,687	99.53%
211	7	1,477	58,132	2,010,624	2,066,961	99.54%
212	3	636	58,135	2,011,260	2,067,228	99.55%
213	5	1,065	58,140	2,012,325	2,067,492	99.56%
214	3	642	58,143	2,012,967	2,067,751	99.56%
215	1	215	58,144	2,013,182	2,068,007	99.56%
216	2	432	58,146	2,013,614	2,068,262	99.57%
217	1	217	58,147	2,013,831	2,068,515	99.57%
218	1	218	58,148	2,014,049	2,068,767	99.57%
219	4	876	58,152	2,014,925	2,069,018	99.58%
220	4	880	58,156	2,015,805	2,069,265	99.58%
221	3	663	58,159	2,016,468	2,069,508	99.59%
222	2	444	58,161	2,016,912	2,069,748	99.59%
223	2	446	58,163	2,017,358	2,069,986	99.60%
224	4	896	58,167	2,018,254	2,070,222	99.60%
225	5	1,125	58,172	2,019,379	2,070,454	99.61%
226	5	1,130	58,177	2,020,509	2,070,681	99.62%
227	2	454	58,179	2,020,963	2,070,903	99.62%
228	9	2,052	58,188	2,023,015	2,071,123	99.64%
230	1	230	58,189	2,023,245	2,071,545	99.64%
231	5	1,155	58,194	2,024,400	2,071,755	99.65%
233	3	699	58,197	2,025,099	2,072,165	99.65%
234	2	468	58,199	2,025,567	2,072,367	99.66%
235	1	235	58,200	2,025,802	2,072,567	99.66%
236	1	236	58,201	2,026,038	2,072,766	99.66%
237	3	711	58,204	2,026,749	2,072,964	99.67%
238	3	714	58,207	2,027,463	2,073,159	99.67%
239	2	478	58,209	2,027,941	2,073,351	99.67%
240	2	480	58,211	2,028,421	2,073,541	99.68%
241	3	723	58,214	2,029,144	2,073,729	99.68%
243	2	486	58,216	2,029,630	2,074,099	99.69%
244	1	244	58,217	2,029,874	2,074,282	99.69%
245	2	490	58,219	2,030,364	2,074,464	99.69%
246	1	246	58,220	2,030,610	2,074,644	99.69%
247	6	1,482	58,226	2,032,092	2,074,823	99.70%
248	1	248	58,227	2,032,340	2,074,996	99.71%
249	2	498	58,229	2,032,838	2,075,168	99.71%
250	3	750	58,232	2,033,588	2,075,338	99.71%
251	1	251	58,233	2,033,839	2,075,505	99.72%
252	3	756	58,236	2,034,595	2,075,671	99.72%
253	1	253	58,237	2,034,848	2,075,834	99.72%
254	1	254	58,238	2,035,102	2,075,996	99.72%
255	3	765	58,241	2,035,867	2,076,157	99.73%
256	2	512	58,243	2,036,379	2,076,315	99.73%
257	2	514	58,245	2,036,893	2,076,471	99.74%
258	1	258	58,246	2,037,151	2,076,625	99.74%
259	1	259	58,247	2,037,410	2,076,778	99.74%
260	2	520	58,249	2,037,930	2,076,930	99.74%
261	2	522	58,251	2,038,452	2,077,080	99.75%
262	-	-	58,251	2,038,452	2,077,228	99.75%
263	1	263	58,252	2,038,715	2,077,376	99.75%
264	1	264	58,253	2,038,979	2,077,523	99.75%
265	2	530	58,255	2,039,509	2,077,669	99.75%
266	2	532	58,257	2,040,041	2,077,813	99.76%
267	2	534	58,259	2,040,575	2,077,955	99.76%

269	3	807	58,262	2,041,382	2,078,235	99.77%
270	2	540	58,264	2,041,922	2,078,372	99.77%
272	1	272	58,265	2,042,194	2,078,642	99.77%
273	1	273	58,266	2,042,467	2,078,776	99.77%
275	5	1,375	58,271	2,043,842	2,079,042	99.78%
276	1	276	58,272	2,044,118	2,079,170	99.78%
278	4	1,112	58,276	2,045,230	2,079,424	99.79%
280	1	280	58,277	2,045,510	2,079,670	99.79%
281	3	843	58,280	2,046,353	2,079,792	99.80%
282	2	564	58,282	2,046,917	2,079,911	99.80%
283	3	849	58,285	2,047,766	2,080,028	99.80%
284	2	568	58,287	2,048,334	2,080,142	99.81%
285	1	285	58,288	2,048,619	2,080,254	99.81%
286	2	572	58,290	2,049,191	2,080,365	99.81%
287	2	574	58,292	2,049,765	2,080,474	99.82%
288	1	288	58,293	2,050,053	2,080,581	99.82%
289	1	289	58,294	2,050,342	2,080,687	99.82%
290	1	290	58,295	2,050,632	2,080,792	99.82%
291	1	291	58,296	2,050,923	2,080,896	99.82%
292	1	292	58,297	2,051,215	2,080,999	99.83%
293	1	293	58,298	2,051,508	2,081,101	99.83%
294	2	588	58,300	2,052,096	2,081,202	99.83%
298	1	298	58,301	2,052,394	2,081,598	99.83%
299	1	299	58,302	2,052,693	2,081,696	99.83%
301	1	301	58,303	2,052,994	2,081,890	99.84%
305	1	305	58,304	2,053,299	2,082,274	99.84%
308	2	616	58,306	2,053,915	2,082,559	99.84%
309	1	309	58,307	2,054,224	2,082,652	99.84%
311	1	311	58,308	2,054,535	2,082,836	99.84%
312	1	312	58,309	2,054,847	2,082,927	99.85%
313	2	626	58,311	2,055,473	2,083,017	99.85%
315	1	315	58,312	2,055,788	2,083,193	99.85%
316	1	316	58,313	2,056,104	2,083,280	99.85%
318	1	318	58,314	2,056,422	2,083,452	99.85%
321	1	321	58,315	2,056,743	2,083,707	99.86%
322	1	322	58,316	2,057,065	2,083,791	99.86%
324	1	324	58,317	2,057,389	2,083,957	99.86%
325	3	975	58,320	2,058,364	2,084,039	99.86%
327	3	981	58,323	2,059,345	2,084,197	99.87%
329	1	329	58,324	2,059,674	2,084,349	99.87%
330	1	330	58,325	2,060,004	2,084,424	99.87%
331	1	331	58,326	2,060,335	2,084,498	99.87%
334	4	1,336	58,330	2,061,671	2,084,717	99.88%
335	1	335	58,331	2,062,006	2,084,786	99.88%
339	3	1,017	58,334	2,063,023	2,085,058	99.89%
341	1	341	58,335	2,063,364	2,085,188	99.89%
342	1	342	58,336	2,063,706	2,085,252	99.89%
345	2	690	58,338	2,064,396	2,085,441	99.90%
348	-	-	58,338	2,064,396	2,085,624	99.90%
349	1	349	58,339	2,064,745	2,085,685	99.90%
350	-	-	58,339	2,064,745	2,085,745	99.90%
352	1	352	58,340	2,065,097	2,085,865	99.90%
356	1	356	58,341	2,065,453	2,086,101	99.90%
359	1	359	58,342	2,065,812	2,086,275	99.90%
362	1	362	58,343	2,066,174	2,086,446	99.90%

365	1	365	58,344	2,066,539	2,086,614	99.91%
366	1	366	58,345	2,066,905	2,086,669	99.91%
368	1	368	58,346	2,067,273	2,086,777	99.91%
379	1	379	58,347	2,067,652	2,087,360	99.91%
381	1	381	58,348	2,068,033	2,087,464	99.91%
385	1	385	58,349	2,068,418	2,087,668	99.91%
387	1	387	58,350	2,068,805	2,087,768	99.92%
388	-	-	58,350	2,068,805	2,087,817	99.92%
389	1	389	58,351	2,069,194	2,087,866	99.92%
394	1	394	58,352	2,069,588	2,088,106	99.92%
399	1	399	58,353	2,069,987	2,088,341	99.92%
400	1	400	58,354	2,070,387	2,088,387	99.92%
401	1	401	58,355	2,070,788	2,088,432	99.92%
403	1	403	58,356	2,071,191	2,088,520	99.93%
404	1	404	58,357	2,071,595	2,088,563	99.93%
406	1	406	58,358	2,072,001	2,088,647	99.93%
412	1	412	58,359	2,072,413	2,088,893	99.93%
414	1	414	58,360	2,072,827	2,088,973	99.93%
421	1	421	58,361	2,073,248	2,089,246	99.93%
423	1	423	58,362	2,073,671	2,089,322	99.94%
430	1	430	58,363	2,074,101	2,089,581	99.94%
434	1	434	58,364	2,074,535	2,089,725	99.94%
438	1	438	58,365	2,074,973	2,089,865	99.94%
440	1	440	58,366	2,075,413	2,089,933	99.94%
445	1	445	58,367	2,075,858	2,090,098	99.95%
452	1	452	58,368	2,076,310	2,090,322	99.95%
455	1	455	58,369	2,076,765	2,090,415	99.95%
456	1	456	58,370	2,077,221	2,090,445	99.95%
458	1	458	58,371	2,077,679	2,090,503	99.95%
459	2	918	58,373	2,078,597	2,090,531	99.96%
462	1	462	58,374	2,079,059	2,090,609	99.96%
464	1	464	58,375	2,079,523	2,090,659	99.96%
466	1	466	58,376	2,079,989	2,090,707	99.96%
467	1	467	58,377	2,080,456	2,090,730	99.96%
482	1	482	58,378	2,080,938	2,091,060	99.96%
485	1	485	58,379	2,081,423	2,091,123	99.97%
500	1	500	58,380	2,081,923	2,091,423	99.97%
508	1	508	58,381	2,082,431	2,091,575	99.97%
520	1	520	58,382	2,082,951	2,091,791	99.97%
525	1	525	58,383	2,083,476	2,091,876	99.97%
531	-	-	58,383	2,083,476	2,091,972	99.97%
550	1	550	58,384	2,084,026	2,092,276	99.97%
553	1	553	58,385	2,084,579	2,092,321	99.98%
576	1	576	58,386	2,085,155	2,092,643	99.98%
590	-	-	58,386	2,085,155	2,092,825	99.98%
610	1	610	58,387	2,085,765	2,093,085	99.98%
631	2	1,262	58,389	2,087,027	2,093,337	99.98%
651	1	651	58,390	2,087,678	2,093,537	99.98%
658	1	658	58,391	2,088,336	2,093,600	99.99%
659	1	659	58,392	2,088,995	2,093,608	99.99%
680	-	-	58,392	2,088,995	2,093,755	99.99%
726	1	726	58,393	2,089,721	2,094,077	99.99%
737	1	737	58,394	2,090,458	2,094,143	99.99%
785	1	785	58,395	2,091,243	2,094,383	99.99%
797	1	797	58,396	2,092,040	2,094,431	99.99%

894	(1)	(894)	58,395	2,091,146	2,094,722	99.99%
900	1	900	58,396	2,092,046	2,094,746	99.99%
928	1	928	58,397	2,092,974	2,094,830	100.00%
1,081	1	1,081	58,398	2,094,055	2,095,136	100.00%
1,166	1	1,166	58,399	2,095,221	2,095,221	100.00%
1,312	1	1,312	58,400	2,096,533	2,095,221	100.00%
1,456	(1)	(1,456)	58,399	2,095,077	2,095,077	100.00%
1,617	-	-	58,399	2,095,077	2,095,077	100.00%
1,951	1	1,951	58,400	2,097,028	2,095,077	100.00%
2,320	1	2,320	58,401	2,099,348	2,094,708	100.00%
2,546	-	-	58,401	2,099,348	2,094,256	100.00%
2,910	(1)	(2,910)	58,400	2,096,438	2,093,528	100.00%
3,092	(1)	(3,092)	58,399	2,093,346	2,093,346	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF AUGUST 2022
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	2,069	-	2,069	-	-	3.54%
1	524	524	2,593	524	56,347	4.44%
2	343	686	2,936	1,210	112,170	5.03%
3	347	1,041	3,283	2,251	167,650	5.62%
4	371	1,484	3,654	3,735	222,783	6.26%
5	419	2,095	4,073	5,830	277,545	6.97%
6	490	2,940	4,563	8,770	331,888	7.81%
7	585	4,095	5,148	12,865	385,741	8.81%
8	731	5,848	5,879	18,713	439,009	10.06%
9	782	7,038	6,661	25,751	491,546	11.40%
10	854	8,540	7,515	34,291	543,301	12.86%
11	890	9,790	8,405	44,081	594,202	14.39%
12	921	11,052	9,326	55,133	644,213	15.96%
13	1,044	13,572	10,370	68,705	693,303	17.75%
14	993	13,902	11,363	82,607	741,349	19.45%
15	1,098	16,470	12,461	99,077	788,402	21.33%
16	1,004	16,064	13,465	115,141	834,357	23.05%
17	1,112	18,904	14,577	134,045	879,308	24.95%
18	1,137	20,466	15,714	154,511	923,147	26.90%
19	1,061	20,159	16,775	174,670	965,849	28.72%
20	1,136	22,720	17,911	197,390	1,007,490	30.66%
21	1,153	24,213	19,064	221,603	1,047,995	32.63%
22	1,173	25,806	20,237	247,409	1,087,347	34.64%
23	1,207	27,761	21,444	275,170	1,125,526	36.71%
24	1,175	28,200	22,619	303,370	1,162,498	38.72%
25	1,202	30,050	23,821	333,420	1,198,295	40.78%
26	1,164	30,264	24,985	363,684	1,232,890	42.77%
27	1,136	30,672	26,121	394,356	1,266,321	44.72%
28	1,110	31,080	27,231	425,436	1,298,616	46.62%
29	1,093	31,697	28,324	457,133	1,329,801	48.49%
30	1,058	31,740	29,382	488,873	1,359,893	50.30%
31	1,079	33,449	30,461	522,322	1,388,927	52.14%
32	1,049	33,568	31,510	555,890	1,416,882	53.94%
33	1,003	33,099	32,513	588,989	1,443,788	55.66%
34	1,093	37,162	33,606	626,151	1,469,691	57.53%
35	967	33,845	34,573	659,996	1,494,501	59.18%
36	918	33,048	35,491	693,044	1,518,344	60.76%
37	905	33,485	36,396	726,529	1,541,269	62.30%
38	880	33,440	37,276	759,969	1,563,289	63.81%
39	855	33,345	38,131	793,314	1,584,429	65.27%
40	802	32,080	38,933	825,394	1,604,714	66.65%
41	806	33,046	39,739	858,440	1,624,197	68.03%
42	737	30,954	40,476	889,394	1,642,874	69.29%
43	763	32,809	41,239	922,203	1,660,814	70.60%
44	673	29,612	41,912	951,815	1,677,991	71.75%

45	676	30,420	42,588	982,235	1,694,495	72.90%
46	660	30,360	43,248	1,012,595	1,710,323	74.03%
47	613	28,811	43,861	1,041,406	1,725,491	75.08%
48	595	28,560	44,456	1,069,966	1,740,046	76.10%
49	597	29,253	45,053	1,099,219	1,754,006	77.12%
50	545	27,250	45,598	1,126,469	1,767,369	78.06%
51	544	27,744	46,142	1,154,213	1,780,187	78.99%
52	489	25,428	46,631	1,179,641	1,792,461	79.83%
53	453	24,009	47,084	1,203,650	1,804,246	80.60%
54	450	24,300	47,534	1,227,950	1,815,578	81.37%
55	453	24,915	47,987	1,252,865	1,826,460	82.15%
56	394	22,064	48,381	1,274,929	1,836,889	82.82%
57	386	22,002	48,767	1,296,931	1,846,924	83.48%
58	363	21,054	49,130	1,317,985	1,856,573	84.10%
59	337	19,883	49,467	1,337,868	1,865,859	84.68%
60	373	22,380	49,840	1,360,248	1,874,808	85.32%
61	322	19,642	50,162	1,379,890	1,883,384	85.87%
62	291	18,042	50,453	1,397,932	1,891,638	86.37%
63	305	19,215	50,758	1,417,147	1,899,601	86.89%
64	270	17,280	51,028	1,434,427	1,907,259	87.35%
65	280	18,200	51,308	1,452,627	1,914,647	87.83%
66	275	18,150	51,583	1,470,777	1,921,755	88.30%
67	258	17,286	51,841	1,488,063	1,928,588	88.74%
68	224	15,232	52,065	1,503,295	1,935,163	89.13%
69	267	18,423	52,332	1,521,718	1,941,514	89.59%
70	218	15,260	52,550	1,536,978	1,947,598	89.96%
71	223	15,833	52,773	1,552,811	1,953,464	90.34%
72	210	15,120	52,983	1,567,931	1,959,107	90.70%
73	188	13,724	53,171	1,581,655	1,964,540	91.02%
74	197	14,578	53,368	1,596,233	1,969,785	91.36%
75	166	12,450	53,534	1,608,683	1,974,833	91.64%
76	154	11,704	53,688	1,620,387	1,979,715	91.91%
77	151	11,627	53,839	1,632,014	1,984,443	92.16%
78	139	10,842	53,978	1,642,856	1,989,020	92.40%
79	143	11,297	54,121	1,654,153	1,993,458	92.65%
80	154	12,320	54,275	1,666,473	1,997,753	92.91%
81	131	10,611	54,406	1,677,084	2,001,894	93.14%
82	114	9,348	54,520	1,686,432	2,005,904	93.33%
83	128	10,624	54,648	1,697,056	2,009,800	93.55%
84	115	9,660	54,763	1,706,716	2,013,568	93.75%
85	90	7,650	54,853	1,714,366	2,017,221	93.90%
86	115	9,890	54,968	1,724,256	2,020,784	94.10%
87	96	8,352	55,064	1,732,608	2,024,232	94.26%
88	115	10,120	55,179	1,742,728	2,027,584	94.46%
89	97	8,633	55,276	1,751,361	2,030,821	94.62%
90	78	7,020	55,354	1,758,381	2,033,961	94.76%
91	73	6,643	55,427	1,765,024	2,037,023	94.88%
92	83	7,636	55,510	1,772,660	2,040,012	95.03%
93	80	7,440	55,590	1,780,100	2,042,918	95.16%
94	74	6,956	55,664	1,787,056	2,045,744	95.29%
95	90	8,550	55,754	1,795,606	2,048,496	95.44%
96	66	6,336	55,820	1,801,942	2,051,158	95.56%
97	75	7,275	55,895	1,809,217	2,053,754	95.68%
98	62	6,076	55,957	1,815,293	2,056,275	95.79%
99	54	5,346	56,011	1,820,639	2,058,734	95.88%

100	64	6,400	56,075	1,827,039	2,061,139	95.99%
101	57	5,757	56,132	1,832,796	2,063,480	96.09%
102	62	6,324	56,194	1,839,120	2,065,764	96.20%
103	57	5,871	56,251	1,844,991	2,067,986	96.29%
104	55	5,720	56,306	1,850,711	2,070,151	96.39%
105	60	6,300	56,366	1,857,011	2,072,261	96.49%
106	47	4,982	56,413	1,861,993	2,074,311	96.57%
107	60	6,420	56,473	1,868,413	2,076,314	96.67%
108	53	5,724	56,526	1,874,137	2,078,257	96.76%
109	28	3,052	56,554	1,877,189	2,080,147	96.81%
110	47	5,170	56,601	1,882,359	2,082,009	96.89%
111	34	3,774	56,635	1,886,133	2,083,824	96.95%
112	30	3,360	56,665	1,889,493	2,085,605	97.00%
113	30	3,390	56,695	1,892,883	2,087,356	97.05%
114	33	3,762	56,728	1,896,645	2,089,077	97.11%
115	38	4,370	56,766	1,901,015	2,090,765	97.18%
116	35	4,060	56,801	1,905,075	2,092,415	97.24%
117	31	3,627	56,832	1,908,702	2,094,030	97.29%
118	37	4,366	56,869	1,913,068	2,095,614	97.35%
119	37	4,403	56,906	1,917,471	2,097,161	97.42%
120	26	3,120	56,932	1,920,591	2,098,671	97.46%
121	38	4,598	56,970	1,925,189	2,100,155	97.52%
122	33	4,026	57,003	1,929,215	2,101,601	97.58%
123	29	3,567	57,032	1,932,782	2,103,014	97.63%
124	24	2,976	57,056	1,935,758	2,104,398	97.67%
125	27	3,375	57,083	1,939,133	2,105,758	97.72%
126	31	3,906	57,114	1,943,039	2,107,091	97.77%
127	27	3,429	57,141	1,946,468	2,108,393	97.82%
128	24	3,072	57,165	1,949,540	2,109,668	97.86%
129	24	3,096	57,189	1,952,636	2,110,919	97.90%
130	23	2,990	57,212	1,955,626	2,112,146	97.94%
131	18	2,358	57,230	1,957,984	2,113,350	97.97%
132	23	3,036	57,253	1,961,020	2,114,536	98.01%
133	17	2,261	57,270	1,963,281	2,115,699	98.04%
134	21	2,814	57,291	1,966,095	2,116,845	98.07%
135	24	3,240	57,315	1,969,335	2,117,970	98.12%
136	20	2,720	57,335	1,972,055	2,119,071	98.15%
137	19	2,603	57,354	1,974,658	2,120,152	98.18%
138	19	2,622	57,373	1,977,280	2,121,214	98.21%
139	19	2,641	57,392	1,979,921	2,122,257	98.25%
140	18	2,520	57,410	1,982,441	2,123,281	98.28%
141	24	3,384	57,434	1,985,825	2,124,287	98.32%
142	16	2,272	57,450	1,988,097	2,125,269	98.35%
143	17	2,431	57,467	1,990,528	2,126,235	98.38%
144	18	2,592	57,485	1,993,120	2,127,184	98.41%
145	21	3,045	57,506	1,996,165	2,128,115	98.44%
146	15	2,190	57,521	1,998,355	2,129,025	98.47%
147	13	1,911	57,534	2,000,266	2,129,920	98.49%
148	14	2,072	57,548	2,002,338	2,130,802	98.51%
149	16	2,384	57,564	2,004,722	2,131,670	98.54%
150	21	3,150	57,585	2,007,872	2,132,522	98.58%
151	18	2,718	57,603	2,010,590	2,133,353	98.61%
152	9	1,368	57,612	2,011,958	2,134,166	98.62%
153	15	2,295	57,627	2,014,253	2,134,970	98.65%
154	17	2,618	57,644	2,016,871	2,135,759	98.68%

155	6	930	57,650	2,017,801	2,136,531	98.69%
156	10	1,560	57,660	2,019,361	2,137,297	98.71%
157	10	1,570	57,670	2,020,931	2,138,053	98.72%
158	14	2,212	57,684	2,023,143	2,138,799	98.75%
159	15	2,385	57,699	2,025,528	2,139,531	98.77%
160	9	1,440	57,708	2,026,968	2,140,248	98.79%
161	8	1,288	57,716	2,028,256	2,140,956	98.80%
162	11	1,782	57,727	2,030,038	2,141,656	98.82%
163	11	1,793	57,738	2,031,831	2,142,345	98.84%
164	10	1,640	57,748	2,033,471	2,143,023	98.86%
165	11	1,815	57,759	2,035,286	2,143,691	98.88%
166	11	1,826	57,770	2,037,112	2,144,348	98.89%
167	6	1,002	57,776	2,038,114	2,144,994	98.90%
168	8	1,344	57,784	2,039,458	2,145,634	98.92%
169	11	1,859	57,795	2,041,317	2,146,266	98.94%
170	13	2,210	57,808	2,043,527	2,146,887	98.96%
171	10	1,710	57,818	2,045,237	2,147,495	98.98%
172	12	2,064	57,830	2,047,301	2,148,093	99.00%
173	9	1,557	57,839	2,048,858	2,148,679	99.01%
174	5	870	57,844	2,049,728	2,149,256	99.02%
175	3	525	57,847	2,050,253	2,149,828	99.03%
176	7	1,232	57,854	2,051,485	2,150,397	99.04%
177	11	1,947	57,865	2,053,432	2,150,959	99.06%
178	5	890	57,870	2,054,322	2,151,510	99.07%
179	2	358	57,872	2,054,680	2,152,056	99.07%
180	1	180	57,873	2,054,860	2,152,600	99.07%
181	5	905	57,878	2,055,765	2,153,143	99.08%
182	7	1,274	57,885	2,057,039	2,153,681	99.09%
183	11	2,013	57,896	2,059,052	2,154,212	99.11%
184	10	1,840	57,906	2,060,892	2,154,732	99.13%
185	6	1,110	57,912	2,062,002	2,155,242	99.14%
186	6	1,116	57,918	2,063,118	2,155,746	99.15%
187	10	1,870	57,928	2,064,988	2,156,244	99.16%
188	5	940	57,933	2,065,928	2,156,732	99.17%
189	9	1,701	57,942	2,067,629	2,157,215	99.19%
190	9	1,710	57,951	2,069,339	2,157,689	99.20%
191	6	1,146	57,957	2,070,485	2,158,154	99.21%
192	3	576	57,960	2,071,061	2,158,613	99.22%
193	3	579	57,963	2,071,640	2,159,069	99.22%
194	7	1,358	57,970	2,072,998	2,159,522	99.24%
195	4	780	57,974	2,073,778	2,159,968	99.24%
196	3	588	57,977	2,074,366	2,160,410	99.25%
197	7	1,379	57,984	2,075,745	2,160,849	99.26%
198	4	792	57,988	2,076,537	2,161,281	99.27%
199	5	995	57,993	2,077,532	2,161,709	99.28%
200	4	800	57,997	2,078,332	2,162,132	99.28%
201	3	603	58,000	2,078,935	2,162,551	99.29%
202	8	1,616	58,008	2,080,551	2,162,967	99.30%
203	4	812	58,012	2,081,363	2,163,375	99.31%
204	1	204	58,013	2,081,567	2,163,779	99.31%
205	5	1,025	58,018	2,082,592	2,164,182	99.32%
206	5	1,030	58,023	2,083,622	2,164,580	99.33%
207	3	621	58,026	2,084,243	2,164,973	99.33%
208	6	1,248	58,032	2,085,491	2,165,363	99.34%
209	2	418	58,034	2,085,909	2,165,747	99.35%

210	4	840	58,038	2,086,749	2,166,129	99.35%
211	4	844	58,042	2,087,593	2,166,507	99.36%
212	3	636	58,045	2,088,229	2,166,881	99.36%
213	3	639	58,048	2,088,868	2,167,252	99.37%
215	4	860	58,052	2,089,728	2,167,988	99.38%
216	4	864	58,056	2,090,592	2,168,352	99.38%
217	3	651	58,059	2,091,243	2,168,712	99.39%
218	6	1,308	58,065	2,092,551	2,169,069	99.40%
219	2	438	58,067	2,092,989	2,169,420	99.40%
220	2	440	58,069	2,093,429	2,169,769	99.41%
222	7	1,554	58,076	2,094,983	2,170,463	99.42%
223	7	1,561	58,083	2,096,544	2,170,803	99.43%
224	4	896	58,087	2,097,440	2,171,136	99.44%
225	5	1,125	58,092	2,098,565	2,171,465	99.45%
226	5	1,130	58,097	2,099,695	2,171,789	99.45%
227	2	454	58,099	2,100,149	2,172,108	99.46%
228	4	912	58,103	2,101,061	2,172,425	99.46%
229	1	229	58,104	2,101,290	2,172,738	99.47%
230	4	920	58,108	2,102,210	2,173,050	99.47%
231	3	693	58,111	2,102,903	2,173,358	99.48%
232	1	232	58,112	2,103,135	2,173,663	99.48%
233	5	1,165	58,117	2,104,300	2,173,967	99.49%
234	1	234	58,118	2,104,534	2,174,266	99.49%
235	2	470	58,120	2,105,004	2,174,564	99.49%
236	5	1,180	58,125	2,106,184	2,174,860	99.50%
237	4	948	58,129	2,107,132	2,175,151	99.51%
238	1	238	58,130	2,107,370	2,175,438	99.51%
239	5	1,195	58,135	2,108,565	2,175,724	99.52%
240	7	1,680	58,142	2,110,245	2,176,005	99.53%
241	2	482	58,144	2,110,727	2,176,279	99.53%
242	4	968	58,148	2,111,695	2,176,551	99.54%
243	6	1,458	58,154	2,113,153	2,176,819	99.55%
244	1	244	58,155	2,113,397	2,177,081	99.55%
246	4	984	58,159	2,114,381	2,177,603	99.56%
247	1	247	58,160	2,114,628	2,177,860	99.56%
248	5	1,240	58,165	2,115,868	2,178,116	99.57%
249	3	747	58,168	2,116,615	2,178,367	99.58%
250	9	2,250	58,177	2,118,865	2,178,615	99.59%
251	5	1,255	58,182	2,120,120	2,178,854	99.60%
252	1	252	58,183	2,120,372	2,179,088	99.60%
256	4	1,024	58,187	2,121,396	2,180,020	99.61%
258	4	1,032	58,191	2,122,428	2,180,478	99.61%
259	5	1,295	58,196	2,123,723	2,180,703	99.62%
260	1	260	58,197	2,123,983	2,180,923	99.63%
261	1	261	58,198	2,124,244	2,181,142	99.63%
262	3	786	58,201	2,125,030	2,181,360	99.63%
263	5	1,315	58,206	2,126,345	2,181,575	99.64%
265	1	265	58,207	2,126,610	2,181,995	99.64%
266	2	532	58,209	2,127,142	2,182,204	99.65%
267	2	534	58,211	2,127,676	2,182,411	99.65%
269	1	269	58,212	2,127,945	2,182,821	99.65%
270	3	810	58,215	2,128,755	2,183,025	99.66%
271	2	542	58,217	2,129,297	2,183,226	99.66%
272	3	816	58,220	2,130,113	2,183,425	99.66%
273	4	1,092	58,224	2,131,205	2,183,621	99.67%

274	1	274	58,225	2,131,479	2,183,813	99.67%
276	1	276	58,226	2,131,755	2,184,195	99.67%
277	4	1,108	58,230	2,132,863	2,184,385	99.68%
278	-	-	58,230	2,132,863	2,184,571	99.68%
281	2	562	58,232	2,133,425	2,185,129	99.69%
283	3	849	58,235	2,134,274	2,185,497	99.69%
284	2	568	58,237	2,134,842	2,185,678	99.69%
285	4	1,140	58,241	2,135,982	2,185,857	99.70%
286	1	286	58,242	2,136,268	2,186,032	99.70%
287	1	287	58,243	2,136,555	2,186,206	99.70%
288	2	576	58,245	2,137,131	2,186,379	99.71%
289	5	1,445	58,250	2,138,576	2,186,550	99.72%
290	1	290	58,251	2,138,866	2,186,716	99.72%
291	3	873	58,254	2,139,739	2,186,881	99.72%
292	3	876	58,257	2,140,615	2,187,043	99.73%
293	3	879	58,260	2,141,494	2,187,202	99.73%
295	2	590	58,262	2,142,084	2,187,514	99.74%
298	1	298	58,263	2,142,382	2,187,976	99.74%
299	1	299	58,264	2,142,681	2,188,129	99.74%
300	1	300	58,265	2,142,981	2,188,281	99.74%
301	1	301	58,266	2,143,282	2,188,432	99.74%
303	1	303	58,267	2,143,585	2,188,732	99.74%
304	1	304	58,268	2,143,889	2,188,881	99.75%
305	2	610	58,270	2,144,499	2,189,029	99.75%
308	2	616	58,272	2,145,115	2,189,467	99.75%
311	3	933	58,275	2,146,048	2,189,899	99.76%
312	1	312	58,276	2,146,360	2,190,040	99.76%
314	1	314	58,277	2,146,674	2,190,320	99.76%
315	1	315	58,278	2,146,989	2,190,459	99.76%
316	2	632	58,280	2,147,621	2,190,597	99.77%
318	2	636	58,282	2,148,257	2,190,869	99.77%
320	2	640	58,284	2,148,897	2,191,137	99.77%
321	1	321	58,285	2,149,218	2,191,269	99.78%
322	2	644	58,287	2,149,862	2,191,400	99.78%
323	3	969	58,290	2,150,831	2,191,529	99.78%
324	2	648	58,292	2,151,479	2,191,655	99.79%
325	2	650	58,294	2,152,129	2,191,779	99.79%
326	1	326	58,295	2,152,455	2,191,901	99.79%
327	2	654	58,297	2,153,109	2,192,022	99.80%
329	3	987	58,300	2,154,096	2,192,260	99.80%
330	1	330	58,301	2,154,426	2,192,376	99.80%
331	1	331	58,302	2,154,757	2,192,491	99.80%
334	1	334	58,303	2,155,091	2,192,833	99.81%
335	1	335	58,304	2,155,426	2,192,946	99.81%
336	1	336	58,305	2,155,762	2,193,058	99.81%
338	2	676	58,307	2,156,438	2,193,280	99.81%
340	1	340	58,308	2,156,778	2,193,498	99.82%
341	2	682	58,310	2,157,460	2,193,606	99.82%
342	2	684	58,312	2,158,144	2,193,712	99.82%
344	2	688	58,314	2,158,832	2,193,920	99.83%
345	2	690	58,316	2,159,522	2,194,022	99.83%
348	1	348	58,317	2,159,870	2,194,322	99.83%
349	1	349	58,318	2,160,219	2,194,421	99.83%
350	1	350	58,319	2,160,569	2,194,519	99.83%
356	1	356	58,320	2,160,925	2,195,101	99.84%

357	1	357	58,321	2,161,282	2,195,197	99.84%
358	2	716	58,323	2,161,998	2,195,292	99.84%
360	3	1,080	58,326	2,163,078	2,195,478	99.85%
363	2	726	58,328	2,163,804	2,195,748	99.85%
364	1	364	58,329	2,164,168	2,195,836	99.85%
367	1	367	58,330	2,164,535	2,196,097	99.85%
368	1	368	58,331	2,164,903	2,196,183	99.85%
369	1	369	58,332	2,165,272	2,196,268	99.86%
370	-	-	58,332	2,165,272	2,196,352	99.86%
371	2	742	58,334	2,166,014	2,196,436	99.86%
372	1	372	58,335	2,166,386	2,196,518	99.86%
374	1	374	58,336	2,166,760	2,196,680	99.86%
379	1	379	58,337	2,167,139	2,197,080	99.86%
390	1	390	58,338	2,167,529	2,197,949	99.87%
391	1	391	58,339	2,167,920	2,198,027	99.87%
400	1	400	58,340	2,168,320	2,198,720	99.87%
405	2	810	58,342	2,169,130	2,199,100	99.87%
410	3	1,230	58,345	2,170,360	2,199,470	99.88%
411	1	411	58,346	2,170,771	2,199,541	99.88%
414	1	414	58,347	2,171,185	2,199,751	99.88%
415	1	415	58,348	2,171,600	2,199,820	99.88%
416	2	832	58,350	2,172,432	2,199,888	99.89%
418	1	418	58,351	2,172,850	2,200,020	99.89%
426	1	426	58,352	2,173,276	2,200,540	99.89%
427	1	427	58,353	2,173,703	2,200,604	99.89%
428	1	428	58,354	2,174,131	2,200,667	99.89%
437	1	437	58,355	2,174,568	2,201,225	99.90%
439	1	439	58,356	2,175,007	2,201,347	99.90%
441	1	441	58,357	2,175,448	2,201,467	99.90%
444	1	444	58,358	2,175,892	2,201,644	99.90%
447	1	447	58,359	2,176,339	2,201,818	99.90%
453	1	453	58,360	2,176,792	2,202,160	99.90%
458	1	458	58,361	2,177,250	2,202,440	99.91%
464	1	464	58,362	2,177,714	2,202,770	99.91%
467	1	467	58,363	2,178,181	2,202,932	99.91%
470	1	470	58,364	2,178,651	2,203,091	99.91%
476	2	952	58,366	2,179,603	2,203,403	99.91%
478	2	956	58,368	2,180,559	2,203,503	99.92%
481	1	481	58,369	2,181,040	2,203,647	99.92%
485	2	970	58,371	2,182,010	2,203,835	99.92%
489	2	978	58,373	2,182,988	2,204,015	99.93%
503	1	503	58,374	2,183,491	2,204,617	99.93%
505	1	505	58,375	2,183,996	2,204,701	99.93%
507	1	507	58,376	2,184,503	2,204,783	99.93%
514	1	514	58,377	2,185,017	2,205,063	99.93%
519	1	519	58,378	2,185,536	2,205,258	99.93%
521	1	521	58,379	2,186,057	2,205,334	99.94%
530	1	530	58,380	2,186,587	2,205,667	99.94%
535	1	535	58,381	2,187,122	2,205,847	99.94%
542	1	542	58,382	2,187,664	2,206,092	99.94%
549	1	549	58,383	2,188,213	2,206,330	99.94%
554	1	554	58,384	2,188,767	2,206,495	99.95%
562	1	562	58,385	2,189,329	2,206,751	99.95%
563	1	563	58,386	2,189,892	2,206,782	99.95%
566	1	566	58,387	2,190,458	2,206,872	99.95%

579	1	579	58,388	2,191,037	2,207,249	99.95%
580	1	580	58,389	2,191,617	2,207,277	99.95%
586	1	586	58,390	2,192,203	2,207,439	99.96%
590	-	-	58,390	2,192,203	2,207,543	99.96%
592	1	592	58,391	2,192,795	2,207,595	99.96%
595	1	595	58,392	2,193,390	2,207,670	99.96%
605	1	605	58,393	2,193,995	2,207,910	99.96%
608	2	1,216	58,395	2,195,211	2,207,979	99.96%
610	(1)	(610)	58,394	2,194,601	2,208,021	99.96%
632	1	632	58,395	2,195,233	2,208,505	99.96%
641	1	641	58,396	2,195,874	2,208,694	99.97%
645	1	645	58,397	2,196,519	2,208,774	99.97%
667	1	667	58,398	2,197,186	2,209,192	99.97%
682	1	682	58,399	2,197,868	2,209,462	99.97%
685	1	685	58,400	2,198,553	2,209,513	99.97%
697	1	697	58,401	2,199,250	2,209,705	99.97%
711	1	711	58,402	2,199,961	2,209,915	99.98%
712	1	712	58,403	2,200,673	2,209,929	99.98%
773	1	773	58,404	2,201,446	2,210,722	99.98%
785	1	785	58,405	2,202,231	2,210,866	99.98%
794	1	794	58,406	2,203,025	2,210,965	99.98%
814	1	814	58,407	2,203,839	2,211,165	99.98%
909	1	909	58,408	2,204,748	2,212,020	99.99%
987	-	-	58,408	2,204,748	2,212,644	99.99%
998	1	998	58,409	2,205,746	2,212,732	99.99%
1,132	1	1,132	58,410	2,206,878	2,213,670	99.99%
1,159	-	-	58,410	2,206,878	2,213,832	99.99%
1,219	1	1,219	58,411	2,208,097	2,214,192	99.99%
1,249	1	1,249	58,412	2,209,346	2,214,342	99.99%
1,250	1	1,250	58,413	2,210,596	2,214,346	99.99%
1,450	1	1,450	58,414	2,212,046	2,214,946	100.00%
1,618	1	1,618	58,415	2,213,664	2,215,282	100.00%
1,951	(1)	(1,951)	58,414	2,211,713	2,215,615	100.00%
1,962	1	1,962	58,415	2,213,675	2,215,637	100.00%
2,049	1	2,049	58,416	2,215,724	2,215,724	100.00%
2,894	-	-	58,416	2,215,724	2,215,724	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF SEPTEMBER 2022
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	2,077	-	2,077	-	-	3.54%
1	451	451	2,528	451	56,622	4.31%
2	305	610	2,833	1,061	112,793	4.83%
3	332	996	3,165	2,057	168,659	5.39%
4	364	1,456	3,529	3,513	224,193	6.01%
5	419	2,095	3,948	5,608	279,363	6.73%
6	473	2,838	4,421	8,446	334,114	7.53%
7	574	4,018	4,995	12,464	388,392	8.51%
8	657	5,256	5,652	17,720	442,096	9.63%
9	748	6,732	6,400	24,452	495,143	10.90%
10	868	8,680	7,268	33,132	547,442	12.38%
11	908	9,988	8,176	43,120	598,873	13.93%
12	975	11,700	9,151	54,820	649,396	15.59%
13	986	12,818	10,137	67,638	698,944	17.27%
14	1,049	14,686	11,186	82,324	747,506	19.06%
15	1,056	15,840	12,242	98,164	795,019	20.86%
16	1,059	16,944	13,301	115,108	841,476	22.66%
17	1,148	19,516	14,449	134,624	886,874	24.62%
18	1,100	19,800	15,549	154,424	931,124	26.49%
19	1,139	21,641	16,688	176,065	974,274	28.43%
20	1,140	22,800	17,828	198,865	1,016,285	30.37%
21	1,159	24,339	18,987	223,204	1,057,156	32.35%
22	1,195	26,290	20,182	249,494	1,096,868	34.38%
23	1,230	28,290	21,412	277,784	1,135,385	36.48%
24	1,147	27,528	22,559	305,312	1,172,672	38.43%
25	1,258	31,450	23,817	336,762	1,208,812	40.57%
26	1,143	29,718	24,960	366,480	1,243,694	42.52%
27	1,138	30,726	26,098	397,206	1,277,433	44.46%
28	1,196	33,488	27,294	430,694	1,310,034	46.50%
29	1,186	34,394	28,480	465,088	1,341,439	48.52%
30	1,066	31,980	29,546	497,068	1,371,658	50.33%
31	1,129	34,999	30,675	532,067	1,400,811	52.26%
32	1,102	35,264	31,777	567,331	1,428,835	54.14%
33	1,012	33,396	32,789	600,727	1,455,757	55.86%
34	1,015	34,510	33,804	635,237	1,481,667	57.59%
35	1,003	35,105	34,807	670,342	1,506,562	59.30%
36	997	35,892	35,804	706,234	1,530,454	61.00%
37	930	34,410	36,734	740,644	1,553,349	62.58%
38	908	34,504	37,642	775,148	1,575,314	64.13%
39	864	33,696	38,506	808,844	1,596,371	65.60%
40	831	33,240	39,337	842,084	1,616,564	67.01%
41	823	33,743	40,160	875,827	1,635,926	68.42%
42	762	32,004	40,922	907,831	1,654,465	69.71%
43	784	33,712	41,706	941,543	1,672,242	71.05%
44	721	31,724	42,427	973,267	1,689,235	72.28%

45	642	28,890	43,069	1,002,157	1,705,507	73.37%
46	675	31,050	43,744	1,033,207	1,721,137	74.52%
47	672	31,584	44,416	1,064,791	1,736,092	75.67%
48	625	30,000	45,041	1,094,791	1,750,375	76.73%
49	612	29,988	45,653	1,124,779	1,764,033	77.77%
50	554	27,700	46,207	1,152,479	1,777,079	78.72%
51	500	25,500	46,707	1,177,979	1,789,571	79.57%
52	490	25,480	47,197	1,203,459	1,801,563	80.41%
53	519	27,507	47,716	1,230,966	1,813,065	81.29%
54	479	25,866	48,195	1,256,832	1,824,048	82.11%
55	440	24,200	48,635	1,281,032	1,834,552	82.85%
56	388	21,728	49,023	1,302,760	1,844,616	83.52%
57	377	21,489	49,400	1,324,249	1,854,292	84.16%
58	392	22,736	49,792	1,346,985	1,863,591	84.83%
59	333	19,647	50,125	1,366,632	1,872,498	85.39%
60	358	21,480	50,483	1,388,112	1,881,072	86.00%
61	323	19,703	50,806	1,407,815	1,889,288	86.55%
62	309	19,158	51,115	1,426,973	1,897,181	87.08%
63	298	18,774	51,413	1,445,747	1,904,765	87.59%
64	282	18,048	51,695	1,463,795	1,912,051	88.07%
65	273	17,745	51,968	1,481,540	1,919,055	88.53%
66	269	17,754	52,237	1,499,294	1,925,786	88.99%
67	255	17,085	52,492	1,516,379	1,932,248	89.43%
68	236	16,048	52,728	1,532,427	1,938,455	89.83%
69	229	15,801	52,957	1,548,228	1,944,426	90.22%
70	206	14,420	53,163	1,562,648	1,950,168	90.57%
71	213	15,123	53,376	1,577,771	1,955,704	90.93%
72	221	15,912	53,597	1,593,683	1,961,027	91.31%
73	193	14,089	53,790	1,607,772	1,966,129	91.64%
74	176	13,024	53,966	1,620,796	1,971,038	91.94%
75	157	11,775	54,123	1,632,571	1,975,771	92.20%
76	184	13,984	54,307	1,646,555	1,980,347	92.52%
77	145	11,165	54,452	1,657,720	1,984,739	92.76%
78	160	12,480	54,612	1,670,200	1,988,986	93.04%
79	139	10,981	54,751	1,681,181	1,993,073	93.27%
80	123	9,840	54,874	1,691,021	1,997,021	93.48%
81	135	10,935	55,009	1,701,956	2,000,846	93.71%
82	126	10,332	55,135	1,712,288	2,004,536	93.93%
83	117	9,711	55,252	1,721,999	2,008,100	94.13%
84	105	8,820	55,357	1,730,819	2,011,547	94.31%
85	120	10,200	55,477	1,741,019	2,014,889	94.51%
86	78	6,708	55,555	1,747,727	2,018,111	94.64%
87	101	8,787	55,656	1,756,514	2,021,255	94.82%
88	94	8,272	55,750	1,764,786	2,024,298	94.98%
89	86	7,654	55,836	1,772,440	2,027,247	95.12%
90	80	7,200	55,916	1,779,640	2,030,110	95.26%
91	89	8,099	56,005	1,787,739	2,032,893	95.41%
92	84	7,728	56,089	1,795,467	2,035,587	95.55%
93	59	5,487	56,148	1,800,954	2,038,197	95.65%
94	70	6,580	56,218	1,807,534	2,040,748	95.77%
95	62	5,890	56,280	1,813,424	2,043,229	95.88%
96	76	7,296	56,356	1,820,720	2,045,648	96.01%
97	61	5,917	56,417	1,826,637	2,047,991	96.11%
98	69	6,762	56,486	1,833,399	2,050,273	96.23%
99	62	6,138	56,548	1,839,537	2,052,486	96.34%

100	55	5,500	56,603	1,845,037	2,054,637	96.43%
101	57	5,757	56,660	1,850,794	2,056,733	96.53%
102	46	4,692	56,706	1,855,486	2,058,772	96.60%
103	50	5,150	56,756	1,860,636	2,060,765	96.69%
104	50	5,200	56,806	1,865,836	2,062,708	96.78%
105	43	4,515	56,849	1,870,351	2,064,601	96.85%
106	44	4,664	56,893	1,875,015	2,066,451	96.92%
107	41	4,387	56,934	1,879,402	2,068,257	96.99%
108	51	5,508	56,985	1,884,910	2,070,022	97.08%
109	46	5,014	57,031	1,889,924	2,071,736	97.16%
110	42	4,620	57,073	1,894,544	2,073,404	97.23%
111	50	5,550	57,123	1,900,094	2,075,030	97.32%
112	37	4,144	57,160	1,904,238	2,076,606	97.38%
113	41	4,633	57,201	1,908,871	2,078,145	97.45%
114	29	3,306	57,230	1,912,177	2,079,643	97.50%
115	37	4,255	57,267	1,916,432	2,081,112	97.56%
116	28	3,248	57,295	1,919,680	2,082,544	97.61%
117	31	3,627	57,326	1,923,307	2,083,948	97.66%
118	26	3,068	57,352	1,926,375	2,085,321	97.71%
119	27	3,213	57,379	1,929,588	2,086,668	97.75%
120	27	3,240	57,406	1,932,828	2,087,988	97.80%
121	31	3,751	57,437	1,936,579	2,089,281	97.85%
122	26	3,172	57,463	1,939,751	2,090,543	97.89%
123	26	3,198	57,489	1,942,949	2,091,779	97.94%
124	29	3,596	57,518	1,946,545	2,092,989	97.99%
125	22	2,750	57,540	1,949,295	2,094,170	98.03%
126	21	2,646	57,561	1,951,941	2,095,329	98.06%
127	28	3,556	57,589	1,955,497	2,096,467	98.11%
128	16	2,048	57,605	1,957,545	2,097,577	98.14%
129	18	2,322	57,623	1,959,867	2,098,671	98.17%
130	22	2,860	57,645	1,962,727	2,099,747	98.20%
131	17	2,227	57,662	1,964,954	2,100,801	98.23%
132	15	1,980	57,677	1,966,934	2,101,838	98.26%
133	13	1,729	57,690	1,968,663	2,102,860	98.28%
134	19	2,546	57,709	1,971,209	2,103,869	98.31%
135	24	3,240	57,733	1,974,449	2,104,859	98.35%
136	27	3,672	57,760	1,978,121	2,105,825	98.40%
137	17	2,329	57,777	1,980,450	2,106,764	98.43%
138	13	1,794	57,790	1,982,244	2,107,686	98.45%
139	16	2,224	57,806	1,984,468	2,108,595	98.48%
140	19	2,660	57,825	1,987,128	2,109,488	98.51%
141	13	1,833	57,838	1,988,961	2,110,362	98.53%
142	24	3,408	57,862	1,992,369	2,111,223	98.57%
143	10	1,430	57,872	1,993,799	2,112,060	98.59%
144	20	2,880	57,892	1,996,679	2,112,887	98.63%
145	12	1,740	57,904	1,998,419	2,113,694	98.65%
146	13	1,898	57,917	2,000,317	2,114,489	98.67%
147	11	1,617	57,928	2,001,934	2,115,271	98.69%
148	10	1,480	57,938	2,003,414	2,116,042	98.70%
149	9	1,341	57,947	2,004,755	2,116,803	98.72%
150	12	1,800	57,959	2,006,555	2,117,555	98.74%
151	8	1,208	57,967	2,007,763	2,118,295	98.75%
152	3	456	57,970	2,008,219	2,119,027	98.76%
153	12	1,836	57,982	2,010,055	2,119,756	98.78%
154	15	2,310	57,997	2,012,365	2,120,473	98.80%

155	9	1,395	58,006	2,013,760	2,121,175	98.82%
156	12	1,872	58,018	2,015,632	2,121,868	98.84%
157	11	1,727	58,029	2,017,359	2,122,549	98.86%
158	8	1,264	58,037	2,018,623	2,123,219	98.87%
159	10	1,590	58,047	2,020,213	2,123,881	98.89%
160	11	1,760	58,058	2,021,973	2,124,533	98.91%
161	17	2,737	58,075	2,024,710	2,125,174	98.94%
162	6	972	58,081	2,025,682	2,125,798	98.95%
163	12	1,956	58,093	2,027,638	2,126,416	98.97%
164	14	2,296	58,107	2,029,934	2,127,022	98.99%
165	9	1,485	58,116	2,031,419	2,127,614	99.01%
166	2	332	58,118	2,031,751	2,128,197	99.01%
167	10	1,670	58,128	2,033,421	2,128,778	99.03%
168	14	2,352	58,142	2,035,773	2,129,349	99.05%
169	13	2,197	58,155	2,037,970	2,129,906	99.07%
170	5	850	58,160	2,038,820	2,130,450	99.08%
171	9	1,539	58,169	2,040,359	2,130,989	99.10%
172	6	1,032	58,175	2,041,391	2,131,519	99.11%
173	7	1,211	58,182	2,042,602	2,132,043	99.12%
174	7	1,218	58,189	2,043,820	2,132,560	99.13%
175	11	1,925	58,200	2,045,745	2,133,070	99.15%
176	4	704	58,204	2,046,449	2,133,569	99.16%
177	11	1,947	58,215	2,048,396	2,134,064	99.18%
178	2	356	58,217	2,048,752	2,134,548	99.18%
179	4	716	58,221	2,049,468	2,135,030	99.19%
180	6	1,080	58,227	2,050,548	2,135,508	99.20%
181	8	1,448	58,235	2,051,996	2,135,980	99.21%
182	5	910	58,240	2,052,906	2,136,444	99.22%
183	7	1,281	58,247	2,054,187	2,136,903	99.23%
184	7	1,288	58,254	2,055,475	2,137,355	99.24%
185	6	1,110	58,260	2,056,585	2,137,800	99.25%
186	7	1,302	58,267	2,057,887	2,138,239	99.26%
187	2	374	58,269	2,058,261	2,138,671	99.27%
188	3	564	58,272	2,058,825	2,139,101	99.27%
189	6	1,134	58,278	2,059,959	2,139,528	99.28%
190	3	570	58,281	2,060,529	2,139,949	99.29%
191	6	1,146	58,287	2,061,675	2,140,367	99.30%
192	7	1,344	58,294	2,063,019	2,140,779	99.31%
193	11	2,123	58,305	2,065,142	2,141,184	99.33%
194	5	970	58,310	2,066,112	2,141,578	99.34%
195	5	975	58,315	2,067,087	2,141,967	99.35%
196	6	1,176	58,321	2,068,263	2,142,351	99.36%
197	2	394	58,323	2,068,657	2,142,729	99.36%
198	3	594	58,326	2,069,251	2,143,105	99.36%
199	8	1,592	58,334	2,070,843	2,143,478	99.38%
200	5	1,000	58,339	2,071,843	2,143,843	99.39%
201	3	603	58,342	2,072,446	2,144,203	99.39%
202	4	808	58,346	2,073,254	2,144,560	99.40%
203	6	1,218	58,352	2,074,472	2,144,913	99.41%
204	4	816	58,356	2,075,288	2,145,260	99.42%
205	8	1,640	58,364	2,076,928	2,145,603	99.43%
206	1	206	58,365	2,077,134	2,145,938	99.43%
207	3	621	58,368	2,077,755	2,146,272	99.44%
208	3	624	58,371	2,078,379	2,146,603	99.44%
209	7	1,463	58,378	2,079,842	2,146,931	99.45%

210	2	420	58,380	2,080,262	2,147,252	99.46%
211	5	1,055	58,385	2,081,317	2,147,571	99.47%
212	2	424	58,387	2,081,741	2,147,885	99.47%
213	1	213	58,388	2,081,954	2,148,197	99.47%
214	4	856	58,392	2,082,810	2,148,508	99.48%
215	5	1,075	58,397	2,083,885	2,148,815	99.49%
216	5	1,080	58,402	2,084,965	2,149,117	99.49%
217	3	651	58,405	2,085,616	2,149,414	99.50%
218	3	654	58,408	2,086,270	2,149,708	99.50%
219	3	657	58,411	2,086,927	2,149,999	99.51%
220	2	440	58,413	2,087,367	2,150,287	99.51%
221	5	1,105	58,418	2,088,472	2,150,573	99.52%
222	3	666	58,421	2,089,138	2,150,854	99.53%
223	5	1,115	58,426	2,090,253	2,151,132	99.53%
225	6	1,350	58,432	2,091,603	2,151,678	99.55%
226	1	226	58,433	2,091,829	2,151,945	99.55%
227	2	454	58,435	2,092,283	2,152,211	99.55%
228	3	684	58,438	2,092,967	2,152,475	99.56%
230	(1)	(230)	58,437	2,092,737	2,152,997	99.55%
231	4	924	58,441	2,093,661	2,153,259	99.56%
232	1	232	58,442	2,093,893	2,153,517	99.56%
233	1	233	58,443	2,094,126	2,153,774	99.56%
235	1	235	58,444	2,094,361	2,154,286	99.57%
236	3	708	58,447	2,095,069	2,154,541	99.57%
237	2	474	58,449	2,095,543	2,154,793	99.57%
238	2	476	58,451	2,096,019	2,155,043	99.58%
240	4	960	58,455	2,096,979	2,155,539	99.58%
241	3	723	58,458	2,097,702	2,155,783	99.59%
242	1	242	58,459	2,097,944	2,156,024	99.59%
243	1	243	58,460	2,098,187	2,156,264	99.59%
244	3	732	58,463	2,098,919	2,156,503	99.60%
245	3	735	58,466	2,099,654	2,156,739	99.60%
246	2	492	58,468	2,100,146	2,156,972	99.61%
247	(1)	(247)	58,467	2,099,899	2,157,203	99.60%
248	1	248	58,468	2,100,147	2,157,435	99.61%
249	3	747	58,471	2,100,894	2,157,666	99.61%
250	10	2,500	58,481	2,103,394	2,157,894	99.63%
251	1	251	58,482	2,103,645	2,158,112	99.63%
252	1	252	58,483	2,103,897	2,158,329	99.63%
253	1	253	58,484	2,104,150	2,158,545	99.63%
254	1	254	58,485	2,104,404	2,158,760	99.64%
255	1	255	58,486	2,104,659	2,158,974	99.64%
256	1	256	58,487	2,104,915	2,159,187	99.64%
257	1	257	58,488	2,105,172	2,159,399	99.64%
258	4	1,032	58,492	2,106,204	2,159,610	99.65%
259	1	259	58,493	2,106,463	2,159,817	99.65%
260	2	520	58,495	2,106,983	2,160,023	99.65%
262	4	1,048	58,499	2,108,031	2,160,431	99.66%
263	1	263	58,500	2,108,294	2,160,631	99.66%
264	1	264	58,501	2,108,558	2,160,830	99.66%
265	1	265	58,502	2,108,823	2,161,028	99.66%
266	2	532	58,504	2,109,355	2,161,225	99.67%
267	-	-	58,504	2,109,355	2,161,420	99.67%
268	1	268	58,505	2,109,623	2,161,615	99.67%
269	1	269	58,506	2,109,892	2,161,809	99.67%

271	1	271	58,507	2,110,163	2,162,195	99.67%
272	2	544	58,509	2,110,707	2,162,387	99.68%
273	3	819	58,512	2,111,526	2,162,577	99.68%
274	4	1,096	58,516	2,112,622	2,162,764	99.69%
275	1	275	58,517	2,112,897	2,162,947	99.69%
276	2	552	58,519	2,113,449	2,163,129	99.69%
277	1	277	58,520	2,113,726	2,163,309	99.70%
278	-	-	58,520	2,113,726	2,163,488	99.70%
279	3	837	58,523	2,114,563	2,163,667	99.70%
280	3	840	58,526	2,115,403	2,163,843	99.71%
281	2	562	58,528	2,115,965	2,164,016	99.71%
282	1	282	58,529	2,116,247	2,164,187	99.71%
284	2	568	58,531	2,116,815	2,164,527	99.71%
286	2	572	58,533	2,117,387	2,164,863	99.72%
287	1	287	58,534	2,117,674	2,165,029	99.72%
288	1	288	58,535	2,117,962	2,165,194	99.72%
289	1	289	58,536	2,118,251	2,165,358	99.72%
290	2	580	58,538	2,118,831	2,165,521	99.73%
291	1	291	58,539	2,119,122	2,165,682	99.73%
292	1	292	58,540	2,119,414	2,165,842	99.73%
294	2	588	58,542	2,120,002	2,166,160	99.73%
295	1	295	58,543	2,120,297	2,166,317	99.73%
296	1	296	58,544	2,120,593	2,166,473	99.74%
297	1	297	58,545	2,120,890	2,166,628	99.74%
299	2	598	58,547	2,121,488	2,166,936	99.74%
300	1	300	58,548	2,121,788	2,167,088	99.74%
301	5	1,505	58,553	2,123,293	2,167,239	99.75%
304	1	304	58,554	2,123,597	2,167,677	99.75%
306	2	612	58,556	2,124,209	2,167,967	99.76%
308	3	924	58,559	2,125,133	2,168,253	99.76%
309	1	309	58,560	2,125,442	2,168,393	99.76%
310	1	310	58,561	2,125,752	2,168,532	99.76%
311	-	-	58,561	2,125,752	2,168,670	99.76%
314	2	628	58,563	2,126,380	2,169,084	99.77%
315	1	315	58,564	2,126,695	2,169,220	99.77%
316	1	316	58,565	2,127,011	2,169,355	99.77%
318	1	318	58,566	2,127,329	2,169,623	99.77%
320	1	320	58,567	2,127,649	2,169,889	99.78%
321	4	1,284	58,571	2,128,933	2,170,021	99.78%
322	2	644	58,573	2,129,577	2,170,149	99.79%
324	1	324	58,574	2,129,901	2,170,401	99.79%
325	1	325	58,575	2,130,226	2,170,526	99.79%
326	1	326	58,576	2,130,552	2,170,650	99.79%
327	2	654	58,578	2,131,206	2,170,773	99.79%
333	1	333	58,579	2,131,539	2,171,499	99.80%
335	-	-	58,579	2,131,539	2,171,739	99.80%
339	1	339	58,580	2,131,878	2,172,219	99.80%
340	1	340	58,581	2,132,218	2,172,338	99.80%
341	1	341	58,582	2,132,559	2,172,456	99.80%
342	1	342	58,583	2,132,901	2,172,573	99.80%
343	1	343	58,584	2,133,244	2,172,689	99.80%
344	2	688	58,586	2,133,932	2,172,804	99.81%
345	1	345	58,587	2,134,277	2,172,917	99.81%
346	1	346	58,588	2,134,623	2,173,029	99.81%
347	1	347	58,589	2,134,970	2,173,140	99.81%

348	-	-	58,589	2,134,970	2,173,250	99.81%
355	-	-	58,589	2,134,970	2,174,020	99.81%
356	1	356	58,590	2,135,326	2,174,130	99.81%
357	1	357	58,591	2,135,683	2,174,239	99.82%
363	1	363	58,592	2,136,046	2,174,887	99.82%
370	1	370	58,593	2,136,416	2,175,636	99.82%
372	1	372	58,594	2,136,788	2,175,848	99.82%
373	2	746	58,596	2,137,534	2,175,953	99.82%
374	1	374	58,597	2,137,908	2,176,056	99.83%
378	1	378	58,598	2,138,286	2,176,464	99.83%
379	1	379	58,599	2,138,665	2,176,565	99.83%
380	1	380	58,600	2,139,045	2,176,665	99.83%
386	1	386	58,601	2,139,431	2,177,259	99.83%
390	1	390	58,602	2,139,821	2,177,651	99.83%
392	1	392	58,603	2,140,213	2,177,845	99.84%
394	1	394	58,604	2,140,607	2,178,037	99.84%
395	1	395	58,605	2,141,002	2,178,132	99.84%
397	1	397	58,606	2,141,399	2,178,320	99.84%
399	1	399	58,607	2,141,798	2,178,506	99.84%
401	1	401	58,608	2,142,199	2,178,690	99.84%
402	1	402	58,609	2,142,601	2,178,781	99.85%
403	1	403	58,610	2,143,004	2,178,871	99.85%
404	1	404	58,611	2,143,408	2,178,960	99.85%
405	2	810	58,613	2,144,218	2,179,048	99.85%
406	1	406	58,614	2,144,624	2,179,134	99.86%
407	1	407	58,615	2,145,031	2,179,219	99.86%
408	1	408	58,616	2,145,439	2,179,303	99.86%
410	1	410	58,617	2,145,849	2,179,469	99.86%
414	2	828	58,619	2,146,677	2,179,797	99.86%
415	1	415	58,620	2,147,092	2,179,877	99.87%
417	1	417	58,621	2,147,509	2,180,035	99.87%
418	1	418	58,622	2,147,927	2,180,113	99.87%
421	1	421	58,623	2,148,348	2,180,344	99.87%
425	1	425	58,624	2,148,773	2,180,648	99.87%
430	3	1,290	58,627	2,150,063	2,181,023	99.88%
432	2	864	58,629	2,150,927	2,181,167	99.88%
434	-	-	58,629	2,150,927	2,181,307	99.88%
435	1	435	58,630	2,151,362	2,181,377	99.88%
437	1	437	58,631	2,151,799	2,181,515	99.88%
443	1	443	58,632	2,152,242	2,181,923	99.89%
444	1	444	58,633	2,152,686	2,181,990	99.89%
446	1	446	58,634	2,153,132	2,182,122	99.89%
453	1	453	58,635	2,153,585	2,182,577	99.89%
456	1	456	58,636	2,154,041	2,182,769	99.89%
457	1	457	58,637	2,154,498	2,182,832	99.89%
461	1	461	58,638	2,154,959	2,183,080	99.90%
464	1	464	58,639	2,155,423	2,183,263	99.90%
465	2	930	58,641	2,156,353	2,183,323	99.90%
469	1	469	58,642	2,156,822	2,183,555	99.90%
470	1	470	58,643	2,157,292	2,183,612	99.90%
474	1	474	58,644	2,157,766	2,183,836	99.91%
475	1	475	58,645	2,158,241	2,183,891	99.91%
482	1	482	58,646	2,158,723	2,184,269	99.91%
484	1	484	58,647	2,159,207	2,184,375	99.91%
487	1	487	58,648	2,159,694	2,184,531	99.91%

493	2	986	58,650	2,160,680	2,184,837	99.92%
497	1	497	58,651	2,161,177	2,185,033	99.92%
501	2	1,002	58,653	2,162,179	2,185,225	99.92%
509	2	1,018	58,655	2,163,197	2,185,593	99.93%
516	1	516	58,656	2,163,713	2,185,901	99.93%
517	2	1,034	58,658	2,164,747	2,185,944	99.93%
521	1	521	58,659	2,165,268	2,186,108	99.93%
526	1	526	58,660	2,165,794	2,186,308	99.93%
528	1	528	58,661	2,166,322	2,186,386	99.94%
535	1	535	58,662	2,166,857	2,186,652	99.94%
536	1	536	58,663	2,167,393	2,186,689	99.94%
537	1	537	58,664	2,167,930	2,186,725	99.94%
540	1	540	58,665	2,168,470	2,186,830	99.94%
546	1	546	58,666	2,169,016	2,187,034	99.94%
548	1	548	58,667	2,169,564	2,187,100	99.95%
549	-	-	58,667	2,169,564	2,187,132	99.95%
553	2	1,106	58,669	2,170,670	2,187,260	99.95%
554	1	554	58,670	2,171,224	2,187,290	99.95%
560	1	560	58,671	2,171,784	2,187,464	99.95%
563	1	563	58,672	2,172,347	2,187,548	99.95%
595	1	595	58,673	2,172,942	2,188,412	99.96%
596	1	596	58,674	2,173,538	2,188,438	99.96%
602	1	602	58,675	2,174,140	2,188,588	99.96%
606	1	606	58,676	2,174,746	2,188,684	99.96%
608	1	608	58,677	2,175,354	2,188,730	99.96%
613	1	613	58,678	2,175,967	2,188,840	99.96%
615	1	615	58,679	2,176,582	2,188,882	99.97%
625	1	625	58,680	2,177,207	2,189,082	99.97%
626	1	626	58,681	2,177,833	2,189,101	99.97%
629	1	629	58,682	2,178,462	2,189,155	99.97%
639	(1)	(639)	58,681	2,177,823	2,189,325	99.97%
646	1	646	58,682	2,178,469	2,189,451	99.97%
647	1	647	58,683	2,179,116	2,189,468	99.97%
677	1	677	58,684	2,179,793	2,189,948	99.97%
679	1	679	58,685	2,180,472	2,189,978	99.98%
700	-	-	58,685	2,180,472	2,190,272	99.98%
721	1	721	58,686	2,181,193	2,190,566	99.98%
735	1	735	58,687	2,181,928	2,190,748	99.98%
758	1	758	58,688	2,182,686	2,191,024	99.98%
776	1	776	58,689	2,183,462	2,191,222	99.98%
781	1	781	58,690	2,184,243	2,191,272	99.98%
786	1	786	58,691	2,185,029	2,191,317	99.99%
809	1	809	58,692	2,185,838	2,191,501	99.99%
820	-	-	58,692	2,185,838	2,191,578	99.99%
824	-	-	58,692	2,185,838	2,191,606	99.99%
1,078	1	1,078	58,693	2,186,916	2,193,384	99.99%
1,172	1	1,172	58,694	2,188,088	2,193,948	99.99%
1,194	1	1,194	58,695	2,189,282	2,194,058	99.99%
1,274	1	1,274	58,696	2,190,556	2,194,378	99.99%
1,512	1	1,512	58,697	2,192,068	2,195,092	100.00%
1,602	1	1,602	58,698	2,193,670	2,195,272	100.00%
2,049	(1)	(2,049)	58,697	2,191,621	2,195,719	100.00%
2,071	1	2,071	58,698	2,193,692	2,195,763	100.00%
2,323	1	2,323	58,699	2,196,015	2,196,015	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF OCTOBER 2022
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	1,852	-	1,852	-	-	3.18%
1	452	452	2,304	452	56,473	3.95%
2	309	618	2,613	1,070	112,494	4.48%
3	340	1,020	2,953	2,090	168,206	5.06%
4	358	1,432	3,311	3,522	223,578	5.68%
5	422	2,110	3,733	5,632	278,592	6.40%
6	524	3,144	4,257	8,776	333,184	7.30%
7	637	4,459	4,894	13,235	387,252	8.39%
8	742	5,936	5,636	19,171	440,683	9.66%
9	780	7,020	6,416	26,191	493,372	11.00%
10	942	9,420	7,358	35,611	545,281	12.62%
11	958	10,538	8,316	46,149	596,248	14.26%
12	1,073	12,876	9,389	59,025	646,257	16.10%
13	1,043	13,559	10,432	72,584	695,193	17.89%
14	1,056	14,784	11,488	87,368	743,086	19.70%
15	1,132	16,980	12,620	104,348	789,923	21.64%
16	1,112	17,792	13,732	122,140	835,628	23.54%
17	1,231	20,927	14,963	143,067	880,221	25.65%
18	1,168	21,024	16,131	164,091	923,583	27.66%
19	1,206	22,914	17,337	187,005	965,777	29.72%
20	1,194	23,880	18,531	210,885	1,006,765	31.77%
21	1,240	26,040	19,771	236,925	1,046,559	33.90%
22	1,258	27,676	21,029	264,601	1,085,113	36.05%
23	1,283	29,509	22,312	294,110	1,122,409	38.25%
24	1,288	30,912	23,600	325,022	1,158,422	40.46%
25	1,303	32,575	24,903	357,597	1,193,147	42.70%
26	1,218	31,668	26,121	389,265	1,226,569	44.79%
27	1,241	33,507	27,362	422,772	1,258,773	46.91%
28	1,195	33,460	28,557	456,232	1,289,736	48.96%
29	1,159	33,611	29,716	489,843	1,319,504	50.95%
30	1,210	36,300	30,926	526,143	1,348,113	53.02%
31	1,084	33,604	32,010	559,747	1,375,512	54.88%
32	1,102	35,264	33,112	595,011	1,401,827	56.77%
33	1,034	34,122	34,146	629,133	1,427,040	58.54%
34	1,033	35,122	35,179	664,255	1,451,219	60.32%
35	976	34,160	36,155	698,415	1,474,365	61.99%
36	950	34,200	37,105	732,615	1,496,535	63.62%
37	975	36,075	38,080	768,690	1,517,755	65.29%
38	876	33,288	38,956	801,978	1,538,000	66.79%
39	836	32,604	39,792	834,582	1,557,369	68.22%
40	856	34,240	40,648	868,822	1,575,902	69.69%
41	819	33,579	41,467	902,401	1,593,579	71.10%
42	771	32,382	42,238	934,783	1,610,437	72.42%
43	717	30,831	42,955	965,614	1,626,524	73.65%
44	693	30,492	43,648	996,106	1,641,894	74.84%

45	700	31,500	44,348	1,027,606	1,656,571	76.04%
46	640	29,440	44,988	1,057,046	1,670,548	77.13%
47	619	29,093	45,607	1,086,139	1,683,885	78.19%
48	612	29,376	46,219	1,115,515	1,696,603	79.24%
49	570	27,930	46,789	1,143,445	1,708,709	80.22%
50	497	24,850	47,286	1,168,295	1,720,245	81.07%
51	509	25,959	47,795	1,194,254	1,731,284	81.95%
52	466	24,232	48,261	1,218,486	1,741,814	82.74%
53	444	23,532	48,705	1,242,018	1,751,878	83.51%
54	464	25,056	49,169	1,267,074	1,761,498	84.30%
55	449	24,695	49,618	1,291,769	1,770,654	85.07%
56	396	22,176	50,014	1,313,945	1,779,361	85.75%
57	336	19,152	50,350	1,333,097	1,787,672	86.33%
58	355	20,590	50,705	1,353,687	1,795,647	86.94%
59	351	20,709	51,056	1,374,396	1,803,267	87.54%
60	311	18,660	51,367	1,393,056	1,810,536	88.07%
61	314	19,154	51,681	1,412,210	1,817,494	88.61%
62	297	18,414	51,978	1,430,624	1,824,138	89.12%
63	257	16,191	52,235	1,446,815	1,830,485	89.56%
64	257	16,448	52,492	1,463,263	1,836,575	90.00%
65	252	16,380	52,744	1,479,643	1,842,408	90.43%
66	217	14,322	52,961	1,493,965	1,847,989	90.80%
67	209	14,003	53,170	1,507,968	1,853,353	91.16%
68	191	12,988	53,361	1,520,956	1,858,508	91.49%
69	200	13,800	53,561	1,534,756	1,863,472	91.83%
70	189	13,230	53,750	1,547,986	1,868,236	92.16%
71	184	13,064	53,934	1,561,050	1,872,811	92.47%
72	168	12,096	54,102	1,573,146	1,877,202	92.76%
73	153	11,169	54,255	1,584,315	1,881,425	93.02%
74	154	11,396	54,409	1,595,711	1,885,495	93.29%
75	152	11,400	54,561	1,607,111	1,889,411	93.55%
76	133	10,108	54,694	1,617,219	1,893,175	93.77%
77	119	9,163	54,813	1,626,382	1,896,806	93.98%
78	133	10,374	54,946	1,636,756	1,900,318	94.21%
79	126	9,954	55,072	1,646,710	1,903,697	94.42%
80	114	9,120	55,186	1,655,830	1,906,950	94.62%
81	112	9,072	55,298	1,664,902	1,910,089	94.81%
82	102	8,364	55,400	1,673,266	1,913,116	94.98%
83	99	8,217	55,499	1,681,483	1,916,041	95.15%
84	100	8,400	55,599	1,689,883	1,918,867	95.33%
85	91	7,735	55,690	1,697,618	1,921,593	95.48%
86	82	7,052	55,772	1,704,670	1,924,228	95.62%
87	87	7,569	55,859	1,712,239	1,926,781	95.77%
88	84	7,392	55,943	1,719,631	1,929,247	95.92%
89	74	6,586	56,017	1,726,217	1,931,629	96.04%
90	70	6,300	56,087	1,732,517	1,933,937	96.16%
91	69	6,279	56,156	1,738,796	1,936,175	96.28%
92	73	6,716	56,229	1,745,512	1,938,344	96.41%
93	64	5,952	56,293	1,751,464	1,940,440	96.52%
94	67	6,298	56,360	1,757,762	1,942,472	96.63%
95	66	6,270	56,426	1,764,032	1,944,437	96.74%
96	71	6,816	56,497	1,770,848	1,946,336	96.87%
97	71	6,887	56,568	1,777,735	1,948,164	96.99%
98	53	5,194	56,621	1,782,929	1,949,921	97.08%
99	51	5,049	56,672	1,787,978	1,951,625	97.17%

100	54	5,400	56,726	1,793,378	1,953,278	97.26%
101	37	3,737	56,763	1,797,115	1,954,877	97.32%
102	48	4,896	56,811	1,802,011	1,956,439	97.40%
103	43	4,429	56,854	1,806,440	1,957,953	97.48%
104	43	4,472	56,897	1,810,912	1,959,424	97.55%
105	50	5,250	56,947	1,816,162	1,960,852	97.64%
106	30	3,180	56,977	1,819,342	1,962,230	97.69%
107	43	4,601	57,020	1,823,943	1,963,578	97.76%
108	33	3,564	57,053	1,827,507	1,964,883	97.82%
109	43	4,687	57,096	1,832,194	1,966,155	97.89%
110	37	4,070	57,133	1,836,264	1,967,384	97.96%
111	27	2,997	57,160	1,839,261	1,968,576	98.00%
112	29	3,248	57,189	1,842,509	1,969,741	98.05%
113	22	2,486	57,211	1,844,995	1,970,877	98.09%
114	26	2,964	57,237	1,847,959	1,971,991	98.13%
115	29	3,335	57,266	1,851,294	1,973,079	98.18%
116	26	3,016	57,292	1,854,310	1,974,138	98.23%
117	27	3,159	57,319	1,857,469	1,975,171	98.28%
118	14	1,652	57,333	1,859,121	1,976,177	98.30%
119	16	1,904	57,349	1,861,025	1,977,169	98.33%
120	21	2,520	57,370	1,863,545	1,978,145	98.36%
121	21	2,541	57,391	1,866,086	1,979,100	98.40%
122	30	3,660	57,421	1,869,746	1,980,034	98.45%
123	28	3,444	57,449	1,873,190	1,980,938	98.50%
124	13	1,612	57,462	1,874,802	1,981,814	98.52%
125	25	3,125	57,487	1,877,927	1,982,677	98.56%
126	13	1,638	57,500	1,879,565	1,983,515	98.59%
127	21	2,667	57,521	1,882,232	1,984,340	98.62%
128	18	2,304	57,539	1,884,536	1,985,144	98.65%
129	13	1,677	57,552	1,886,213	1,985,930	98.67%
130	13	1,690	57,565	1,887,903	1,986,703	98.70%
131	21	2,751	57,586	1,890,654	1,987,463	98.73%
132	19	2,508	57,605	1,893,162	1,988,202	98.77%
133	18	2,394	57,623	1,895,556	1,988,922	98.80%
134	14	1,876	57,637	1,897,432	1,989,624	98.82%
135	12	1,620	57,649	1,899,052	1,990,312	98.84%
136	17	2,312	57,666	1,901,364	1,990,988	98.87%
137	11	1,507	57,677	1,902,871	1,991,647	98.89%
138	10	1,380	57,687	1,904,251	1,992,295	98.91%
139	13	1,807	57,700	1,906,058	1,992,933	98.93%
140	10	1,400	57,710	1,907,458	1,993,558	98.95%
141	4	564	57,714	1,908,022	1,994,173	98.95%
142	15	2,130	57,729	1,910,152	1,994,784	98.98%
143	11	1,573	57,740	1,911,725	1,995,380	99.00%
144	12	1,728	57,752	1,913,453	1,995,965	99.02%
145	15	2,175	57,767	1,915,628	1,996,538	99.04%
146	18	2,628	57,785	1,918,256	1,997,096	99.07%
147	8	1,176	57,793	1,919,432	1,997,636	99.09%
148	10	1,480	57,803	1,920,912	1,998,168	99.11%
149	10	1,490	57,813	1,922,402	1,998,690	99.12%
150	7	1,050	57,820	1,923,452	1,999,202	99.13%
151	10	1,510	57,830	1,924,962	1,999,707	99.15%
152	7	1,064	57,837	1,926,026	2,000,202	99.16%
153	9	1,377	57,846	1,927,403	2,000,690	99.18%
154	6	924	57,852	1,928,327	2,001,169	99.19%

155	10	1,550	57,862	1,929,877	2,001,642	99.21%
156	12	1,872	57,874	1,931,749	2,002,105	99.23%
157	7	1,099	57,881	1,932,848	2,002,556	99.24%
158	7	1,106	57,888	1,933,954	2,003,000	99.25%
159	13	2,067	57,901	1,936,021	2,003,437	99.27%
160	5	800	57,906	1,936,821	2,003,861	99.28%
161	4	644	57,910	1,937,465	2,004,280	99.29%
162	7	1,134	57,917	1,938,599	2,004,695	99.30%
163	6	978	57,923	1,939,577	2,005,103	99.31%
164	7	1,148	57,930	1,940,725	2,005,505	99.32%
165	5	825	57,935	1,941,550	2,005,900	99.33%
166	4	664	57,939	1,942,214	2,006,290	99.34%
167	2	334	57,941	1,942,548	2,006,676	99.34%
168	7	1,176	57,948	1,943,724	2,007,060	99.35%
169	9	1,521	57,957	1,945,245	2,007,437	99.37%
170	7	1,190	57,964	1,946,435	2,007,805	99.38%
171	2	342	57,966	1,946,777	2,008,166	99.38%
172	8	1,376	57,974	1,948,153	2,008,525	99.40%
173	5	865	57,979	1,949,018	2,008,876	99.41%
174	5	870	57,984	1,949,888	2,009,222	99.42%
175	6	1,050	57,990	1,950,938	2,009,563	99.43%
176	2	352	57,992	1,951,290	2,009,898	99.43%
177	9	1,593	58,001	1,952,883	2,010,231	99.44%
178	3	534	58,004	1,953,417	2,010,555	99.45%
179	1	179	58,005	1,953,596	2,010,876	99.45%
180	1	180	58,006	1,953,776	2,011,196	99.45%
181	2	362	58,008	1,954,138	2,011,515	99.46%
182	3	546	58,011	1,954,684	2,011,832	99.46%
183	5	915	58,016	1,955,599	2,012,146	99.47%
184	4	736	58,020	1,956,335	2,012,455	99.48%
185	2	370	58,022	1,956,705	2,012,760	99.48%
186	3	558	58,025	1,957,263	2,013,063	99.49%
187	4	748	58,029	1,958,011	2,013,363	99.49%
188	3	564	58,032	1,958,575	2,013,659	99.50%
189	6	1,134	58,038	1,959,709	2,013,952	99.51%
190	2	380	58,040	1,960,089	2,014,239	99.51%
191	2	382	58,042	1,960,471	2,014,524	99.51%
192	4	768	58,046	1,961,239	2,014,807	99.52%
193	4	772	58,050	1,962,011	2,015,086	99.53%
194	1	194	58,051	1,962,205	2,015,361	99.53%
195	4	780	58,055	1,962,985	2,015,635	99.54%
196	1	196	58,056	1,963,181	2,015,905	99.54%
197	5	985	58,061	1,964,166	2,016,174	99.55%
199	2	398	58,063	1,964,564	2,016,702	99.55%
200	2	400	58,065	1,964,964	2,016,964	99.55%
201	2	402	58,067	1,965,366	2,017,224	99.56%
202	3	606	58,070	1,965,972	2,017,482	99.56%
203	3	609	58,073	1,966,581	2,017,737	99.57%
204	2	408	58,075	1,966,989	2,017,989	99.57%
205	1	205	58,076	1,967,194	2,018,239	99.57%
206	2	412	58,078	1,967,606	2,018,488	99.58%
207	2	414	58,080	1,968,020	2,018,735	99.58%
208	4	832	58,084	1,968,852	2,018,980	99.59%
209	5	1,045	58,089	1,969,897	2,019,221	99.60%
210	3	630	58,092	1,970,527	2,019,457	99.60%

211	4	844	58,096	1,971,371	2,019,690	99.61%
212	2	424	58,098	1,971,795	2,019,919	99.61%
214	1	214	58,099	1,972,009	2,020,373	99.61%
215	5	1,075	58,104	1,973,084	2,020,599	99.62%
216	3	648	58,107	1,973,732	2,020,820	99.63%
217	5	1,085	58,112	1,974,817	2,021,038	99.63%
218	2	436	58,114	1,975,253	2,021,251	99.64%
219	5	1,095	58,119	1,976,348	2,021,462	99.65%
220	2	440	58,121	1,976,788	2,021,668	99.65%
222	1	222	58,122	1,977,010	2,022,076	99.65%
223	3	669	58,125	1,977,679	2,022,279	99.66%
224	2	448	58,127	1,978,127	2,022,479	99.66%
225	2	450	58,129	1,978,577	2,022,677	99.66%
226	1	226	58,130	1,978,803	2,022,873	99.67%
227	2	454	58,132	1,979,257	2,023,068	99.67%
228	3	684	58,135	1,979,941	2,023,261	99.67%
229	3	687	58,138	1,980,628	2,023,451	99.68%
230	3	690	58,141	1,981,318	2,023,638	99.68%
231	2	462	58,143	1,981,780	2,023,822	99.69%
232	3	696	58,146	1,982,476	2,024,004	99.69%
233	2	466	58,148	1,982,942	2,024,183	99.70%
234	2	468	58,150	1,983,410	2,024,360	99.70%
235	2	470	58,152	1,983,880	2,024,535	99.70%
236	2	472	58,154	1,984,352	2,024,708	99.71%
237	4	948	58,158	1,985,300	2,024,879	99.71%
238	2	476	58,160	1,985,776	2,025,046	99.72%
240	2	480	58,162	1,986,256	2,025,376	99.72%
242	2	484	58,164	1,986,740	2,025,702	99.72%
245	2	490	58,166	1,987,230	2,026,185	99.73%
246	2	492	58,168	1,987,722	2,026,344	99.73%
247	1	247	58,169	1,987,969	2,026,501	99.73%
248	1	248	58,170	1,988,217	2,026,657	99.73%
250	7	1,750	58,177	1,989,967	2,026,967	99.75%
256	2	512	58,179	1,990,479	2,027,855	99.75%
257	1	257	58,180	1,990,736	2,028,001	99.75%
258	4	1,032	58,184	1,991,768	2,028,146	99.76%
259	1	259	58,185	1,992,027	2,028,287	99.76%
260	1	260	58,186	1,992,287	2,028,427	99.76%
261	1	261	58,187	1,992,548	2,028,566	99.76%
262	2	524	58,189	1,993,072	2,028,704	99.77%
264	1	264	58,190	1,993,336	2,028,976	99.77%
267	2	534	58,192	1,993,870	2,029,381	99.77%
268	1	268	58,193	1,994,138	2,029,514	99.77%
269	1	269	58,194	1,994,407	2,029,646	99.78%
271	1	271	58,195	1,994,678	2,029,908	99.78%
272	1	272	58,196	1,994,950	2,030,038	99.78%
275	3	825	58,199	1,995,775	2,030,425	99.78%
276	2	552	58,201	1,996,327	2,030,551	99.79%
277	1	277	58,202	1,996,604	2,030,675	99.79%
278	1	278	58,203	1,996,882	2,030,798	99.79%
279	1	279	58,204	1,997,161	2,030,920	99.79%
281	1	281	58,205	1,997,442	2,031,162	99.79%
282	1	282	58,206	1,997,724	2,031,282	99.80%
284	1	284	58,207	1,998,008	2,031,520	99.80%
286	1	286	58,208	1,998,294	2,031,756	99.80%

287	2	574	58,210	1,998,868	2,031,873	99.80%
289	1	289	58,211	1,999,157	2,032,103	99.80%
290	1	290	58,212	1,999,447	2,032,217	99.81%
292	(1)	(292)	58,211	1,999,155	2,032,443	99.80%
295	1	295	58,212	1,999,450	2,032,785	99.81%
296	1	296	58,213	1,999,746	2,032,898	99.81%
297	1	297	58,214	2,000,043	2,033,010	99.81%
300	3	900	58,217	2,000,943	2,033,343	99.81%
305	1	305	58,218	2,001,248	2,033,883	99.82%
309	1	309	58,219	2,001,557	2,034,311	99.82%
310	(1)	(310)	58,218	2,001,247	2,034,417	99.82%
311	2	622	58,220	2,001,869	2,034,524	99.82%
312	1	312	58,221	2,002,181	2,034,629	99.82%
313	2	626	58,223	2,002,807	2,034,733	99.83%
314	1	314	58,224	2,003,121	2,034,835	99.83%
315	3	945	58,227	2,004,066	2,034,936	99.83%
317	1	317	58,228	2,004,383	2,035,132	99.83%
318	1	318	58,229	2,004,701	2,035,229	99.84%
323	2	646	58,231	2,005,347	2,035,709	99.84%
324	-	-	58,231	2,005,347	2,035,803	99.84%
325	1	325	58,232	2,005,672	2,035,897	99.84%
331	2	662	58,234	2,006,334	2,036,455	99.84%
334	1	334	58,235	2,006,668	2,036,728	99.85%
337	1	337	58,236	2,007,005	2,036,998	99.85%
340	1	340	58,237	2,007,345	2,037,265	99.85%
341	1	341	58,238	2,007,686	2,037,353	99.85%
345	1	345	58,239	2,008,031	2,037,701	99.85%
346	2	692	58,241	2,008,723	2,037,787	99.86%
349	1	349	58,242	2,009,072	2,038,039	99.86%
351	1	351	58,243	2,009,423	2,038,205	99.86%
356	2	712	58,245	2,010,135	2,038,615	99.86%
358	1	358	58,246	2,010,493	2,038,775	99.86%
359	1	359	58,247	2,010,852	2,038,854	99.87%
362	1	362	58,248	2,011,214	2,039,088	99.87%
363	1	363	58,249	2,011,577	2,039,165	99.87%
365	1	365	58,250	2,011,942	2,039,317	99.87%
370	1	370	58,251	2,012,312	2,039,692	99.87%
371	1	371	58,252	2,012,683	2,039,766	99.87%
376	1	376	58,253	2,013,059	2,040,131	99.88%
377	1	377	58,254	2,013,436	2,040,203	99.88%
378	2	756	58,256	2,014,192	2,040,274	99.88%
383	1	383	58,257	2,014,575	2,040,619	99.88%
397	1	397	58,258	2,014,972	2,041,571	99.89%
399	1	399	58,259	2,015,371	2,041,705	99.89%
401	1	401	58,260	2,015,772	2,041,837	99.89%
402	1	402	58,261	2,016,174	2,041,902	99.89%
409	1	409	58,262	2,016,583	2,042,350	99.89%
411	1	411	58,263	2,016,994	2,042,476	99.89%
413	1	413	58,264	2,017,407	2,042,600	99.90%
416	1	416	58,265	2,017,823	2,042,783	99.90%
417	1	417	58,266	2,018,240	2,042,843	99.90%
418	1	418	58,267	2,018,658	2,042,902	99.90%
427	1	427	58,268	2,019,085	2,043,424	99.90%
430	1	430	58,269	2,019,515	2,043,595	99.90%
437	1	437	58,270	2,019,952	2,043,987	99.91%

438	1	438	58,271	2,020,390	2,044,042	99.91%
442	1	442	58,272	2,020,832	2,044,258	99.91%
447	1	447	58,273	2,021,279	2,044,523	99.91%
448	1	448	58,274	2,021,727	2,044,575	99.91%
452	2	904	58,276	2,022,631	2,044,779	99.92%
454	2	908	58,278	2,023,539	2,044,877	99.92%
459	1	459	58,279	2,023,998	2,045,112	99.92%
464	1	464	58,280	2,024,462	2,045,342	99.92%
468	1	468	58,281	2,024,930	2,045,522	99.92%
476	1	476	58,282	2,025,406	2,045,874	99.93%
486	1	486	58,283	2,025,892	2,046,304	99.93%
491	1	491	58,284	2,026,383	2,046,514	99.93%
500	1	500	58,285	2,026,883	2,046,883	99.93%
501	(1)	(501)	58,284	2,026,382	2,046,923	99.93%
505	1	505	58,285	2,026,887	2,047,087	99.93%
513	1	513	58,286	2,027,400	2,047,407	99.93%
514	1	514	58,287	2,027,914	2,047,446	99.93%
517	1	517	58,288	2,028,431	2,047,560	99.94%
523	1	523	58,289	2,028,954	2,047,782	99.94%
527	1	527	58,290	2,029,481	2,047,926	99.94%
532	1	532	58,291	2,030,013	2,048,101	99.94%
538	1	538	58,292	2,030,551	2,048,305	99.94%
553	1	553	58,293	2,031,104	2,048,800	99.95%
558	1	558	58,294	2,031,662	2,048,960	99.95%
563	1	563	58,295	2,032,225	2,049,115	99.95%
564	1	564	58,296	2,032,789	2,049,145	99.95%
570	2	1,140	58,298	2,033,929	2,049,319	99.95%
573	1	573	58,299	2,034,502	2,049,400	99.96%
579	1	579	58,300	2,035,081	2,049,556	99.96%
586	1	586	58,301	2,035,667	2,049,731	99.96%
590	1	590	58,302	2,036,257	2,049,827	99.96%
592	1	592	58,303	2,036,849	2,049,873	99.96%
603	1	603	58,304	2,037,452	2,050,115	99.96%
616	1	616	58,305	2,038,068	2,050,388	99.97%
630	1	630	58,306	2,038,698	2,050,668	99.97%
636	1	636	58,307	2,039,334	2,050,782	99.97%
640	1	640	58,308	2,039,974	2,050,854	99.97%
669	1	669	58,309	2,040,643	2,051,347	99.97%
671	1	671	58,310	2,041,314	2,051,379	99.97%
677	(1)	(677)	58,309	2,040,637	2,051,469	99.97%
684	1	684	58,310	2,041,321	2,051,581	99.97%
686	1	686	58,311	2,042,007	2,051,611	99.98%
691	1	691	58,312	2,042,698	2,051,681	99.98%
701	-	-	58,312	2,042,698	2,051,811	99.98%
710	1	710	58,313	2,043,408	2,051,928	99.98%
720	1	720	58,314	2,044,128	2,052,048	99.98%
728	1	728	58,315	2,044,856	2,052,136	99.98%
737	1	737	58,316	2,045,593	2,052,226	99.98%
738	1	738	58,317	2,046,331	2,052,235	99.99%
892	1	892	58,318	2,047,223	2,053,467	99.99%
893	1	893	58,319	2,048,116	2,053,474	99.99%
940	1	940	58,320	2,049,056	2,053,756	99.99%
975	2	1,950	58,322	2,051,006	2,053,931	99.99%
1,132	(1)	(1,132)	58,321	2,049,874	2,054,402	99.99%
1,276	-	-	58,321	2,049,874	2,054,978	99.99%

1,461	1	1,461	58,322	2,051,335	2,055,718	99.99%
1,482	1	1,482	58,323	2,052,817	2,055,781	100.00%
1,521	1	1,521	58,324	2,054,338	2,055,859	100.00%
2,061	1	2,061	58,325	2,056,399	2,056,399	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF NOVEMBER 2022
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	2,013	-	2,013	-	-	3.44%
1	476	476	2,489	476	56,545	4.25%
2	300	600	2,789	1,076	112,614	4.76%
3	357	1,071	3,146	2,147	168,383	5.37%
4	411	1,644	3,557	3,791	223,795	6.07%
5	449	2,245	4,006	6,036	278,796	6.84%
6	587	3,522	4,593	9,558	333,348	7.84%
7	710	4,970	5,303	14,528	387,313	9.06%
8	857	6,856	6,160	21,384	440,568	10.52%
9	936	8,424	7,096	29,808	492,966	12.12%
10	956	9,560	8,052	39,368	544,428	13.75%
11	1,114	12,254	9,166	51,622	594,934	15.65%
12	1,109	13,308	10,275	64,930	644,326	17.55%
13	1,190	15,470	11,465	80,400	692,609	19.58%
14	1,174	16,436	12,639	96,836	739,702	21.58%
15	1,296	19,440	13,935	116,276	785,621	23.80%
16	1,301	20,816	15,236	137,092	830,244	26.02%
17	1,249	21,233	16,485	158,325	873,566	28.15%
18	1,264	22,752	17,749	181,077	915,639	30.31%
19	1,262	23,978	19,011	205,055	956,448	32.47%
20	1,319	26,380	20,330	231,435	995,995	34.72%
21	1,271	26,691	21,601	258,126	1,034,223	36.89%
22	1,376	30,272	22,977	288,398	1,071,180	39.24%
23	1,371	31,533	24,348	319,931	1,106,761	41.58%
24	1,406	33,744	25,754	353,675	1,140,971	43.98%
25	1,364	34,100	27,118	387,775	1,173,775	46.31%
26	1,337	34,762	28,455	422,537	1,205,215	48.59%
27	1,331	35,937	29,786	458,474	1,235,318	50.87%
28	1,178	32,984	30,964	491,458	1,264,090	52.88%
29	1,289	37,381	32,253	528,839	1,291,684	55.08%
30	1,206	36,180	33,459	565,019	1,317,989	57.14%
31	1,119	34,689	34,578	599,708	1,343,088	59.05%
32	1,126	36,032	35,704	635,740	1,367,068	60.97%
33	1,037	34,221	36,741	669,961	1,389,922	62.74%
34	963	32,742	37,704	702,703	1,411,739	64.39%
35	1,006	35,210	38,710	737,913	1,432,593	66.11%
36	925	33,300	39,635	771,213	1,452,441	67.69%
37	918	33,966	40,553	805,179	1,471,364	69.25%
38	879	33,402	41,432	838,581	1,489,369	70.75%
39	776	30,264	42,208	868,845	1,506,495	72.08%
40	801	32,040	43,009	900,885	1,522,845	73.45%
41	772	31,652	43,781	932,537	1,538,394	74.77%
42	740	31,080	44,521	963,617	1,553,171	76.03%
43	703	30,229	45,224	993,846	1,567,208	77.23%
44	647	28,468	45,871	1,022,314	1,580,542	78.33%

45	631	28,395	46,502	1,050,709	1,593,229	79.41%
46	565	25,990	47,067	1,076,699	1,605,285	80.38%
47	573	26,931	47,640	1,103,630	1,616,776	81.36%
48	524	25,152	48,164	1,128,782	1,627,694	82.25%
49	522	25,578	48,686	1,154,360	1,638,088	83.14%
50	501	25,050	49,187	1,179,410	1,647,960	84.00%
51	501	25,551	49,688	1,204,961	1,657,331	84.85%
52	416	21,632	50,104	1,226,593	1,666,201	85.56%
53	473	25,069	50,577	1,251,662	1,674,655	86.37%
54	392	21,168	50,969	1,272,830	1,682,636	87.04%
55	376	20,680	51,345	1,293,510	1,690,225	87.68%
56	352	19,712	51,697	1,313,222	1,697,438	88.28%
57	340	19,380	52,037	1,332,602	1,704,299	88.86%
58	285	16,530	52,322	1,349,132	1,710,820	89.35%
59	308	18,172	52,630	1,367,304	1,717,056	89.88%
60	295	17,700	52,925	1,385,004	1,722,984	90.38%
61	262	15,982	53,187	1,400,986	1,728,617	90.83%
62	240	14,880	53,427	1,415,866	1,733,988	91.24%
63	233	14,679	53,660	1,430,545	1,739,119	91.64%
64	217	13,888	53,877	1,444,433	1,744,017	92.01%
65	218	14,170	54,095	1,458,603	1,748,698	92.38%
66	198	13,068	54,293	1,471,671	1,753,161	92.72%
67	204	13,668	54,497	1,485,339	1,757,426	93.06%
68	193	13,124	54,690	1,498,463	1,761,487	93.39%
69	186	12,834	54,876	1,511,297	1,765,355	93.71%
70	172	12,040	55,048	1,523,337	1,769,037	94.01%
71	151	10,721	55,199	1,534,058	1,772,547	94.26%
72	151	10,872	55,350	1,544,930	1,775,906	94.52%
73	157	11,461	55,507	1,556,391	1,779,114	94.79%
74	141	10,434	55,648	1,566,825	1,782,165	95.03%
75	115	8,625	55,763	1,575,450	1,785,075	95.23%
76	112	8,512	55,875	1,583,962	1,787,870	95.42%
77	112	8,624	55,987	1,592,586	1,790,553	95.61%
78	112	8,736	56,099	1,601,322	1,793,124	95.80%
79	116	9,164	56,215	1,610,486	1,795,583	96.00%
80	84	6,720	56,299	1,617,206	1,797,926	96.14%
81	93	7,533	56,392	1,624,739	1,800,185	96.30%
82	78	6,396	56,470	1,631,135	1,802,351	96.43%
83	76	6,308	56,546	1,637,443	1,804,439	96.56%
84	76	6,384	56,622	1,643,827	1,806,451	96.69%
85	68	5,780	56,690	1,649,607	1,808,387	96.81%
86	70	6,020	56,760	1,655,627	1,810,255	96.93%
87	63	5,481	56,823	1,661,108	1,812,053	97.04%
88	77	6,776	56,900	1,667,884	1,813,788	97.17%
89	65	5,785	56,965	1,673,669	1,815,446	97.28%
90	56	5,040	57,021	1,678,709	1,817,039	97.38%
91	59	5,369	57,080	1,684,078	1,818,576	97.48%
92	51	4,692	57,131	1,688,770	1,820,054	97.56%
93	43	3,999	57,174	1,692,769	1,821,481	97.64%
94	48	4,512	57,222	1,697,281	1,822,865	97.72%
95	50	4,750	57,272	1,702,031	1,824,201	97.80%
96	39	3,744	57,311	1,705,775	1,825,487	97.87%
97	36	3,492	57,347	1,709,267	1,826,734	97.93%
98	39	3,822	57,386	1,713,089	1,827,945	98.00%
99	49	4,851	57,435	1,717,940	1,829,117	98.08%

100	37	3,700	57,472	1,721,640	1,830,240	98.15%
101	40	4,040	57,512	1,725,680	1,831,326	98.21%
102	26	2,652	57,538	1,728,332	1,832,372	98.26%
103	30	3,090	57,568	1,731,422	1,833,392	98.31%
104	25	2,600	57,593	1,734,022	1,834,382	98.35%
105	28	2,940	57,621	1,736,962	1,835,347	98.40%
106	28	2,968	57,649	1,739,930	1,836,284	98.45%
107	22	2,354	57,671	1,742,284	1,837,193	98.49%
108	26	2,808	57,697	1,745,092	1,838,080	98.53%
109	23	2,507	57,720	1,747,599	1,838,941	98.57%
110	19	2,090	57,739	1,749,689	1,839,779	98.60%
111	31	3,441	57,770	1,753,130	1,840,598	98.65%
112	20	2,240	57,790	1,755,370	1,841,386	98.69%
113	15	1,695	57,805	1,757,065	1,842,154	98.71%
114	22	2,508	57,827	1,759,573	1,842,907	98.75%
115	24	2,760	57,851	1,762,333	1,843,638	98.79%
116	14	1,624	57,865	1,763,957	1,844,345	98.82%
117	21	2,457	57,886	1,766,414	1,845,038	98.85%
118	18	2,124	57,904	1,768,538	1,845,710	98.88%
119	19	2,261	57,923	1,770,799	1,846,364	98.92%
120	9	1,080	57,932	1,771,879	1,846,999	98.93%
121	16	1,936	57,948	1,773,815	1,847,625	98.96%
122	13	1,586	57,961	1,775,401	1,848,235	98.98%
123	11	1,353	57,972	1,776,754	1,848,832	99.00%
124	14	1,736	57,986	1,778,490	1,849,418	99.02%
125	16	2,000	58,002	1,780,490	1,849,990	99.05%
126	17	2,142	58,019	1,782,632	1,850,546	99.08%
127	14	1,778	58,033	1,784,410	1,851,085	99.10%
128	12	1,536	58,045	1,785,946	1,851,610	99.12%
129	13	1,677	58,058	1,787,623	1,852,123	99.15%
130	10	1,300	58,068	1,788,923	1,852,623	99.16%
131	9	1,179	58,077	1,790,102	1,853,113	99.18%
132	6	792	58,083	1,790,894	1,853,594	99.19%
133	9	1,197	58,092	1,792,091	1,854,069	99.20%
134	11	1,474	58,103	1,793,565	1,854,535	99.22%
135	5	675	58,108	1,794,240	1,854,990	99.23%
136	12	1,632	58,120	1,795,872	1,855,440	99.25%
137	7	959	58,127	1,796,831	1,855,878	99.26%
138	6	828	58,133	1,797,659	1,856,309	99.27%
139	7	973	58,140	1,798,632	1,856,734	99.29%
140	7	980	58,147	1,799,612	1,857,152	99.30%
141	7	987	58,154	1,800,599	1,857,563	99.31%
142	10	1,420	58,164	1,802,019	1,857,967	99.33%
143	8	1,144	58,172	1,803,163	1,858,361	99.34%
144	4	576	58,176	1,803,739	1,858,747	99.35%
145	5	725	58,181	1,804,464	1,859,129	99.36%
146	3	438	58,184	1,804,902	1,859,506	99.36%
147	8	1,176	58,192	1,806,078	1,859,880	99.37%
148	3	444	58,195	1,806,522	1,860,246	99.38%
149	8	1,192	58,203	1,807,714	1,860,609	99.39%
150	9	1,350	58,212	1,809,064	1,860,964	99.41%
151	5	755	58,217	1,809,819	1,861,310	99.42%
152	1	152	58,218	1,809,971	1,861,651	99.42%
153	5	765	58,223	1,810,736	1,861,991	99.43%
154	4	616	58,227	1,811,352	1,862,326	99.43%

155	9	1,395	58,236	1,812,747	1,862,657	99.45%
156	3	468	58,239	1,813,215	1,862,979	99.46%
157	3	471	58,242	1,813,686	1,863,298	99.46%
158	7	1,106	58,249	1,814,792	1,863,614	99.47%
159	5	795	58,254	1,815,587	1,863,923	99.48%
160	7	1,120	58,261	1,816,707	1,864,227	99.49%
161	2	322	58,263	1,817,029	1,864,524	99.50%
162	4	648	58,267	1,817,677	1,864,819	99.50%
163	7	1,141	58,274	1,818,818	1,865,110	99.52%
164	6	984	58,280	1,819,802	1,865,394	99.53%
165	3	495	58,283	1,820,297	1,865,672	99.53%
167	2	334	58,285	1,820,631	1,866,222	99.53%
168	2	336	58,287	1,820,967	1,866,495	99.54%
169	1	169	58,288	1,821,136	1,866,766	99.54%
170	1	170	58,289	1,821,306	1,867,036	99.54%
171	1	171	58,290	1,821,477	1,867,305	99.54%
172	3	516	58,293	1,821,993	1,867,573	99.55%
173	4	692	58,297	1,822,685	1,867,838	99.55%
174	1	174	58,298	1,822,859	1,868,099	99.56%
175	3	525	58,301	1,823,384	1,868,359	99.56%
176	2	352	58,303	1,823,736	1,868,616	99.56%
177	4	708	58,307	1,824,444	1,868,871	99.57%
178	1	178	58,308	1,824,622	1,869,122	99.57%
179	7	1,253	58,315	1,825,875	1,869,372	99.59%
180	2	360	58,317	1,826,235	1,869,615	99.59%
181	4	724	58,321	1,826,959	1,869,856	99.60%
182	4	728	58,325	1,827,687	1,870,093	99.60%
183	3	549	58,328	1,828,236	1,870,326	99.61%
184	3	552	58,331	1,828,788	1,870,556	99.61%
185	2	370	58,333	1,829,158	1,870,783	99.62%
186	3	558	58,336	1,829,716	1,871,008	99.62%
187	4	748	58,340	1,830,464	1,871,230	99.63%
188	5	940	58,345	1,831,404	1,871,448	99.64%
189	2	378	58,347	1,831,782	1,871,661	99.64%
190	3	570	58,350	1,832,352	1,871,872	99.64%
191	3	573	58,353	1,832,925	1,872,080	99.65%
192	1	192	58,354	1,833,117	1,872,285	99.65%
193	3	579	58,357	1,833,696	1,872,489	99.66%
194	2	388	58,359	1,834,084	1,872,690	99.66%
195	3	585	58,362	1,834,669	1,872,889	99.67%
196	1	196	58,363	1,834,865	1,873,085	99.67%
197	1	197	58,364	1,835,062	1,873,280	99.67%
199	1	199	58,365	1,835,261	1,873,668	99.67%
200	1	200	58,366	1,835,461	1,873,861	99.67%
202	2	404	58,368	1,835,865	1,874,245	99.68%
203	3	609	58,371	1,836,474	1,874,435	99.68%
204	1	204	58,372	1,836,678	1,874,622	99.68%
205	1	205	58,373	1,836,883	1,874,808	99.68%
206	2	412	58,375	1,837,295	1,874,993	99.69%
208	3	624	58,378	1,837,919	1,875,359	99.69%
209	1	209	58,379	1,838,128	1,875,539	99.69%
210	2	420	58,381	1,838,548	1,875,718	99.70%
212	3	636	58,384	1,839,184	1,876,072	99.70%
213	3	639	58,387	1,839,823	1,876,246	99.71%
214	1	214	58,388	1,840,037	1,876,417	99.71%

215	1	215	58,389	1,840,252	1,876,587	99.71%
216	1	216	58,390	1,840,468	1,876,756	99.71%
217	2	434	58,392	1,840,902	1,876,924	99.72%
219	4	876	58,396	1,841,778	1,877,256	99.72%
220	2	440	58,398	1,842,218	1,877,418	99.73%
222	2	444	58,400	1,842,662	1,877,738	99.73%
224	2	448	58,402	1,843,110	1,878,054	99.73%
225	1	225	58,403	1,843,335	1,878,210	99.74%
226	3	678	58,406	1,844,013	1,878,365	99.74%
227	3	681	58,409	1,844,694	1,878,517	99.75%
228	4	912	58,413	1,845,606	1,878,666	99.75%
229	2	458	58,415	1,846,064	1,878,811	99.76%
230	2	460	58,417	1,846,524	1,878,954	99.76%
231	1	231	58,418	1,846,755	1,879,095	99.76%
232	5	1,160	58,423	1,847,915	1,879,235	99.77%
233	2	466	58,425	1,848,381	1,879,370	99.77%
235	2	470	58,427	1,848,851	1,879,636	99.78%
236	2	472	58,429	1,849,323	1,879,767	99.78%
238	2	476	58,431	1,849,799	1,880,025	99.78%
239	1	239	58,432	1,850,038	1,880,152	99.78%
240	2	480	58,434	1,850,518	1,880,278	99.79%
241	1	241	58,435	1,850,759	1,880,402	99.79%
243	1	243	58,436	1,851,002	1,880,648	99.79%
244	1	244	58,437	1,851,246	1,880,770	99.79%
248	2	496	58,439	1,851,742	1,881,254	99.80%
250	9	2,250	58,448	1,853,992	1,881,492	99.81%
251	2	502	58,450	1,854,494	1,881,602	99.82%
255	1	255	58,451	1,854,749	1,882,034	99.82%
256	1	256	58,452	1,855,005	1,882,141	99.82%
259	1	259	58,453	1,855,264	1,882,459	99.82%
266	2	532	58,455	1,855,796	1,883,194	99.82%
268	2	536	58,457	1,856,332	1,883,400	99.83%
273	1	273	58,458	1,856,605	1,883,905	99.83%
276	2	552	58,460	1,857,157	1,884,205	99.83%
281	1	281	58,461	1,857,438	1,884,695	99.83%
282	1	282	58,462	1,857,720	1,884,792	99.84%
284	3	852	58,465	1,858,572	1,884,984	99.84%
285	1	285	58,466	1,858,857	1,885,077	99.84%
286	2	572	58,468	1,859,429	1,885,169	99.85%
288	2	576	58,470	1,860,005	1,885,349	99.85%
289	1	289	58,471	1,860,294	1,885,437	99.85%
292	2	584	58,473	1,860,878	1,885,698	99.85%
293	1	293	58,474	1,861,171	1,885,783	99.86%
294	1	294	58,475	1,861,465	1,885,867	99.86%
298	2	596	58,477	1,862,061	1,886,199	99.86%
299	2	598	58,479	1,862,659	1,886,280	99.87%
300	2	600	58,481	1,863,259	1,886,359	99.87%
301	1	301	58,482	1,863,560	1,886,436	99.87%
302	1	302	58,483	1,863,862	1,886,512	99.87%
305	1	305	58,484	1,864,167	1,886,737	99.87%
306	2	612	58,486	1,864,779	1,886,811	99.88%
309	-	-	58,486	1,864,779	1,887,027	99.88%
310	1	310	58,487	1,865,089	1,887,099	99.88%
312	1	312	58,488	1,865,401	1,887,241	99.88%
313	2	626	58,490	1,866,027	1,887,311	99.88%

316	1	316	58,491	1,866,343	1,887,515	99.89%
317	1	317	58,492	1,866,660	1,887,582	99.89%
318	1	318	58,493	1,866,978	1,887,648	99.89%
323	2	646	58,495	1,867,624	1,887,973	99.89%
326	1	326	58,496	1,867,950	1,888,162	99.89%
329	1	329	58,497	1,868,279	1,888,348	99.90%
331	1	331	58,498	1,868,610	1,888,470	99.90%
335	1	335	58,499	1,868,945	1,888,710	99.90%
340	1	340	58,500	1,869,285	1,889,005	99.90%
344	1	344	58,501	1,869,629	1,889,237	99.90%
350	1	350	58,502	1,869,979	1,889,579	99.90%
356	(1)	(356)	58,501	1,869,623	1,889,915	99.90%
357	1	357	58,502	1,869,980	1,889,972	99.90%
359	1	359	58,503	1,870,339	1,890,084	99.91%
362	1	362	58,504	1,870,701	1,890,249	99.91%
370	1	370	58,505	1,871,071	1,890,681	99.91%
372	3	1,116	58,508	1,872,187	1,890,787	99.91%
377	1	377	58,509	1,872,564	1,891,037	99.92%
383	1	383	58,510	1,872,947	1,891,331	99.92%
385	1	385	58,511	1,873,332	1,891,427	99.92%
386	1	386	58,512	1,873,718	1,891,474	99.92%
398	1	398	58,513	1,874,116	1,892,026	99.92%
399	1	399	58,514	1,874,515	1,892,071	99.92%
400	1	400	58,515	1,874,915	1,892,115	99.93%
404	2	808	58,517	1,875,723	1,892,287	99.93%
405	1	405	58,518	1,876,128	1,892,328	99.93%
412	1	412	58,519	1,876,540	1,892,608	99.93%
415	1	415	58,520	1,876,955	1,892,725	99.94%
427	1	427	58,521	1,877,382	1,893,181	99.94%
430	1	430	58,522	1,877,812	1,893,292	99.94%
438	1	438	58,523	1,878,250	1,893,580	99.94%
442	1	442	58,524	1,878,692	1,893,720	99.94%
460	1	460	58,525	1,879,152	1,894,332	99.94%
461	1	461	58,526	1,879,613	1,894,365	99.95%
462	2	924	58,528	1,880,537	1,894,397	99.95%
464	1	464	58,529	1,881,001	1,894,457	99.95%
473	1	473	58,530	1,881,474	1,894,718	99.95%
474	1	474	58,531	1,881,948	1,894,746	99.95%
475	1	475	58,532	1,882,423	1,894,773	99.96%
478	1	478	58,533	1,882,901	1,894,851	99.96%
486	1	486	58,534	1,883,387	1,895,051	99.96%
490	1	490	58,535	1,883,877	1,895,147	99.96%
491	1	491	58,536	1,884,368	1,895,170	99.96%
494	1	494	58,537	1,884,862	1,895,236	99.96%
501	2	1,002	58,539	1,885,864	1,895,383	99.97%
508	1	508	58,540	1,886,372	1,895,516	99.97%
514	1	514	58,541	1,886,886	1,895,624	99.97%
535	-	-	58,541	1,886,886	1,895,981	99.97%
537	1	537	58,542	1,887,423	1,896,015	99.97%
565	1	565	58,543	1,887,988	1,896,463	99.97%
573	1	573	58,544	1,888,561	1,896,583	99.98%
579	1	579	58,545	1,889,140	1,896,667	99.98%
585	1	585	58,546	1,889,725	1,896,745	99.98%
586	1	586	58,547	1,890,311	1,896,757	99.98%
592	(1)	(592)	58,546	1,889,719	1,896,823	99.98%

594	-	-	58,546	1,889,719	1,896,847	99.98%
596	(1)	(596)	58,545	1,889,123	1,896,871	99.98%
614	1	614	58,546	1,889,737	1,897,105	99.98%
629	(1)	(629)	58,545	1,889,108	1,897,285	99.98%
632	1	632	58,546	1,889,740	1,897,324	99.98%
666	1	666	58,547	1,890,406	1,897,732	99.98%
702	1	702	58,548	1,891,108	1,898,128	99.98%
712	1	712	58,549	1,891,820	1,898,228	99.98%
720	(1)	(720)	58,548	1,891,100	1,898,300	99.98%
734	1	734	58,549	1,891,834	1,898,440	99.98%
747	1	747	58,550	1,892,581	1,898,557	99.99%
892	(1)	(892)	58,549	1,891,689	1,899,717	99.98%
913	1	913	58,550	1,892,602	1,899,906	99.99%
940	(1)	(940)	58,549	1,891,662	1,900,122	99.98%
1,002	1	1,002	58,550	1,892,664	1,900,680	99.99%
1,176	1	1,176	58,551	1,893,840	1,902,072	99.99%
1,339	1	1,339	58,552	1,895,179	1,903,213	99.99%
1,400	1	1,400	58,553	1,896,579	1,903,579	99.99%
1,508	1	1,508	58,554	1,898,087	1,904,119	99.99%
1,609	1	1,609	58,555	1,899,696	1,904,523	99.99%
1,863	1	1,863	58,556	1,901,559	1,905,285	100.00%
2,038	1	2,038	58,557	1,903,597	1,905,635	100.00%
2,097	-	-	58,557	1,903,597	1,905,694	100.00%
6,283	1	6,283	58,558	1,909,880	1,909,880	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF DECEMBER 2022
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	2,043	-	2,043	-	-	3.50%
1	452	452	2,495	452	56,378	4.27%
2	352	704	2,847	1,156	112,304	4.87%
3	319	957	3,166	2,113	167,878	5.42%
4	419	1,676	3,585	3,789	223,133	6.14%
5	461	2,305	4,046	6,094	277,969	6.93%
6	564	3,384	4,610	9,478	332,344	7.89%
7	690	4,830	5,300	14,308	386,155	9.07%
8	826	6,608	6,126	20,916	439,276	10.49%
9	879	7,911	7,005	28,827	491,571	11.99%
10	991	9,910	7,996	38,737	542,987	13.69%
11	1,080	11,880	9,076	50,617	593,412	15.54%
12	1,103	13,236	10,179	63,853	642,757	17.42%
13	1,114	14,482	11,293	78,335	690,999	19.33%
14	1,178	16,492	12,471	94,827	738,127	21.35%
15	1,177	17,655	13,648	112,482	784,077	23.36%
16	1,185	18,960	14,833	131,442	828,850	25.39%
17	1,258	21,386	16,091	152,828	872,438	27.54%
18	1,237	22,266	17,328	175,094	914,768	29.66%
19	1,313	24,947	18,641	200,041	955,861	31.91%
20	1,252	25,040	19,893	225,081	995,641	34.05%
21	1,270	26,670	21,163	251,751	1,034,169	36.22%
22	1,366	30,052	22,529	281,803	1,071,427	38.56%
23	1,356	31,188	23,885	312,991	1,107,319	40.88%
24	1,362	32,688	25,247	345,679	1,141,855	43.22%
25	1,396	34,900	26,643	380,579	1,175,029	45.61%
26	1,308	34,008	27,951	414,587	1,206,807	47.84%
27	1,299	35,073	29,250	449,660	1,237,277	50.07%
28	1,239	34,692	30,489	484,352	1,266,448	52.19%
29	1,269	36,801	31,758	521,153	1,294,380	54.36%
30	1,207	36,210	32,965	557,363	1,321,043	56.43%
31	1,250	38,750	34,215	596,113	1,346,499	58.57%
32	1,112	35,584	35,327	631,697	1,370,705	60.47%
33	1,046	34,518	36,373	666,215	1,393,799	62.26%
34	1,059	36,006	37,432	702,221	1,415,847	64.07%
35	1,039	36,365	38,471	738,586	1,436,836	65.85%
36	941	33,876	39,412	772,462	1,456,786	67.46%
37	965	35,705	40,377	808,167	1,475,795	69.11%
38	904	34,352	41,281	842,519	1,493,839	70.66%
39	854	33,306	42,135	875,825	1,510,979	72.12%
40	817	32,680	42,952	908,505	1,527,265	73.52%
41	798	32,718	43,750	941,223	1,542,734	74.89%
42	739	31,038	44,489	972,261	1,557,405	76.15%
43	742	31,906	45,231	1,004,167	1,571,337	77.42%
44	656	28,864	45,887	1,033,031	1,584,527	78.55%

45	608	27,360	46,495	1,060,391	1,597,061	79.59%
46	595	27,370	47,090	1,087,761	1,608,987	80.60%
47	601	28,247	47,691	1,116,008	1,620,318	81.63%
48	576	27,648	48,267	1,143,656	1,631,048	82.62%
49	515	25,235	48,782	1,168,891	1,641,202	83.50%
50	502	25,100	49,284	1,193,991	1,650,841	84.36%
51	465	23,715	49,749	1,217,706	1,659,978	85.16%
52	445	23,140	50,194	1,240,846	1,668,650	85.92%
53	427	22,631	50,621	1,263,477	1,676,877	86.65%
54	375	20,250	50,996	1,283,727	1,684,677	87.29%
55	405	22,275	51,401	1,306,002	1,692,102	87.98%
56	332	18,592	51,733	1,324,594	1,699,122	88.55%
57	351	20,007	52,084	1,344,601	1,705,810	89.15%
58	309	17,922	52,393	1,362,523	1,712,147	89.68%
59	301	17,759	52,694	1,380,282	1,718,175	90.20%
60	293	17,580	52,987	1,397,862	1,723,902	90.70%
61	269	16,409	53,256	1,414,271	1,729,336	91.16%
62	266	16,492	53,522	1,430,763	1,734,501	91.61%
63	239	15,057	53,761	1,445,820	1,739,400	92.02%
64	255	16,320	54,016	1,462,140	1,744,060	92.46%
65	205	13,325	54,221	1,475,465	1,748,465	92.81%
66	214	14,124	54,435	1,489,589	1,752,665	93.18%
67	207	13,869	54,642	1,503,458	1,756,651	93.53%
68	176	11,968	54,818	1,515,426	1,760,430	93.83%
69	148	10,212	54,966	1,525,638	1,764,033	94.09%
70	156	10,920	55,122	1,536,558	1,767,488	94.35%
71	159	11,289	55,281	1,547,847	1,770,787	94.63%
72	156	11,232	55,437	1,559,079	1,773,927	94.89%
73	142	10,366	55,579	1,569,445	1,776,911	95.14%
74	114	8,436	55,693	1,577,881	1,779,753	95.33%
75	112	8,400	55,805	1,586,281	1,782,481	95.52%
76	96	7,296	55,901	1,593,577	1,785,097	95.69%
77	114	8,778	56,015	1,602,355	1,787,617	95.88%
78	86	6,708	56,101	1,609,063	1,790,023	96.03%
79	104	8,216	56,205	1,617,279	1,792,343	96.21%
80	97	7,760	56,302	1,625,039	1,794,559	96.37%
81	97	7,857	56,399	1,632,896	1,796,678	96.54%
82	83	6,806	56,482	1,639,702	1,798,700	96.68%
83	74	6,142	56,556	1,645,844	1,800,639	96.81%
84	74	6,216	56,630	1,652,060	1,802,504	96.93%
85	72	6,120	56,702	1,658,180	1,804,295	97.06%
86	71	6,106	56,773	1,664,286	1,806,014	97.18%
87	61	5,307	56,834	1,669,593	1,807,662	97.28%
88	50	4,400	56,884	1,673,993	1,809,249	97.37%
89	49	4,361	56,933	1,678,354	1,810,786	97.45%
90	39	3,510	56,972	1,681,864	1,812,274	97.52%
91	51	4,641	57,023	1,686,505	1,813,723	97.61%
92	58	5,336	57,081	1,691,841	1,815,121	97.71%
93	53	4,929	57,134	1,696,770	1,816,461	97.80%
94	56	5,264	57,190	1,702,034	1,817,748	97.89%
95	34	3,230	57,224	1,705,264	1,818,979	97.95%
96	36	3,456	57,260	1,708,720	1,820,176	98.01%
97	44	4,268	57,304	1,712,988	1,821,337	98.09%
98	37	3,626	57,341	1,716,614	1,822,454	98.15%
99	36	3,564	57,377	1,720,178	1,823,534	98.21%

100	34	3,400	57,411	1,723,578	1,824,578	98.27%
101	30	3,030	57,441	1,726,608	1,825,588	98.32%
102	36	3,672	57,477	1,730,280	1,826,568	98.38%
103	22	2,266	57,499	1,732,546	1,827,512	98.42%
104	36	3,744	57,535	1,736,290	1,828,434	98.48%
105	26	2,730	57,561	1,739,020	1,829,320	98.53%
106	19	2,014	57,580	1,741,034	1,830,180	98.56%
107	29	3,103	57,609	1,744,137	1,831,021	98.61%
108	24	2,592	57,633	1,746,729	1,831,833	98.65%
109	18	1,962	57,651	1,748,691	1,832,621	98.68%
110	17	1,870	57,668	1,750,561	1,833,391	98.71%
111	21	2,331	57,689	1,752,892	1,834,144	98.75%
112	28	3,136	57,717	1,756,028	1,834,876	98.79%
113	19	2,147	57,736	1,758,175	1,835,580	98.83%
114	16	1,824	57,752	1,759,999	1,836,265	98.85%
115	15	1,725	57,767	1,761,724	1,836,934	98.88%
116	26	3,016	57,793	1,764,740	1,837,588	98.93%
117	20	2,340	57,813	1,767,080	1,838,216	98.96%
118	17	2,006	57,830	1,769,086	1,838,824	98.99%
119	17	2,023	57,847	1,771,109	1,839,415	99.02%
120	7	840	57,854	1,771,949	1,839,989	99.03%
121	13	1,573	57,867	1,773,522	1,840,556	99.05%
122	15	1,830	57,882	1,775,352	1,841,110	99.08%
123	14	1,722	57,896	1,777,074	1,841,649	99.10%
124	14	1,736	57,910	1,778,810	1,842,174	99.13%
125	4	500	57,914	1,779,310	1,842,685	99.13%
126	11	1,386	57,925	1,780,696	1,843,192	99.15%
127	10	1,270	57,935	1,781,966	1,843,688	99.17%
128	8	1,024	57,943	1,782,990	1,844,174	99.18%
129	6	774	57,949	1,783,764	1,844,652	99.19%
130	16	2,080	57,965	1,785,844	1,845,124	99.22%
131	13	1,703	57,978	1,787,547	1,845,580	99.24%
132	6	792	57,984	1,788,339	1,846,023	99.25%
133	8	1,064	57,992	1,789,403	1,846,460	99.27%
134	9	1,206	58,001	1,790,609	1,846,889	99.28%
135	5	675	58,006	1,791,284	1,847,309	99.29%
136	14	1,904	58,020	1,793,188	1,847,724	99.31%
137	8	1,096	58,028	1,794,284	1,848,125	99.33%
138	7	966	58,035	1,795,250	1,848,518	99.34%
139	6	834	58,041	1,796,084	1,848,904	99.35%
140	12	1,680	58,053	1,797,764	1,849,284	99.37%
141	7	987	58,060	1,798,751	1,849,652	99.38%
142	8	1,136	58,068	1,799,887	1,850,013	99.40%
143	12	1,716	58,080	1,801,603	1,850,366	99.42%
144	8	1,152	58,088	1,802,755	1,850,707	99.43%
145	6	870	58,094	1,803,625	1,851,040	99.44%
146	2	292	58,096	1,803,917	1,851,367	99.44%
147	3	441	58,099	1,804,358	1,851,692	99.45%
148	5	740	58,104	1,805,098	1,852,014	99.46%
149	6	894	58,110	1,805,992	1,852,331	99.47%
150	6	900	58,116	1,806,892	1,852,642	99.48%
151	8	1,208	58,124	1,808,100	1,852,947	99.49%
152	10	1,520	58,134	1,809,620	1,853,244	99.51%
153	4	612	58,138	1,810,232	1,853,531	99.52%
154	6	924	58,144	1,811,156	1,853,814	99.53%

156	2	312	58,146	1,811,468	1,854,368	99.53%
157	7	1,099	58,153	1,812,567	1,854,643	99.54%
158	4	632	58,157	1,813,199	1,854,911	99.55%
159	4	636	58,161	1,813,835	1,855,175	99.55%
160	5	800	58,166	1,814,635	1,855,435	99.56%
161	3	483	58,169	1,815,118	1,855,690	99.57%
162	2	324	58,171	1,815,442	1,855,942	99.57%
163	5	815	58,176	1,816,257	1,856,192	99.58%
164	4	656	58,180	1,816,913	1,856,437	99.59%
165	5	825	58,185	1,817,738	1,856,678	99.60%
166	4	664	58,189	1,818,402	1,856,914	99.60%
167	3	501	58,192	1,818,903	1,857,146	99.61%
168	2	336	58,194	1,819,239	1,857,375	99.61%
169	7	1,183	58,201	1,820,422	1,857,602	99.62%
170	3	510	58,204	1,820,932	1,857,822	99.63%
171	2	342	58,206	1,821,274	1,858,039	99.63%
172	4	688	58,210	1,821,962	1,858,254	99.64%
173	2	346	58,212	1,822,308	1,858,465	99.64%
174	4	696	58,216	1,823,004	1,858,674	99.65%
175	1	175	58,217	1,823,179	1,858,879	99.65%
176	3	528	58,220	1,823,707	1,859,083	99.66%
177	3	531	58,223	1,824,238	1,859,284	99.66%
178	4	712	58,227	1,824,950	1,859,482	99.67%
179	1	179	58,228	1,825,129	1,859,676	99.67%
180	3	540	58,231	1,825,669	1,859,869	99.67%
181	4	724	58,235	1,826,393	1,860,059	99.68%
182	1	182	58,236	1,826,575	1,860,245	99.68%
183	2	366	58,238	1,826,941	1,860,430	99.69%
185	1	185	58,239	1,827,126	1,860,796	99.69%
186	1	186	58,240	1,827,312	1,860,978	99.69%
187	2	374	58,242	1,827,686	1,861,159	99.69%
188	2	376	58,244	1,828,062	1,861,338	99.70%
189	3	567	58,247	1,828,629	1,861,515	99.70%
190	2	380	58,249	1,829,009	1,861,689	99.71%
191	3	573	58,252	1,829,582	1,861,861	99.71%
192	1	192	58,253	1,829,774	1,862,030	99.71%
193	1	193	58,254	1,829,967	1,862,198	99.71%
194	1	194	58,255	1,830,161	1,862,365	99.72%
195	4	780	58,259	1,830,941	1,862,531	99.72%
196	1	196	58,260	1,831,137	1,862,693	99.72%
198	3	594	58,263	1,831,731	1,863,015	99.73%
199	3	597	58,266	1,832,328	1,863,173	99.73%
200	4	800	58,270	1,833,128	1,863,328	99.74%
201	2	402	58,272	1,833,530	1,863,479	99.74%
204	1	204	58,273	1,833,734	1,863,926	99.75%
205	(1)	(205)	58,272	1,833,529	1,864,074	99.74%
206	1	206	58,273	1,833,735	1,864,223	99.75%
208	1	208	58,274	1,833,943	1,864,519	99.75%
209	2	418	58,276	1,834,361	1,864,666	99.75%
211	3	633	58,279	1,834,994	1,864,956	99.76%
212	1	212	58,280	1,835,206	1,865,098	99.76%
213	1	213	58,281	1,835,419	1,865,239	99.76%
215	1	215	58,282	1,835,634	1,865,519	99.76%
216	-	-	58,282	1,835,634	1,865,658	99.76%
218	1	218	58,283	1,835,852	1,865,936	99.76%

219	(1)	(219)	58,282	1,835,633	1,866,074	99.76%
221	1	221	58,283	1,835,854	1,866,352	99.76%
222	1	222	58,284	1,836,076	1,866,490	99.77%
223	2	446	58,286	1,836,522	1,866,627	99.77%
224	3	672	58,289	1,837,194	1,866,762	99.77%
225	1	225	58,290	1,837,419	1,866,894	99.78%
226	2	452	58,292	1,837,871	1,867,025	99.78%
227	1	227	58,293	1,838,098	1,867,154	99.78%
229	3	687	58,296	1,838,785	1,867,410	99.79%
232	1	232	58,297	1,839,017	1,867,785	99.79%
234	2	468	58,299	1,839,485	1,868,033	99.79%
235	1	235	58,300	1,839,720	1,868,155	99.79%
238	1	238	58,301	1,839,958	1,868,518	99.79%
239	1	239	58,302	1,840,197	1,868,638	99.80%
240	1	240	58,303	1,840,437	1,868,757	99.80%
241	3	723	58,306	1,841,160	1,868,875	99.80%
243	1	243	58,307	1,841,403	1,869,105	99.80%
247	1	247	58,308	1,841,650	1,869,561	99.81%
250	5	1,250	58,313	1,842,900	1,869,900	99.82%
251	3	753	58,316	1,843,653	1,870,008	99.82%
252	2	504	58,318	1,844,157	1,870,113	99.82%
254	1	254	58,319	1,844,411	1,870,319	99.83%
257	1	257	58,320	1,844,668	1,870,625	99.83%
258	3	774	58,323	1,845,442	1,870,726	99.83%
261	2	522	58,325	1,845,964	1,871,020	99.84%
262	3	786	58,328	1,846,750	1,871,116	99.84%
267	1	267	58,329	1,847,017	1,871,581	99.84%
269	1	269	58,330	1,847,286	1,871,765	99.84%
271	1	271	58,331	1,847,557	1,871,947	99.85%
272	1	272	58,332	1,847,829	1,872,037	99.85%
274	1	274	58,333	1,848,103	1,872,215	99.85%
280	2	560	58,335	1,848,663	1,872,743	99.85%
282	1	282	58,336	1,848,945	1,872,915	99.85%
283	1	283	58,337	1,849,228	1,873,000	99.86%
286	1	286	58,338	1,849,514	1,873,252	99.86%
290	1	290	58,339	1,849,804	1,873,584	99.86%
293	2	586	58,341	1,850,390	1,873,830	99.86%
294	1	294	58,342	1,850,684	1,873,910	99.86%
297	1	297	58,343	1,850,981	1,874,147	99.87%
300	2	600	58,345	1,851,581	1,874,381	99.87%
301	1	301	58,346	1,851,882	1,874,457	99.87%
302	2	604	58,348	1,852,486	1,874,532	99.88%
303	1	303	58,349	1,852,789	1,874,605	99.88%
307	1	307	58,350	1,853,096	1,874,893	99.88%
314	1	314	58,351	1,853,410	1,875,390	99.88%
316	1	316	58,352	1,853,726	1,875,530	99.88%
319	1	319	58,353	1,854,045	1,875,737	99.88%
322	1	322	58,354	1,854,367	1,875,941	99.89%
325	1	325	58,355	1,854,692	1,876,142	99.89%
326	1	326	58,356	1,855,018	1,876,208	99.89%
328	1	328	58,357	1,855,346	1,876,338	99.89%
333	2	666	58,359	1,856,012	1,876,658	99.89%
335	1	335	58,360	1,856,347	1,876,782	99.90%
339	1	339	58,361	1,856,686	1,877,026	99.90%
341	1	341	58,362	1,857,027	1,877,146	99.90%

344	1	344	58,363	1,857,371	1,877,323	99.90%
345	1	345	58,364	1,857,716	1,877,381	99.90%
350	1	350	58,365	1,858,066	1,877,666	99.90%
389	1	389	58,366	1,858,455	1,879,850	99.91%
390	1	390	58,367	1,858,845	1,879,905	99.91%
392	3	1,176	58,370	1,860,021	1,880,013	99.91%
396	1	396	58,371	1,860,417	1,880,217	99.91%
410	1	410	58,372	1,860,827	1,880,917	99.92%
415	1	415	58,373	1,861,242	1,881,162	99.92%
416	1	416	58,374	1,861,658	1,881,210	99.92%
417	2	834	58,376	1,862,492	1,881,257	99.92%
424	1	424	58,377	1,862,916	1,881,572	99.92%
430	1	430	58,378	1,863,346	1,881,836	99.93%
432	1	432	58,379	1,863,778	1,881,922	99.93%
437	1	437	58,380	1,864,215	1,882,132	99.93%
447	1	447	58,381	1,864,662	1,882,542	99.93%
453	1	453	58,382	1,865,115	1,882,782	99.93%
455	1	455	58,383	1,865,570	1,882,860	99.93%
463	2	926	58,385	1,866,496	1,883,164	99.94%
466	1	466	58,386	1,866,962	1,883,272	99.94%
468	2	936	58,388	1,867,898	1,883,342	99.94%
493	1	493	58,389	1,868,391	1,884,167	99.95%
506	1	506	58,390	1,868,897	1,884,583	99.95%
507	1	507	58,391	1,869,404	1,884,614	99.95%
512	1	512	58,392	1,869,916	1,884,764	99.95%
523	1	523	58,393	1,870,439	1,885,083	99.95%
524	1	524	58,394	1,870,963	1,885,111	99.95%
530	1	530	58,395	1,871,493	1,885,273	99.96%
538	1	538	58,396	1,872,031	1,885,481	99.96%
555	1	555	58,397	1,872,586	1,885,906	99.96%
572	1	572	58,398	1,873,158	1,886,314	99.96%
587	1	587	58,399	1,873,745	1,886,659	99.96%
588	1	588	58,400	1,874,333	1,886,681	99.96%
613	1	613	58,401	1,874,946	1,887,206	99.97%
620	-	-	58,401	1,874,946	1,887,346	99.97%
683	1	683	58,402	1,875,629	1,888,606	99.97%
729	1	729	58,403	1,876,358	1,889,480	99.97%
734	1	734	58,404	1,877,092	1,889,570	99.97%
855	1	855	58,405	1,877,947	1,891,627	99.97%
884	1	884	58,406	1,878,831	1,892,091	99.97%
939	1	939	58,407	1,879,770	1,892,916	99.98%
940	-	-	58,407	1,879,770	1,892,930	99.98%
945	1	945	58,408	1,880,715	1,893,000	99.98%
964	1	964	58,409	1,881,679	1,893,247	99.98%
1,030	-	-	58,409	1,881,679	1,894,039	99.98%
1,117	1	1,117	58,410	1,882,796	1,895,083	99.98%
1,159	1	1,159	58,411	1,883,955	1,895,545	99.98%
1,164	1	1,164	58,412	1,885,119	1,895,595	99.98%
1,239	1	1,239	58,413	1,886,358	1,896,270	99.99%
1,274	-	-	58,413	1,886,358	1,896,550	99.99%
1,288	1	1,288	58,414	1,887,646	1,896,662	99.99%
1,304	1	1,304	58,415	1,888,950	1,896,774	99.99%
1,311	1	1,311	58,416	1,890,261	1,896,816	99.99%
1,351	1	1,351	58,417	1,891,612	1,897,016	99.99%
1,461	-	-	58,417	1,891,612	1,897,456	99.99%

1,465	1	1,465	58,418	1,893,077	1,897,472	99.99%
1,591	-	-	58,418	1,893,077	1,897,850	99.99%
2,003	1	2,003	58,419	1,895,080	1,899,086	100.00%
4,161	1	4,161	58,420	1,899,241	1,903,402	100.00%
5,257	1	5,257	58,421	1,904,498	1,904,498	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF JANUARY 2023
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	1,989	-	1,989	-	-	3.41%
1	439	439	2,428	439	56,333	4.16%
2	330	660	2,758	1,099	112,227	4.73%
3	296	888	3,054	1,987	167,791	5.24%
4	379	1,516	3,433	3,503	223,059	5.89%
5	462	2,310	3,895	5,813	277,948	6.68%
6	576	3,456	4,471	9,269	332,375	7.67%
7	646	4,522	5,117	13,791	386,226	8.77%
8	693	5,544	5,810	19,335	439,431	9.96%
9	786	7,074	6,596	26,409	491,943	11.31%
10	888	8,880	7,484	35,289	543,669	12.83%
11	924	10,164	8,408	45,453	594,507	14.42%
12	921	11,052	9,329	56,505	644,421	16.00%
13	1,018	13,234	10,347	69,739	693,414	17.74%
14	1,041	14,574	11,388	84,313	741,389	19.53%
15	1,089	16,335	12,477	100,648	788,323	21.39%
16	1,103	17,648	13,580	118,296	834,168	23.28%
17	1,123	19,091	14,703	137,387	878,910	25.21%
18	1,150	20,700	15,853	158,087	922,529	27.18%
19	1,173	22,287	17,026	180,374	964,998	29.19%
20	1,276	25,520	18,302	205,894	1,006,294	31.38%
21	1,162	24,402	19,464	230,296	1,046,314	33.37%
22	1,256	27,632	20,720	257,928	1,085,172	35.53%
23	1,290	29,670	22,010	287,598	1,122,774	37.74%
24	1,274	30,576	23,284	318,174	1,159,086	39.92%
25	1,264	31,600	24,548	349,774	1,194,124	42.09%
26	1,277	33,202	25,825	382,976	1,227,898	44.28%
27	1,173	31,671	26,998	414,647	1,260,395	46.29%
28	1,197	33,516	28,195	448,163	1,291,719	48.34%
29	1,202	34,858	29,397	483,021	1,321,846	50.40%
30	1,167	35,010	30,564	518,031	1,350,771	52.41%
31	1,135	35,185	31,699	553,216	1,378,529	54.35%
32	1,089	34,848	32,788	588,064	1,405,152	56.22%
33	1,108	36,564	33,896	624,628	1,430,686	58.12%
34	1,055	35,870	34,951	660,498	1,455,112	59.93%
35	1,043	36,505	35,994	697,003	1,478,483	61.72%
36	1,015	36,540	37,009	733,543	1,500,811	63.46%
37	946	35,002	37,955	768,545	1,522,124	65.08%
38	942	35,796	38,897	804,341	1,542,491	66.69%
39	927	36,153	39,824	840,494	1,561,916	68.28%
40	855	34,200	40,679	874,694	1,580,414	69.75%
41	854	35,014	41,533	909,708	1,598,057	71.21%
42	782	32,844	42,315	942,552	1,614,846	72.55%
43	744	31,992	43,059	974,544	1,630,853	73.83%
44	734	32,296	43,793	1,006,840	1,646,116	75.09%

45	678	30,510	44,471	1,037,350	1,660,645	76.25%
46	660	30,360	45,131	1,067,710	1,674,496	77.38%
47	625	29,375	45,756	1,097,085	1,687,687	78.45%
48	653	31,344	46,409	1,128,429	1,700,253	79.57%
49	590	28,910	46,999	1,157,339	1,712,166	80.59%
50	550	27,500	47,549	1,184,839	1,723,489	81.53%
51	523	26,673	48,072	1,211,512	1,734,262	82.43%
52	505	26,260	48,577	1,237,772	1,744,512	83.29%
53	486	25,758	49,063	1,263,530	1,754,257	84.12%
54	469	25,326	49,532	1,288,856	1,763,516	84.93%
55	423	23,265	49,955	1,312,121	1,772,306	85.65%
56	395	22,120	50,350	1,334,241	1,780,673	86.33%
57	410	23,370	50,760	1,357,611	1,788,645	87.03%
58	376	21,808	51,136	1,379,419	1,796,207	87.68%
59	366	21,594	51,502	1,401,013	1,803,393	88.31%
60	366	21,960	51,868	1,422,973	1,810,213	88.93%
61	300	18,300	52,168	1,441,273	1,816,667	89.45%
62	305	18,910	52,473	1,460,183	1,822,821	89.97%
63	285	17,955	52,758	1,478,138	1,828,670	90.46%
64	279	17,856	53,037	1,495,994	1,834,234	90.94%
65	227	14,755	53,264	1,510,749	1,839,519	91.33%
66	250	16,500	53,514	1,527,249	1,844,577	91.76%
67	223	14,941	53,737	1,542,190	1,849,385	92.14%
68	190	12,920	53,927	1,555,110	1,853,970	92.46%
69	183	12,627	54,110	1,567,737	1,858,365	92.78%
70	201	14,070	54,311	1,581,807	1,862,577	93.12%
71	175	12,425	54,486	1,594,232	1,866,588	93.42%
72	168	12,096	54,654	1,606,328	1,870,424	93.71%
73	148	10,804	54,802	1,617,132	1,874,092	93.96%
74	150	11,100	54,952	1,628,232	1,877,612	94.22%
75	145	10,875	55,097	1,639,107	1,880,982	94.47%
76	127	9,652	55,224	1,648,759	1,884,207	94.69%
77	129	9,933	55,353	1,658,692	1,887,305	94.91%
78	132	10,296	55,485	1,668,988	1,890,274	95.14%
79	129	10,191	55,614	1,679,179	1,893,111	95.36%
80	118	9,440	55,732	1,688,619	1,895,819	95.56%
81	132	10,692	55,864	1,699,311	1,898,409	95.79%
82	104	8,528	55,968	1,707,839	1,900,867	95.96%
83	89	7,387	56,057	1,715,226	1,903,221	96.12%
84	97	8,148	56,154	1,723,374	1,905,486	96.28%
85	94	7,990	56,248	1,731,364	1,907,654	96.44%
86	72	6,192	56,320	1,737,556	1,909,728	96.57%
87	72	6,264	56,392	1,743,820	1,911,730	96.69%
88	77	6,776	56,469	1,750,596	1,913,660	96.82%
89	64	5,696	56,533	1,756,292	1,915,513	96.93%
90	65	5,850	56,598	1,762,142	1,917,302	97.04%
91	60	5,460	56,658	1,767,602	1,919,026	97.15%
92	66	6,072	56,724	1,773,674	1,920,690	97.26%
93	45	4,185	56,769	1,777,859	1,922,288	97.34%
94	57	5,358	56,826	1,783,217	1,923,841	97.43%
95	42	3,990	56,868	1,787,207	1,925,337	97.51%
96	42	4,032	56,910	1,791,239	1,926,791	97.58%
97	50	4,850	56,960	1,796,089	1,928,203	97.66%
98	36	3,528	56,996	1,799,617	1,929,565	97.73%
99	54	5,346	57,050	1,804,963	1,930,891	97.82%

100	40	4,000	57,090	1,808,963	1,932,163	97.89%
101	34	3,434	57,124	1,812,397	1,933,395	97.95%
102	30	3,060	57,154	1,815,457	1,934,593	98.00%
103	35	3,605	57,189	1,819,062	1,935,761	98.06%
104	42	4,368	57,231	1,823,430	1,936,894	98.13%
105	30	3,150	57,261	1,826,580	1,937,985	98.18%
106	20	2,120	57,281	1,828,700	1,939,046	98.22%
107	32	3,424	57,313	1,832,124	1,940,087	98.27%
108	23	2,484	57,336	1,834,608	1,941,096	98.31%
109	25	2,725	57,361	1,837,333	1,942,082	98.35%
110	24	2,640	57,385	1,839,973	1,943,043	98.39%
111	41	4,551	57,426	1,844,524	1,943,980	98.46%
112	24	2,688	57,450	1,847,212	1,944,876	98.50%
113	27	3,051	57,477	1,850,263	1,945,748	98.55%
114	19	2,166	57,496	1,852,429	1,946,593	98.58%
115	23	2,645	57,519	1,855,074	1,947,419	98.62%
116	13	1,508	57,532	1,856,582	1,948,222	98.65%
117	20	2,340	57,552	1,858,922	1,949,012	98.68%
118	16	1,888	57,568	1,860,810	1,949,782	98.71%
119	21	2,499	57,589	1,863,309	1,950,536	98.74%
120	21	2,520	57,610	1,865,829	1,951,269	98.78%
121	17	2,057	57,627	1,867,886	1,951,981	98.81%
122	15	1,830	57,642	1,869,716	1,952,676	98.83%
123	17	2,091	57,659	1,871,807	1,953,356	98.86%
124	13	1,612	57,672	1,873,419	1,954,019	98.89%
125	16	2,000	57,688	1,875,419	1,954,669	98.91%
126	11	1,386	57,699	1,876,805	1,955,303	98.93%
127	18	2,286	57,717	1,879,091	1,955,926	98.96%
128	18	2,304	57,735	1,881,395	1,956,531	98.99%
129	12	1,548	57,747	1,882,943	1,957,118	99.01%
130	11	1,430	57,758	1,884,373	1,957,693	99.03%
131	5	655	57,763	1,885,028	1,958,257	99.04%
132	13	1,716	57,776	1,886,744	1,958,816	99.06%
133	11	1,463	57,787	1,888,207	1,959,362	99.08%
134	11	1,474	57,798	1,889,681	1,959,897	99.10%
135	13	1,755	57,811	1,891,436	1,960,421	99.12%
136	5	680	57,816	1,892,116	1,960,932	99.13%
137	7	959	57,823	1,893,075	1,961,438	99.14%
138	7	966	57,830	1,894,041	1,961,937	99.16%
139	11	1,529	57,841	1,895,570	1,962,429	99.18%
140	8	1,120	57,849	1,896,690	1,962,910	99.19%
141	14	1,974	57,863	1,898,664	1,963,383	99.21%
142	6	852	57,869	1,899,516	1,963,842	99.22%
143	5	715	57,874	1,900,231	1,964,295	99.23%
144	8	1,152	57,882	1,901,383	1,964,743	99.25%
145	12	1,740	57,894	1,903,123	1,965,183	99.27%
146	7	1,022	57,901	1,904,145	1,965,611	99.28%
147	6	882	57,907	1,905,027	1,966,032	99.29%
148	5	740	57,912	1,905,767	1,966,447	99.30%
149	6	894	57,918	1,906,661	1,966,857	99.31%
150	6	900	57,924	1,907,561	1,967,261	99.32%
151	6	906	57,930	1,908,467	1,967,659	99.33%
152	6	912	57,936	1,909,379	1,968,051	99.34%
153	9	1,377	57,945	1,910,756	1,968,437	99.35%
154	7	1,078	57,952	1,911,834	1,968,814	99.37%

155	3	465	57,955	1,912,299	1,969,184	99.37%
156	2	312	57,957	1,912,611	1,969,551	99.37%
157	5	785	57,962	1,913,396	1,969,916	99.38%
158	4	632	57,966	1,914,028	1,970,276	99.39%
159	3	477	57,969	1,914,505	1,970,632	99.39%
160	4	640	57,973	1,915,145	1,970,985	99.40%
161	2	322	57,975	1,915,467	1,971,334	99.41%
162	4	648	57,979	1,916,115	1,971,681	99.41%
163	1	163	57,980	1,916,278	1,972,024	99.41%
164	7	1,148	57,987	1,917,426	1,972,366	99.43%
165	3	495	57,990	1,917,921	1,972,701	99.43%
166	4	664	57,994	1,918,585	1,973,033	99.44%
167	4	668	57,998	1,919,253	1,973,361	99.44%
168	4	672	58,002	1,919,925	1,973,685	99.45%
169	5	845	58,007	1,920,770	1,974,005	99.46%
170	5	850	58,012	1,921,620	1,974,320	99.47%
171	1	171	58,013	1,921,791	1,974,630	99.47%
172	4	688	58,017	1,922,479	1,974,939	99.48%
173	5	865	58,022	1,923,344	1,975,244	99.49%
174	4	696	58,026	1,924,040	1,975,544	99.49%
175	5	875	58,031	1,924,915	1,975,840	99.50%
176	7	1,232	58,038	1,926,147	1,976,131	99.51%
177	2	354	58,040	1,926,501	1,976,415	99.52%
178	4	712	58,044	1,927,213	1,976,697	99.52%
179	2	358	58,046	1,927,571	1,976,975	99.53%
180	5	900	58,051	1,928,471	1,977,251	99.54%
181	1	181	58,052	1,928,652	1,977,522	99.54%
182	5	910	58,057	1,929,562	1,977,792	99.55%
183	2	366	58,059	1,929,928	1,978,057	99.55%
184	5	920	58,064	1,930,848	1,978,320	99.56%
185	2	370	58,066	1,931,218	1,978,578	99.56%
186	3	558	58,069	1,931,776	1,978,834	99.57%
187	3	561	58,072	1,932,337	1,979,087	99.57%
188	3	564	58,075	1,932,901	1,979,337	99.58%
189	4	756	58,079	1,933,657	1,979,584	99.58%
190	2	380	58,081	1,934,037	1,979,827	99.59%
191	2	382	58,083	1,934,419	1,980,068	99.59%
192	7	1,344	58,090	1,935,763	1,980,307	99.60%
193	3	579	58,093	1,936,342	1,980,539	99.61%
195	2	390	58,095	1,936,732	1,980,997	99.61%
196	3	588	58,098	1,937,320	1,981,224	99.62%
197	3	591	58,101	1,937,911	1,981,448	99.62%
198	4	792	58,105	1,938,703	1,981,669	99.63%
199	3	597	58,108	1,939,300	1,981,886	99.63%
200	2	400	58,110	1,939,700	1,982,100	99.64%
201	1	201	58,111	1,939,901	1,982,312	99.64%
202	3	606	58,114	1,940,507	1,982,523	99.64%
203	3	609	58,117	1,941,116	1,982,731	99.65%
204	2	408	58,119	1,941,524	1,982,936	99.65%
205	2	410	58,121	1,941,934	1,983,139	99.66%
206	1	206	58,122	1,942,140	1,983,340	99.66%
208	2	416	58,124	1,942,556	1,983,740	99.66%
209	3	627	58,127	1,943,183	1,983,938	99.67%
210	3	630	58,130	1,943,813	1,984,133	99.67%
211	2	422	58,132	1,944,235	1,984,325	99.67%

213	2	426	58,134	1,944,661	1,984,705	99.68%
215	3	645	58,137	1,945,306	1,985,081	99.68%
216	1	216	58,138	1,945,522	1,985,266	99.68%
217	1	217	58,139	1,945,739	1,985,450	99.69%
218	4	872	58,143	1,946,611	1,985,633	99.69%
219	1	219	58,144	1,946,830	1,985,812	99.69%
222	2	444	58,146	1,947,274	1,986,346	99.70%
223	1	223	58,147	1,947,497	1,986,522	99.70%
224	1	224	58,148	1,947,721	1,986,697	99.70%
225	1	225	58,149	1,947,946	1,986,871	99.70%
227	2	454	58,151	1,948,400	1,987,217	99.71%
228	1	228	58,152	1,948,628	1,987,388	99.71%
230	1	230	58,153	1,948,858	1,987,728	99.71%
231	1	231	58,154	1,949,089	1,987,897	99.71%
232	1	232	58,155	1,949,321	1,988,065	99.71%
233	3	699	58,158	1,950,020	1,988,232	99.72%
235	5	1,175	58,163	1,951,195	1,988,560	99.73%
237	1	237	58,164	1,951,432	1,988,878	99.73%
238	2	476	58,166	1,951,908	1,989,036	99.73%
239	1	239	58,167	1,952,147	1,989,192	99.73%
240	1	240	58,168	1,952,387	1,989,347	99.74%
241	1	241	58,169	1,952,628	1,989,501	99.74%
242	1	242	58,170	1,952,870	1,989,654	99.74%
243	1	243	58,171	1,953,113	1,989,806	99.74%
244	1	244	58,172	1,953,357	1,989,957	99.74%
245	-	-	58,172	1,953,357	1,990,107	99.74%
246	1	246	58,173	1,953,603	1,990,257	99.74%
248	1	248	58,174	1,953,851	1,990,555	99.75%
249	2	498	58,176	1,954,349	1,990,703	99.75%
250	25	6,250	58,201	1,960,599	1,990,849	99.79%
252	2	504	58,203	1,961,103	1,991,091	99.80%
254	1	254	58,204	1,961,357	1,991,329	99.80%
257	2	514	58,206	1,961,871	1,991,683	99.80%
259	1	259	58,207	1,962,130	1,991,915	99.80%
260	-	-	58,207	1,962,130	1,992,030	99.80%
262	1	262	58,208	1,962,392	1,992,260	99.80%
263	1	263	58,209	1,962,655	1,992,374	99.81%
265	2	530	58,211	1,963,185	1,992,600	99.81%
268	1	268	58,212	1,963,453	1,992,933	99.81%
271	1	271	58,213	1,963,724	1,993,263	99.81%
272	2	544	58,215	1,964,268	1,993,372	99.82%
275	1	275	58,216	1,964,543	1,993,693	99.82%
276	2	552	58,218	1,965,095	1,993,799	99.82%
277	1	277	58,219	1,965,372	1,993,903	99.82%
279	1	279	58,220	1,965,651	1,994,109	99.83%
280	2	560	58,222	1,966,211	1,994,211	99.83%
282	2	564	58,224	1,966,775	1,994,411	99.83%
285	1	285	58,225	1,967,060	1,994,705	99.83%
286	1	286	58,226	1,967,346	1,994,802	99.84%
287	1	287	58,227	1,967,633	1,994,898	99.84%
288	1	288	58,228	1,967,921	1,994,993	99.84%
290	1	290	58,229	1,968,211	1,995,181	99.84%
292	2	584	58,231	1,968,795	1,995,367	99.84%
294	1	294	58,232	1,969,089	1,995,549	99.85%
296	1	296	58,233	1,969,385	1,995,729	99.85%

303	1	303	58,234	1,969,688	1,996,352	99.85%
306	1	306	58,235	1,969,994	1,996,616	99.85%
309	1	309	58,236	1,970,303	1,996,877	99.85%
316	2	632	58,238	1,970,935	1,997,479	99.86%
318	1	318	58,239	1,971,253	1,997,647	99.86%
319	2	638	58,241	1,971,891	1,997,730	99.86%
322	(1)	(322)	58,240	1,971,569	1,997,973	99.86%
325	1	325	58,241	1,971,894	1,998,219	99.86%
326	1	326	58,242	1,972,220	1,998,300	99.86%
336	1	336	58,243	1,972,556	1,999,100	99.86%
337	1	337	58,244	1,972,893	1,999,179	99.87%
341	1	341	58,245	1,973,234	1,999,491	99.87%
344	1	344	58,246	1,973,578	1,999,722	99.87%
345	1	345	58,247	1,973,923	1,999,798	99.87%
358	1	358	58,248	1,974,281	2,000,773	99.87%
360	1	360	58,249	1,974,641	2,000,921	99.87%
364	1	364	58,250	1,975,005	2,001,213	99.88%
365	1	365	58,251	1,975,370	2,001,285	99.88%
369	2	738	58,253	1,976,108	2,001,569	99.88%
372	1	372	58,254	1,976,480	2,001,776	99.88%
376	1	376	58,255	1,976,856	2,002,048	99.89%
381	1	381	58,256	1,977,237	2,002,383	99.89%
385	1	385	58,257	1,977,622	2,002,647	99.89%
386	1	386	58,258	1,978,008	2,002,712	99.89%
389	1	389	58,259	1,978,397	2,002,904	99.89%
391	1	391	58,260	1,978,788	2,003,030	99.89%
393	1	393	58,261	1,979,181	2,003,154	99.90%
397	1	397	58,262	1,979,578	2,003,398	99.90%
413	1	413	58,263	1,979,991	2,004,358	99.90%
419	1	419	58,264	1,980,410	2,004,712	99.90%
422	1	422	58,265	1,980,832	2,004,886	99.90%
431	1	431	58,266	1,981,263	2,005,399	99.90%
432	1	432	58,267	1,981,695	2,005,455	99.91%
434	2	868	58,269	1,982,563	2,005,565	99.91%
436	1	436	58,270	1,982,999	2,005,671	99.91%
443	1	443	58,271	1,983,442	2,006,035	99.91%
450	2	900	58,273	1,984,342	2,006,392	99.92%
451	1	451	58,274	1,984,793	2,006,441	99.92%
465	2	930	58,276	1,985,723	2,007,113	99.92%
502	1	502	58,277	1,986,225	2,008,815	99.92%
512	2	1,024	58,279	1,987,249	2,009,265	99.93%
526	1	526	58,280	1,987,775	2,009,867	99.93%
528	1	528	58,281	1,988,303	2,009,951	99.93%
533	1	533	58,282	1,988,836	2,010,156	99.93%
535	1	535	58,283	1,989,371	2,010,236	99.93%
548	1	548	58,284	1,989,919	2,010,743	99.93%
557	1	557	58,285	1,990,476	2,011,085	99.94%
576	1	576	58,286	1,991,052	2,011,788	99.94%
578	1	578	58,287	1,991,630	2,011,860	99.94%
582	1	582	58,288	1,992,212	2,012,000	99.94%
593	1	593	58,289	1,992,805	2,012,374	99.94%
621	1	621	58,290	1,993,426	2,013,298	99.95%
675	1	675	58,291	1,994,101	2,015,026	99.95%
719	1	719	58,292	1,994,820	2,016,390	99.95%
730	1	730	58,293	1,995,550	2,016,720	99.95%

735	1	735	58,294	1,996,285	2,016,865	99.95%
747	1	747	58,295	1,997,032	2,017,201	99.95%
768	1	768	58,296	1,997,800	2,017,768	99.96%
811	1	811	58,297	1,998,611	2,018,886	99.96%
840	16	13,440	58,313	2,012,051	2,019,611	99.98%
895	1	895	58,314	2,012,946	2,020,106	99.99%
904	1	904	58,315	2,013,850	2,020,178	99.99%
908	1	908	58,316	2,014,758	2,020,206	99.99%
1,008	1	1,008	58,317	2,015,766	2,020,806	99.99%
1,043	1	1,043	58,318	2,016,809	2,020,981	99.99%
1,218	1	1,218	58,319	2,018,027	2,021,681	99.99%
1,288	(1)	(1,288)	58,318	2,016,739	2,021,891	99.99%
1,351	(1)	(1,351)	58,317	2,015,388	2,022,143	99.99%
1,675	1	1,675	58,318	2,017,063	2,023,763	99.99%
1,681	1	1,681	58,319	2,018,744	2,023,787	99.99%
2,048	1	2,048	58,320	2,020,792	2,024,888	100.00%
2,279	-	-	58,320	2,020,792	2,025,350	100.00%
2,302	1	2,302	58,321	2,023,094	2,025,396	100.00%
2,329	1	2,329	58,322	2,025,423	2,025,423	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF FEBRUARY 2023
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	2,315	-	2,315	-	-	3.95%
1	510	510	2,825	510	56,248	4.82%
2	339	678	3,164	1,188	111,986	5.40%
3	349	1,047	3,513	2,235	167,385	6.00%
4	396	1,584	3,909	3,819	222,435	6.67%
5	519	2,595	4,428	6,414	277,089	7.56%
6	577	3,462	5,005	9,876	331,224	8.55%
7	725	5,075	5,730	14,951	384,782	9.78%
8	860	6,880	6,590	21,831	437,615	11.25%
9	896	8,064	7,486	29,895	489,588	12.78%
10	1,040	10,400	8,526	40,295	540,665	14.56%
11	1,091	12,001	9,617	52,296	590,702	16.42%
12	1,114	13,368	10,731	65,664	639,648	18.32%
13	1,191	15,483	11,922	81,147	687,480	20.36%
14	1,241	17,374	13,163	98,521	734,121	22.48%
15	1,172	17,580	14,335	116,101	779,521	24.48%
16	1,198	19,168	15,533	135,269	823,749	26.52%
17	1,257	21,369	16,790	156,638	866,779	28.67%
18	1,276	22,968	18,066	179,606	908,552	30.85%
19	1,345	25,555	19,411	205,161	949,049	33.15%
20	1,402	28,040	20,813	233,201	988,201	35.54%
21	1,355	28,455	22,168	261,656	1,025,951	37.85%
22	1,369	30,118	23,537	291,774	1,062,346	40.19%
23	1,413	32,499	24,950	324,273	1,097,372	42.60%
24	1,304	31,296	26,254	355,569	1,130,985	44.83%
25	1,307	32,675	27,561	388,244	1,163,294	47.06%
26	1,340	34,840	28,901	423,084	1,194,296	49.35%
27	1,218	32,886	30,119	455,970	1,223,958	51.43%
28	1,261	35,308	31,380	491,278	1,252,402	53.58%
29	1,233	35,757	32,613	527,035	1,279,585	55.69%
30	1,189	35,670	33,802	562,705	1,305,535	57.72%
31	1,163	36,053	34,965	598,758	1,330,296	59.70%
32	1,093	34,976	36,058	633,734	1,353,894	61.57%
33	1,015	33,495	37,073	667,229	1,376,399	63.30%
34	1,049	35,666	38,122	702,895	1,397,889	65.10%
35	1,015	35,525	39,137	738,420	1,418,330	66.83%
36	977	35,172	40,114	773,592	1,437,756	68.50%
37	928	34,336	41,042	807,928	1,456,205	70.08%
38	888	33,744	41,930	841,672	1,473,726	71.60%
39	916	35,724	42,846	877,396	1,490,359	73.16%
40	757	30,280	43,603	907,676	1,506,076	74.45%
41	779	31,939	44,382	939,615	1,521,036	75.79%
42	765	32,130	45,147	971,745	1,535,217	77.09%
43	694	29,842	45,841	1,001,587	1,548,633	78.28%
44	663	29,172	46,504	1,030,759	1,561,355	79.41%

45	667	30,015	47,171	1,060,774	1,573,414	80.55%
46	565	25,990	47,736	1,086,764	1,584,806	81.51%
47	585	27,495	48,321	1,114,259	1,595,633	82.51%
48	578	27,744	48,899	1,142,003	1,605,875	83.50%
49	519	25,431	49,418	1,167,434	1,615,539	84.38%
50	499	24,950	49,917	1,192,384	1,624,684	85.24%
51	457	23,307	50,374	1,215,691	1,633,330	86.02%
52	417	21,684	50,791	1,237,375	1,641,519	86.73%
53	406	21,518	51,197	1,258,893	1,649,291	87.42%
54	383	20,682	51,580	1,279,575	1,656,657	88.08%
55	345	18,975	51,925	1,298,550	1,663,640	88.67%
56	334	18,704	52,259	1,317,254	1,670,278	89.24%
57	321	18,297	52,580	1,335,551	1,676,582	89.78%
58	301	17,458	52,881	1,353,009	1,682,565	90.30%
59	281	16,579	53,162	1,369,588	1,688,247	90.78%
60	295	17,700	53,457	1,387,288	1,693,648	91.28%
61	285	17,385	53,742	1,404,673	1,698,754	91.77%
62	250	15,500	53,992	1,420,173	1,703,575	92.19%
63	245	15,435	54,237	1,435,608	1,708,146	92.61%
64	213	13,632	54,450	1,449,240	1,712,472	92.98%
65	201	13,065	54,651	1,462,305	1,716,585	93.32%
66	209	13,794	54,860	1,476,099	1,720,497	93.68%
67	169	11,323	55,029	1,487,422	1,724,200	93.97%
68	179	12,172	55,208	1,499,594	1,727,734	94.27%
69	156	10,764	55,364	1,510,358	1,731,089	94.54%
70	152	10,640	55,516	1,520,998	1,734,288	94.80%
71	140	9,940	55,656	1,530,938	1,737,335	95.04%
72	130	9,360	55,786	1,540,298	1,740,242	95.26%
73	136	9,928	55,922	1,550,226	1,743,019	95.49%
74	128	9,472	56,050	1,559,698	1,745,660	95.71%
75	119	8,925	56,169	1,568,623	1,748,173	95.91%
76	97	7,372	56,266	1,575,995	1,750,567	96.08%
77	104	8,008	56,370	1,584,003	1,752,864	96.26%
78	87	6,786	56,457	1,590,789	1,755,057	96.40%
79	96	7,584	56,553	1,598,373	1,757,163	96.57%
80	65	5,200	56,618	1,603,573	1,759,173	96.68%
81	101	8,181	56,719	1,611,754	1,761,118	96.85%
82	74	6,068	56,793	1,617,822	1,762,962	96.98%
83	70	5,810	56,863	1,623,632	1,764,732	97.10%
84	73	6,132	56,936	1,629,764	1,766,432	97.22%
85	73	6,205	57,009	1,635,969	1,768,059	97.35%
86	55	4,730	57,064	1,640,699	1,769,613	97.44%
87	69	6,003	57,133	1,646,702	1,771,112	97.56%
88	57	5,016	57,190	1,651,718	1,772,542	97.66%
89	52	4,628	57,242	1,656,346	1,773,915	97.74%
90	61	5,490	57,303	1,661,836	1,775,236	97.85%
91	46	4,186	57,349	1,666,022	1,776,496	97.93%
92	42	3,864	57,391	1,669,886	1,777,710	98.00%
93	37	3,441	57,428	1,673,327	1,778,882	98.06%
94	40	3,760	57,468	1,677,087	1,780,017	98.13%
95	32	3,040	57,500	1,680,127	1,781,112	98.18%
96	42	4,032	57,542	1,684,159	1,782,175	98.26%
97	32	3,104	57,574	1,687,263	1,783,196	98.31%
98	28	2,744	57,602	1,690,007	1,784,185	98.36%
99	31	3,069	57,633	1,693,076	1,785,146	98.41%

100	32	3,200	57,665	1,696,276	1,786,076	98.47%
101	27	2,727	57,692	1,699,003	1,786,974	98.51%
102	27	2,754	57,719	1,701,757	1,787,845	98.56%
103	33	3,399	57,752	1,705,156	1,788,689	98.62%
104	28	2,912	57,780	1,708,068	1,789,500	98.66%
105	29	3,045	57,809	1,711,113	1,790,283	98.71%
106	19	2,014	57,828	1,713,127	1,791,037	98.74%
107	21	2,247	57,849	1,715,374	1,791,772	98.78%
108	20	2,160	57,869	1,717,534	1,792,486	98.81%
109	17	1,853	57,886	1,719,387	1,793,180	98.84%
110	20	2,200	57,906	1,721,587	1,793,857	98.88%
111	24	2,664	57,930	1,724,251	1,794,514	98.92%
112	14	1,568	57,944	1,725,819	1,795,147	98.94%
113	15	1,695	57,959	1,727,514	1,795,766	98.97%
114	9	1,026	57,968	1,728,540	1,796,370	98.98%
115	13	1,495	57,981	1,730,035	1,796,965	99.01%
116	11	1,276	57,992	1,731,311	1,797,547	99.02%
117	16	1,872	58,008	1,733,183	1,798,118	99.05%
118	14	1,652	58,022	1,734,835	1,798,673	99.08%
119	16	1,904	58,038	1,736,739	1,799,214	99.10%
120	13	1,560	58,051	1,738,299	1,799,739	99.13%
121	11	1,331	58,062	1,739,630	1,800,251	99.14%
122	12	1,464	58,074	1,741,094	1,800,752	99.17%
123	7	861	58,081	1,741,955	1,801,241	99.18%
124	10	1,240	58,091	1,743,195	1,801,723	99.19%
125	9	1,125	58,100	1,744,320	1,802,195	99.21%
126	16	2,016	58,116	1,746,336	1,802,658	99.24%
127	10	1,270	58,126	1,747,606	1,803,105	99.25%
128	8	1,024	58,134	1,748,630	1,803,542	99.27%
129	9	1,161	58,143	1,749,791	1,803,971	99.28%
130	8	1,040	58,151	1,750,831	1,804,391	99.30%
131	9	1,179	58,160	1,752,010	1,804,803	99.31%
132	6	792	58,166	1,752,802	1,805,206	99.32%
133	9	1,197	58,175	1,753,999	1,805,603	99.34%
134	16	2,144	58,191	1,756,143	1,805,991	99.36%
135	9	1,215	58,200	1,757,358	1,806,363	99.38%
136	10	1,360	58,210	1,758,718	1,806,726	99.40%
137	2	274	58,212	1,758,992	1,807,079	99.40%
138	4	552	58,216	1,759,544	1,807,430	99.41%
139	4	556	58,220	1,760,100	1,807,777	99.41%
140	5	700	58,225	1,760,800	1,808,120	99.42%
141	5	705	58,230	1,761,505	1,808,458	99.43%
142	8	1,136	58,238	1,762,641	1,808,791	99.45%
143	5	715	58,243	1,763,356	1,809,116	99.45%
144	4	576	58,247	1,763,932	1,809,436	99.46%
145	4	580	58,251	1,764,512	1,809,752	99.47%
146	4	584	58,255	1,765,096	1,810,064	99.47%
147	4	588	58,259	1,765,684	1,810,372	99.48%
148	2	296	58,261	1,765,980	1,810,676	99.48%
149	2	298	58,263	1,766,278	1,810,978	99.49%
150	8	1,200	58,271	1,767,478	1,811,278	99.50%
151	6	906	58,277	1,768,384	1,811,570	99.51%
152	4	608	58,281	1,768,992	1,811,856	99.52%
153	4	612	58,285	1,769,604	1,812,138	99.53%
154	1	154	58,286	1,769,758	1,812,416	99.53%

155	7	1,085	58,293	1,770,843	1,812,693	99.54%
156	5	780	58,298	1,771,623	1,812,963	99.55%
157	2	314	58,300	1,771,937	1,813,228	99.55%
158	7	1,106	58,307	1,773,043	1,813,491	99.56%
159	8	1,272	58,315	1,774,315	1,813,747	99.58%
160	4	640	58,319	1,774,955	1,813,995	99.58%
161	1	161	58,320	1,775,116	1,814,239	99.59%
162	4	648	58,324	1,775,764	1,814,482	99.59%
163	3	489	58,327	1,776,253	1,814,721	99.60%
164	1	164	58,328	1,776,417	1,814,957	99.60%
165	3	495	58,331	1,776,912	1,815,192	99.60%
166	2	332	58,333	1,777,244	1,815,424	99.61%
167	5	835	58,338	1,778,079	1,815,654	99.62%
168	3	504	58,341	1,778,583	1,815,879	99.62%
170	1	170	58,342	1,778,753	1,816,323	99.62%
171	6	1,026	58,348	1,779,779	1,816,544	99.63%
172	4	688	58,352	1,780,467	1,816,759	99.64%
173	1	173	58,353	1,780,640	1,816,970	99.64%
174	5	870	58,358	1,781,510	1,817,180	99.65%
175	2	350	58,360	1,781,860	1,817,385	99.65%
176	3	528	58,363	1,782,388	1,817,588	99.66%
177	3	531	58,366	1,782,919	1,817,788	99.66%
178	3	534	58,369	1,783,453	1,817,985	99.67%
179	1	179	58,370	1,783,632	1,818,179	99.67%
180	1	180	58,371	1,783,812	1,818,372	99.67%
181	3	543	58,374	1,784,355	1,818,564	99.68%
182	4	728	58,378	1,785,083	1,818,753	99.68%
183	3	549	58,381	1,785,632	1,818,938	99.69%
184	5	920	58,386	1,786,552	1,819,120	99.70%
185	3	555	58,389	1,787,107	1,819,297	99.70%
186	1	186	58,390	1,787,293	1,819,471	99.70%
187	1	187	58,391	1,787,480	1,819,644	99.71%
188	1	188	58,392	1,787,668	1,819,816	99.71%
189	3	567	58,395	1,788,235	1,819,987	99.71%
191	2	382	58,397	1,788,617	1,820,323	99.72%
192	2	384	58,399	1,789,001	1,820,489	99.72%
193	3	579	58,402	1,789,580	1,820,653	99.73%
194	3	582	58,405	1,790,162	1,820,814	99.73%
195	1	195	58,406	1,790,357	1,820,972	99.73%
196	4	784	58,410	1,791,141	1,821,129	99.74%
198	1	198	58,411	1,791,339	1,821,435	99.74%
199	3	597	58,414	1,791,936	1,821,587	99.75%
200	2	400	58,416	1,792,336	1,821,736	99.75%
201	3	603	58,419	1,792,939	1,821,883	99.75%
202	1	202	58,420	1,793,141	1,822,027	99.76%
203	2	406	58,422	1,793,547	1,822,170	99.76%
205	1	205	58,423	1,793,752	1,822,452	99.76%
206	2	412	58,425	1,794,164	1,822,592	99.76%
207	-	-	58,425	1,794,164	1,822,730	99.76%
208	4	832	58,429	1,794,996	1,822,868	99.77%
209	3	627	58,432	1,795,623	1,823,002	99.78%
210	1	210	58,433	1,795,833	1,823,133	99.78%
211	2	422	58,435	1,796,255	1,823,263	99.78%
213	1	213	58,436	1,796,468	1,823,519	99.78%
216	1	216	58,437	1,796,684	1,823,900	99.78%

218	1	218	58,438	1,796,902	1,824,152	99.79%
219	1	219	58,439	1,797,121	1,824,277	99.79%
223	3	669	58,442	1,797,790	1,824,773	99.79%
226	1	226	58,443	1,798,016	1,825,136	99.80%
230	1	230	58,444	1,798,246	1,825,616	99.80%
233	2	466	58,446	1,798,712	1,825,973	99.80%
235	3	705	58,449	1,799,417	1,826,207	99.81%
236	2	472	58,451	1,799,889	1,826,321	99.81%
238	-	-	58,451	1,799,889	1,826,545	99.81%
239	2	478	58,453	1,800,367	1,826,657	99.81%
241	2	482	58,455	1,800,849	1,826,877	99.82%
243	1	243	58,456	1,801,092	1,827,093	99.82%
247	2	494	58,458	1,801,586	1,827,521	99.82%
248	1	248	58,459	1,801,834	1,827,626	99.82%
250	9	2,250	58,468	1,804,084	1,827,834	99.84%
252	2	504	58,470	1,804,588	1,828,024	99.84%
253	1	253	58,471	1,804,841	1,828,117	99.84%
255	1	255	58,472	1,805,096	1,828,301	99.84%
256	1	256	58,473	1,805,352	1,828,392	99.85%
260	1	260	58,474	1,805,612	1,828,752	99.85%
263	1	263	58,475	1,805,875	1,829,019	99.85%
265	1	265	58,476	1,806,140	1,829,195	99.85%
266	1	266	58,477	1,806,406	1,829,282	99.85%
267	1	267	58,478	1,806,673	1,829,368	99.85%
268	2	536	58,480	1,807,209	1,829,453	99.86%
271	1	271	58,481	1,807,480	1,829,702	99.86%
272	1	272	58,482	1,807,752	1,829,784	99.86%
273	1	273	58,483	1,808,025	1,829,865	99.86%
276	1	276	58,484	1,808,301	1,830,105	99.87%
277	1	277	58,485	1,808,578	1,830,184	99.87%
283	2	566	58,487	1,809,144	1,830,652	99.87%
284	1	284	58,488	1,809,428	1,830,728	99.87%
287	1	287	58,489	1,809,715	1,830,953	99.87%
289	1	289	58,490	1,810,004	1,831,101	99.88%
293	1	293	58,491	1,810,297	1,831,393	99.88%
295	1	295	58,492	1,810,592	1,831,537	99.88%
297	1	297	58,493	1,810,889	1,831,679	99.88%
299	3	897	58,496	1,811,786	1,831,819	99.89%
300	2	600	58,498	1,812,386	1,831,886	99.89%
312	1	312	58,499	1,812,698	1,832,666	99.89%
313	1	313	58,500	1,813,011	1,832,730	99.89%
314	2	628	58,502	1,813,639	1,832,793	99.90%
316	1	316	58,503	1,813,955	1,832,915	99.90%
318	1	318	58,504	1,814,273	1,833,035	99.90%
322	1	322	58,505	1,814,595	1,833,271	99.90%
332	2	664	58,507	1,815,259	1,833,851	99.90%
339	1	339	58,508	1,815,598	1,834,243	99.91%
347	1	347	58,509	1,815,945	1,834,683	99.91%
348	2	696	58,511	1,816,641	1,834,737	99.91%
355	1	355	58,512	1,816,996	1,835,101	99.91%
361	1	361	58,513	1,817,357	1,835,407	99.91%
363	1	363	58,514	1,817,720	1,835,507	99.92%
368	1	368	58,515	1,818,088	1,835,752	99.92%
369	1	369	58,516	1,818,457	1,835,800	99.92%
382	1	382	58,517	1,818,839	1,836,411	99.92%

384	1	384	58,518	1,819,223	1,836,503	99.92%
385	1	385	58,519	1,819,608	1,836,548	99.92%
392	1	392	58,520	1,820,000	1,836,856	99.93%
400	1	400	58,521	1,820,400	1,837,200	99.93%
403	1	403	58,522	1,820,803	1,837,326	99.93%
407	1	407	58,523	1,821,210	1,837,490	99.93%
410	1	410	58,524	1,821,620	1,837,610	99.93%
411	1	411	58,525	1,822,031	1,837,649	99.94%
420	2	840	58,527	1,822,871	1,837,991	99.94%
425	1	425	58,528	1,823,296	1,838,171	99.94%
431	1	431	58,529	1,823,727	1,838,381	99.94%
436	1	436	58,530	1,824,163	1,838,551	99.94%
439	1	439	58,531	1,824,602	1,838,650	99.95%
445	1	445	58,532	1,825,047	1,838,842	99.95%
459	1	459	58,533	1,825,506	1,839,276	99.95%
462	1	462	58,534	1,825,968	1,839,366	99.95%
472	1	472	58,535	1,826,440	1,839,656	99.95%
496	1	496	58,536	1,826,936	1,840,328	99.95%
505	1	505	58,537	1,827,441	1,840,571	99.96%
507	(1)	(507)	58,536	1,826,934	1,840,623	99.95%
532	1	532	58,537	1,827,466	1,841,298	99.96%
540	1	540	58,538	1,828,006	1,841,506	99.96%
558	1	558	58,539	1,828,564	1,841,956	99.96%
574	1	574	58,540	1,829,138	1,842,340	99.96%
606	1	606	58,541	1,829,744	1,843,076	99.96%
659	1	659	58,542	1,830,403	1,844,242	99.96%
678	1	678	58,543	1,831,081	1,844,641	99.97%
704	1	704	58,544	1,831,785	1,845,161	99.97%
713	1	713	58,545	1,832,498	1,845,332	99.97%
725	1	725	58,546	1,833,223	1,845,548	99.97%
738	1	738	58,547	1,833,961	1,845,769	99.97%
773	1	773	58,548	1,834,734	1,846,329	99.97%
784	1	784	58,549	1,835,518	1,846,494	99.98%
827	1	827	58,550	1,836,345	1,847,096	99.98%
839	1	839	58,551	1,837,184	1,847,252	99.98%
944	-	-	58,551	1,837,184	1,848,512	99.98%
966	1	966	58,552	1,838,150	1,848,776	99.98%
967	1	967	58,553	1,839,117	1,848,787	99.98%
1,018	-	-	58,553	1,839,117	1,849,297	99.98%
1,036	1	1,036	58,554	1,840,153	1,849,477	99.98%
1,056	1	1,056	58,555	1,841,209	1,849,657	99.99%
1,181	-	-	58,555	1,841,209	1,850,657	99.99%
1,260	-	-	58,555	1,841,209	1,851,289	99.99%
1,280	-	-	58,555	1,841,209	1,851,449	99.99%
1,392	1	1,392	58,556	1,842,601	1,852,345	99.99%
1,439	1	1,439	58,557	1,844,040	1,852,674	99.99%
1,449	1	1,449	58,558	1,845,489	1,852,734	99.99%
1,528	1	1,528	58,559	1,847,017	1,853,129	99.99%
1,535	1	1,535	58,560	1,848,552	1,853,157	99.99%
1,547	-	-	58,560	1,848,552	1,853,193	99.99%
1,561	1	1,561	58,561	1,850,113	1,853,235	100.00%
1,729	1	1,729	58,562	1,851,842	1,853,571	100.00%
1,883	-	-	58,562	1,851,842	1,853,725	100.00%
1,911	-	-	58,562	1,851,842	1,853,753	100.00%
2,114	-	-	58,562	1,851,842	1,853,956	100.00%

2,448	-	-	58,562	1,851,842	1,854,290	100.00%
3,107	1	3,107	58,563	1,854,949	1,854,949	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF MARCH 2023
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	2,203	-	2,203	-	-	3.71%
1	520	520	2,723	520	57,191	4.58%
2	360	720	3,083	1,240	113,862	5.19%
3	352	1,056	3,435	2,296	170,173	5.78%
4	434	1,736	3,869	4,032	226,132	6.51%
5	523	2,615	4,392	6,647	281,657	7.39%
6	619	3,714	5,011	10,361	336,659	8.44%
7	740	5,180	5,751	15,541	391,042	9.68%
8	831	6,648	6,582	22,189	444,685	11.08%
9	1,027	9,243	7,609	31,432	497,497	12.81%
10	1,036	10,360	8,645	41,792	549,282	14.56%
11	1,135	12,485	9,780	54,277	600,031	16.47%
12	1,171	14,052	10,951	68,329	649,645	18.44%
13	1,139	14,807	12,090	83,136	698,088	20.36%
14	1,262	17,668	13,352	100,804	745,392	22.48%
15	1,261	18,915	14,613	119,719	791,434	24.60%
16	1,254	20,064	15,867	139,783	836,215	26.71%
17	1,206	20,502	17,073	160,285	879,742	28.75%
18	1,288	23,184	18,361	183,469	922,063	30.91%
19	1,464	27,816	19,825	211,285	963,096	33.38%
20	1,412	28,240	21,237	239,525	1,002,665	35.76%
21	1,451	30,471	22,688	269,996	1,040,822	38.20%
22	1,416	31,152	24,104	301,148	1,077,528	40.58%
23	1,339	30,797	25,443	331,945	1,112,818	42.84%
24	1,443	34,632	26,886	366,577	1,146,769	45.27%
25	1,376	34,400	28,262	400,977	1,179,277	47.58%
26	1,401	36,426	29,663	437,403	1,210,409	49.94%
27	1,245	33,615	30,908	471,018	1,240,140	52.04%
28	1,262	35,336	32,170	506,354	1,268,626	54.16%
29	1,279	37,091	33,449	543,445	1,295,850	56.32%
30	1,275	38,250	34,724	581,695	1,321,795	58.46%
31	1,144	35,464	35,868	617,159	1,346,465	60.39%
32	1,172	37,504	37,040	654,663	1,369,991	62.36%
33	1,065	35,145	38,105	689,808	1,392,345	64.16%
34	1,077	36,618	39,182	726,426	1,413,634	65.97%
35	1,016	35,560	40,198	761,986	1,433,846	67.68%
36	902	32,472	41,100	794,458	1,453,042	69.20%
37	963	35,631	42,063	830,089	1,471,336	70.82%
38	865	32,870	42,928	862,959	1,488,667	72.28%
39	892	34,788	43,820	897,747	1,505,133	73.78%
40	764	30,560	44,584	928,307	1,520,707	75.06%
41	793	32,513	45,377	960,820	1,535,517	76.40%
42	721	30,282	46,098	991,102	1,549,534	77.61%
43	729	31,347	46,827	1,022,449	1,562,830	78.84%
44	660	29,040	47,487	1,051,489	1,575,397	79.95%

45	644	28,980	48,131	1,080,469	1,587,304	81.04%
46	615	28,290	48,746	1,108,759	1,598,567	82.07%
47	562	26,414	49,308	1,135,173	1,609,215	83.02%
48	571	27,408	49,879	1,162,581	1,619,301	83.98%
49	480	23,520	50,359	1,186,101	1,628,816	84.79%
50	463	23,150	50,822	1,209,251	1,637,851	85.57%
51	431	21,981	51,253	1,231,232	1,646,423	86.29%
52	433	22,516	51,686	1,253,748	1,654,564	87.02%
53	382	20,246	52,068	1,273,994	1,662,272	87.67%
54	365	19,710	52,433	1,293,704	1,669,598	88.28%
55	386	21,230	52,819	1,314,934	1,676,559	88.93%
56	381	21,336	53,200	1,336,270	1,683,134	89.57%
57	312	17,784	53,512	1,354,054	1,689,328	90.10%
58	300	17,400	53,812	1,371,454	1,695,210	90.60%
59	270	15,930	54,082	1,387,384	1,700,792	91.06%
60	257	15,420	54,339	1,402,804	1,706,104	91.49%
61	262	15,982	54,601	1,418,786	1,711,159	91.93%
62	272	16,864	54,873	1,435,650	1,715,952	92.39%
63	234	14,742	55,107	1,450,392	1,720,473	92.78%
64	200	12,800	55,307	1,463,192	1,724,760	93.12%
65	218	14,170	55,525	1,477,362	1,728,847	93.49%
66	183	12,078	55,708	1,489,440	1,732,716	93.79%
67	174	11,658	55,882	1,501,098	1,736,402	94.09%
68	164	11,152	56,046	1,512,250	1,739,914	94.36%
69	137	9,453	56,183	1,521,703	1,743,262	94.59%
70	142	9,940	56,325	1,531,643	1,746,473	94.83%
71	155	11,005	56,480	1,542,648	1,749,542	95.09%
72	140	10,080	56,620	1,552,728	1,752,456	95.33%
73	132	9,636	56,752	1,562,364	1,755,230	95.55%
74	115	8,510	56,867	1,570,874	1,757,872	95.75%
75	109	8,175	56,976	1,579,049	1,760,399	95.93%
76	111	8,436	57,087	1,587,485	1,762,817	96.12%
77	94	7,238	57,181	1,594,723	1,765,124	96.27%
78	113	8,814	57,294	1,603,537	1,767,337	96.46%
79	83	6,557	57,377	1,610,094	1,769,437	96.60%
80	85	6,800	57,462	1,616,894	1,771,454	96.75%
81	96	7,776	57,558	1,624,670	1,773,386	96.91%
82	81	6,642	57,639	1,631,312	1,775,222	97.05%
83	71	5,893	57,710	1,637,205	1,776,977	97.16%
84	59	4,956	57,769	1,642,161	1,778,661	97.26%
85	57	4,845	57,826	1,647,006	1,780,286	97.36%
86	61	5,246	57,887	1,652,252	1,781,854	97.46%
87	55	4,785	57,942	1,657,037	1,783,361	97.56%
88	57	5,016	57,999	1,662,053	1,784,813	97.65%
89	54	4,806	58,053	1,666,859	1,786,208	97.74%
90	50	4,500	58,103	1,671,359	1,787,549	97.83%
91	49	4,459	58,152	1,675,818	1,788,840	97.91%
92	44	4,048	58,196	1,679,866	1,790,082	97.98%
93	43	3,999	58,239	1,683,865	1,791,280	98.06%
94	46	4,324	58,285	1,688,189	1,792,435	98.13%
95	30	2,850	58,315	1,691,039	1,793,544	98.18%
96	35	3,360	58,350	1,694,399	1,794,623	98.24%
97	34	3,298	58,384	1,697,697	1,795,667	98.30%
98	42	4,116	58,426	1,701,813	1,796,677	98.37%
99	34	3,366	58,460	1,705,179	1,797,645	98.43%

100	41	4,100	58,501	1,709,279	1,798,579	98.50%
101	34	3,434	58,535	1,712,713	1,799,472	98.55%
102	26	2,652	58,561	1,715,365	1,800,331	98.60%
103	23	2,369	58,584	1,717,734	1,801,164	98.64%
104	16	1,664	58,600	1,719,398	1,801,974	98.66%
105	23	2,415	58,623	1,721,813	1,802,768	98.70%
106	27	2,862	58,650	1,724,675	1,803,539	98.75%
107	23	2,461	58,673	1,727,136	1,804,283	98.79%
108	28	3,024	58,701	1,730,160	1,805,004	98.83%
109	24	2,616	58,725	1,732,776	1,805,697	98.87%
110	18	1,980	58,743	1,734,756	1,806,366	98.90%
111	15	1,665	58,758	1,736,421	1,807,017	98.93%
112	23	2,576	58,781	1,738,997	1,807,653	98.97%
113	23	2,599	58,804	1,741,596	1,808,266	99.01%
114	11	1,254	58,815	1,742,850	1,808,856	99.03%
115	17	1,955	58,832	1,744,805	1,809,435	99.05%
116	12	1,392	58,844	1,746,197	1,809,997	99.07%
117	15	1,755	58,859	1,747,952	1,810,547	99.10%
118	6	708	58,865	1,748,660	1,811,082	99.11%
119	12	1,428	58,877	1,750,088	1,811,611	99.13%
120	17	2,040	58,894	1,752,128	1,812,128	99.16%
121	13	1,573	58,907	1,753,701	1,812,628	99.18%
122	12	1,464	58,919	1,755,165	1,813,115	99.20%
123	7	861	58,926	1,756,026	1,813,590	99.21%
124	14	1,736	58,940	1,757,762	1,814,058	99.24%
125	10	1,250	58,950	1,759,012	1,814,512	99.25%
126	8	1,008	58,958	1,760,020	1,814,956	99.27%
127	8	1,016	58,966	1,761,036	1,815,392	99.28%
128	13	1,664	58,979	1,762,700	1,815,820	99.30%
129	12	1,548	58,991	1,764,248	1,816,235	99.32%
130	10	1,300	59,001	1,765,548	1,816,638	99.34%
131	7	917	59,008	1,766,465	1,817,031	99.35%
132	7	924	59,015	1,767,389	1,817,417	99.36%
133	11	1,463	59,026	1,768,852	1,817,796	99.38%
134	8	1,072	59,034	1,769,924	1,818,164	99.39%
135	5	675	59,039	1,770,599	1,818,524	99.40%
136	7	952	59,046	1,771,551	1,818,879	99.41%
137	6	822	59,052	1,772,373	1,819,227	99.42%
138	6	828	59,058	1,773,201	1,819,569	99.43%
139	6	834	59,064	1,774,035	1,819,905	99.44%
140	6	840	59,070	1,774,875	1,820,235	99.45%
141	4	564	59,074	1,775,439	1,820,559	99.46%
142	6	852	59,080	1,776,291	1,820,879	99.47%
143	6	858	59,086	1,777,149	1,821,193	99.48%
144	10	1,440	59,096	1,778,589	1,821,501	99.50%
145	5	725	59,101	1,779,314	1,821,799	99.51%
146	3	438	59,104	1,779,752	1,822,092	99.51%
147	1	147	59,105	1,779,899	1,822,382	99.51%
148	2	296	59,107	1,780,195	1,822,671	99.52%
149	4	596	59,111	1,780,791	1,822,958	99.52%
150	8	1,200	59,119	1,781,991	1,823,241	99.54%
151	7	1,057	59,126	1,783,048	1,823,516	99.55%
152	8	1,216	59,134	1,784,264	1,823,784	99.56%
153	2	306	59,136	1,784,570	1,824,044	99.57%
154	6	924	59,142	1,785,494	1,824,302	99.58%

155	4	620	59,146	1,786,114	1,824,554	99.58%
156	3	468	59,149	1,786,582	1,824,802	99.59%
157	4	628	59,153	1,787,210	1,825,047	99.59%
158	4	632	59,157	1,787,842	1,825,288	99.60%
159	1	159	59,158	1,788,001	1,825,525	99.60%
160	7	1,120	59,165	1,789,121	1,825,761	99.61%
161	3	483	59,168	1,789,604	1,825,990	99.62%
162	1	162	59,169	1,789,766	1,826,216	99.62%
163	3	489	59,172	1,790,255	1,826,441	99.63%
164	3	492	59,175	1,790,747	1,826,663	99.63%
165	1	165	59,176	1,790,912	1,826,882	99.63%
166	1	166	59,177	1,791,078	1,827,100	99.63%
167	4	668	59,181	1,791,746	1,827,317	99.64%
168	5	840	59,186	1,792,586	1,827,530	99.65%
169	2	338	59,188	1,792,924	1,827,738	99.65%
170	4	680	59,192	1,793,604	1,827,944	99.66%
171	2	342	59,194	1,793,946	1,828,146	99.66%
172	1	172	59,195	1,794,118	1,828,346	99.66%
173	2	346	59,197	1,794,464	1,828,545	99.67%
174	1	174	59,198	1,794,638	1,828,742	99.67%
175	1	175	59,199	1,794,813	1,828,938	99.67%
176	4	704	59,203	1,795,517	1,829,133	99.68%
177	2	354	59,205	1,795,871	1,829,324	99.68%
178	2	356	59,207	1,796,227	1,829,513	99.69%
179	1	179	59,208	1,796,406	1,829,700	99.69%
180	5	900	59,213	1,797,306	1,829,886	99.70%
181	3	543	59,216	1,797,849	1,830,067	99.70%
182	2	364	59,218	1,798,213	1,830,245	99.70%
183	1	183	59,219	1,798,396	1,830,421	99.71%
184	3	552	59,222	1,798,948	1,830,596	99.71%
185	1	185	59,223	1,799,133	1,830,768	99.71%
186	2	372	59,225	1,799,505	1,830,939	99.72%
187	1	187	59,226	1,799,692	1,831,108	99.72%
188	2	376	59,228	1,800,068	1,831,276	99.72%
189	1	189	59,229	1,800,257	1,831,442	99.72%
190	2	380	59,231	1,800,637	1,831,607	99.73%
191	2	382	59,233	1,801,019	1,831,770	99.73%
192	2	384	59,235	1,801,403	1,831,931	99.73%
193	5	965	59,240	1,802,368	1,832,090	99.74%
194	4	776	59,244	1,803,144	1,832,244	99.75%
195	2	390	59,246	1,803,534	1,832,394	99.75%
196	3	588	59,249	1,804,122	1,832,542	99.76%
197	1	197	59,250	1,804,319	1,832,687	99.76%
198	1	198	59,251	1,804,517	1,832,831	99.76%
199	1	199	59,252	1,804,716	1,832,974	99.76%
200	2	400	59,254	1,805,116	1,833,116	99.76%
201	2	402	59,256	1,805,518	1,833,256	99.77%
205	1	205	59,257	1,805,723	1,833,808	99.77%
206	3	618	59,260	1,806,341	1,833,945	99.77%
207	1	207	59,261	1,806,548	1,834,079	99.78%
208	1	208	59,262	1,806,756	1,834,212	99.78%
209	2	418	59,264	1,807,174	1,834,344	99.78%
210	2	420	59,266	1,807,594	1,834,474	99.78%
212	3	636	59,269	1,808,230	1,834,730	99.79%
213	1	213	59,270	1,808,443	1,834,855	99.79%

214	1	214	59,271	1,808,657	1,834,979	99.79%
216	1	216	59,272	1,808,873	1,835,225	99.79%
217	2	434	59,274	1,809,307	1,835,347	99.80%
218	1	218	59,275	1,809,525	1,835,467	99.80%
219	1	219	59,276	1,809,744	1,835,586	99.80%
221	1	221	59,277	1,809,965	1,835,822	99.80%
222	1	222	59,278	1,810,187	1,835,939	99.80%
223	1	223	59,279	1,810,410	1,836,055	99.81%
225	2	450	59,281	1,810,860	1,836,285	99.81%
227	3	681	59,284	1,811,541	1,836,511	99.81%
228	1	228	59,285	1,811,769	1,836,621	99.82%
229	1	229	59,286	1,811,998	1,836,730	99.82%
232	1	232	59,287	1,812,230	1,837,054	99.82%
233	1	233	59,288	1,812,463	1,837,161	99.82%
234	2	468	59,290	1,812,931	1,837,267	99.82%
235	2	470	59,292	1,813,401	1,837,371	99.83%
236	1	236	59,293	1,813,637	1,837,473	99.83%
237	1	237	59,294	1,813,874	1,837,574	99.83%
240	2	480	59,296	1,814,354	1,837,874	99.84%
242	3	726	59,299	1,815,080	1,838,070	99.84%
243	1	243	59,300	1,815,323	1,838,165	99.84%
246	1	246	59,301	1,815,569	1,838,447	99.84%
247	1	247	59,302	1,815,816	1,838,540	99.85%
250	4	1,000	59,306	1,816,816	1,838,816	99.85%
251	1	251	59,307	1,817,067	1,838,904	99.85%
253	1	253	59,308	1,817,320	1,839,078	99.86%
255	1	255	59,309	1,817,575	1,839,250	99.86%
257	3	771	59,312	1,818,346	1,839,420	99.86%
260	1	260	59,313	1,818,606	1,839,666	99.86%
261	1	261	59,314	1,818,867	1,839,747	99.87%
262	1	262	59,315	1,819,129	1,839,827	99.87%
263	1	263	59,316	1,819,392	1,839,906	99.87%
266	1	266	59,317	1,819,658	1,840,140	99.87%
269	2	538	59,319	1,820,196	1,840,371	99.87%
271	1	271	59,320	1,820,467	1,840,521	99.88%
276	1	276	59,321	1,820,743	1,840,891	99.88%
280	1	280	59,322	1,821,023	1,841,183	99.88%
282	1	282	59,323	1,821,305	1,841,327	99.88%
284	2	568	59,325	1,821,873	1,841,469	99.88%
287	1	287	59,326	1,822,160	1,841,676	99.89%
288	1	288	59,327	1,822,448	1,841,744	99.89%
289	1	289	59,328	1,822,737	1,841,811	99.89%
290	1	290	59,329	1,823,027	1,841,877	99.89%
292	1	292	59,330	1,823,319	1,842,007	99.89%
293	1	293	59,331	1,823,612	1,842,071	99.89%
295	2	590	59,333	1,824,202	1,842,197	99.90%
299	1	299	59,334	1,824,501	1,842,441	99.90%
301	1	301	59,335	1,824,802	1,842,561	99.90%
305	1	305	59,336	1,825,107	1,842,797	99.90%
308	1	308	59,337	1,825,415	1,842,971	99.90%
309	1	309	59,338	1,825,724	1,843,028	99.91%
311	1	311	59,339	1,826,035	1,843,140	99.91%
313	1	313	59,340	1,826,348	1,843,250	99.91%
314	1	314	59,341	1,826,662	1,843,304	99.91%
316	-	-	59,341	1,826,662	1,843,410	99.91%

323	1	323	59,342	1,826,985	1,843,781	99.91%
327	1	327	59,343	1,827,312	1,843,989	99.91%
329	1	329	59,344	1,827,641	1,844,091	99.92%
332	1	332	59,345	1,827,973	1,844,241	99.92%
335	1	335	59,346	1,828,308	1,844,388	99.92%
341	1	341	59,347	1,828,649	1,844,676	99.92%
352	1	352	59,348	1,829,001	1,845,193	99.92%
358	1	358	59,349	1,829,359	1,845,469	99.92%
362	2	724	59,351	1,830,083	1,845,649	99.93%
364	1	364	59,352	1,830,447	1,845,735	99.93%
371	1	371	59,353	1,830,818	1,846,029	99.93%
372	1	372	59,354	1,831,190	1,846,070	99.93%
376	1	376	59,355	1,831,566	1,846,230	99.93%
378	1	378	59,356	1,831,944	1,846,308	99.94%
384	-	-	59,356	1,831,944	1,846,536	99.94%
416	1	416	59,357	1,832,360	1,847,752	99.94%
424	1	424	59,358	1,832,784	1,848,048	99.94%
433	1	433	59,359	1,833,217	1,848,372	99.94%
436	2	872	59,361	1,834,089	1,848,477	99.94%
437	1	437	59,362	1,834,526	1,848,510	99.95%
438	1	438	59,363	1,834,964	1,848,542	99.95%
448	1	448	59,364	1,835,412	1,848,852	99.95%
450	1	450	59,365	1,835,862	1,848,912	99.95%
452	1	452	59,366	1,836,314	1,848,970	99.95%
455	1	455	59,367	1,836,769	1,849,054	99.95%
456	1	456	59,368	1,837,225	1,849,081	99.96%
458	1	458	59,369	1,837,683	1,849,133	99.96%
466	2	932	59,371	1,838,615	1,849,333	99.96%
469	1	469	59,372	1,839,084	1,849,402	99.96%
470	1	470	59,373	1,839,554	1,849,424	99.96%
478	1	478	59,374	1,840,032	1,849,592	99.97%
485	1	485	59,375	1,840,517	1,849,732	99.97%
499	1	499	59,376	1,841,016	1,849,998	99.97%
508	1	508	59,377	1,841,524	1,850,160	99.97%
515	1	515	59,378	1,842,039	1,850,279	99.97%
571	1	571	59,379	1,842,610	1,851,175	99.97%
583	1	583	59,380	1,843,193	1,851,355	99.98%
623	1	623	59,381	1,843,816	1,851,915	99.98%
650	1	650	59,382	1,844,466	1,852,266	99.98%
663	1	663	59,383	1,845,129	1,852,422	99.98%
680	1	680	59,384	1,845,809	1,852,609	99.98%
682	1	682	59,385	1,846,491	1,852,629	99.98%
725	1	725	59,386	1,847,216	1,853,016	99.99%
804	1	804	59,387	1,848,020	1,853,648	99.99%
854	1	854	59,388	1,848,874	1,853,998	99.99%
1,004	1	1,004	59,389	1,849,878	1,854,898	99.99%
1,007	1	1,007	59,390	1,850,885	1,854,913	99.99%
1,028	1	1,028	59,391	1,851,913	1,854,997	99.99%
1,124	1	1,124	59,392	1,853,037	1,855,285	100.00%
1,189	-	-	59,392	1,853,037	1,855,415	100.00%
1,308	-	-	59,392	1,853,037	1,855,653	100.00%
1,439	(1)	(1,439)	59,391	1,851,598	1,855,915	99.99%
1,673	1	1,673	59,392	1,853,271	1,856,617	100.00%
1,825	1	1,825	59,393	1,855,096	1,856,921	100.00%
2,010	1	2,010	59,394	1,857,106	1,857,106	100.00%

2,394	-	-	59,394	1,857,106	1,857,106	100.00%
2,571	-	-	59,394	1,857,106	1,857,106	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF APRIL 2023
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	2,011	-	2,011	-	-	3.39%
1	477	477	2,488	477	57,312	4.19%
2	322	644	2,810	1,121	114,147	4.74%
3	372	1,116	3,182	2,237	170,660	5.36%
4	400	1,600	3,582	3,837	226,801	6.04%
5	457	2,285	4,039	6,122	282,542	6.81%
6	622	3,732	4,661	9,854	337,826	7.86%
7	639	4,473	5,300	14,327	392,488	8.93%
8	815	6,520	6,115	20,847	446,511	10.31%
9	899	8,091	7,014	28,938	499,719	11.82%
10	1,002	10,020	8,016	38,958	552,028	13.51%
11	1,014	11,154	9,030	50,112	603,335	15.22%
12	1,105	13,260	10,135	63,372	653,628	17.08%
13	1,085	14,105	11,220	77,477	702,816	18.91%
14	1,126	15,764	12,346	93,241	750,919	20.81%
15	1,169	17,535	13,515	110,776	797,896	22.78%
16	1,200	19,200	14,715	129,976	843,704	24.80%
17	1,265	21,505	15,980	151,481	888,312	26.94%
18	1,198	21,564	17,178	173,045	931,655	28.96%
19	1,341	25,479	18,519	198,524	973,800	31.22%
20	1,282	25,640	19,801	224,164	1,014,604	33.38%
21	1,308	27,468	21,109	251,632	1,054,126	35.58%
22	1,312	28,864	22,421	280,496	1,092,340	37.79%
23	1,333	30,659	23,754	311,155	1,129,242	40.04%
24	1,381	33,144	25,135	344,299	1,164,811	42.37%
25	1,324	33,100	26,459	377,399	1,198,999	44.60%
26	1,304	33,904	27,763	411,303	1,231,863	46.80%
27	1,360	36,720	29,123	448,023	1,263,423	49.09%
28	1,348	37,744	30,471	485,767	1,293,623	51.36%
29	1,221	35,409	31,692	521,176	1,322,475	53.42%
30	1,246	37,380	32,938	558,556	1,350,106	55.52%
31	1,172	36,332	34,110	594,888	1,376,491	57.50%
32	1,155	36,960	35,265	631,848	1,401,704	59.45%
33	1,060	34,980	36,325	666,828	1,425,762	61.23%
34	1,016	34,544	37,341	701,372	1,448,760	62.95%
35	1,023	35,805	38,364	737,177	1,470,742	64.67%
36	1,024	36,864	39,388	774,041	1,491,701	66.40%
37	988	36,556	40,376	810,597	1,511,636	68.06%
38	936	35,568	41,312	846,165	1,530,583	69.64%
39	882	34,398	42,194	880,563	1,548,594	71.13%
40	834	33,360	43,028	913,923	1,565,723	72.53%
41	848	34,768	43,876	948,691	1,582,018	73.96%
42	757	31,794	44,633	980,485	1,597,465	75.24%
43	785	33,755	45,418	1,014,240	1,612,155	76.56%
44	708	31,152	46,126	1,045,392	1,626,060	77.75%

45	682	30,690	46,808	1,076,082	1,639,257	78.90%
46	616	28,336	47,424	1,104,418	1,651,772	79.94%
47	624	29,328	48,048	1,133,746	1,663,671	80.99%
48	575	27,600	48,623	1,161,346	1,674,946	81.96%
49	572	28,028	49,195	1,189,374	1,685,646	82.93%
50	496	24,800	49,691	1,214,174	1,695,774	83.76%
51	455	23,205	50,146	1,237,379	1,705,406	84.53%
52	464	24,128	50,610	1,261,507	1,714,583	85.31%
53	446	23,638	51,056	1,285,145	1,723,296	86.06%
54	438	23,652	51,494	1,308,797	1,731,563	86.80%
55	412	22,660	51,906	1,331,457	1,739,392	87.50%
56	375	21,000	52,281	1,352,457	1,746,809	88.13%
57	399	22,743	52,680	1,375,200	1,753,851	88.80%
58	355	20,590	53,035	1,395,790	1,760,494	89.40%
59	345	20,355	53,380	1,416,145	1,766,782	89.98%
60	312	18,720	53,692	1,434,865	1,772,725	90.51%
61	277	16,897	53,969	1,451,762	1,778,356	90.97%
62	254	15,748	54,223	1,467,510	1,783,710	91.40%
63	247	15,561	54,470	1,483,071	1,788,810	91.82%
64	249	15,936	54,719	1,499,007	1,793,663	92.24%
65	216	14,040	54,935	1,513,047	1,798,267	92.60%
66	208	13,728	55,143	1,526,775	1,802,655	92.95%
67	184	12,328	55,327	1,539,103	1,806,835	93.26%
68	177	12,036	55,504	1,551,139	1,810,831	93.56%
69	174	12,006	55,678	1,563,145	1,814,650	93.86%
70	192	13,440	55,870	1,576,585	1,818,295	94.18%
71	157	11,147	56,027	1,587,732	1,821,748	94.44%
72	148	10,656	56,175	1,598,388	1,825,044	94.69%
73	152	11,096	56,327	1,609,484	1,828,192	94.95%
74	140	10,360	56,467	1,619,844	1,831,188	95.19%
75	128	9,600	56,595	1,629,444	1,834,044	95.40%
76	134	10,184	56,729	1,639,628	1,836,772	95.63%
77	110	8,470	56,839	1,648,098	1,839,366	95.81%
78	105	8,190	56,944	1,656,288	1,841,850	95.99%
79	115	9,085	57,059	1,665,373	1,844,229	96.18%
80	105	8,400	57,164	1,673,773	1,846,493	96.36%
81	78	6,318	57,242	1,680,091	1,848,652	96.49%
82	91	7,462	57,333	1,687,553	1,850,733	96.65%
83	87	7,221	57,420	1,694,774	1,852,723	96.79%
84	84	7,056	57,504	1,701,830	1,854,626	96.93%
85	79	6,715	57,583	1,708,545	1,856,445	97.07%
86	63	5,418	57,646	1,713,963	1,858,185	97.17%
87	65	5,655	57,711	1,719,618	1,859,862	97.28%
88	70	6,160	57,781	1,725,778	1,861,474	97.40%
89	62	5,518	57,843	1,731,296	1,863,016	97.51%
90	47	4,230	57,890	1,735,526	1,864,496	97.58%
91	55	5,005	57,945	1,740,531	1,865,929	97.68%
92	52	4,784	57,997	1,745,315	1,867,307	97.76%
93	49	4,557	58,046	1,749,872	1,868,633	97.85%
94	31	2,914	58,077	1,752,786	1,869,910	97.90%
95	40	3,800	58,117	1,756,586	1,871,156	97.97%
96	42	4,032	58,159	1,760,618	1,872,362	98.04%
97	46	4,462	58,205	1,765,080	1,873,526	98.12%
98	35	3,430	58,240	1,768,510	1,874,644	98.17%
99	36	3,564	58,276	1,772,074	1,875,727	98.24%

100	36	3,600	58,312	1,775,674	1,876,774	98.30%
101	33	3,333	58,345	1,779,007	1,877,785	98.35%
102	31	3,162	58,376	1,782,169	1,878,763	98.40%
103	26	2,678	58,402	1,784,847	1,879,710	98.45%
104	24	2,496	58,426	1,787,343	1,880,631	98.49%
105	23	2,415	58,449	1,789,758	1,881,528	98.53%
106	31	3,286	58,480	1,793,044	1,882,402	98.58%
107	29	3,103	58,509	1,796,147	1,883,245	98.63%
108	29	3,132	58,538	1,799,279	1,884,059	98.68%
109	32	3,488	58,570	1,802,767	1,884,844	98.73%
110	21	2,310	58,591	1,805,077	1,885,597	98.77%
111	22	2,442	58,613	1,807,519	1,886,329	98.80%
112	19	2,128	58,632	1,809,647	1,887,039	98.84%
113	21	2,373	58,653	1,812,020	1,887,730	98.87%
114	29	3,306	58,682	1,815,326	1,888,400	98.92%
115	18	2,070	58,700	1,817,396	1,889,041	98.95%
116	15	1,740	58,715	1,819,136	1,889,664	98.98%
117	22	2,574	58,737	1,821,710	1,890,272	99.01%
118	23	2,714	58,760	1,824,424	1,890,858	99.05%
119	25	2,975	58,785	1,827,399	1,891,421	99.09%
120	10	1,200	58,795	1,828,599	1,891,959	99.11%
121	16	1,936	58,811	1,830,535	1,892,487	99.14%
122	10	1,220	58,821	1,831,755	1,892,999	99.15%
123	16	1,968	58,837	1,833,723	1,893,501	99.18%
124	11	1,364	58,848	1,835,087	1,893,987	99.20%
125	12	1,500	58,860	1,836,587	1,894,462	99.22%
126	13	1,638	58,873	1,838,225	1,894,925	99.24%
127	12	1,524	58,885	1,839,749	1,895,375	99.26%
128	10	1,280	58,895	1,841,029	1,895,813	99.28%
129	6	774	58,901	1,841,803	1,896,241	99.29%
130	7	910	58,908	1,842,713	1,896,663	99.30%
131	6	786	58,914	1,843,499	1,897,078	99.31%
132	11	1,452	58,925	1,844,951	1,897,487	99.33%
133	8	1,064	58,933	1,846,015	1,897,885	99.34%
134	6	804	58,939	1,846,819	1,898,275	99.35%
135	5	675	58,944	1,847,494	1,898,659	99.36%
136	7	952	58,951	1,848,446	1,899,038	99.37%
137	7	959	58,958	1,849,405	1,899,410	99.38%
138	2	276	58,960	1,849,681	1,899,775	99.39%
139	9	1,251	58,969	1,850,932	1,900,138	99.40%
140	8	1,120	58,977	1,852,052	1,900,492	99.42%
141	1	141	58,978	1,852,193	1,900,838	99.42%
142	5	710	58,983	1,852,903	1,901,183	99.43%
143	1	143	58,984	1,853,046	1,901,523	99.43%
144	6	864	58,990	1,853,910	1,901,862	99.44%
145	5	725	58,995	1,854,635	1,902,195	99.45%
146	6	876	59,001	1,855,511	1,902,523	99.46%
147	5	735	59,006	1,856,246	1,902,845	99.47%
148	8	1,184	59,014	1,857,430	1,903,162	99.48%
149	4	596	59,018	1,858,026	1,903,471	99.49%
150	8	1,200	59,026	1,859,226	1,903,776	99.50%
151	6	906	59,032	1,860,132	1,904,073	99.51%
152	5	760	59,037	1,860,892	1,904,364	99.52%
153	4	612	59,041	1,861,504	1,904,650	99.52%
154	4	616	59,045	1,862,120	1,904,932	99.53%

155	8	1,240	59,053	1,863,360	1,905,210	99.54%
156	7	1,092	59,060	1,864,452	1,905,480	99.56%
157	6	942	59,066	1,865,394	1,905,743	99.57%
158	4	632	59,070	1,866,026	1,906,000	99.57%
159	2	318	59,072	1,866,344	1,906,253	99.58%
160	5	800	59,077	1,867,144	1,906,504	99.59%
161	7	1,127	59,084	1,868,271	1,906,750	99.60%
162	4	648	59,088	1,868,919	1,906,989	99.60%
163	1	163	59,089	1,869,082	1,907,224	99.61%
164	3	492	59,092	1,869,574	1,907,458	99.61%
165	4	660	59,096	1,870,234	1,907,689	99.62%
166	5	830	59,101	1,871,064	1,907,916	99.63%
167	2	334	59,103	1,871,398	1,908,138	99.63%
168	4	672	59,107	1,872,070	1,908,358	99.64%
169	2	338	59,109	1,872,408	1,908,574	99.64%
170	3	510	59,112	1,872,918	1,908,788	99.64%
171	1	171	59,113	1,873,089	1,908,999	99.65%
172	1	172	59,114	1,873,261	1,909,209	99.65%
173	5	865	59,119	1,874,126	1,909,418	99.66%
174	2	348	59,121	1,874,474	1,909,622	99.66%
175	2	350	59,123	1,874,824	1,909,824	99.66%
176	4	704	59,127	1,875,528	1,910,024	99.67%
177	6	1,062	59,133	1,876,590	1,910,220	99.68%
178	2	356	59,135	1,876,946	1,910,410	99.68%
179	3	537	59,138	1,877,483	1,910,598	99.69%
180	4	720	59,142	1,878,203	1,910,783	99.69%
181	5	905	59,147	1,879,108	1,910,964	99.70%
182	1	182	59,148	1,879,290	1,911,140	99.71%
183	2	366	59,150	1,879,656	1,911,315	99.71%
184	3	552	59,153	1,880,208	1,911,488	99.71%
185	2	370	59,155	1,880,578	1,911,658	99.72%
186	1	186	59,156	1,880,764	1,911,826	99.72%
187	5	935	59,161	1,881,699	1,911,993	99.73%
188	1	188	59,162	1,881,887	1,912,155	99.73%
189	3	567	59,165	1,882,454	1,912,316	99.73%
190	2	380	59,167	1,882,834	1,912,474	99.74%
191	1	191	59,168	1,883,025	1,912,630	99.74%
193	1	193	59,169	1,883,218	1,912,940	99.74%
196	2	392	59,171	1,883,610	1,913,402	99.74%
197	1	197	59,172	1,883,807	1,913,554	99.75%
198	2	396	59,174	1,884,203	1,913,705	99.75%
199	1	199	59,175	1,884,402	1,913,854	99.75%
200	3	600	59,178	1,885,002	1,914,002	99.76%
201	2	402	59,180	1,885,404	1,914,147	99.76%
202	3	606	59,183	1,886,010	1,914,290	99.76%
203	2	406	59,185	1,886,416	1,914,430	99.77%
204	1	204	59,186	1,886,620	1,914,568	99.77%
205	3	615	59,189	1,887,235	1,914,705	99.77%
206	3	618	59,192	1,887,853	1,914,839	99.78%
208	1	208	59,193	1,888,061	1,915,101	99.78%
209	2	418	59,195	1,888,479	1,915,231	99.78%
210	2	420	59,197	1,888,899	1,915,359	99.79%
211	2	422	59,199	1,889,321	1,915,485	99.79%
213	3	639	59,202	1,889,960	1,915,733	99.80%
214	2	428	59,204	1,890,388	1,915,854	99.80%

215	2	430	59,206	1,890,818	1,915,973	99.80%
216	2	432	59,208	1,891,250	1,916,090	99.81%
218	1	218	59,209	1,891,468	1,916,320	99.81%
223	3	669	59,212	1,892,137	1,916,890	99.81%
226	-	-	59,212	1,892,137	1,917,223	99.81%
227	2	454	59,214	1,892,591	1,917,334	99.82%
228	1	228	59,215	1,892,819	1,917,443	99.82%
229	1	229	59,216	1,893,048	1,917,551	99.82%
230	1	230	59,217	1,893,278	1,917,658	99.82%
231	1	231	59,218	1,893,509	1,917,764	99.82%
232	1	232	59,219	1,893,741	1,917,869	99.82%
233	3	699	59,222	1,894,440	1,917,973	99.83%
234	1	234	59,223	1,894,674	1,918,074	99.83%
236	1	236	59,224	1,894,910	1,918,274	99.83%
237	1	237	59,225	1,895,147	1,918,373	99.83%
238	2	476	59,227	1,895,623	1,918,471	99.84%
239	1	239	59,228	1,895,862	1,918,567	99.84%
243	2	486	59,230	1,896,348	1,918,947	99.84%
245	1	245	59,231	1,896,593	1,919,133	99.84%
247	(1)	(247)	59,230	1,896,346	1,919,317	99.84%
248	1	248	59,231	1,896,594	1,919,410	99.84%
250	7	1,750	59,238	1,898,344	1,919,594	99.86%
251	2	502	59,240	1,898,846	1,919,679	99.86%
252	2	504	59,242	1,899,350	1,919,762	99.86%
255	1	255	59,243	1,899,605	1,920,005	99.87%
256	1	256	59,244	1,899,861	1,920,085	99.87%
257	1	257	59,245	1,900,118	1,920,164	99.87%
260	1	260	59,246	1,900,378	1,920,398	99.87%
263	-	-	59,246	1,900,378	1,920,629	99.87%
264	1	264	59,247	1,900,642	1,920,706	99.87%
265	2	530	59,249	1,901,172	1,920,782	99.88%
266	2	532	59,251	1,901,704	1,920,856	99.88%
267	1	267	59,252	1,901,971	1,920,928	99.88%
268	1	268	59,253	1,902,239	1,920,999	99.88%
271	1	271	59,254	1,902,510	1,921,209	99.88%
273	1	273	59,255	1,902,783	1,921,347	99.89%
274	1	274	59,256	1,903,057	1,921,415	99.89%
277	2	554	59,258	1,903,611	1,921,616	99.89%
279	1	279	59,259	1,903,890	1,921,746	99.89%
282	4	1,128	59,263	1,905,018	1,921,938	99.90%
283	-	-	59,263	1,905,018	1,921,998	99.90%
285	1	285	59,264	1,905,303	1,922,118	99.90%
286	1	286	59,265	1,905,589	1,922,177	99.90%
287	2	574	59,267	1,906,163	1,922,235	99.91%
288	(1)	(288)	59,266	1,905,875	1,922,291	99.90%
290	3	870	59,269	1,906,745	1,922,405	99.91%
294	1	294	59,270	1,907,039	1,922,621	99.91%
297	1	297	59,271	1,907,336	1,922,780	99.91%
298	1	298	59,272	1,907,634	1,922,832	99.91%
299	1	299	59,273	1,907,933	1,922,883	99.92%
300	1	300	59,274	1,908,233	1,922,933	99.92%
308	1	308	59,275	1,908,541	1,923,325	99.92%
311	1	311	59,276	1,908,852	1,923,469	99.92%
314	(1)	(314)	59,275	1,908,538	1,923,610	99.92%
316	1	316	59,276	1,908,854	1,923,706	99.92%

319	1	319	59,277	1,909,173	1,923,847	99.92%
320	1	320	59,278	1,909,493	1,923,893	99.92%
321	1	321	59,279	1,909,814	1,923,938	99.93%
322	1	322	59,280	1,910,136	1,923,982	99.93%
324	2	648	59,282	1,910,784	1,924,068	99.93%
330	-	-	59,282	1,910,784	1,924,314	99.93%
331	1	331	59,283	1,911,115	1,924,355	99.93%
337	1	337	59,284	1,911,452	1,924,595	99.93%
351	1	351	59,285	1,911,803	1,925,141	99.94%
355	1	355	59,286	1,912,158	1,925,293	99.94%
358	1	358	59,287	1,912,516	1,925,404	99.94%
367	1	367	59,288	1,912,883	1,925,728	99.94%
372	(1)	(372)	59,287	1,912,511	1,925,903	99.94%
376	1	376	59,288	1,912,887	1,926,047	99.94%
389	1	389	59,289	1,913,276	1,926,502	99.94%
393	1	393	59,290	1,913,669	1,926,638	99.94%
404	2	808	59,292	1,914,477	1,927,001	99.95%
407	1	407	59,293	1,914,884	1,927,094	99.95%
416	2	832	59,295	1,915,716	1,927,364	99.95%
419	1	419	59,296	1,916,135	1,927,448	99.95%
436	1	436	59,297	1,916,571	1,927,907	99.96%
442	1	442	59,298	1,917,013	1,928,063	99.96%
445	1	445	59,299	1,917,458	1,928,138	99.96%
456	1	456	59,300	1,917,914	1,928,402	99.96%
464	1	464	59,301	1,918,378	1,928,586	99.96%
471	1	471	59,302	1,918,849	1,928,740	99.96%
477	1	477	59,303	1,919,326	1,928,866	99.97%
482	-	-	59,303	1,919,326	1,928,966	99.97%
487	1	487	59,304	1,919,813	1,929,066	99.97%
491	1	491	59,305	1,920,304	1,929,142	99.97%
494	1	494	59,306	1,920,798	1,929,196	99.97%
528	1	528	59,307	1,921,326	1,929,774	99.97%
554	1	554	59,308	1,921,880	1,930,190	99.97%
556	1	556	59,309	1,922,436	1,930,220	99.98%
572	1	572	59,310	1,923,008	1,930,444	99.98%
577	1	577	59,311	1,923,585	1,930,509	99.98%
623	1	623	59,312	1,924,208	1,931,061	99.98%
635	1	635	59,313	1,924,843	1,931,193	99.98%
680	(1)	(680)	59,312	1,924,163	1,931,643	99.98%
703	1	703	59,313	1,924,866	1,931,896	99.98%
709	1	709	59,314	1,925,575	1,931,956	99.98%
765	1	765	59,315	1,926,340	1,932,460	99.99%
811	-	-	59,315	1,926,340	1,932,828	99.99%
960	1	960	59,316	1,927,300	1,934,020	99.99%
966	1	966	59,317	1,928,266	1,934,062	99.99%
1,042	1	1,042	59,318	1,929,308	1,934,518	99.99%
1,308	1	1,308	59,319	1,930,616	1,935,848	99.99%
1,576	1	1,576	59,320	1,932,192	1,936,920	99.99%
1,844	1	1,844	59,321	1,934,036	1,937,724	100.00%
2,270	1	2,270	59,322	1,936,306	1,938,576	100.00%
2,304	1	2,304	59,323	1,938,610	1,938,610	100.00%
2,773	-	-	59,323	1,938,610	1,938,610	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF MAY 2023
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	1,642	-	1,642	-	-	2.78%
1	476	476	2,118	476	57,410	3.59%
2	350	700	2,468	1,176	114,344	4.18%
3	374	1,122	2,842	2,298	170,928	4.81%
4	410	1,640	3,252	3,938	227,138	5.51%
5	531	2,655	3,783	6,593	282,938	6.41%
6	565	3,390	4,348	9,983	338,207	7.36%
7	693	4,851	5,041	14,834	392,911	8.54%
8	848	6,784	5,889	21,618	446,922	9.97%
9	967	8,703	6,856	30,321	500,085	11.61%
10	982	9,820	7,838	40,141	552,281	13.27%
11	1,098	12,078	8,936	52,219	603,495	15.13%
12	1,138	13,656	10,074	65,875	653,611	17.06%
13	1,180	15,340	11,254	81,215	702,589	19.06%
14	1,179	16,506	12,433	97,721	750,387	21.05%
15	1,258	18,870	13,691	116,591	797,006	23.18%
16	1,239	19,824	14,930	136,415	842,367	25.28%
17	1,244	21,148	16,174	157,563	886,489	27.39%
18	1,243	22,374	17,417	179,937	929,367	29.49%
19	1,287	24,453	18,704	204,390	971,002	31.67%
20	1,349	26,980	20,053	231,370	1,011,350	33.96%
21	1,425	29,925	21,478	261,295	1,050,349	36.37%
22	1,353	29,766	22,831	291,061	1,087,923	38.66%
23	1,423	32,729	24,254	323,790	1,124,144	41.07%
24	1,387	33,288	25,641	357,078	1,158,942	43.42%
25	1,372	34,300	27,013	391,378	1,192,353	45.74%
26	1,258	32,708	28,271	424,086	1,224,392	47.87%
27	1,320	35,640	29,591	459,726	1,255,173	50.11%
28	1,241	34,748	30,832	494,474	1,284,634	52.21%
29	1,246	36,134	32,078	530,608	1,312,854	54.32%
30	1,202	36,060	33,280	566,668	1,339,828	56.36%
31	1,092	33,852	34,372	600,520	1,365,600	58.21%
32	1,145	36,640	35,517	637,160	1,390,280	60.15%
33	1,049	34,617	36,566	671,777	1,413,815	61.92%
34	1,043	35,462	37,609	707,239	1,436,301	63.69%
35	1,017	35,595	38,626	742,834	1,457,744	65.41%
36	987	35,532	39,613	778,366	1,478,170	67.08%
37	921	34,077	40,534	812,443	1,497,609	68.64%
38	924	35,112	41,458	847,555	1,516,127	70.21%
39	904	35,256	42,362	882,811	1,533,721	71.74%
40	800	32,000	43,162	914,811	1,550,411	73.09%
41	781	32,021	43,943	946,832	1,566,301	74.41%
42	776	32,592	44,719	979,424	1,581,410	75.73%
43	724	31,132	45,443	1,010,556	1,595,743	76.95%
44	698	30,712	46,141	1,041,268	1,609,352	78.14%

45	587	26,415	46,728	1,067,683	1,622,263	79.13%
46	629	28,934	47,357	1,096,617	1,634,587	80.20%
47	612	28,764	47,969	1,125,381	1,646,282	81.23%
48	573	27,504	48,542	1,152,885	1,657,365	82.20%
49	550	26,950	49,092	1,179,835	1,667,875	83.13%
50	538	26,900	49,630	1,206,735	1,677,835	84.04%
51	468	23,868	50,098	1,230,603	1,687,257	84.84%
52	470	24,440	50,568	1,255,043	1,696,211	85.63%
53	427	22,631	50,995	1,277,674	1,704,695	86.36%
54	375	20,250	51,370	1,297,924	1,712,752	86.99%
55	384	21,120	51,754	1,319,044	1,720,434	87.64%
56	347	19,432	52,101	1,338,476	1,727,732	88.23%
57	368	20,976	52,469	1,359,452	1,734,683	88.85%
58	307	17,806	52,776	1,377,258	1,741,266	89.37%
59	296	17,464	53,072	1,394,722	1,747,542	89.87%
60	304	18,240	53,376	1,412,962	1,753,522	90.39%
61	298	18,178	53,674	1,431,140	1,759,198	90.89%
62	284	17,608	53,958	1,448,748	1,764,576	91.37%
63	219	13,797	54,177	1,462,545	1,769,670	91.74%
64	243	15,552	54,420	1,478,097	1,774,545	92.16%
65	239	15,535	54,659	1,493,632	1,779,177	92.56%
66	194	12,804	54,853	1,506,436	1,783,570	92.89%
67	191	12,797	55,044	1,519,233	1,787,769	93.21%
68	191	12,988	55,235	1,532,221	1,791,777	93.54%
69	180	12,420	55,415	1,544,641	1,795,594	93.84%
70	168	11,760	55,583	1,556,401	1,799,231	94.13%
71	163	11,573	55,746	1,567,974	1,802,700	94.40%
72	145	10,440	55,891	1,578,414	1,806,006	94.65%
73	134	9,782	56,025	1,588,196	1,809,167	94.87%
74	148	10,952	56,173	1,599,148	1,812,194	95.12%
75	123	9,225	56,296	1,608,373	1,815,073	95.33%
76	118	8,968	56,414	1,617,341	1,817,829	95.53%
77	102	7,854	56,516	1,625,195	1,820,467	95.71%
78	91	7,098	56,607	1,632,293	1,823,003	95.86%
79	89	7,031	56,696	1,639,324	1,825,448	96.01%
80	81	6,480	56,777	1,645,804	1,827,804	96.15%
81	94	7,614	56,871	1,653,418	1,830,079	96.31%
82	106	8,692	56,977	1,662,110	1,832,260	96.49%
83	85	7,055	57,062	1,669,165	1,834,335	96.63%
84	103	8,652	57,165	1,677,817	1,836,325	96.80%
85	83	7,055	57,248	1,684,872	1,838,212	96.95%
86	84	7,224	57,332	1,692,096	1,840,016	97.09%
87	58	5,046	57,390	1,697,142	1,841,736	97.19%
88	57	5,016	57,447	1,702,158	1,843,398	97.28%
89	61	5,429	57,508	1,707,587	1,845,003	97.39%
90	43	3,870	57,551	1,711,457	1,846,547	97.46%
91	53	4,823	57,604	1,716,280	1,848,048	97.55%
92	48	4,416	57,652	1,720,696	1,849,496	97.63%
93	63	5,859	57,715	1,726,555	1,850,896	97.74%
94	46	4,324	57,761	1,730,879	1,852,233	97.81%
95	38	3,610	57,799	1,734,489	1,853,524	97.88%
96	49	4,704	57,848	1,739,193	1,854,777	97.96%
97	59	5,723	57,907	1,744,916	1,855,981	98.06%
98	39	3,822	57,946	1,748,738	1,857,126	98.13%
99	32	3,168	57,978	1,751,906	1,858,232	98.18%

100	33	3,300	58,011	1,755,206	1,859,306	98.24%
101	30	3,030	58,041	1,758,236	1,860,347	98.29%
102	23	2,346	58,064	1,760,582	1,861,358	98.33%
103	35	3,605	58,099	1,764,187	1,862,346	98.39%
104	26	2,704	58,125	1,766,891	1,863,299	98.43%
105	29	3,045	58,154	1,769,936	1,864,226	98.48%
106	30	3,180	58,184	1,773,116	1,865,124	98.53%
107	25	2,675	58,209	1,775,791	1,865,992	98.57%
108	20	2,160	58,229	1,777,951	1,866,835	98.61%
109	24	2,616	58,253	1,780,567	1,867,658	98.65%
110	21	2,310	58,274	1,782,877	1,868,457	98.68%
111	18	1,998	58,292	1,784,875	1,869,235	98.71%
112	22	2,464	58,314	1,787,339	1,869,995	98.75%
113	24	2,712	58,338	1,790,051	1,870,733	98.79%
114	18	2,052	58,356	1,792,103	1,871,447	98.82%
115	18	2,070	58,374	1,794,173	1,872,143	98.85%
116	17	1,972	58,391	1,796,145	1,872,821	98.88%
117	14	1,638	58,405	1,797,783	1,873,482	98.90%
118	14	1,652	58,419	1,799,435	1,874,129	98.93%
119	20	2,380	58,439	1,801,815	1,874,762	98.96%
120	16	1,920	58,455	1,803,735	1,875,375	98.99%
121	14	1,694	58,469	1,805,429	1,875,972	99.01%
122	12	1,464	58,481	1,806,893	1,876,555	99.03%
123	16	1,968	58,497	1,808,861	1,877,126	99.06%
124	14	1,736	58,511	1,810,597	1,877,681	99.08%
125	14	1,750	58,525	1,812,347	1,878,222	99.11%
126	16	2,016	58,541	1,814,363	1,878,749	99.13%
127	7	889	58,548	1,815,252	1,879,260	99.15%
128	12	1,536	58,560	1,816,788	1,879,764	99.17%
129	14	1,806	58,574	1,818,594	1,880,256	99.19%
130	10	1,300	58,584	1,819,894	1,880,734	99.21%
131	10	1,310	58,594	1,821,204	1,881,202	99.22%
132	15	1,980	58,609	1,823,184	1,881,660	99.25%
133	14	1,862	58,623	1,825,046	1,882,103	99.27%
134	11	1,474	58,634	1,826,520	1,882,532	99.29%
135	12	1,620	58,646	1,828,140	1,882,950	99.31%
136	5	680	58,651	1,828,820	1,883,356	99.32%
137	8	1,096	58,659	1,829,916	1,883,757	99.33%
138	11	1,518	58,670	1,831,434	1,884,150	99.35%
139	7	973	58,677	1,832,407	1,884,532	99.36%
140	10	1,400	58,687	1,833,807	1,884,907	99.38%
141	7	987	58,694	1,834,794	1,885,272	99.39%
142	8	1,136	58,702	1,835,930	1,885,630	99.41%
143	7	1,001	58,709	1,836,931	1,885,980	99.42%
144	5	720	58,714	1,837,651	1,886,323	99.43%
145	10	1,450	58,724	1,839,101	1,886,661	99.44%
146	5	730	58,729	1,839,831	1,886,989	99.45%
147	11	1,617	58,740	1,841,448	1,887,312	99.47%
148	6	888	58,746	1,842,336	1,887,624	99.48%
149	7	1,043	58,753	1,843,379	1,887,930	99.49%
150	2	300	58,755	1,843,679	1,888,229	99.50%
151	5	755	58,760	1,844,434	1,888,526	99.51%
152	5	760	58,765	1,845,194	1,888,818	99.51%
153	6	918	58,771	1,846,112	1,889,105	99.52%
154	3	462	58,774	1,846,574	1,889,386	99.53%

155	4	620	58,778	1,847,194	1,889,664	99.54%
156	5	780	58,783	1,847,974	1,889,938	99.54%
157	6	942	58,789	1,848,916	1,890,207	99.55%
158	8	1,264	58,797	1,850,180	1,890,470	99.57%
159	3	477	58,800	1,850,657	1,890,725	99.57%
160	4	640	58,804	1,851,297	1,890,977	99.58%
161	4	644	58,808	1,851,941	1,891,225	99.59%
162	4	648	58,812	1,852,589	1,891,469	99.59%
163	3	489	58,815	1,853,078	1,891,709	99.60%
164	2	328	58,817	1,853,406	1,891,946	99.60%
165	2	330	58,819	1,853,736	1,892,181	99.61%
166	2	332	58,821	1,854,068	1,892,414	99.61%
167	5	835	58,826	1,854,903	1,892,645	99.62%
168	1	168	58,827	1,855,071	1,892,871	99.62%
169	5	845	58,832	1,855,916	1,893,096	99.63%
170	3	510	58,835	1,856,426	1,893,316	99.63%
171	1	171	58,836	1,856,597	1,893,533	99.63%
172	4	688	58,840	1,857,285	1,893,749	99.64%
174	4	696	58,844	1,857,981	1,894,173	99.65%
175	2	350	58,846	1,858,331	1,894,381	99.65%
176	5	880	58,851	1,859,211	1,894,587	99.66%
177	2	354	58,853	1,859,565	1,894,788	99.66%
178	3	534	58,856	1,860,099	1,894,987	99.67%
179	4	716	58,860	1,860,815	1,895,183	99.67%
180	5	900	58,865	1,861,715	1,895,375	99.68%
181	4	724	58,869	1,862,439	1,895,562	99.69%
183	1	183	58,870	1,862,622	1,895,928	99.69%
184	4	736	58,874	1,863,358	1,896,110	99.70%
185	3	555	58,877	1,863,913	1,896,288	99.70%
186	1	186	58,878	1,864,099	1,896,463	99.71%
187	3	561	58,881	1,864,660	1,896,637	99.71%
188	6	1,128	58,887	1,865,788	1,896,808	99.72%
189	3	567	58,890	1,866,355	1,896,973	99.73%
190	1	190	58,891	1,866,545	1,897,135	99.73%
191	5	955	58,896	1,867,500	1,897,296	99.74%
192	3	576	58,899	1,868,076	1,897,452	99.74%
193	5	965	58,904	1,869,041	1,897,605	99.75%
194	1	194	58,905	1,869,235	1,897,753	99.75%
195	4	780	58,909	1,870,015	1,897,900	99.76%
196	2	392	58,911	1,870,407	1,898,043	99.76%
198	1	198	58,912	1,870,605	1,898,325	99.76%
199	2	398	58,914	1,871,003	1,898,465	99.77%
200	1	200	58,915	1,871,203	1,898,603	99.77%
202	3	606	58,918	1,871,809	1,898,877	99.77%
203	3	609	58,921	1,872,418	1,899,011	99.78%
204	3	612	58,924	1,873,030	1,899,142	99.78%
205	1	205	58,925	1,873,235	1,899,270	99.78%
206	2	412	58,927	1,873,647	1,899,397	99.79%
207	3	621	58,930	1,874,268	1,899,522	99.79%
208	4	832	58,934	1,875,100	1,899,644	99.80%
209	2	418	58,936	1,875,518	1,899,762	99.80%
210	1	210	58,937	1,875,728	1,899,878	99.81%
211	1	211	58,938	1,875,939	1,899,993	99.81%
212	4	848	58,942	1,876,787	1,900,107	99.81%
213	2	426	58,944	1,877,213	1,900,217	99.82%

214	2	428	58,946	1,877,641	1,900,325	99.82%
217	1	217	58,947	1,877,858	1,900,643	99.82%
218	3	654	58,950	1,878,512	1,900,748	99.83%
219	1	219	58,951	1,878,731	1,900,850	99.83%
220	-	-	58,951	1,878,731	1,900,951	99.83%
221	1	221	58,952	1,878,952	1,901,052	99.83%
222	2	444	58,954	1,879,396	1,901,152	99.83%
223	2	446	58,956	1,879,842	1,901,250	99.84%
224	1	224	58,957	1,880,066	1,901,346	99.84%
227	2	454	58,959	1,880,520	1,901,631	99.84%
229	1	229	58,960	1,880,749	1,901,817	99.84%
233	2	466	58,962	1,881,215	1,902,185	99.85%
237	2	474	58,964	1,881,689	1,902,545	99.85%
240	1	240	58,965	1,881,929	1,902,809	99.85%
241	1	241	58,966	1,882,170	1,902,896	99.85%
242	1	242	58,967	1,882,412	1,902,982	99.86%
243	2	486	58,969	1,882,898	1,903,067	99.86%
244	1	244	58,970	1,883,142	1,903,150	99.86%
245	2	490	58,972	1,883,632	1,903,232	99.86%
248	1	248	58,973	1,883,880	1,903,472	99.87%
249	1	249	58,974	1,884,129	1,903,551	99.87%
250	4	1,000	58,978	1,885,129	1,903,629	99.87%
253	2	506	58,980	1,885,635	1,903,851	99.88%
255	1	255	58,981	1,885,890	1,903,995	99.88%
257	1	257	58,982	1,886,147	1,904,137	99.88%
258	3	774	58,985	1,886,921	1,904,207	99.89%
259	1	259	58,986	1,887,180	1,904,274	99.89%
260	1	260	58,987	1,887,440	1,904,340	99.89%
261	1	261	58,988	1,887,701	1,904,405	99.89%
264	-	-	58,988	1,887,701	1,904,597	99.89%
274	1	274	58,989	1,887,975	1,905,237	99.89%
277	1	277	58,990	1,888,252	1,905,426	99.90%
281	1	281	58,991	1,888,533	1,905,674	99.90%
285	1	285	58,992	1,888,818	1,905,918	99.90%
289	-	-	58,992	1,888,818	1,906,158	99.90%
291	1	291	58,993	1,889,109	1,906,278	99.90%
293	2	586	58,995	1,889,695	1,906,396	99.90%
295	1	295	58,996	1,889,990	1,906,510	99.91%
297	1	297	58,997	1,890,287	1,906,622	99.91%
302	1	302	58,998	1,890,589	1,906,897	99.91%
304	1	304	58,999	1,890,893	1,907,005	99.91%
306	1	306	59,000	1,891,199	1,907,111	99.91%
318	1	318	59,001	1,891,517	1,907,735	99.91%
319	1	319	59,002	1,891,836	1,907,786	99.92%
321	3	963	59,005	1,892,799	1,907,886	99.92%
324	2	648	59,007	1,893,447	1,908,027	99.92%
326	1	326	59,008	1,893,773	1,908,117	99.93%
331	(1)	(331)	59,007	1,893,442	1,908,337	99.92%
333	1	333	59,008	1,893,775	1,908,427	99.93%
336	1	336	59,009	1,894,111	1,908,559	99.93%
340	1	340	59,010	1,894,451	1,908,731	99.93%
345	1	345	59,011	1,894,796	1,908,941	99.93%
351	1	351	59,012	1,895,147	1,909,187	99.93%
364	1	364	59,013	1,895,511	1,909,707	99.93%
367	1	367	59,014	1,895,878	1,909,824	99.94%

368	1	368	59,015	1,896,246	1,909,862	99.94%
374	1	374	59,016	1,896,620	1,910,084	99.94%
375	-	-	59,016	1,896,620	1,910,120	99.94%
378	-	-	59,016	1,896,620	1,910,228	99.94%
391	1	391	59,017	1,897,011	1,910,696	99.94%
400	1	400	59,018	1,897,411	1,911,011	99.94%
401	1	401	59,019	1,897,812	1,911,045	99.94%
406	1	406	59,020	1,898,218	1,911,210	99.95%
413	2	826	59,022	1,899,044	1,911,434	99.95%
414	1	414	59,023	1,899,458	1,911,464	99.95%
416	1	416	59,024	1,899,874	1,911,522	99.95%
428	1	428	59,025	1,900,302	1,911,858	99.95%
439	1	439	59,026	1,900,741	1,912,155	99.96%
449	2	898	59,028	1,901,639	1,912,415	99.96%
452	2	904	59,030	1,902,543	1,912,487	99.96%
455	1	455	59,031	1,902,998	1,912,553	99.96%
456	1	456	59,032	1,903,454	1,912,574	99.97%
470	1	470	59,033	1,903,924	1,912,854	99.97%
471	1	471	59,034	1,904,395	1,912,873	99.97%
495	1	495	59,035	1,904,890	1,913,305	99.97%
592	1	592	59,036	1,905,482	1,914,954	99.97%
623	(1)	(623)	59,035	1,904,859	1,915,450	99.97%
637	1	637	59,036	1,905,496	1,915,688	99.97%
644	2	1,288	59,038	1,906,784	1,915,800	99.98%
675	1	675	59,039	1,907,459	1,916,234	99.98%
676	1	676	59,040	1,908,135	1,916,247	99.98%
677	1	677	59,041	1,908,812	1,916,259	99.98%
709	(1)	(709)	59,040	1,908,103	1,916,611	99.98%
748	1	748	59,041	1,908,851	1,917,079	99.98%
768	1	768	59,042	1,909,619	1,917,299	99.98%
849	1	849	59,043	1,910,468	1,918,109	99.98%
854	1	854	59,044	1,911,322	1,918,154	99.99%
886	1	886	59,045	1,912,208	1,918,410	99.99%
913	1	913	59,046	1,913,121	1,918,599	99.99%
931	1	931	59,047	1,914,052	1,918,707	99.99%
1,048	1	1,048	59,048	1,915,100	1,919,292	99.99%
1,142	-	-	59,048	1,915,100	1,919,668	99.99%
1,380	-	-	59,048	1,915,100	1,920,620	99.99%
1,541	-	-	59,048	1,915,100	1,921,264	99.99%
1,649	1	1,649	59,049	1,916,749	1,921,696	99.99%
1,677	1	1,677	59,050	1,918,426	1,921,780	100.00%
2,088	1	2,088	59,051	1,920,514	1,922,602	100.00%
2,237	1	2,237	59,052	1,922,751	1,922,751	100.00%
2,456	-	-	59,052	1,922,751	1,922,751	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF JUNE 2023
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	1,472	-	1,472	-	-	2.50%
1	427	427	1,899	427	57,389	3.23%
2	328	656	2,227	1,083	114,351	3.78%
3	328	984	2,555	2,067	170,985	4.34%
4	372	1,488	2,927	3,555	227,291	4.97%
5	424	2,120	3,351	5,675	283,225	5.69%
6	509	3,054	3,860	8,729	338,735	6.56%
7	641	4,487	4,501	13,216	393,736	7.65%
8	681	5,448	5,182	18,664	448,096	8.80%
9	772	6,948	5,954	25,612	501,775	10.12%
10	880	8,800	6,834	34,412	554,682	11.61%
11	943	10,373	7,777	44,785	606,709	13.21%
12	945	11,340	8,722	56,125	657,793	14.82%
13	954	12,402	9,676	68,527	707,932	16.44%
14	1,055	14,770	10,731	83,297	757,117	18.23%
15	1,050	15,750	11,781	99,047	805,247	20.01%
16	1,086	17,376	12,867	116,423	852,327	21.86%
17	1,124	19,108	13,991	135,531	898,321	23.77%
18	1,092	19,656	15,083	155,187	943,191	25.62%
19	1,166	22,154	16,249	177,341	986,969	27.61%
20	1,152	23,040	17,401	200,381	1,029,581	29.56%
21	1,183	24,843	18,584	225,224	1,071,041	31.57%
22	1,214	26,708	19,798	251,932	1,111,318	33.64%
23	1,220	28,060	21,018	279,992	1,150,381	35.71%
24	1,180	28,320	22,198	308,312	1,188,224	37.71%
25	1,165	29,125	23,363	337,437	1,224,887	39.69%
26	1,138	29,588	24,501	367,025	1,260,385	41.63%
27	1,134	30,618	25,635	397,643	1,294,745	43.55%
28	1,173	32,844	26,808	430,487	1,327,971	45.54%
29	1,184	34,336	27,992	464,823	1,360,024	47.56%
30	1,101	33,030	29,093	497,853	1,390,893	49.43%
31	1,076	33,356	30,169	531,209	1,420,661	51.25%
32	1,107	35,424	31,276	566,633	1,449,353	53.14%
33	1,012	33,396	32,288	600,029	1,476,938	54.85%
34	943	32,062	33,231	632,091	1,503,511	56.46%
35	1,023	35,805	34,254	667,896	1,529,141	58.19%
36	968	34,848	35,222	702,744	1,553,748	59.84%
37	859	31,783	36,081	734,527	1,577,387	61.30%
38	901	34,238	36,982	768,765	1,600,167	62.83%
39	862	33,618	37,844	802,383	1,622,046	64.29%
40	803	32,120	38,647	834,503	1,643,063	65.66%
41	830	34,030	39,477	868,533	1,663,277	67.07%
42	756	31,752	40,233	900,285	1,682,661	68.35%
43	738	31,734	40,971	932,019	1,701,289	69.61%
44	694	30,536	41,665	962,555	1,719,179	70.79%

45	704	31,680	42,369	994,235	1,736,375	71.98%
46	682	31,372	43,051	1,025,607	1,752,867	73.14%
47	657	30,879	43,708	1,056,486	1,768,677	74.26%
48	618	29,664	44,326	1,086,150	1,783,830	75.31%
49	591	28,959	44,917	1,115,109	1,798,365	76.31%
50	562	28,100	45,479	1,143,209	1,812,309	77.27%
51	556	28,356	46,035	1,171,565	1,825,691	78.21%
52	495	25,740	46,530	1,197,305	1,838,517	79.05%
53	478	25,334	47,008	1,222,639	1,850,848	79.86%
54	465	25,110	47,473	1,247,749	1,862,701	80.65%
55	439	24,145	47,912	1,271,894	1,874,089	81.40%
56	426	23,856	48,338	1,295,750	1,885,038	82.12%
57	397	22,629	48,735	1,318,379	1,895,561	82.80%
58	405	23,490	49,140	1,341,869	1,905,687	83.48%
59	350	20,650	49,490	1,362,519	1,915,408	84.08%
60	353	21,180	49,843	1,383,699	1,924,779	84.68%
61	375	22,875	50,218	1,406,574	1,933,797	85.32%
62	361	22,382	50,579	1,428,956	1,942,440	85.93%
63	301	18,963	50,880	1,447,919	1,950,722	86.44%
64	269	17,216	51,149	1,465,135	1,958,703	86.90%
65	275	17,875	51,424	1,483,010	1,966,415	87.37%
66	254	16,764	51,678	1,499,774	1,973,852	87.80%
67	259	17,353	51,937	1,517,127	1,981,035	88.24%
68	227	15,436	52,164	1,532,563	1,987,959	88.62%
69	225	15,525	52,389	1,548,088	1,994,656	89.00%
70	215	15,050	52,604	1,563,138	2,001,128	89.37%
71	262	18,602	52,866	1,581,740	2,007,385	89.81%
72	223	16,056	53,089	1,597,796	2,013,380	90.19%
73	210	15,330	53,299	1,613,126	2,019,152	90.55%
74	175	12,950	53,474	1,626,076	2,024,714	90.85%
75	200	15,000	53,674	1,641,076	2,030,101	91.19%
76	177	13,452	53,851	1,654,528	2,035,288	91.49%
77	160	12,320	54,011	1,666,848	2,040,298	91.76%
78	182	14,196	54,193	1,681,044	2,045,148	92.07%
79	160	12,640	54,353	1,693,684	2,049,816	92.34%
80	145	11,600	54,498	1,705,284	2,054,324	92.59%
81	147	11,907	54,645	1,717,191	2,058,687	92.84%
82	129	10,578	54,774	1,727,769	2,062,903	93.06%
83	122	10,126	54,896	1,737,895	2,066,990	93.26%
84	138	11,592	55,034	1,749,487	2,070,955	93.50%
85	139	11,815	55,173	1,761,302	2,074,782	93.73%
86	125	10,750	55,298	1,772,052	2,078,470	93.95%
87	115	10,005	55,413	1,782,057	2,082,033	94.14%
88	119	10,472	55,532	1,792,529	2,085,481	94.34%
89	112	9,968	55,644	1,802,497	2,088,810	94.53%
90	97	8,730	55,741	1,811,227	2,092,027	94.70%
91	94	8,554	55,835	1,819,781	2,095,147	94.86%
92	80	7,360	55,915	1,827,141	2,098,173	94.99%
93	73	6,789	55,988	1,833,930	2,101,119	95.12%
94	94	8,836	56,082	1,842,766	2,103,992	95.28%
95	97	9,215	56,179	1,851,981	2,106,771	95.44%
96	84	8,064	56,263	1,860,045	2,109,453	95.59%
97	80	7,760	56,343	1,867,805	2,112,051	95.72%
98	83	8,134	56,426	1,875,939	2,114,569	95.86%
99	65	6,435	56,491	1,882,374	2,117,004	95.97%

100	60	6,000	56,551	1,888,374	2,119,374	96.08%
101	68	6,868	56,619	1,895,242	2,121,684	96.19%
102	60	6,120	56,679	1,901,362	2,123,926	96.29%
103	65	6,695	56,744	1,908,057	2,126,108	96.40%
104	63	6,552	56,807	1,914,609	2,128,225	96.51%
105	57	5,985	56,864	1,920,594	2,130,279	96.61%
106	46	4,876	56,910	1,925,470	2,132,276	96.69%
107	55	5,885	56,965	1,931,355	2,134,227	96.78%
108	49	5,292	57,014	1,936,647	2,136,123	96.86%
109	65	7,085	57,079	1,943,732	2,137,970	96.97%
110	43	4,730	57,122	1,948,462	2,139,752	97.05%
111	47	5,217	57,169	1,953,679	2,141,491	97.13%
112	33	3,696	57,202	1,957,375	2,143,183	97.18%
113	46	5,198	57,248	1,962,573	2,144,842	97.26%
114	48	5,472	57,296	1,968,045	2,146,455	97.34%
115	48	5,520	57,344	1,973,565	2,148,020	97.42%
116	39	4,524	57,383	1,978,089	2,149,537	97.49%
117	30	3,510	57,413	1,981,599	2,151,015	97.54%
118	43	5,074	57,456	1,986,673	2,152,463	97.61%
119	29	3,451	57,485	1,990,124	2,153,868	97.66%
120	34	4,080	57,519	1,994,204	2,155,244	97.72%
121	25	3,025	57,544	1,997,229	2,156,586	97.76%
122	29	3,538	57,573	2,000,767	2,157,903	97.81%
123	28	3,444	57,601	2,004,211	2,159,191	97.86%
124	28	3,472	57,629	2,007,683	2,160,451	97.91%
125	26	3,250	57,655	2,010,933	2,161,683	97.95%
126	21	2,646	57,676	2,013,579	2,162,889	97.99%
127	35	4,445	57,711	2,018,024	2,164,074	98.05%
128	25	3,200	57,736	2,021,224	2,165,224	98.09%
129	39	5,031	57,775	2,026,255	2,166,349	98.15%
130	17	2,210	57,792	2,028,465	2,167,435	98.18%
131	33	4,323	57,825	2,032,788	2,168,504	98.24%
132	21	2,772	57,846	2,035,560	2,169,540	98.28%
133	24	3,192	57,870	2,038,752	2,170,555	98.32%
134	13	1,742	57,883	2,040,494	2,171,546	98.34%
135	16	2,160	57,899	2,042,654	2,172,524	98.37%
136	17	2,312	57,916	2,044,966	2,173,486	98.39%
137	14	1,918	57,930	2,046,884	2,174,431	98.42%
138	13	1,794	57,943	2,048,678	2,175,362	98.44%
139	17	2,363	57,960	2,051,041	2,176,280	98.47%
140	20	2,800	57,980	2,053,841	2,177,181	98.50%
141	11	1,551	57,991	2,055,392	2,178,062	98.52%
142	18	2,556	58,009	2,057,948	2,178,932	98.55%
143	14	2,002	58,023	2,059,950	2,179,784	98.58%
144	11	1,584	58,034	2,061,534	2,180,622	98.59%
145	15	2,175	58,049	2,063,709	2,181,449	98.62%
146	15	2,190	58,064	2,065,899	2,182,261	98.65%
147	12	1,764	58,076	2,067,663	2,183,058	98.67%
148	14	2,072	58,090	2,069,735	2,183,843	98.69%
149	14	2,086	58,104	2,071,821	2,184,614	98.71%
150	16	2,400	58,120	2,074,221	2,185,371	98.74%
151	16	2,416	58,136	2,076,637	2,186,112	98.77%
152	9	1,368	58,145	2,078,005	2,186,837	98.78%
153	10	1,530	58,155	2,079,535	2,187,553	98.80%
154	13	2,002	58,168	2,081,537	2,188,259	98.82%

155	9	1,395	58,177	2,082,932	2,188,952	98.84%
156	7	1,092	58,184	2,084,024	2,189,636	98.85%
157	12	1,884	58,196	2,085,908	2,190,313	98.87%
158	13	2,054	58,209	2,087,962	2,190,978	98.89%
159	8	1,272	58,217	2,089,234	2,191,630	98.91%
160	15	2,400	58,232	2,091,634	2,192,274	98.93%
161	16	2,576	58,248	2,094,210	2,192,903	98.96%
162	9	1,458	58,257	2,095,668	2,193,516	98.97%
163	11	1,793	58,268	2,097,461	2,194,120	98.99%
164	9	1,476	58,277	2,098,937	2,194,713	99.01%
165	10	1,650	58,287	2,100,587	2,195,297	99.02%
166	9	1,494	58,296	2,102,081	2,195,871	99.04%
167	9	1,503	58,305	2,103,584	2,196,436	99.06%
168	11	1,848	58,316	2,105,432	2,196,992	99.07%
169	9	1,521	58,325	2,106,953	2,197,537	99.09%
170	13	2,210	58,338	2,109,163	2,198,073	99.11%
171	10	1,710	58,348	2,110,873	2,198,596	99.13%
172	11	1,892	58,359	2,112,765	2,199,109	99.15%
173	5	865	58,364	2,113,630	2,199,611	99.16%
174	4	696	58,368	2,114,326	2,200,108	99.16%
175	3	525	58,371	2,114,851	2,200,601	99.17%
176	9	1,584	58,380	2,116,435	2,201,091	99.18%
177	9	1,593	58,389	2,118,028	2,201,572	99.20%
178	10	1,780	58,399	2,119,808	2,202,044	99.22%
179	11	1,969	58,410	2,121,777	2,202,506	99.23%
180	5	900	58,415	2,122,677	2,202,957	99.24%
181	5	905	58,420	2,123,582	2,203,403	99.25%
182	8	1,456	58,428	2,125,038	2,203,844	99.26%
183	8	1,464	58,436	2,126,502	2,204,277	99.28%
184	5	920	58,441	2,127,422	2,204,702	99.29%
185	9	1,665	58,450	2,129,087	2,205,122	99.30%
186	4	744	58,454	2,129,831	2,205,533	99.31%
187	9	1,683	58,463	2,131,514	2,205,940	99.32%
188	7	1,316	58,470	2,132,830	2,206,338	99.34%
189	6	1,134	58,476	2,133,964	2,206,729	99.35%
190	5	950	58,481	2,134,914	2,207,114	99.35%
191	4	764	58,485	2,135,678	2,207,494	99.36%
192	4	768	58,489	2,136,446	2,207,870	99.37%
193	6	1,158	58,495	2,137,604	2,208,242	99.38%
194	5	970	58,500	2,138,574	2,208,608	99.39%
195	9	1,755	58,509	2,140,329	2,208,969	99.40%
196	7	1,372	58,516	2,141,701	2,209,321	99.41%
197	6	1,182	58,522	2,142,883	2,209,666	99.42%
198	4	792	58,526	2,143,675	2,210,005	99.43%
199	6	1,194	58,532	2,144,869	2,210,340	99.44%
200	10	2,000	58,542	2,146,869	2,210,669	99.46%
201	3	603	58,545	2,147,472	2,210,988	99.46%
202	8	1,616	58,553	2,149,088	2,211,304	99.48%
203	4	812	58,557	2,149,900	2,211,612	99.48%
204	3	612	58,560	2,150,512	2,211,916	99.49%
205	1	205	58,561	2,150,717	2,212,217	99.49%
206	-	-	58,561	2,150,717	2,212,517	99.49%
207	1	207	58,562	2,150,924	2,212,817	99.49%
208	4	832	58,566	2,151,756	2,213,116	99.50%
209	3	627	58,569	2,152,383	2,213,411	99.50%

210	5	1,050	58,574	2,153,433	2,213,703	99.51%
211	3	633	58,577	2,154,066	2,213,990	99.52%
212	2	424	58,579	2,154,490	2,214,274	99.52%
213	4	852	58,583	2,155,342	2,214,556	99.53%
214	3	642	58,586	2,155,984	2,214,834	99.53%
215	3	645	58,589	2,156,629	2,215,109	99.54%
216	5	1,080	58,594	2,157,709	2,215,381	99.55%
217	3	651	58,597	2,158,360	2,215,648	99.55%
218	1	218	58,598	2,158,578	2,215,912	99.55%
219	3	657	58,601	2,159,235	2,216,175	99.56%
220	5	1,100	58,606	2,160,335	2,216,435	99.57%
221	2	442	58,608	2,160,777	2,216,690	99.57%
222	2	444	58,610	2,161,221	2,216,943	99.57%
224	3	672	58,613	2,161,893	2,217,445	99.58%
225	3	675	58,616	2,162,568	2,217,693	99.58%
226	3	678	58,619	2,163,246	2,217,938	99.59%
227	1	227	58,620	2,163,473	2,218,180	99.59%
228	5	1,140	58,625	2,164,613	2,218,421	99.60%
229	3	687	58,628	2,165,300	2,218,657	99.60%
230	3	690	58,631	2,165,990	2,218,890	99.61%
231	3	693	58,634	2,166,683	2,219,120	99.61%
232	1	232	58,635	2,166,915	2,219,347	99.62%
233	4	932	58,639	2,167,847	2,219,573	99.62%
234	4	936	58,643	2,168,783	2,219,795	99.63%
235	2	470	58,645	2,169,253	2,220,013	99.63%
236	1	236	58,646	2,169,489	2,220,229	99.63%
237	2	474	58,648	2,169,963	2,220,444	99.64%
238	1	238	58,649	2,170,201	2,220,657	99.64%
239	4	956	58,653	2,171,157	2,220,869	99.65%
240	4	960	58,657	2,172,117	2,221,077	99.65%
241	3	723	58,660	2,172,840	2,221,281	99.66%
242	3	726	58,663	2,173,566	2,221,482	99.66%
243	1	243	58,664	2,173,809	2,221,680	99.67%
244	2	488	58,666	2,174,297	2,221,877	99.67%
245	2	490	58,668	2,174,787	2,222,072	99.67%
246	2	492	58,670	2,175,279	2,222,265	99.68%
247	4	988	58,674	2,176,267	2,222,456	99.68%
248	2	496	58,676	2,176,763	2,222,643	99.69%
249	3	747	58,679	2,177,510	2,222,828	99.69%
250	6	1,500	58,685	2,179,010	2,223,010	99.70%
251	1	251	58,686	2,179,261	2,223,186	99.70%
252	3	756	58,689	2,180,017	2,223,361	99.71%
254	2	508	58,691	2,180,525	2,223,705	99.71%
255	2	510	58,693	2,181,035	2,223,875	99.71%
256	3	768	58,696	2,181,803	2,224,043	99.72%
257	-	-	58,696	2,181,803	2,224,208	99.72%
258	2	516	58,698	2,182,319	2,224,373	99.72%
260	5	1,300	58,703	2,183,619	2,224,699	99.73%
261	4	1,044	58,707	2,184,663	2,224,857	99.74%
262	1	262	58,708	2,184,925	2,225,011	99.74%
263	2	526	58,710	2,185,451	2,225,164	99.74%
264	4	1,056	58,714	2,186,507	2,225,315	99.75%
265	3	795	58,717	2,187,302	2,225,462	99.76%
266	2	532	58,719	2,187,834	2,225,606	99.76%
267	2	534	58,721	2,188,368	2,225,748	99.76%

269	1	269	58,722	2,188,637	2,226,028	99.76%
271	1	271	58,723	2,188,908	2,226,306	99.77%
272	1	272	58,724	2,189,180	2,226,444	99.77%
273	1	273	58,725	2,189,453	2,226,581	99.77%
274	1	274	58,726	2,189,727	2,226,717	99.77%
277	2	554	58,728	2,190,281	2,227,122	99.77%
278	1	278	58,729	2,190,559	2,227,255	99.78%
279	3	837	58,732	2,191,396	2,227,387	99.78%
281	1	281	58,733	2,191,677	2,227,645	99.78%
282	2	564	58,735	2,192,241	2,227,773	99.79%
283	1	283	58,736	2,192,524	2,227,899	99.79%
284	1	284	58,737	2,192,808	2,228,024	99.79%
285	1	285	58,738	2,193,093	2,228,148	99.79%
286	3	858	58,741	2,193,951	2,228,271	99.80%
288	1	288	58,742	2,194,239	2,228,511	99.80%
289	2	578	58,744	2,194,817	2,228,630	99.80%
290	3	870	58,747	2,195,687	2,228,747	99.81%
291	1	291	58,748	2,195,978	2,228,861	99.81%
292	1	292	58,749	2,196,270	2,228,974	99.81%
294	1	294	58,750	2,196,564	2,229,198	99.81%
295	2	590	58,752	2,197,154	2,229,309	99.81%
299	1	299	58,753	2,197,453	2,229,745	99.82%
302	-	-	58,753	2,197,453	2,230,069	99.82%
303	2	606	58,755	2,198,059	2,230,177	99.82%
305	2	610	58,757	2,198,669	2,230,389	99.82%
307	3	921	58,760	2,199,590	2,230,597	99.83%
308	1	308	58,761	2,199,898	2,230,698	99.83%
309	1	309	58,762	2,200,207	2,230,798	99.83%
310	1	310	58,763	2,200,517	2,230,897	99.83%
313	1	313	58,764	2,200,830	2,231,191	99.84%
314	1	314	58,765	2,201,144	2,231,288	99.84%
319	1	319	58,766	2,201,463	2,231,768	99.84%
320	2	640	58,768	2,202,103	2,231,863	99.84%
321	(1)	(321)	58,767	2,201,782	2,231,956	99.84%
322	1	322	58,768	2,202,104	2,232,050	99.84%
324	1	324	58,769	2,202,428	2,232,236	99.84%
326	2	652	58,771	2,203,080	2,232,420	99.85%
327	1	327	58,772	2,203,407	2,232,510	99.85%
328	1	328	58,773	2,203,735	2,232,599	99.85%
329	1	329	58,774	2,204,064	2,232,687	99.85%
330	4	1,320	58,778	2,205,384	2,232,774	99.86%
331	2	662	58,780	2,206,046	2,232,857	99.86%
332	1	332	58,781	2,206,378	2,232,938	99.86%
333	1	333	58,782	2,206,711	2,233,018	99.87%
334	2	668	58,784	2,207,379	2,233,097	99.87%
337	1	337	58,785	2,207,716	2,233,328	99.87%
338	1	338	58,786	2,208,054	2,233,404	99.87%
341	1	341	58,787	2,208,395	2,233,629	99.87%
342	3	1,026	58,790	2,209,421	2,233,703	99.88%
344	2	688	58,792	2,210,109	2,233,845	99.88%
345	2	690	58,794	2,210,799	2,233,914	99.89%
346	1	346	58,795	2,211,145	2,233,981	99.89%
349	1	349	58,796	2,211,494	2,234,179	99.89%
350	1	350	58,797	2,211,844	2,234,244	99.89%
352	1	352	58,798	2,212,196	2,234,372	99.89%

355	1	355	58,799	2,212,551	2,234,561	99.89%
357	3	1,071	58,802	2,213,622	2,234,685	99.90%
363	1	363	58,803	2,213,985	2,235,039	99.90%
364	1	364	58,804	2,214,349	2,235,097	99.90%
365	1	365	58,805	2,214,714	2,235,154	99.90%
367	1	367	58,806	2,215,081	2,235,266	99.91%
370	1	370	58,807	2,215,451	2,235,431	99.91%
371	1	371	58,808	2,215,822	2,235,485	99.91%
374	-	-	58,808	2,215,822	2,235,644	99.91%
375	1	375	58,809	2,216,197	2,235,697	99.91%
379	1	379	58,810	2,216,576	2,235,905	99.91%
380	2	760	58,812	2,217,336	2,235,956	99.92%
382	1	382	58,813	2,217,718	2,236,054	99.92%
386	1	386	58,814	2,218,104	2,236,246	99.92%
387	1	387	58,815	2,218,491	2,236,293	99.92%
389	2	778	58,817	2,219,269	2,236,385	99.93%
392	1	392	58,818	2,219,661	2,236,517	99.93%
394	1	394	58,819	2,220,055	2,236,603	99.93%
404	1	404	58,820	2,220,459	2,237,023	99.93%
408	1	408	58,821	2,220,867	2,237,187	99.93%
413	1	413	58,822	2,221,280	2,237,387	99.93%
421	1	421	58,823	2,221,701	2,237,699	99.94%
426	1	426	58,824	2,222,127	2,237,889	99.94%
435	1	435	58,825	2,222,562	2,238,222	99.94%
451	1	451	58,826	2,223,013	2,238,798	99.94%
452	1	452	58,827	2,223,465	2,238,833	99.94%
461	1	461	58,828	2,223,926	2,239,139	99.94%
462	1	462	58,829	2,224,388	2,239,172	99.95%
467	1	467	58,830	2,224,855	2,239,332	99.95%
470	1	470	58,831	2,225,325	2,239,425	99.95%
477	-	-	58,831	2,225,325	2,239,635	99.95%
481	1	481	58,832	2,225,806	2,239,755	99.95%
491	1	491	58,833	2,226,297	2,240,045	99.95%
494	1	494	58,834	2,226,791	2,240,129	99.95%
498	1	498	58,835	2,227,289	2,240,237	99.96%
501	1	501	58,836	2,227,790	2,240,315	99.96%
507	1	507	58,837	2,228,297	2,240,465	99.96%
513	1	513	58,838	2,228,810	2,240,609	99.96%
542	1	542	58,839	2,229,352	2,241,276	99.96%
546	1	546	58,840	2,229,898	2,241,364	99.96%
548	1	548	58,841	2,230,446	2,241,406	99.97%
561	1	561	58,842	2,231,007	2,241,666	99.97%
576	1	576	58,843	2,231,583	2,241,951	99.97%
592	1	592	58,844	2,232,175	2,242,239	99.97%
594	2	1,188	58,846	2,233,363	2,242,273	99.97%
599	1	599	58,847	2,233,962	2,242,348	99.98%
609	1	609	58,848	2,234,571	2,242,488	99.98%
614	1	614	58,849	2,235,185	2,242,553	99.98%
641	1	641	58,850	2,235,826	2,242,877	99.98%
663	1	663	58,851	2,236,489	2,243,119	99.98%
707	1	707	58,852	2,237,196	2,243,559	99.98%
708	1	708	58,853	2,237,904	2,243,568	99.99%
714	1	714	58,854	2,238,618	2,243,616	99.99%
715	1	715	58,855	2,239,333	2,243,623	99.99%
748	1	748	58,856	2,240,081	2,243,821	99.99%

833	1	833	58,857	2,240,914	2,244,246	99.99%
870	1	870	58,858	2,241,784	2,244,394	99.99%
957	1	957	58,859	2,242,741	2,244,655	100.00%
1,135	1	1,135	58,860	2,243,876	2,245,011	100.00%
1,169	1	1,169	58,861	2,245,045	2,245,045	100.00%
1,293	-	-	58,861	2,245,045	2,245,045	100.00%
1,478	1	1,478	58,862	2,246,523	2,245,045	100.00%
1,834	1	1,834	58,863	2,248,357	2,244,689	100.00%
2,088	(1)	(2,088)	58,862	2,246,269	2,244,181	100.00%
2,237	(1)	(2,237)	58,861	2,244,032	2,244,032	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF JULY 2023
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	2,008	-	2,008	-	-	3.40%
1	515	515	2,523	515	57,015	4.27%
2	345	690	2,868	1,205	113,515	4.86%
3	321	963	3,189	2,168	169,670	5.40%
4	379	1,516	3,568	3,684	225,504	6.05%
5	452	2,260	4,020	5,944	280,959	6.81%
6	534	3,204	4,554	9,148	335,962	7.72%
7	646	4,522	5,200	13,670	390,431	8.81%
8	709	5,672	5,909	19,342	444,254	10.01%
9	709	6,381	6,618	25,723	497,368	11.21%
10	829	8,290	7,447	34,013	549,773	12.62%
11	969	10,659	8,416	44,672	601,349	14.26%
12	926	11,112	9,342	55,784	651,956	15.83%
13	1,000	13,000	10,342	68,784	701,637	17.52%
14	1,021	14,294	11,363	83,078	750,318	19.25%
15	1,073	16,095	12,436	99,173	797,978	21.07%
16	1,076	17,216	13,512	116,389	844,565	22.89%
17	1,076	18,292	14,588	134,681	890,076	24.72%
18	1,166	20,988	15,754	155,669	934,511	26.69%
19	1,121	21,299	16,875	176,968	977,780	28.59%
20	1,179	23,580	18,054	200,548	1,019,928	30.59%
21	1,139	23,919	19,193	224,467	1,060,897	32.52%
22	1,214	26,708	20,407	251,175	1,100,727	34.57%
23	1,211	27,853	21,618	279,028	1,139,343	36.63%
24	1,160	27,840	22,778	306,868	1,176,748	38.59%
25	1,187	29,675	23,965	336,543	1,212,993	40.60%
26	1,161	30,186	25,126	366,729	1,248,051	42.57%
27	1,131	30,537	26,257	397,266	1,281,948	44.49%
28	1,176	32,928	27,433	430,194	1,314,714	46.48%
29	1,108	32,132	28,541	462,326	1,346,304	48.36%
30	1,088	32,640	29,629	494,966	1,376,786	50.20%
31	1,097	34,007	30,726	528,973	1,406,180	52.06%
32	1,044	33,408	31,770	562,381	1,434,477	53.83%
33	1,044	34,452	32,814	596,833	1,461,730	55.60%
34	912	31,008	33,726	627,841	1,487,939	57.14%
35	906	31,710	34,632	659,551	1,513,236	58.68%
36	909	32,724	35,541	692,275	1,537,627	60.22%
37	867	32,079	36,408	724,354	1,561,109	61.68%
38	868	32,984	37,276	757,338	1,583,724	63.16%
39	861	33,579	38,137	790,917	1,605,471	64.61%
40	810	32,400	38,947	823,317	1,626,357	65.99%
41	840	34,440	39,787	857,757	1,646,433	67.41%
42	795	33,390	40,582	891,147	1,665,669	68.76%
43	756	32,508	41,338	923,655	1,684,110	70.04%
44	727	31,988	42,065	955,643	1,701,795	71.27%

45	649	29,205	42,714	984,848	1,718,753	72.37%
46	600	27,600	43,314	1,012,448	1,735,062	73.38%
47	649	30,503	43,963	1,042,951	1,750,771	74.48%
48	593	28,464	44,556	1,071,415	1,765,831	75.49%
49	589	28,861	45,145	1,100,276	1,780,298	76.49%
50	593	29,650	45,738	1,129,926	1,794,176	77.49%
51	475	24,225	46,213	1,154,151	1,807,461	78.30%
52	515	26,780	46,728	1,180,931	1,820,271	79.17%
53	462	24,486	47,190	1,205,417	1,832,566	79.95%
54	507	27,378	47,697	1,232,795	1,844,399	80.81%
55	478	26,290	48,175	1,259,085	1,855,725	81.62%
56	474	26,544	48,649	1,285,629	1,866,573	82.42%
57	394	22,458	49,043	1,308,087	1,876,947	83.09%
58	381	22,098	49,424	1,330,185	1,886,927	83.74%
59	351	20,709	49,775	1,350,894	1,896,526	84.33%
60	348	20,880	50,123	1,371,774	1,905,774	84.92%
61	333	20,313	50,456	1,392,087	1,914,674	85.49%
62	297	18,414	50,753	1,410,501	1,923,241	85.99%
63	328	20,664	51,081	1,431,165	1,931,511	86.54%
64	305	19,520	51,386	1,450,685	1,939,453	87.06%
65	286	18,590	51,672	1,469,275	1,947,090	87.55%
66	255	16,830	51,927	1,486,105	1,954,441	87.98%
67	273	18,291	52,200	1,504,396	1,961,537	88.44%
68	269	18,292	52,469	1,522,688	1,968,360	88.90%
69	242	16,698	52,711	1,539,386	1,974,914	89.31%
70	252	17,640	52,963	1,557,026	1,981,226	89.73%
71	222	15,762	53,185	1,572,788	1,987,286	90.11%
72	189	13,608	53,374	1,586,396	1,993,124	90.43%
73	210	15,330	53,584	1,601,726	1,998,773	90.78%
74	170	12,580	53,754	1,614,306	2,004,212	91.07%
75	195	14,625	53,949	1,628,931	2,009,481	91.40%
76	167	12,692	54,116	1,641,623	2,014,555	91.69%
77	171	13,167	54,287	1,654,790	2,019,462	91.98%
78	139	10,842	54,426	1,665,632	2,024,198	92.21%
79	162	12,798	54,588	1,678,430	2,028,795	92.49%
80	154	12,320	54,742	1,690,750	2,033,230	92.75%
81	148	11,988	54,890	1,702,738	2,037,511	93.00%
82	129	10,578	55,019	1,713,316	2,041,644	93.22%
83	129	10,707	55,148	1,724,023	2,045,648	93.43%
84	100	8,400	55,248	1,732,423	2,049,523	93.60%
85	124	10,540	55,372	1,742,963	2,053,298	93.81%
86	121	10,406	55,493	1,753,369	2,056,949	94.02%
87	108	9,396	55,601	1,762,765	2,060,479	94.20%
88	122	10,736	55,723	1,773,501	2,063,901	94.41%
89	94	8,366	55,817	1,781,867	2,067,201	94.57%
90	94	8,460	55,911	1,790,327	2,070,407	94.73%
91	91	8,281	56,002	1,798,608	2,073,519	94.88%
92	105	9,660	56,107	1,808,268	2,076,540	95.06%
93	86	7,998	56,193	1,816,266	2,079,456	95.21%
94	85	7,990	56,278	1,824,256	2,082,286	95.35%
95	62	5,890	56,340	1,830,146	2,085,031	95.45%
96	87	8,352	56,427	1,838,498	2,087,714	95.60%
97	81	7,857	56,508	1,846,355	2,090,310	95.74%
98	73	7,154	56,581	1,853,509	2,092,825	95.86%
99	74	7,326	56,655	1,860,835	2,095,267	95.99%

100	73	7,300	56,728	1,868,135	2,097,635	96.11%
101	63	6,363	56,791	1,874,498	2,099,930	96.22%
102	75	7,650	56,866	1,882,148	2,102,162	96.35%
103	54	5,562	56,920	1,887,710	2,104,319	96.44%
104	36	3,744	56,956	1,891,454	2,106,422	96.50%
105	63	6,615	57,019	1,898,069	2,108,489	96.60%
106	49	5,194	57,068	1,903,263	2,110,493	96.69%
107	47	5,029	57,115	1,908,292	2,112,448	96.77%
108	43	4,644	57,158	1,912,936	2,114,356	96.84%
109	46	5,014	57,204	1,917,950	2,116,221	96.92%
110	36	3,960	57,240	1,921,910	2,118,040	96.98%
111	49	5,439	57,289	1,927,349	2,119,823	97.06%
112	41	4,592	57,330	1,931,941	2,121,557	97.13%
113	54	6,102	57,384	1,938,043	2,123,250	97.22%
114	33	3,762	57,417	1,941,805	2,124,889	97.28%
115	34	3,910	57,451	1,945,715	2,126,495	97.34%
116	37	4,292	57,488	1,950,007	2,128,067	97.40%
117	36	4,212	57,524	1,954,219	2,129,602	97.46%
118	34	4,012	57,558	1,958,231	2,131,101	97.52%
119	29	3,451	57,587	1,961,682	2,132,566	97.57%
120	30	3,600	57,617	1,965,282	2,134,002	97.62%
121	38	4,598	57,655	1,969,880	2,135,408	97.68%
122	30	3,660	57,685	1,973,540	2,136,776	97.73%
123	28	3,444	57,713	1,976,984	2,138,114	97.78%
124	36	4,464	57,749	1,981,448	2,139,424	97.84%
125	20	2,500	57,769	1,983,948	2,140,698	97.88%
126	26	3,276	57,795	1,987,224	2,141,952	97.92%
127	23	2,921	57,818	1,990,145	2,143,180	97.96%
128	20	2,560	57,838	1,992,705	2,144,385	97.99%
129	27	3,483	57,865	1,996,188	2,145,570	98.04%
130	24	3,120	57,889	1,999,308	2,146,728	98.08%
131	30	3,930	57,919	2,003,238	2,147,862	98.13%
132	23	3,036	57,942	2,006,274	2,148,966	98.17%
133	19	2,527	57,961	2,008,801	2,150,047	98.20%
134	34	4,556	57,995	2,013,357	2,151,109	98.26%
135	23	3,105	58,018	2,016,462	2,152,137	98.30%
136	22	2,992	58,040	2,019,454	2,153,142	98.33%
137	17	2,329	58,057	2,021,783	2,154,125	98.36%
138	14	1,932	58,071	2,023,715	2,155,091	98.39%
139	20	2,780	58,091	2,026,495	2,156,043	98.42%
140	17	2,380	58,108	2,028,875	2,156,975	98.45%
141	17	2,397	58,125	2,031,272	2,157,890	98.48%
142	14	1,988	58,139	2,033,260	2,158,788	98.50%
143	10	1,430	58,149	2,034,690	2,159,672	98.52%
144	20	2,880	58,169	2,037,570	2,160,546	98.55%
145	18	2,610	58,187	2,040,180	2,161,400	98.58%
146	13	1,898	58,200	2,042,078	2,162,236	98.61%
147	16	2,352	58,216	2,044,430	2,163,059	98.63%
148	6	888	58,222	2,045,318	2,163,866	98.64%
149	15	2,235	58,237	2,047,553	2,164,667	98.67%
150	12	1,800	58,249	2,049,353	2,165,453	98.69%
151	14	2,114	58,263	2,051,467	2,166,227	98.71%
152	8	1,216	58,271	2,052,683	2,166,987	98.73%
153	11	1,683	58,282	2,054,366	2,167,739	98.74%
154	11	1,694	58,293	2,056,060	2,168,480	98.76%

155	10	1,550	58,303	2,057,610	2,169,210	98.78%
156	9	1,404	58,312	2,059,014	2,169,930	98.80%
157	12	1,884	58,324	2,060,898	2,170,641	98.82%
158	14	2,212	58,338	2,063,110	2,171,340	98.84%
159	9	1,431	58,347	2,064,541	2,172,025	98.85%
160	10	1,600	58,357	2,066,141	2,172,701	98.87%
161	9	1,449	58,366	2,067,590	2,173,367	98.89%
162	13	2,106	58,379	2,069,696	2,174,024	98.91%
163	7	1,141	58,386	2,070,837	2,174,668	98.92%
164	14	2,296	58,400	2,073,133	2,175,305	98.94%
165	12	1,980	58,412	2,075,113	2,175,928	98.96%
166	6	996	58,418	2,076,109	2,176,539	98.97%
167	8	1,336	58,426	2,077,445	2,177,144	98.99%
168	7	1,176	58,433	2,078,621	2,177,741	99.00%
169	8	1,352	58,441	2,079,973	2,178,331	99.01%
170	10	1,700	58,451	2,081,673	2,178,913	99.03%
171	13	2,223	58,464	2,083,896	2,179,485	99.05%
172	8	1,376	58,472	2,085,272	2,180,044	99.07%
173	8	1,384	58,480	2,086,656	2,180,595	99.08%
174	7	1,218	58,487	2,087,874	2,181,138	99.09%
175	5	875	58,492	2,088,749	2,181,674	99.10%
176	9	1,584	58,501	2,090,333	2,182,205	99.12%
177	6	1,062	58,507	2,091,395	2,182,727	99.13%
178	9	1,602	58,516	2,092,997	2,183,243	99.14%
179	8	1,432	58,524	2,094,429	2,183,750	99.15%
180	7	1,260	58,531	2,095,689	2,184,249	99.17%
181	7	1,267	58,538	2,096,956	2,184,741	99.18%
182	7	1,274	58,545	2,098,230	2,185,226	99.19%
183	5	915	58,550	2,099,145	2,185,704	99.20%
184	6	1,104	58,556	2,100,249	2,186,177	99.21%
185	6	1,110	58,562	2,101,359	2,186,644	99.22%
186	10	1,860	58,572	2,103,219	2,187,105	99.24%
187	4	748	58,576	2,103,967	2,187,556	99.24%
188	10	1,880	58,586	2,105,847	2,188,003	99.26%
189	9	1,701	58,595	2,107,548	2,188,440	99.27%
190	8	1,520	58,603	2,109,068	2,188,868	99.29%
191	5	955	58,608	2,110,023	2,189,288	99.30%
192	2	384	58,610	2,110,407	2,189,703	99.30%
193	-	-	58,610	2,110,407	2,190,116	99.30%
194	5	970	58,615	2,111,377	2,190,529	99.31%
195	6	1,170	58,621	2,112,547	2,190,937	99.32%
196	6	1,176	58,627	2,113,723	2,191,339	99.33%
197	4	788	58,631	2,114,511	2,191,735	99.34%
198	2	396	58,633	2,114,907	2,192,127	99.34%
199	7	1,393	58,640	2,116,300	2,192,517	99.35%
200	1	200	58,641	2,116,500	2,192,900	99.35%
201	3	603	58,644	2,117,103	2,193,282	99.36%
202	6	1,212	58,650	2,118,315	2,193,661	99.37%
203	2	406	58,652	2,118,721	2,194,034	99.37%
204	2	408	58,654	2,119,129	2,194,405	99.37%
205	4	820	58,658	2,119,949	2,194,774	99.38%
206	3	618	58,661	2,120,567	2,195,139	99.39%
207	2	414	58,663	2,120,981	2,195,501	99.39%
208	8	1,664	58,671	2,122,645	2,195,861	99.40%
209	7	1,463	58,678	2,124,108	2,196,213	99.42%

210	3	630	58,681	2,124,738	2,196,558	99.42%
211	3	633	58,684	2,125,371	2,196,900	99.43%
212	7	1,484	58,691	2,126,855	2,197,239	99.44%
213	1	213	58,692	2,127,068	2,197,571	99.44%
214	9	1,926	58,701	2,128,994	2,197,902	99.45%
215	2	430	58,703	2,129,424	2,198,224	99.46%
216	5	1,080	58,708	2,130,504	2,198,544	99.47%
217	1	217	58,709	2,130,721	2,198,859	99.47%
218	4	872	58,713	2,131,593	2,199,173	99.47%
219	2	438	58,715	2,132,031	2,199,483	99.48%
220	1	220	58,716	2,132,251	2,199,791	99.48%
221	2	442	58,718	2,132,693	2,200,098	99.48%
222	5	1,110	58,723	2,133,803	2,200,403	99.49%
223	3	669	58,726	2,134,472	2,200,703	99.50%
224	5	1,120	58,731	2,135,592	2,201,000	99.51%
225	5	1,125	58,736	2,136,717	2,201,292	99.51%
226	2	452	58,738	2,137,169	2,201,579	99.52%
227	5	1,135	58,743	2,138,304	2,201,864	99.53%
228	(1)	(228)	58,742	2,138,076	2,202,144	99.52%
229	1	229	58,743	2,138,305	2,202,425	99.53%
230	2	460	58,745	2,138,765	2,202,705	99.53%
231	4	924	58,749	2,139,689	2,202,983	99.54%
232	2	464	58,751	2,140,153	2,203,257	99.54%
233	1	233	58,752	2,140,386	2,203,529	99.54%
234	2	468	58,754	2,140,854	2,203,800	99.54%
235	1	235	58,755	2,141,089	2,204,069	99.55%
236	3	708	58,758	2,141,797	2,204,337	99.55%
237	4	948	58,762	2,142,745	2,204,602	99.56%
238	2	476	58,764	2,143,221	2,204,863	99.56%
239	1	239	58,765	2,143,460	2,205,122	99.56%
240	3	720	58,768	2,144,180	2,205,380	99.57%
241	2	482	58,770	2,144,662	2,205,635	99.57%
242	3	726	58,773	2,145,388	2,205,888	99.58%
243	6	1,458	58,779	2,146,846	2,206,138	99.59%
245	2	490	58,781	2,147,336	2,206,626	99.59%
246	2	492	58,783	2,147,828	2,206,868	99.59%
247	1	247	58,784	2,148,075	2,207,108	99.60%
249	6	1,494	58,790	2,149,569	2,207,586	99.61%
250	7	1,750	58,797	2,151,319	2,207,819	99.62%
251	5	1,255	58,802	2,152,574	2,208,045	99.63%
253	2	506	58,804	2,153,080	2,208,487	99.63%
254	3	762	58,807	2,153,842	2,208,706	99.63%
255	4	1,020	58,811	2,154,862	2,208,922	99.64%
256	3	768	58,814	2,155,630	2,209,134	99.65%
257	4	1,028	58,818	2,156,658	2,209,343	99.65%
258	2	516	58,820	2,157,174	2,209,548	99.66%
259	3	777	58,823	2,157,951	2,209,751	99.66%
260	2	520	58,825	2,158,471	2,209,951	99.66%
261	3	783	58,828	2,159,254	2,210,149	99.67%
262	3	786	58,831	2,160,040	2,210,344	99.67%
263	1	263	58,832	2,160,303	2,210,536	99.68%
264	2	528	58,834	2,160,831	2,210,727	99.68%
265	6	1,590	58,840	2,162,421	2,210,916	99.69%
266	2	532	58,842	2,162,953	2,211,099	99.69%
267	4	1,068	58,846	2,164,021	2,211,280	99.70%

268	2	536	58,848	2,164,557	2,211,457	99.70%
269	1	269	58,849	2,164,826	2,211,632	99.71%
271	1	271	58,850	2,165,097	2,211,980	99.71%
272	2	544	58,852	2,165,641	2,212,153	99.71%
274	3	822	58,855	2,166,463	2,212,495	99.72%
275	1	275	58,856	2,166,738	2,212,663	99.72%
276	1	276	58,857	2,167,014	2,212,830	99.72%
277	-	-	58,857	2,167,014	2,212,996	99.72%
278	2	556	58,859	2,167,570	2,213,162	99.72%
281	2	562	58,861	2,168,132	2,213,654	99.73%
282	1	282	58,862	2,168,414	2,213,816	99.73%
283	13	3,679	58,875	2,172,093	2,213,977	99.75%
284	3	852	58,878	2,172,945	2,214,125	99.75%
285	1	285	58,879	2,173,230	2,214,270	99.76%
286	-	-	58,879	2,173,230	2,214,414	99.76%
288	(1)	(288)	58,878	2,172,942	2,214,702	99.75%
289	1	289	58,879	2,173,231	2,214,847	99.76%
290	2	580	58,881	2,173,811	2,214,991	99.76%
292	2	584	58,883	2,174,395	2,215,275	99.76%
293	1	293	58,884	2,174,688	2,215,415	99.76%
295	2	590	58,886	2,175,278	2,215,693	99.77%
298	1	298	58,887	2,175,576	2,216,104	99.77%
300	1	300	58,888	2,175,876	2,216,376	99.77%
301	1	301	58,889	2,176,177	2,216,511	99.77%
302	1	302	58,890	2,176,479	2,216,645	99.77%
303	1	303	58,891	2,176,782	2,216,778	99.78%
304	1	304	58,892	2,177,086	2,216,910	99.78%
305	2	610	58,894	2,177,696	2,217,041	99.78%
307	3	921	58,897	2,178,617	2,217,299	99.79%
312	1	312	58,898	2,178,929	2,217,929	99.79%
313	1	313	58,899	2,179,242	2,218,054	99.79%
315	1	315	58,900	2,179,557	2,218,302	99.79%
316	1	316	58,901	2,179,873	2,218,425	99.79%
317	1	317	58,902	2,180,190	2,218,547	99.79%
318	1	318	58,903	2,180,508	2,218,668	99.80%
319	1	319	58,904	2,180,827	2,218,788	99.80%
320	1	320	58,905	2,181,147	2,218,907	99.80%
322	1	322	58,906	2,181,469	2,219,143	99.80%
324	5	1,620	58,911	2,183,089	2,219,377	99.81%
328	2	656	58,913	2,183,745	2,219,825	99.81%
329	1	329	58,914	2,184,074	2,219,935	99.82%
332	1	332	58,915	2,184,406	2,220,262	99.82%
333	-	-	58,915	2,184,406	2,220,370	99.82%
335	3	1,005	58,918	2,185,411	2,220,586	99.82%
336	1	336	58,919	2,185,747	2,220,691	99.82%
339	2	678	58,921	2,186,425	2,221,003	99.83%
340	2	680	58,923	2,187,105	2,221,105	99.83%
341	2	682	58,925	2,187,787	2,221,205	99.83%
342	2	684	58,927	2,188,471	2,221,303	99.84%
344	(1)	(344)	58,926	2,188,127	2,221,495	99.84%
347	1	347	58,927	2,188,474	2,221,786	99.84%
348	1	348	58,928	2,188,822	2,221,882	99.84%
355	1	355	58,929	2,189,177	2,222,547	99.84%
356	1	356	58,930	2,189,533	2,222,641	99.84%
357	(1)	(357)	58,929	2,189,176	2,222,734	99.84%

358	1	358	58,930	2,189,534	2,222,828	99.84%
361	2	722	58,932	2,190,256	2,223,107	99.85%
362	1	362	58,933	2,190,618	2,223,198	99.85%
363	1	363	58,934	2,190,981	2,223,288	99.85%
364	1	364	58,935	2,191,345	2,223,377	99.85%
366	1	366	58,936	2,191,711	2,223,553	99.85%
368	1	368	58,937	2,192,079	2,223,727	99.85%
369	2	738	58,939	2,192,817	2,223,813	99.86%
371	1	371	58,940	2,193,188	2,223,981	99.86%
372	1	372	58,941	2,193,560	2,224,064	99.86%
385	1	385	58,942	2,193,945	2,225,130	99.86%
386	1	386	58,943	2,194,331	2,225,211	99.86%
387	1	387	58,944	2,194,718	2,225,291	99.87%
388	2	776	58,946	2,195,494	2,225,370	99.87%
389	1	389	58,947	2,195,883	2,225,447	99.87%
391	1	391	58,948	2,196,274	2,225,599	99.87%
392	(1)	(392)	58,947	2,195,882	2,225,674	99.87%
398	2	796	58,949	2,196,678	2,226,130	99.87%
400	1	400	58,950	2,197,078	2,226,278	99.88%
402	1	402	58,951	2,197,480	2,226,424	99.88%
405	1	405	58,952	2,197,885	2,226,640	99.88%
409	1	409	58,953	2,198,294	2,226,924	99.88%
410	(1)	(410)	58,952	2,197,884	2,226,994	99.88%
411	1	411	58,953	2,198,295	2,227,065	99.88%
413	1	413	58,954	2,198,708	2,227,205	99.88%
416	1	416	58,955	2,199,124	2,227,412	99.88%
418	1	418	58,956	2,199,542	2,227,548	99.89%
422	1	422	58,957	2,199,964	2,227,816	99.89%
424	(1)	(424)	58,956	2,199,540	2,227,948	99.89%
427	2	854	58,958	2,200,394	2,228,149	99.89%
429	2	858	58,960	2,201,252	2,228,279	99.89%
449	(1)	(449)	58,959	2,200,803	2,229,539	99.89%
450	(1)	(450)	58,958	2,200,353	2,229,603	99.89%
452	1	452	58,959	2,200,805	2,229,733	99.89%
454	1	454	58,960	2,201,259	2,229,861	99.89%
455	1	455	58,961	2,201,714	2,229,924	99.89%
457	2	914	58,963	2,202,628	2,230,048	99.90%
458	1	458	58,964	2,203,086	2,230,108	99.90%
463	1	463	58,965	2,203,549	2,230,403	99.90%
470	1	470	58,966	2,204,019	2,230,809	99.90%
472	1	472	58,967	2,204,491	2,230,923	99.91%
475	1	475	58,968	2,204,966	2,231,091	99.91%
483	1	483	58,969	2,205,449	2,231,531	99.91%
494	(1)	(494)	58,968	2,204,955	2,232,125	99.91%
495	1	495	58,969	2,205,450	2,232,180	99.91%
501	1	501	58,970	2,205,951	2,232,504	99.91%
502	1	502	58,971	2,206,453	2,232,557	99.91%
506	1	506	58,972	2,206,959	2,232,765	99.91%
508	-	-	58,972	2,206,959	2,232,867	99.91%
517	1	517	58,973	2,207,476	2,233,326	99.92%
518	1	518	58,974	2,207,994	2,233,376	99.92%
529	1	529	58,975	2,208,523	2,233,915	99.92%
535	1	535	58,976	2,209,058	2,234,203	99.92%
540	1	540	58,977	2,209,598	2,234,438	99.92%
543	1	543	58,978	2,210,141	2,234,576	99.92%

544	1	544	58,979	2,210,685	2,234,621	99.93%
546	1	546	58,980	2,211,231	2,234,709	99.93%
547	1	547	58,981	2,211,778	2,234,752	99.93%
555	1	555	58,982	2,212,333	2,235,088	99.93%
559	1	559	58,983	2,212,892	2,235,252	99.93%
569	1	569	58,984	2,213,461	2,235,652	99.93%
577	1	577	58,985	2,214,038	2,235,964	99.94%
585	1	585	58,986	2,214,623	2,236,268	99.94%
586	1	586	58,987	2,215,209	2,236,305	99.94%
592	(1)	(592)	58,986	2,214,617	2,236,521	99.94%
597	1	597	58,987	2,215,214	2,236,706	99.94%
625	1	625	58,988	2,215,839	2,237,714	99.94%
626	1	626	58,989	2,216,465	2,237,749	99.94%
636	1	636	58,990	2,217,101	2,238,089	99.94%
638	1	638	58,991	2,217,739	2,238,155	99.95%
643	1	643	58,992	2,218,382	2,238,315	99.95%
645	1	645	58,993	2,219,027	2,238,377	99.95%
650	1	650	58,994	2,219,677	2,238,527	99.95%
665	1	665	58,995	2,220,342	2,238,962	99.95%
680	1	680	58,996	2,221,022	2,239,382	99.95%
697	1	697	58,997	2,221,719	2,239,841	99.96%
713	1	713	58,998	2,222,432	2,240,257	99.96%
723	1	723	58,999	2,223,155	2,240,507	99.96%
727	1	727	59,000	2,223,882	2,240,603	99.96%
734	1	734	59,001	2,224,616	2,240,764	99.96%
742	1	742	59,002	2,225,358	2,240,940	99.96%
770	1	770	59,003	2,226,128	2,241,528	99.97%
773	1	773	59,004	2,226,901	2,241,588	99.97%
819	1	819	59,005	2,227,720	2,242,462	99.97%
831	-	-	59,005	2,227,720	2,242,678	99.97%
870	1	870	59,006	2,228,590	2,243,380	99.97%
877	1	877	59,007	2,229,467	2,243,499	99.97%
891	1	891	59,008	2,230,358	2,243,723	99.97%
911	1	911	59,009	2,231,269	2,244,023	99.98%
913	1	913	59,010	2,232,182	2,244,051	99.98%
917	1	917	59,011	2,233,099	2,244,103	99.98%
940	1	940	59,012	2,234,039	2,244,379	99.98%
951	1	951	59,013	2,234,990	2,244,500	99.98%
991	1	991	59,014	2,235,981	2,244,900	99.98%
999	1	999	59,015	2,236,980	2,244,972	99.99%
1,083	1	1,083	59,016	2,238,063	2,245,644	99.99%
1,179	1	1,179	59,017	2,239,242	2,246,316	99.99%
1,204	1	1,204	59,018	2,240,446	2,246,466	99.99%
1,391	1	1,391	59,019	2,241,837	2,247,401	99.99%
1,410	1	1,410	59,020	2,243,247	2,247,477	99.99%
1,477	1	1,477	59,021	2,244,724	2,247,678	100.00%
1,814	1	1,814	59,022	2,246,538	2,248,352	100.00%
1,901	1	1,901	59,023	2,248,439	2,248,439	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF AUGUST 2023
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	1,881	-	1,881	-	-	3.18%
1	553	553	2,434	553	57,351	4.11%
2	389	778	2,823	1,331	114,149	4.77%
3	349	1,047	3,172	2,378	170,558	5.36%
4	413	1,652	3,585	4,030	226,618	6.05%
5	434	2,170	4,019	6,200	282,265	6.79%
6	600	3,600	4,619	9,800	337,478	7.80%
7	718	5,026	5,337	14,826	392,091	9.01%
8	779	6,232	6,116	21,058	445,986	10.33%
9	852	7,668	6,968	28,726	499,102	11.76%
10	935	9,350	7,903	38,076	551,366	13.34%
11	996	10,956	8,899	49,032	602,695	15.02%
12	1,026	12,312	9,925	61,344	653,028	16.76%
13	1,088	14,144	11,013	75,488	702,335	18.59%
14	1,095	15,330	12,108	90,818	750,554	20.44%
15	1,187	17,805	13,295	108,623	797,678	22.45%
16	1,205	19,280	14,500	127,903	843,615	24.48%
17	1,191	20,247	15,691	148,150	888,347	26.49%
18	1,197	21,546	16,888	169,696	931,888	28.51%
19	1,254	23,826	18,142	193,522	974,232	30.63%
20	1,276	25,520	19,418	219,042	1,015,322	32.78%
21	1,292	27,132	20,710	246,174	1,055,136	34.96%
22	1,290	28,380	22,000	274,554	1,093,658	37.14%
23	1,315	30,245	23,315	304,799	1,130,890	39.36%
24	1,289	30,936	24,604	335,735	1,166,807	41.54%
25	1,330	33,250	25,934	368,985	1,201,435	43.78%
26	1,235	32,110	27,169	401,095	1,234,733	45.87%
27	1,204	32,508	28,373	433,603	1,266,796	47.90%
28	1,167	32,676	29,540	466,279	1,297,655	49.87%
29	1,126	32,654	30,666	498,933	1,327,347	51.77%
30	1,077	32,310	31,743	531,243	1,355,913	53.59%
31	1,154	35,774	32,897	567,017	1,383,402	55.54%
32	1,068	34,176	33,965	601,193	1,409,737	57.34%
33	1,117	36,861	35,082	638,054	1,435,004	59.23%
34	1,065	36,210	36,147	674,264	1,459,154	61.03%
35	986	34,510	37,133	708,774	1,482,239	62.69%
36	935	33,660	38,068	742,434	1,504,338	64.27%
37	917	33,929	38,985	776,363	1,525,502	65.82%
38	895	34,010	39,880	810,373	1,545,749	67.33%
39	820	31,980	40,700	842,353	1,565,101	68.71%
40	795	31,800	41,495	874,153	1,583,633	70.06%
41	749	30,709	42,244	904,862	1,601,370	71.32%
42	765	32,130	43,009	936,992	1,618,358	72.61%
43	685	29,455	43,694	966,447	1,634,581	73.77%
44	728	32,032	44,422	998,479	1,650,119	75.00%

45	684	30,780	45,106	1,029,259	1,664,929	76.15%
46	635	29,210	45,741	1,058,469	1,679,055	77.22%
47	604	28,388	46,345	1,086,857	1,692,546	78.24%
48	609	29,232	46,954	1,116,089	1,705,433	79.27%
49	556	27,244	47,510	1,143,333	1,717,711	80.21%
50	554	27,700	48,064	1,171,033	1,729,433	81.15%
51	509	25,959	48,573	1,196,992	1,740,601	82.00%
52	462	24,024	49,035	1,221,016	1,751,260	82.78%
53	418	22,154	49,453	1,243,170	1,761,457	83.49%
54	447	24,138	49,900	1,267,308	1,771,236	84.25%
55	373	20,515	50,273	1,287,823	1,780,568	84.87%
56	389	21,784	50,662	1,309,607	1,789,527	85.53%
57	377	21,489	51,039	1,331,096	1,798,097	86.17%
58	352	20,416	51,391	1,351,512	1,806,290	86.76%
59	347	20,473	51,738	1,371,985	1,814,131	87.35%
60	313	18,780	52,051	1,390,765	1,821,625	87.88%
61	325	19,825	52,376	1,410,590	1,828,806	88.43%
62	296	18,352	52,672	1,428,942	1,835,662	88.92%
63	261	16,443	52,933	1,445,385	1,842,222	89.37%
64	255	16,320	53,188	1,461,705	1,848,521	89.80%
65	265	17,225	53,453	1,478,930	1,854,565	90.24%
66	214	14,124	53,667	1,493,054	1,860,344	90.60%
67	243	16,281	53,910	1,509,335	1,865,909	91.01%
68	199	13,532	54,109	1,522,867	1,871,231	91.35%
69	185	12,765	54,294	1,535,632	1,876,354	91.66%
70	190	13,300	54,484	1,548,932	1,881,292	91.98%
71	159	11,289	54,643	1,560,221	1,886,040	92.25%
72	184	13,248	54,827	1,573,469	1,890,629	92.56%
73	158	11,534	54,985	1,585,003	1,895,034	92.83%
74	159	11,766	55,144	1,596,769	1,899,281	93.10%
75	152	11,400	55,296	1,608,169	1,903,369	93.35%
76	141	10,716	55,437	1,618,885	1,907,305	93.59%
77	140	10,780	55,577	1,629,665	1,911,100	93.83%
78	128	9,984	55,705	1,639,649	1,914,755	94.05%
79	115	9,085	55,820	1,648,734	1,918,282	94.24%
80	97	7,760	55,917	1,656,494	1,921,694	94.40%
81	95	7,695	56,012	1,664,189	1,925,009	94.56%
82	135	11,070	56,147	1,675,259	1,928,229	94.79%
83	104	8,632	56,251	1,683,891	1,931,314	94.97%
84	100	8,400	56,351	1,692,291	1,934,295	95.14%
85	88	7,480	56,439	1,699,771	1,937,176	95.28%
86	92	7,912	56,531	1,707,683	1,939,969	95.44%
87	105	9,135	56,636	1,716,818	1,942,670	95.62%
88	90	7,920	56,726	1,724,738	1,945,266	95.77%
89	73	6,497	56,799	1,731,235	1,947,772	95.89%
90	76	6,840	56,875	1,738,075	1,950,205	96.02%
91	83	7,553	56,958	1,745,628	1,952,562	96.16%
92	74	6,808	57,032	1,752,436	1,954,836	96.29%
93	62	5,766	57,094	1,758,202	1,957,036	96.39%
94	67	6,298	57,161	1,764,500	1,959,174	96.50%
95	66	6,270	57,227	1,770,770	1,961,245	96.62%
96	70	6,720	57,297	1,777,490	1,963,250	96.73%
97	59	5,723	57,356	1,783,213	1,965,185	96.83%
98	54	5,292	57,410	1,788,505	1,967,061	96.92%
99	67	6,633	57,477	1,795,138	1,968,883	97.04%

100	55	5,500	57,532	1,800,638	1,970,638	97.13%
101	48	4,848	57,580	1,805,486	1,972,338	97.21%
102	45	4,590	57,625	1,810,076	1,973,990	97.29%
103	33	3,399	57,658	1,813,475	1,975,597	97.34%
104	42	4,368	57,700	1,817,843	1,977,171	97.41%
105	45	4,725	57,745	1,822,568	1,978,703	97.49%
106	33	3,498	57,778	1,826,066	1,980,190	97.55%
107	34	3,638	57,812	1,829,704	1,981,644	97.60%
108	42	4,536	57,854	1,834,240	1,983,064	97.67%
109	39	4,251	57,893	1,838,491	1,984,442	97.74%
110	24	2,640	57,917	1,841,131	1,985,781	97.78%
111	31	3,441	57,948	1,844,572	1,987,096	97.83%
112	27	3,024	57,975	1,847,596	1,988,380	97.88%
113	27	3,051	58,002	1,850,647	1,989,637	97.92%
114	39	4,446	58,041	1,855,093	1,990,867	97.99%
115	33	3,795	58,074	1,858,888	1,992,058	98.04%
116	30	3,480	58,104	1,862,368	1,993,216	98.10%
117	28	3,276	58,132	1,865,644	1,994,344	98.14%
118	27	3,186	58,159	1,868,830	1,995,444	98.19%
119	17	2,023	58,176	1,870,853	1,996,517	98.22%
120	28	3,360	58,204	1,874,213	1,997,573	98.26%
121	25	3,025	58,229	1,877,238	1,998,601	98.31%
122	21	2,562	58,250	1,879,800	1,999,604	98.34%
123	22	2,706	58,272	1,882,506	2,000,586	98.38%
124	23	2,852	58,295	1,885,358	2,001,546	98.42%
125	20	2,500	58,315	1,887,858	2,002,483	98.45%
126	21	2,646	58,336	1,890,504	2,003,400	98.49%
127	18	2,286	58,354	1,892,790	2,004,296	98.52%
128	14	1,792	58,368	1,894,582	2,005,174	98.54%
129	16	2,064	58,384	1,896,646	2,006,038	98.57%
130	12	1,560	58,396	1,898,206	2,006,886	98.59%
131	12	1,572	58,408	1,899,778	2,007,722	98.61%
132	16	2,112	58,424	1,901,890	2,008,546	98.64%
133	10	1,330	58,434	1,903,220	2,009,354	98.65%
134	21	2,814	58,455	1,906,034	2,010,152	98.69%
135	12	1,620	58,467	1,907,654	2,010,929	98.71%
136	17	2,312	58,484	1,909,966	2,011,694	98.74%
137	15	2,055	58,499	1,912,021	2,012,442	98.76%
138	15	2,070	58,514	1,914,091	2,013,175	98.79%
139	19	2,641	58,533	1,916,732	2,013,893	98.82%
140	8	1,120	58,541	1,917,852	2,014,592	98.83%
141	12	1,692	58,553	1,919,544	2,015,283	98.85%
142	13	1,846	58,566	1,921,390	2,015,962	98.88%
143	13	1,859	58,579	1,923,249	2,016,628	98.90%
144	11	1,584	58,590	1,924,833	2,017,281	98.92%
145	15	2,175	58,605	1,927,008	2,017,923	98.94%
146	15	2,190	58,620	1,929,198	2,018,550	98.97%
147	6	882	58,626	1,930,080	2,019,162	98.98%
148	6	888	58,632	1,930,968	2,019,768	98.99%
149	9	1,341	58,641	1,932,309	2,020,368	99.00%
150	8	1,200	58,649	1,933,509	2,020,959	99.02%
151	13	1,963	58,662	1,935,472	2,021,542	99.04%
152	15	2,280	58,677	1,937,752	2,022,112	99.06%
153	8	1,224	58,685	1,938,976	2,022,667	99.08%
154	8	1,232	58,693	1,940,208	2,023,214	99.09%

155	1	155	58,694	1,940,363	2,023,753	99.09%
156	11	1,716	58,705	1,942,079	2,024,291	99.11%
157	12	1,884	58,717	1,943,963	2,024,818	99.13%
158	8	1,264	58,725	1,945,227	2,025,333	99.14%
159	10	1,590	58,735	1,946,817	2,025,840	99.16%
160	7	1,120	58,742	1,947,937	2,026,337	99.17%
161	8	1,288	58,750	1,949,225	2,026,827	99.19%
162	8	1,296	58,758	1,950,521	2,027,309	99.20%
163	10	1,630	58,768	1,952,151	2,027,783	99.22%
164	4	656	58,772	1,952,807	2,028,247	99.22%
165	7	1,155	58,779	1,953,962	2,028,707	99.24%
166	3	498	58,782	1,954,460	2,029,160	99.24%
167	4	668	58,786	1,955,128	2,029,610	99.25%
168	7	1,176	58,793	1,956,304	2,030,056	99.26%
169	9	1,521	58,802	1,957,825	2,030,495	99.27%
170	3	510	58,805	1,958,335	2,030,925	99.28%
171	2	342	58,807	1,958,677	2,031,352	99.28%
172	6	1,032	58,813	1,959,709	2,031,777	99.29%
173	4	692	58,817	1,960,401	2,032,196	99.30%
174	6	1,044	58,823	1,961,445	2,032,611	99.31%
175	2	350	58,825	1,961,795	2,033,020	99.31%
176	5	880	58,830	1,962,675	2,033,427	99.32%
177	6	1,062	58,836	1,963,737	2,033,829	99.33%
178	7	1,246	58,843	1,964,983	2,034,225	99.34%
179	7	1,253	58,850	1,966,236	2,034,614	99.36%
180	4	720	58,854	1,966,956	2,034,996	99.36%
181	3	543	58,857	1,967,499	2,035,374	99.37%
182	8	1,456	58,865	1,968,955	2,035,749	99.38%
183	2	366	58,867	1,969,321	2,036,116	99.38%
184	7	1,288	58,874	1,970,609	2,036,481	99.40%
185	5	925	58,879	1,971,534	2,036,839	99.40%
186	5	930	58,884	1,972,464	2,037,192	99.41%
187	7	1,309	58,891	1,973,773	2,037,540	99.42%
188	3	564	58,894	1,974,337	2,037,881	99.43%
189	5	945	58,899	1,975,282	2,038,219	99.44%
190	3	570	58,902	1,975,852	2,038,552	99.44%
191	10	1,910	58,912	1,977,762	2,038,882	99.46%
192	5	960	58,917	1,978,722	2,039,202	99.47%
193	5	965	58,922	1,979,687	2,039,517	99.48%
194	7	1,358	58,929	1,981,045	2,039,827	99.49%
195	5	975	58,934	1,982,020	2,040,130	99.50%
196	5	980	58,939	1,983,000	2,040,428	99.51%
197	4	788	58,943	1,983,788	2,040,721	99.51%
198	5	990	58,948	1,984,778	2,041,010	99.52%
199	5	995	58,953	1,985,773	2,041,294	99.53%
200	5	1,000	58,958	1,986,773	2,041,573	99.54%
201	2	402	58,960	1,987,175	2,041,847	99.54%
202	1	202	58,961	1,987,377	2,042,119	99.54%
203	5	1,015	58,966	1,988,392	2,042,390	99.55%
204	4	816	58,970	1,989,208	2,042,656	99.56%
205	2	410	58,972	1,989,618	2,042,918	99.56%
206	2	412	58,974	1,990,030	2,043,178	99.56%
207	6	1,242	58,980	1,991,272	2,043,436	99.57%
208	5	1,040	58,985	1,992,312	2,043,688	99.58%
209	2	418	58,987	1,992,730	2,043,935	99.59%

210	5	1,050	58,992	1,993,780	2,044,180	99.59%
211	3	633	58,995	1,994,413	2,044,420	99.60%
212	3	636	58,998	1,995,049	2,044,657	99.60%
213	2	426	59,000	1,995,475	2,044,891	99.61%
214	3	642	59,003	1,996,117	2,045,123	99.61%
215	3	645	59,006	1,996,762	2,045,352	99.62%
216	1	216	59,007	1,996,978	2,045,578	99.62%
217	3	651	59,010	1,997,629	2,045,803	99.63%
218	3	654	59,013	1,998,283	2,046,025	99.63%
219	2	438	59,015	1,998,721	2,046,244	99.63%
220	3	660	59,018	1,999,381	2,046,461	99.64%
221	2	442	59,020	1,999,823	2,046,675	99.64%
222	1	222	59,021	2,000,045	2,046,887	99.64%
224	3	672	59,024	2,000,717	2,047,309	99.65%
225	1	225	59,025	2,000,942	2,047,517	99.65%
226	2	452	59,027	2,001,394	2,047,724	99.65%
228	2	456	59,029	2,001,850	2,048,134	99.66%
229	3	687	59,032	2,002,537	2,048,337	99.66%
230	1	230	59,033	2,002,767	2,048,537	99.66%
231	2	462	59,035	2,003,229	2,048,736	99.67%
232	2	464	59,037	2,003,693	2,048,933	99.67%
233	4	932	59,041	2,004,625	2,049,128	99.68%
234	2	468	59,043	2,005,093	2,049,319	99.68%
237	2	474	59,045	2,005,567	2,049,886	99.68%
238	1	238	59,046	2,005,805	2,050,073	99.69%
239	1	239	59,047	2,006,044	2,050,259	99.69%
241	2	482	59,049	2,006,526	2,050,629	99.69%
242	2	484	59,051	2,007,010	2,050,812	99.69%
244	1	244	59,052	2,007,254	2,051,174	99.70%
245	5	1,225	59,057	2,008,479	2,051,354	99.70%
246	2	492	59,059	2,008,971	2,051,529	99.71%
247	4	988	59,063	2,009,959	2,051,702	99.71%
248	4	992	59,067	2,010,951	2,051,871	99.72%
249	1	249	59,068	2,011,200	2,052,036	99.72%
250	2	500	59,070	2,011,700	2,052,200	99.73%
251	1	251	59,071	2,011,951	2,052,362	99.73%
253	1	253	59,072	2,012,204	2,052,684	99.73%
254	1	254	59,073	2,012,458	2,052,844	99.73%
255	2	510	59,075	2,012,968	2,053,003	99.73%
256	2	512	59,077	2,013,480	2,053,160	99.74%
257	1	257	59,078	2,013,737	2,053,315	99.74%
259	4	1,036	59,082	2,014,773	2,053,623	99.75%
260	1	260	59,083	2,015,033	2,053,773	99.75%
261	1	261	59,084	2,015,294	2,053,922	99.75%
262	1	262	59,085	2,015,556	2,054,070	99.75%
263	2	526	59,087	2,016,082	2,054,217	99.76%
266	2	532	59,089	2,016,614	2,054,652	99.76%
267	1	267	59,090	2,016,881	2,054,795	99.76%
268	2	536	59,092	2,017,417	2,054,937	99.76%
269	3	807	59,095	2,018,224	2,055,077	99.77%
272	2	544	59,097	2,018,768	2,055,488	99.77%
274	1	274	59,098	2,019,042	2,055,758	99.77%
275	1	275	59,099	2,019,317	2,055,892	99.78%
277	1	277	59,100	2,019,594	2,056,158	99.78%
278	1	278	59,101	2,019,872	2,056,290	99.78%

279	3	837	59,104	2,020,709	2,056,421	99.78%
280	2	560	59,106	2,021,269	2,056,549	99.79%
281	1	281	59,107	2,021,550	2,056,675	99.79%
282	(1)	(282)	59,106	2,021,268	2,056,800	99.79%
284	1	284	59,107	2,021,552	2,057,052	99.79%
285	2	570	59,109	2,022,122	2,057,177	99.79%
286	1	286	59,110	2,022,408	2,057,300	99.79%
288	1	288	59,111	2,022,696	2,057,544	99.80%
290	1	290	59,112	2,022,986	2,057,786	99.80%
291	1	291	59,113	2,023,277	2,057,906	99.80%
292	1	292	59,114	2,023,569	2,058,025	99.80%
294	1	294	59,115	2,023,863	2,058,261	99.80%
295	(1)	(295)	59,114	2,023,568	2,058,378	99.80%
298	1	298	59,115	2,023,866	2,058,732	99.80%
299	1	299	59,116	2,024,165	2,058,849	99.80%
300	3	900	59,119	2,025,065	2,058,965	99.81%
302	1	302	59,120	2,025,367	2,059,191	99.81%
308	1	308	59,121	2,025,675	2,059,863	99.81%
309	2	618	59,123	2,026,293	2,059,974	99.82%
311	1	311	59,124	2,026,604	2,060,192	99.82%
314	-	-	59,124	2,026,604	2,060,516	99.82%
315	1	315	59,125	2,026,919	2,060,624	99.82%
317	2	634	59,127	2,027,553	2,060,838	99.82%
318	1	318	59,128	2,027,871	2,060,943	99.82%
320	1	320	59,129	2,028,191	2,061,151	99.83%
324	1	324	59,130	2,028,515	2,061,563	99.83%
326	2	652	59,132	2,029,167	2,061,767	99.83%
327	1	327	59,133	2,029,494	2,061,867	99.83%
330	1	330	59,134	2,029,824	2,062,164	99.83%
331	1	331	59,135	2,030,155	2,062,262	99.84%
334	2	668	59,137	2,030,823	2,062,553	99.84%
335	1	335	59,138	2,031,158	2,062,648	99.84%
340	1	340	59,139	2,031,498	2,063,118	99.84%
341	1	341	59,140	2,031,839	2,063,211	99.84%
342	-	-	59,140	2,031,839	2,063,303	99.84%
343	1	343	59,141	2,032,182	2,063,395	99.85%
344	1	344	59,142	2,032,526	2,063,486	99.85%
345	1	345	59,143	2,032,871	2,063,576	99.85%
352	(1)	(352)	59,142	2,032,519	2,064,199	99.85%
353	1	353	59,143	2,032,872	2,064,289	99.85%
354	1	354	59,144	2,033,226	2,064,378	99.85%
355	1	355	59,145	2,033,581	2,064,466	99.85%
358	1	358	59,146	2,033,939	2,064,727	99.85%
359	2	718	59,148	2,034,657	2,064,813	99.86%
361	1	361	59,149	2,035,018	2,064,981	99.86%
362	2	724	59,151	2,035,742	2,065,064	99.86%
363	2	726	59,153	2,036,468	2,065,145	99.87%
365	1	365	59,154	2,036,833	2,065,303	99.87%
366	1	366	59,155	2,037,199	2,065,381	99.87%
368	1	368	59,156	2,037,567	2,065,535	99.87%
374	1	374	59,157	2,037,941	2,065,991	99.87%
375	1	375	59,158	2,038,316	2,066,066	99.88%
376	1	376	59,159	2,038,692	2,066,140	99.88%
377	1	377	59,160	2,039,069	2,066,213	99.88%
384	1	384	59,161	2,039,453	2,066,717	99.88%

385	1	385	59,162	2,039,838	2,066,788	99.88%
387	1	387	59,163	2,040,225	2,066,928	99.88%
389	1	389	59,164	2,040,614	2,067,066	99.89%
390	1	390	59,165	2,041,004	2,067,134	99.89%
391	1	391	59,166	2,041,395	2,067,201	99.89%
393	1	393	59,167	2,041,788	2,067,333	99.89%
394	2	788	59,169	2,042,576	2,067,398	99.89%
398	1	398	59,170	2,042,974	2,067,650	99.90%
399	1	399	59,171	2,043,373	2,067,712	99.90%
400	1	400	59,172	2,043,773	2,067,773	99.90%
401	1	401	59,173	2,044,174	2,067,833	99.90%
406	1	406	59,174	2,044,580	2,068,128	99.90%
415	1	415	59,175	2,044,995	2,068,650	99.90%
417	1	417	59,176	2,045,412	2,068,764	99.91%
423	1	423	59,177	2,045,835	2,069,100	99.91%
424	1	424	59,178	2,046,259	2,069,155	99.91%
427	1	427	59,179	2,046,686	2,069,317	99.91%
429	-	-	59,179	2,046,686	2,069,423	99.91%
431	1	431	59,180	2,047,117	2,069,529	99.91%
432	1	432	59,181	2,047,549	2,069,581	99.91%
437	1	437	59,182	2,047,986	2,069,836	99.92%
438	2	876	59,184	2,048,862	2,069,886	99.92%
439	3	1,317	59,187	2,050,179	2,069,934	99.92%
448	2	896	59,189	2,051,075	2,070,339	99.93%
450	1	450	59,190	2,051,525	2,070,425	99.93%
453	1	453	59,191	2,051,978	2,070,551	99.93%
454	2	908	59,193	2,052,886	2,070,592	99.93%
456	(1)	(456)	59,192	2,052,430	2,070,670	99.93%
457	1	457	59,193	2,052,887	2,070,710	99.93%
462	1	462	59,194	2,053,349	2,070,905	99.94%
464	-	-	59,194	2,053,349	2,070,981	99.94%
473	1	473	59,195	2,053,822	2,071,323	99.94%
475	1	475	59,196	2,054,297	2,071,397	99.94%
484	1	484	59,197	2,054,781	2,071,721	99.94%
489	1	489	59,198	2,055,270	2,071,896	99.94%
493	2	986	59,200	2,056,256	2,072,032	99.95%
495	2	990	59,202	2,057,246	2,072,096	99.95%
500	1	500	59,203	2,057,746	2,072,246	99.95%
506	1	506	59,204	2,058,252	2,072,420	99.95%
507	1	507	59,205	2,058,759	2,072,448	99.95%
509	1	509	59,206	2,059,268	2,072,502	99.96%
518	(1)	(518)	59,205	2,058,750	2,072,736	99.95%
527	1	527	59,206	2,059,277	2,072,979	99.96%
538	1	538	59,207	2,059,815	2,073,265	99.96%
541	1	541	59,208	2,060,356	2,073,340	99.96%
544	1	544	59,209	2,060,900	2,073,412	99.96%
547	1	547	59,210	2,061,447	2,073,481	99.96%
548	1	548	59,211	2,061,995	2,073,503	99.96%
555	1	555	59,212	2,062,550	2,073,650	99.97%
578	1	578	59,213	2,063,128	2,074,110	99.97%
580	1	580	59,214	2,063,708	2,074,148	99.97%
581	1	581	59,215	2,064,289	2,074,166	99.97%
584	1	584	59,216	2,064,873	2,074,217	99.97%
586	1	586	59,217	2,065,459	2,074,249	99.97%
600	1	600	59,218	2,066,059	2,074,459	99.98%

601	1	601	59,219	2,066,660	2,074,473	99.98%
607	1	607	59,220	2,067,267	2,074,551	99.98%
609	(1)	(609)	59,219	2,066,658	2,074,575	99.98%
631	1	631	59,220	2,067,289	2,074,861	99.98%
638	(1)	(638)	59,219	2,066,651	2,074,945	99.98%
654	1	654	59,220	2,067,305	2,075,153	99.98%
689	1	689	59,221	2,067,994	2,075,573	99.98%
724	1	724	59,222	2,068,718	2,075,958	99.98%
734	1	734	59,223	2,069,452	2,076,058	99.98%
757	1	757	59,224	2,070,209	2,076,265	99.99%
770	1	770	59,225	2,070,979	2,076,369	99.99%
904	1	904	59,226	2,071,883	2,077,307	99.99%
999	(1)	(999)	59,225	2,070,884	2,077,877	99.99%
1,003	1	1,003	59,226	2,071,887	2,077,905	99.99%
1,516	1	1,516	59,227	2,073,403	2,080,983	99.99%
1,618	2	3,236	59,229	2,076,639	2,081,493	99.99%
1,683	1	1,683	59,230	2,078,322	2,081,688	100.00%
1,807	1	1,807	59,231	2,080,129	2,081,936	100.00%
2,375	1	2,375	59,232	2,082,504	2,082,504	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF SEPTEMBER 2023
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	1,667	-	1,667	-	-	2.83%
1	460	460	2,127	460	57,152	3.62%
2	279	558	2,406	1,018	113,844	4.09%
3	344	1,032	2,750	2,050	170,257	4.68%
4	349	1,396	3,099	3,446	226,326	5.27%
5	389	1,945	3,488	5,391	282,046	5.93%
6	524	3,144	4,012	8,535	337,377	6.82%
7	635	4,445	4,647	12,980	392,184	7.90%
8	739	5,912	5,386	18,892	446,356	9.16%
9	798	7,182	6,184	26,074	499,789	10.51%
10	948	9,480	7,132	35,554	552,424	12.13%
11	979	10,769	8,111	46,323	604,111	13.79%
12	1,045	12,540	9,156	58,863	654,819	15.57%
13	1,107	14,391	10,263	73,254	704,482	17.45%
14	1,045	14,630	11,308	87,884	753,038	19.23%
15	1,122	16,830	12,430	104,714	800,549	21.13%
16	1,133	18,128	13,563	122,842	846,938	23.06%
17	1,145	19,465	14,708	142,307	892,194	25.01%
18	1,248	22,464	15,956	164,771	936,305	27.13%
19	1,191	22,629	17,147	187,400	979,168	29.15%
20	1,219	24,380	18,366	211,780	1,020,840	31.22%
21	1,213	25,473	19,579	237,253	1,061,293	33.29%
22	1,253	27,566	20,832	264,819	1,100,533	35.42%
23	1,275	29,325	22,107	294,144	1,138,520	37.58%
24	1,220	29,280	23,327	323,424	1,175,232	39.66%
25	1,231	30,775	24,558	354,199	1,210,724	41.75%
26	1,239	32,214	25,797	386,413	1,244,985	43.86%
27	1,190	32,130	26,987	418,543	1,278,007	45.88%
28	1,208	33,824	28,195	452,367	1,309,839	47.94%
29	1,200	34,800	29,395	487,167	1,340,463	49.98%
30	1,169	35,070	30,564	522,237	1,369,887	51.96%
31	1,169	36,239	31,733	558,476	1,398,142	53.95%
32	1,080	34,560	32,813	593,036	1,425,228	55.79%
33	1,063	35,079	33,876	628,115	1,451,234	57.59%
34	1,010	34,340	34,886	662,455	1,476,177	59.31%
35	1,025	35,875	35,911	698,330	1,500,110	61.05%
36	950	34,200	36,861	732,530	1,523,018	62.67%
37	889	32,893	37,750	765,423	1,544,976	64.18%
38	919	34,922	38,669	800,345	1,566,045	65.74%
39	843	32,877	39,512	833,222	1,586,195	67.18%
40	779	31,160	40,291	864,382	1,605,502	68.50%
41	850	34,850	41,141	899,232	1,624,030	69.95%
42	787	33,054	41,928	932,286	1,641,708	71.28%
43	738	31,734	42,666	964,020	1,658,599	72.54%
44	717	31,548	43,383	995,568	1,674,752	73.76%

45	681	30,645	44,064	1,026,213	1,690,188	74.91%
46	647	29,762	44,711	1,055,975	1,704,943	76.01%
47	595	27,965	45,306	1,083,940	1,719,051	77.03%
48	569	27,312	45,875	1,111,252	1,732,564	77.99%
49	568	27,832	46,443	1,139,084	1,745,508	78.96%
50	509	25,450	46,952	1,164,534	1,757,884	79.82%
51	566	28,866	47,518	1,193,400	1,769,751	80.79%
52	488	25,376	48,006	1,218,776	1,781,052	81.62%
53	493	26,129	48,499	1,244,905	1,791,865	82.45%
54	439	23,706	48,938	1,268,611	1,802,185	83.20%
55	427	23,485	49,365	1,292,096	1,812,066	83.93%
56	395	22,120	49,760	1,314,216	1,821,520	84.60%
57	372	21,204	50,132	1,335,420	1,830,579	85.23%
58	365	21,170	50,497	1,356,590	1,839,266	85.85%
59	313	18,467	50,810	1,375,057	1,847,588	86.38%
60	306	18,360	51,116	1,393,417	1,855,597	86.90%
61	305	18,605	51,421	1,412,022	1,863,300	87.42%
62	303	18,786	51,724	1,430,808	1,870,698	87.94%
63	330	20,790	52,054	1,451,598	1,877,793	88.50%
64	290	18,560	52,344	1,470,158	1,884,558	88.99%
65	247	16,055	52,591	1,486,213	1,891,033	89.41%
66	261	17,226	52,852	1,503,439	1,897,261	89.86%
67	234	15,678	53,086	1,519,117	1,903,228	90.25%
68	198	13,464	53,284	1,532,581	1,908,961	90.59%
69	219	15,111	53,503	1,547,692	1,914,496	90.96%
70	202	14,140	53,705	1,561,832	1,919,812	91.31%
71	188	13,348	53,893	1,575,180	1,924,926	91.63%
72	190	13,680	54,083	1,588,860	1,929,852	91.95%
73	182	13,286	54,265	1,602,146	1,934,588	92.26%
74	167	12,358	54,432	1,614,504	1,939,142	92.54%
75	156	11,700	54,588	1,626,204	1,943,529	92.81%
76	170	12,920	54,758	1,639,124	1,947,760	93.10%
77	165	12,705	54,923	1,651,829	1,951,821	93.38%
78	156	12,168	55,079	1,663,997	1,955,717	93.64%
79	124	9,796	55,203	1,673,793	1,959,457	93.85%
80	107	8,560	55,310	1,682,353	1,963,073	94.03%
81	115	9,315	55,425	1,691,668	1,966,582	94.23%
82	102	8,364	55,527	1,700,032	1,969,976	94.40%
83	113	9,379	55,640	1,709,411	1,973,268	94.60%
84	101	8,484	55,741	1,717,895	1,976,447	94.77%
85	106	9,010	55,847	1,726,905	1,979,525	94.95%
86	118	10,148	55,965	1,737,053	1,982,497	95.15%
87	97	8,439	56,062	1,745,492	1,985,351	95.31%
88	77	6,776	56,139	1,752,268	1,988,108	95.44%
89	80	7,120	56,219	1,759,388	1,990,788	95.58%
90	88	7,920	56,307	1,767,308	1,993,388	95.73%
91	69	6,279	56,376	1,773,587	1,995,900	95.85%
92	68	6,256	56,444	1,779,843	1,998,343	95.96%
93	73	6,789	56,517	1,786,632	2,000,718	96.09%
94	75	7,050	56,592	1,793,682	2,003,020	96.21%
95	57	5,415	56,649	1,799,097	2,005,247	96.31%
96	62	5,952	56,711	1,805,049	2,007,417	96.42%
97	53	5,141	56,764	1,810,190	2,009,525	96.51%
98	59	5,782	56,823	1,815,972	2,011,580	96.61%
99	64	6,336	56,887	1,822,308	2,013,576	96.72%

100	49	4,900	56,936	1,827,208	2,015,508	96.80%
101	63	6,363	56,999	1,833,571	2,017,391	96.91%
102	47	4,794	57,046	1,838,365	2,019,211	96.99%
103	34	3,502	57,080	1,841,867	2,020,984	97.04%
104	45	4,680	57,125	1,846,547	2,022,723	97.12%
105	49	5,145	57,174	1,851,692	2,024,417	97.20%
106	63	6,678	57,237	1,858,370	2,026,062	97.31%
107	38	4,066	57,275	1,862,436	2,027,644	97.37%
108	43	4,644	57,318	1,867,080	2,029,188	97.45%
109	30	3,270	57,348	1,870,350	2,030,689	97.50%
110	40	4,400	57,388	1,874,750	2,032,160	97.57%
111	36	3,996	57,424	1,878,746	2,033,591	97.63%
112	22	2,464	57,446	1,881,210	2,034,986	97.67%
113	40	4,520	57,486	1,885,730	2,036,359	97.73%
114	33	3,762	57,519	1,889,492	2,037,692	97.79%
115	31	3,565	57,550	1,893,057	2,038,992	97.84%
116	40	4,640	57,590	1,897,697	2,040,261	97.91%
117	33	3,861	57,623	1,901,558	2,041,490	97.97%
118	24	2,832	57,647	1,904,390	2,042,686	98.01%
119	30	3,570	57,677	1,907,960	2,043,858	98.06%
120	30	3,600	57,707	1,911,560	2,045,000	98.11%
121	16	1,936	57,723	1,913,496	2,046,112	98.14%
122	25	3,050	57,748	1,916,546	2,047,208	98.18%
123	22	2,706	57,770	1,919,252	2,048,279	98.22%
124	19	2,356	57,789	1,921,608	2,049,328	98.25%
125	19	2,375	57,808	1,923,983	2,050,358	98.28%
126	21	2,646	57,829	1,926,629	2,051,369	98.32%
127	22	2,794	57,851	1,929,423	2,052,359	98.35%
128	16	2,048	57,867	1,931,471	2,053,327	98.38%
129	22	2,838	57,889	1,934,309	2,054,279	98.42%
130	14	1,820	57,903	1,936,129	2,055,209	98.44%
131	24	3,144	57,927	1,939,273	2,056,125	98.48%
132	26	3,432	57,953	1,942,705	2,057,017	98.53%
133	24	3,192	57,977	1,945,897	2,057,883	98.57%
134	12	1,608	57,989	1,947,505	2,058,725	98.59%
135	19	2,565	58,008	1,950,070	2,059,555	98.62%
136	16	2,176	58,024	1,952,246	2,060,366	98.65%
137	12	1,644	58,036	1,953,890	2,061,161	98.67%
138	20	2,760	58,056	1,956,650	2,061,944	98.70%
139	18	2,502	58,074	1,959,152	2,062,707	98.73%
140	13	1,820	58,087	1,960,972	2,063,452	98.76%
141	18	2,538	58,105	1,963,510	2,064,184	98.79%
142	16	2,272	58,121	1,965,782	2,064,898	98.81%
143	13	1,859	58,134	1,967,641	2,065,596	98.84%
144	11	1,584	58,145	1,969,225	2,066,281	98.85%
145	12	1,740	58,157	1,970,965	2,066,955	98.87%
146	18	2,628	58,175	1,973,593	2,067,617	98.91%
147	11	1,617	58,186	1,975,210	2,068,261	98.92%
148	9	1,332	58,195	1,976,542	2,068,894	98.94%
149	18	2,682	58,213	1,979,224	2,069,518	98.97%
150	9	1,350	58,222	1,980,574	2,070,124	98.99%
151	5	755	58,227	1,981,329	2,070,721	98.99%
152	11	1,672	58,238	1,983,001	2,071,313	99.01%
153	6	918	58,244	1,983,919	2,071,894	99.02%
154	7	1,078	58,251	1,984,997	2,072,469	99.03%

155	8	1,240	58,259	1,986,237	2,073,037	99.05%
156	8	1,248	58,267	1,987,485	2,073,597	99.06%
157	10	1,570	58,277	1,989,055	2,074,149	99.08%
158	7	1,106	58,284	1,990,161	2,074,691	99.09%
159	11	1,749	58,295	1,991,910	2,075,226	99.11%
160	4	640	58,299	1,992,550	2,075,750	99.12%
161	7	1,127	58,306	1,993,677	2,076,270	99.13%
162	8	1,296	58,314	1,994,973	2,076,783	99.14%
163	5	815	58,319	1,995,788	2,077,288	99.15%
164	6	984	58,325	1,996,772	2,077,788	99.16%
165	6	990	58,331	1,997,762	2,078,282	99.17%
166	12	1,992	58,343	1,999,754	2,078,770	99.19%
167	5	835	58,348	2,000,589	2,079,246	99.20%
168	6	1,008	58,354	2,001,597	2,079,717	99.21%
169	6	1,014	58,360	2,002,611	2,080,182	99.22%
170	5	850	58,365	2,003,461	2,080,641	99.23%
171	3	513	58,368	2,003,974	2,081,095	99.23%
172	9	1,548	58,377	2,005,522	2,081,546	99.25%
173	7	1,211	58,384	2,006,733	2,081,988	99.26%
174	6	1,044	58,390	2,007,777	2,082,423	99.27%
175	5	875	58,395	2,008,652	2,082,852	99.28%
176	7	1,232	58,402	2,009,884	2,083,276	99.29%
177	4	708	58,406	2,010,592	2,083,693	99.30%
178	11	1,958	58,417	2,012,550	2,084,106	99.32%
179	10	1,790	58,427	2,014,340	2,084,508	99.33%
180	3	540	58,430	2,014,880	2,084,900	99.34%
181	7	1,267	58,437	2,016,147	2,085,289	99.35%
182	4	728	58,441	2,016,875	2,085,671	99.36%
183	5	915	58,446	2,017,790	2,086,049	99.37%
184	5	920	58,451	2,018,710	2,086,422	99.37%
185	7	1,295	58,458	2,020,005	2,086,790	99.39%
186	5	930	58,463	2,020,935	2,087,151	99.39%
187	3	561	58,466	2,021,496	2,087,507	99.40%
188	2	376	58,468	2,021,872	2,087,860	99.40%
189	7	1,323	58,475	2,023,195	2,088,211	99.42%
190	6	1,140	58,481	2,024,335	2,088,555	99.43%
191	2	382	58,483	2,024,717	2,088,893	99.43%
192	5	960	58,488	2,025,677	2,089,229	99.44%
193	3	579	58,491	2,026,256	2,089,560	99.44%
194	2	388	58,493	2,026,644	2,089,888	99.45%
195	5	975	58,498	2,027,619	2,090,214	99.45%
196	3	588	58,501	2,028,207	2,090,535	99.46%
197	4	788	58,505	2,028,995	2,090,853	99.47%
198	1	198	58,506	2,029,193	2,091,167	99.47%
199	4	796	58,510	2,029,989	2,091,480	99.47%
200	5	1,000	58,515	2,030,989	2,091,789	99.48%
201	3	603	58,518	2,031,592	2,092,093	99.49%
203	4	812	58,522	2,032,404	2,092,695	99.50%
204	1	204	58,523	2,032,608	2,092,992	99.50%
205	3	615	58,526	2,033,223	2,093,288	99.50%
206	4	824	58,530	2,034,047	2,093,581	99.51%
207	1	207	58,531	2,034,254	2,093,870	99.51%
208	5	1,040	58,536	2,035,294	2,094,158	99.52%
209	7	1,463	58,543	2,036,757	2,094,441	99.53%
210	3	630	58,546	2,037,387	2,094,717	99.54%

211	6	1,266	58,552	2,038,653	2,094,990	99.55%
212	5	1,060	58,557	2,039,713	2,095,257	99.55%
213	2	426	58,559	2,040,139	2,095,519	99.56%
214	2	428	58,561	2,040,567	2,095,779	99.56%
215	1	215	58,562	2,040,782	2,096,037	99.56%
216	2	432	58,564	2,041,214	2,096,294	99.57%
217	2	434	58,566	2,041,648	2,096,549	99.57%
218	4	872	58,570	2,042,520	2,096,802	99.58%
219	2	438	58,572	2,042,958	2,097,051	99.58%
220	4	880	58,576	2,043,838	2,097,298	99.59%
221	2	442	58,578	2,044,280	2,097,541	99.59%
222	4	888	58,582	2,045,168	2,097,782	99.60%
224	4	896	58,586	2,046,064	2,098,256	99.60%
225	2	450	58,588	2,046,514	2,098,489	99.61%
226	2	452	58,590	2,046,966	2,098,720	99.61%
227	3	681	58,593	2,047,647	2,098,949	99.62%
228	3	684	58,596	2,048,331	2,099,175	99.62%
229	2	458	58,598	2,048,789	2,099,398	99.62%
230	2	460	58,600	2,049,249	2,099,619	99.63%
231	2	462	58,602	2,049,711	2,099,838	99.63%
232	3	696	58,605	2,050,407	2,100,055	99.64%
233	-	-	58,605	2,050,407	2,100,269	99.64%
234	4	936	58,609	2,051,343	2,100,483	99.64%
235	3	705	58,612	2,052,048	2,100,693	99.65%
237	2	474	58,614	2,052,522	2,101,107	99.65%
238	3	714	58,617	2,053,236	2,101,312	99.66%
239	2	478	58,619	2,053,714	2,101,514	99.66%
241	4	964	58,623	2,054,678	2,101,914	99.67%
243	3	729	58,626	2,055,407	2,102,306	99.67%
245	2	490	58,628	2,055,897	2,102,692	99.68%
246	3	738	58,631	2,056,635	2,102,883	99.68%
247	2	494	58,633	2,057,129	2,103,071	99.68%
248	3	744	58,636	2,057,873	2,103,257	99.69%
250	7	1,750	58,643	2,059,623	2,103,623	99.70%
252	6	1,512	58,649	2,061,135	2,103,975	99.71%
253	-	-	58,649	2,061,135	2,104,145	99.71%
255	1	255	58,650	2,061,390	2,104,485	99.71%
258	2	516	58,652	2,061,906	2,104,992	99.72%
259	1	259	58,653	2,062,165	2,105,159	99.72%
260	2	520	58,655	2,062,685	2,105,325	99.72%
261	2	522	58,657	2,063,207	2,105,489	99.72%
264	1	264	58,658	2,063,471	2,105,975	99.73%
265	2	530	58,660	2,064,001	2,106,136	99.73%
267	2	534	58,662	2,064,535	2,106,454	99.73%
269	1	269	58,663	2,064,804	2,106,768	99.73%
270	1	270	58,664	2,065,074	2,106,924	99.74%
271	2	542	58,666	2,065,616	2,107,079	99.74%
273	1	273	58,667	2,065,889	2,107,385	99.74%
274	1	274	58,668	2,066,163	2,107,537	99.74%
275	1	275	58,669	2,066,438	2,107,688	99.74%
278	1	278	58,670	2,066,716	2,108,138	99.75%
280	1	280	58,671	2,066,996	2,108,436	99.75%
281	1	281	58,672	2,067,277	2,108,584	99.75%
282	2	564	58,674	2,067,841	2,108,731	99.75%
285	1	285	58,675	2,068,126	2,109,166	99.76%

286	1	286	58,676	2,068,412	2,109,310	99.76%
288	2	576	58,678	2,068,988	2,109,596	99.76%
290	2	580	58,680	2,069,568	2,109,878	99.76%
291	2	582	58,682	2,070,150	2,110,017	99.77%
292	1	292	58,683	2,070,442	2,110,154	99.77%
293	3	879	58,686	2,071,321	2,110,290	99.77%
294	1	294	58,687	2,071,615	2,110,423	99.78%
295	3	885	58,690	2,072,500	2,110,555	99.78%
296	1	296	58,691	2,072,796	2,110,684	99.78%
297	2	594	58,693	2,073,390	2,110,812	99.79%
301	1	301	58,694	2,073,691	2,111,316	99.79%
302	3	906	58,697	2,074,597	2,111,441	99.79%
303	1	303	58,698	2,074,900	2,111,563	99.79%
306	1	306	58,699	2,075,206	2,111,926	99.80%
307	1	307	58,700	2,075,513	2,112,046	99.80%
308	1	308	58,701	2,075,821	2,112,165	99.80%
309	1	309	58,702	2,076,130	2,112,283	99.80%
311	1	311	58,703	2,076,441	2,112,517	99.80%
312	1	312	58,704	2,076,753	2,112,633	99.80%
313	1	313	58,705	2,077,066	2,112,748	99.81%
318	3	954	58,708	2,078,020	2,113,318	99.81%
320	1	320	58,709	2,078,340	2,113,540	99.81%
322	1	322	58,710	2,078,662	2,113,760	99.81%
323	1	323	58,711	2,078,985	2,113,869	99.82%
326	1	326	58,712	2,079,311	2,114,193	99.82%
328	1	328	58,713	2,079,639	2,114,407	99.82%
329	1	329	58,714	2,079,968	2,114,513	99.82%
331	1	331	58,715	2,080,299	2,114,723	99.82%
332	1	332	58,716	2,080,631	2,114,827	99.82%
333	-	-	58,716	2,080,631	2,114,930	99.82%
336	1	336	58,717	2,080,967	2,115,239	99.83%
340	1	340	58,718	2,081,307	2,115,647	99.83%
341	1	341	58,719	2,081,648	2,115,748	99.83%
342	3	1,026	58,722	2,082,674	2,115,848	99.84%
343	1	343	58,723	2,083,017	2,115,945	99.84%
344	1	344	58,724	2,083,361	2,116,041	99.84%
345	2	690	58,726	2,084,051	2,116,136	99.84%
348	2	696	58,728	2,084,747	2,116,415	99.85%
349	1	349	58,729	2,085,096	2,116,506	99.85%
350	2	700	58,731	2,085,796	2,116,596	99.85%
351	-	-	58,731	2,085,796	2,116,684	99.85%
352	1	352	58,732	2,086,148	2,116,772	99.85%
359	1	359	58,733	2,086,507	2,117,381	99.85%
361	1	361	58,734	2,086,868	2,117,553	99.86%
362	2	724	58,736	2,087,592	2,117,638	99.86%
364	2	728	58,738	2,088,320	2,117,804	99.86%
365	1	365	58,739	2,088,685	2,117,885	99.86%
367	1	367	58,740	2,089,052	2,118,045	99.87%
376	1	376	58,741	2,089,428	2,118,756	99.87%
379	3	1,137	58,744	2,090,565	2,118,990	99.87%
380	1	380	58,745	2,090,945	2,119,065	99.87%
381	2	762	58,747	2,091,707	2,119,139	99.88%
382	2	764	58,749	2,092,471	2,119,211	99.88%
386	1	386	58,750	2,092,857	2,119,491	99.88%
389	1	389	58,751	2,093,246	2,119,698	99.88%

390	2	780	58,753	2,094,026	2,119,766	99.89%
391	1	391	58,754	2,094,417	2,119,832	99.89%
396	1	396	58,755	2,094,813	2,120,157	99.89%
401	-	-	58,755	2,094,813	2,120,477	99.89%
403	1	403	58,756	2,095,216	2,120,605	99.89%
405	1	405	58,757	2,095,621	2,120,731	99.89%
406	1	406	58,758	2,096,027	2,120,793	99.90%
408	1	408	58,759	2,096,435	2,120,915	99.90%
425	1	425	58,760	2,096,860	2,121,935	99.90%
432	1	432	58,761	2,097,292	2,122,348	99.90%
435	1	435	58,762	2,097,727	2,122,522	99.90%
437	1	437	58,763	2,098,164	2,122,636	99.90%
439	(1)	(439)	58,762	2,097,725	2,122,748	99.90%
440	1	440	58,763	2,098,165	2,122,805	99.90%
441	1	441	58,764	2,098,606	2,122,861	99.91%
447	1	447	58,765	2,099,053	2,123,191	99.91%
452	1	452	58,766	2,099,505	2,123,461	99.91%
454	1	454	58,767	2,099,959	2,123,567	99.91%
459	1	459	58,768	2,100,418	2,123,827	99.91%
460	1	460	58,769	2,100,878	2,123,878	99.91%
469	1	469	58,770	2,101,347	2,124,328	99.92%
471	1	471	58,771	2,101,818	2,124,426	99.92%
480	1	480	58,772	2,102,298	2,124,858	99.92%
482	1	482	58,773	2,102,780	2,124,952	99.92%
484	(1)	(484)	58,772	2,102,296	2,125,044	99.92%
486	1	486	58,773	2,102,782	2,125,138	99.92%
489	1	489	58,774	2,103,271	2,125,276	99.92%
497	1	497	58,775	2,103,768	2,125,636	99.93%
504	1	504	58,776	2,104,272	2,125,944	99.93%
511	2	1,022	58,778	2,105,294	2,126,245	99.93%
517	1	517	58,779	2,105,811	2,126,491	99.93%
521	1	521	58,780	2,106,332	2,126,651	99.93%
522	1	522	58,781	2,106,854	2,126,690	99.94%
552	1	552	58,782	2,107,406	2,127,830	99.94%
561	2	1,122	58,784	2,108,528	2,128,163	99.94%
566	1	566	58,785	2,109,094	2,128,338	99.94%
575	1	575	58,786	2,109,669	2,128,644	99.94%
580	1	580	58,787	2,110,249	2,128,809	99.95%
591	1	591	58,788	2,110,840	2,129,161	99.95%
592	1	592	58,789	2,111,432	2,129,192	99.95%
597	1	597	58,790	2,112,029	2,129,342	99.95%
602	1	602	58,791	2,112,631	2,129,487	99.95%
620	1	620	58,792	2,113,251	2,129,991	99.95%
629	1	629	58,793	2,113,880	2,130,234	99.96%
633	1	633	58,794	2,114,513	2,130,338	99.96%
671	1	671	58,795	2,115,184	2,131,288	99.96%
676	1	676	58,796	2,115,860	2,131,408	99.96%
686	1	686	58,797	2,116,546	2,131,638	99.96%
692	1	692	58,798	2,117,238	2,131,770	99.96%
726	1	726	58,799	2,117,964	2,132,484	99.97%
746	1	746	58,800	2,118,710	2,132,884	99.97%
759	1	759	58,801	2,119,469	2,133,131	99.97%
765	1	765	58,802	2,120,234	2,133,239	99.97%
766	1	766	58,803	2,121,000	2,133,256	99.97%
769	1	769	58,804	2,121,769	2,133,304	99.97%

784	1	784	58,805	2,122,553	2,133,529	99.98%
790	1	790	58,806	2,123,343	2,133,613	99.98%
806	1	806	58,807	2,124,149	2,133,821	99.98%
840	1	840	58,808	2,124,989	2,134,229	99.98%
862	1	862	58,809	2,125,851	2,134,471	99.98%
884	1	884	58,810	2,126,735	2,134,691	99.98%
917	1	917	58,811	2,127,652	2,134,988	99.99%
1,012	1	1,012	58,812	2,128,664	2,135,748	99.99%
1,022	1	1,022	58,813	2,129,686	2,135,818	99.99%
1,042	1	1,042	58,814	2,130,728	2,135,938	99.99%
1,065	1	1,065	58,815	2,131,793	2,136,053	99.99%
1,438	1	1,438	58,816	2,133,231	2,137,545	99.99%
1,645	1	1,645	58,817	2,134,876	2,138,166	100.00%
1,722	1	1,722	58,818	2,136,598	2,138,320	100.00%
2,981	1	2,981	58,819	2,139,579	2,139,579	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF OCTOBER 2023
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	1,511	-	1,511	-	-	2.56%
1	422	422	1,933	422	57,420	3.28%
2	321	642	2,254	1,064	114,418	3.82%
3	353	1,059	2,607	2,123	171,095	4.42%
4	380	1,520	2,987	3,643	227,419	5.07%
5	475	2,375	3,462	6,018	283,363	5.87%
6	561	3,366	4,023	9,384	338,832	6.83%
7	709	4,963	4,732	14,347	393,740	8.03%
8	821	6,568	5,553	20,915	447,939	9.42%
9	859	7,731	6,412	28,646	501,317	10.88%
10	976	9,760	7,388	38,406	553,836	12.54%
11	1,027	11,297	8,415	49,703	605,379	14.28%
12	1,187	14,244	9,602	63,947	655,895	16.29%
13	1,130	14,690	10,732	78,637	705,224	18.21%
14	1,203	16,842	11,935	95,479	753,423	20.25%
15	1,149	17,235	13,084	112,714	800,419	22.20%
16	1,145	18,320	14,229	131,034	846,266	24.15%
17	1,239	21,063	15,468	152,097	890,968	26.25%
18	1,287	23,166	16,755	175,263	934,431	28.43%
19	1,315	24,985	18,070	200,248	976,607	30.66%
20	1,298	25,960	19,368	226,208	1,017,468	32.87%
21	1,287	27,027	20,655	253,235	1,057,031	35.05%
22	1,298	28,556	21,953	281,791	1,095,307	37.25%
23	1,394	32,062	23,347	313,853	1,132,285	39.62%
24	1,266	30,384	24,613	344,237	1,167,869	41.77%
25	1,306	32,650	25,919	376,887	1,202,187	43.98%
26	1,233	32,058	27,152	408,945	1,235,199	46.07%
27	1,194	32,238	28,346	441,183	1,266,978	48.10%
28	1,278	35,784	29,624	476,967	1,297,563	50.27%
29	1,158	33,582	30,782	510,549	1,326,870	52.23%
30	1,105	33,150	31,887	543,699	1,355,019	54.11%
31	1,112	34,472	32,999	578,171	1,382,063	56.00%
32	1,131	36,192	34,130	614,363	1,407,995	57.92%
33	1,095	36,135	35,225	650,498	1,432,796	59.77%
34	1,084	36,856	36,309	687,354	1,456,502	61.61%
35	1,020	35,700	37,329	723,054	1,479,124	63.34%
36	895	32,220	38,224	755,274	1,500,726	64.86%
37	948	35,076	39,172	790,350	1,521,433	66.47%
38	881	33,478	40,053	823,828	1,541,192	67.97%
39	833	32,487	40,886	856,315	1,560,070	69.38%
40	794	31,760	41,680	888,075	1,578,115	70.73%
41	757	31,037	42,437	919,112	1,595,366	72.01%
42	754	31,668	43,191	950,780	1,611,860	73.29%
43	693	29,799	43,884	980,579	1,627,600	74.47%
44	696	30,624	44,580	1,011,203	1,642,647	75.65%

45	602	27,090	45,182	1,038,293	1,656,998	76.67%
46	637	29,302	45,819	1,067,595	1,670,747	77.75%
47	606	28,482	46,425	1,096,077	1,683,859	78.78%
48	560	26,880	46,985	1,122,957	1,696,365	79.73%
49	549	26,901	47,534	1,149,858	1,708,311	80.66%
50	478	23,900	48,012	1,173,758	1,719,708	81.47%
51	488	24,888	48,500	1,198,646	1,730,627	82.30%
52	470	24,440	48,970	1,223,086	1,741,058	83.10%
53	449	23,797	49,419	1,246,883	1,751,019	83.86%
54	390	21,060	49,809	1,267,943	1,760,531	84.52%
55	397	21,835	50,206	1,289,778	1,769,653	85.19%
56	375	21,000	50,581	1,310,778	1,778,378	85.83%
57	343	19,551	50,924	1,330,329	1,786,728	86.41%
58	345	20,010	51,269	1,350,339	1,794,735	87.00%
59	357	21,063	51,626	1,371,402	1,802,397	87.60%
60	316	18,960	51,942	1,390,362	1,809,702	88.14%
61	265	16,165	52,207	1,406,527	1,816,691	88.59%
62	323	20,026	52,530	1,426,553	1,823,415	89.14%
63	247	15,561	52,777	1,442,114	1,829,816	89.56%
64	268	17,152	53,045	1,459,266	1,835,970	90.01%
65	242	15,730	53,287	1,474,996	1,841,856	90.42%
66	248	16,368	53,535	1,491,364	1,847,500	90.84%
67	236	15,812	53,771	1,507,176	1,852,896	91.24%
68	210	14,280	53,981	1,521,456	1,858,056	91.60%
69	226	15,594	54,207	1,537,050	1,863,006	91.98%
70	167	11,690	54,374	1,548,740	1,867,730	92.27%
71	193	13,703	54,567	1,562,443	1,872,287	92.59%
72	200	14,400	54,767	1,576,843	1,876,651	92.93%
73	171	12,483	54,938	1,589,326	1,880,815	93.22%
74	160	11,840	55,098	1,601,166	1,884,808	93.50%
75	146	10,950	55,244	1,612,116	1,888,641	93.74%
76	152	11,552	55,396	1,623,668	1,892,328	94.00%
77	130	10,010	55,526	1,633,678	1,895,863	94.22%
78	144	11,232	55,670	1,644,910	1,899,268	94.47%
79	130	10,270	55,800	1,655,180	1,902,529	94.69%
80	95	7,600	55,895	1,662,780	1,905,660	94.85%
81	104	8,424	55,999	1,671,204	1,908,696	95.02%
82	90	7,380	56,089	1,678,584	1,911,628	95.18%
83	74	6,142	56,163	1,684,726	1,914,470	95.30%
84	106	8,904	56,269	1,693,630	1,917,238	95.48%
85	107	9,095	56,376	1,702,725	1,919,900	95.66%
86	95	8,170	56,471	1,710,895	1,922,455	95.83%
87	81	7,047	56,552	1,717,942	1,924,915	95.96%
88	71	6,248	56,623	1,724,190	1,927,294	96.08%
89	73	6,497	56,696	1,730,687	1,929,602	96.21%
90	84	7,560	56,780	1,738,247	1,931,837	96.35%
91	63	5,733	56,843	1,743,980	1,933,988	96.46%
92	67	6,164	56,910	1,750,144	1,936,076	96.57%
93	59	5,487	56,969	1,755,631	1,938,097	96.67%
94	64	6,016	57,033	1,761,647	1,940,059	96.78%
95	56	5,320	57,089	1,766,967	1,941,957	96.87%
96	53	5,088	57,142	1,772,055	1,943,799	96.96%
97	47	4,559	57,189	1,776,614	1,945,588	97.04%
98	52	5,096	57,241	1,781,710	1,947,330	97.13%
99	55	5,445	57,296	1,787,155	1,949,020	97.23%

100	58	5,800	57,354	1,792,955	1,950,655	97.32%
101	36	3,636	57,390	1,796,591	1,952,232	97.39%
102	41	4,182	57,431	1,800,773	1,953,773	97.45%
103	45	4,635	57,476	1,805,408	1,955,273	97.53%
104	38	3,952	57,514	1,809,360	1,956,728	97.60%
105	31	3,255	57,545	1,812,615	1,958,145	97.65%
106	42	4,452	57,587	1,817,067	1,959,531	97.72%
107	35	3,745	57,622	1,820,812	1,960,875	97.78%
108	42	4,536	57,664	1,825,348	1,962,184	97.85%
109	36	3,924	57,700	1,829,272	1,963,451	97.91%
110	27	2,970	57,727	1,832,242	1,964,682	97.96%
111	31	3,441	57,758	1,835,683	1,965,886	98.01%
112	33	3,696	57,791	1,839,379	1,967,059	98.07%
113	29	3,277	57,820	1,842,656	1,968,199	98.11%
114	18	2,052	57,838	1,844,708	1,969,310	98.15%
115	34	3,910	57,872	1,848,618	1,970,403	98.20%
116	23	2,668	57,895	1,851,286	1,971,462	98.24%
117	19	2,223	57,914	1,853,509	1,972,498	98.27%
118	21	2,478	57,935	1,855,987	1,973,515	98.31%
119	18	2,142	57,953	1,858,129	1,974,511	98.34%
120	23	2,760	57,976	1,860,889	1,975,489	98.38%
121	18	2,178	57,994	1,863,067	1,976,444	98.41%
122	25	3,050	58,019	1,866,117	1,977,381	98.45%
123	30	3,690	58,049	1,869,807	1,978,293	98.50%
124	15	1,860	58,064	1,871,667	1,979,175	98.53%
125	26	3,250	58,090	1,874,917	1,980,042	98.57%
126	22	2,772	58,112	1,877,689	1,980,883	98.61%
127	13	1,651	58,125	1,879,340	1,981,702	98.63%
128	18	2,304	58,143	1,881,644	1,982,508	98.66%
129	14	1,806	58,157	1,883,450	1,983,296	98.69%
130	16	2,080	58,173	1,885,530	1,984,070	98.71%
131	19	2,489	58,192	1,888,019	1,984,828	98.75%
132	19	2,508	58,211	1,890,527	1,985,567	98.78%
133	14	1,862	58,225	1,892,389	1,986,287	98.80%
134	11	1,474	58,236	1,893,863	1,986,993	98.82%
135	11	1,485	58,247	1,895,348	1,987,688	98.84%
136	15	2,040	58,262	1,897,388	1,988,372	98.86%
137	14	1,918	58,276	1,899,306	1,989,041	98.89%
138	7	966	58,283	1,900,272	1,989,696	98.90%
139	16	2,224	58,299	1,902,496	1,990,344	98.93%
140	11	1,540	58,310	1,904,036	1,990,976	98.95%
141	9	1,269	58,319	1,905,305	1,991,597	98.96%
142	12	1,704	58,331	1,907,009	1,992,209	98.98%
143	13	1,859	58,344	1,908,868	1,992,809	99.00%
144	10	1,440	58,354	1,910,308	1,993,396	99.02%
145	34	4,930	58,388	1,915,238	1,993,973	99.08%
146	6	876	58,394	1,916,114	1,994,516	99.09%
147	6	882	58,400	1,916,996	1,995,053	99.10%
148	10	1,480	58,410	1,918,476	1,995,584	99.12%
149	10	1,490	58,420	1,919,966	1,996,105	99.13%
150	10	1,500	58,430	1,921,466	1,996,616	99.15%
151	7	1,057	58,437	1,922,523	1,997,117	99.16%
152	5	760	58,442	1,923,283	1,997,611	99.17%
153	11	1,683	58,453	1,924,966	1,998,100	99.19%
154	9	1,386	58,462	1,926,352	1,998,578	99.20%

155	12	1,860	58,474	1,928,212	1,999,047	99.22%
156	6	936	58,480	1,929,148	1,999,504	99.23%
157	8	1,256	58,488	1,930,404	1,999,955	99.25%
158	9	1,422	58,497	1,931,826	2,000,398	99.26%
159	3	477	58,500	1,932,303	2,000,832	99.27%
160	7	1,120	58,507	1,933,423	2,001,263	99.28%
161	2	322	58,509	1,933,745	2,001,687	99.28%
162	7	1,134	58,516	1,934,879	2,002,109	99.30%
163	5	815	58,521	1,935,694	2,002,524	99.30%
164	4	656	58,525	1,936,350	2,002,934	99.31%
165	6	990	58,531	1,937,340	2,003,340	99.32%
166	9	1,494	58,540	1,938,834	2,003,740	99.34%
167	3	501	58,543	1,939,335	2,004,131	99.34%
168	4	672	58,547	1,940,007	2,004,519	99.35%
169	5	845	58,552	1,940,852	2,004,903	99.36%
170	7	1,190	58,559	1,942,042	2,005,282	99.37%
171	1	171	58,560	1,942,213	2,005,654	99.37%
172	3	516	58,563	1,942,729	2,006,025	99.38%
173	5	865	58,568	1,943,594	2,006,393	99.38%
174	7	1,218	58,575	1,944,812	2,006,756	99.40%
175	1	175	58,576	1,944,987	2,007,112	99.40%
176	8	1,408	58,584	1,946,395	2,007,467	99.41%
177	4	708	58,588	1,947,103	2,007,814	99.42%
178	2	356	58,590	1,947,459	2,008,157	99.42%
179	4	716	58,594	1,948,175	2,008,498	99.43%
180	3	540	58,597	1,948,715	2,008,835	99.43%
181	5	905	58,602	1,949,620	2,009,169	99.44%
182	4	728	58,606	1,950,348	2,009,498	99.45%
183	4	732	58,610	1,951,080	2,009,823	99.46%
184	2	368	58,612	1,951,448	2,010,144	99.46%
185	1	185	58,613	1,951,633	2,010,463	99.46%
186	3	558	58,616	1,952,191	2,010,781	99.47%
187	6	1,122	58,622	1,953,313	2,011,096	99.48%
188	3	564	58,625	1,953,877	2,011,405	99.48%
189	7	1,323	58,632	1,955,200	2,011,711	99.49%
190	8	1,520	58,640	1,956,720	2,012,010	99.51%
191	2	382	58,642	1,957,102	2,012,301	99.51%
192	6	1,152	58,648	1,958,254	2,012,590	99.52%
193	5	965	58,653	1,959,219	2,012,873	99.53%
194	2	388	58,655	1,959,607	2,013,151	99.53%
195	2	390	58,657	1,959,997	2,013,427	99.54%
196	1	196	58,658	1,960,193	2,013,701	99.54%
197	7	1,379	58,665	1,961,572	2,013,974	99.55%
198	3	594	58,668	1,962,166	2,014,240	99.55%
199	2	398	58,670	1,962,564	2,014,503	99.56%
200	4	800	58,674	1,963,364	2,014,764	99.56%
201	6	1,206	58,680	1,964,570	2,015,021	99.57%
202	2	404	58,682	1,964,974	2,015,272	99.58%
203	1	203	58,683	1,965,177	2,015,521	99.58%
204	3	612	58,686	1,965,789	2,015,769	99.58%
206	1	206	58,687	1,965,995	2,016,259	99.59%
207	5	1,035	58,692	1,967,030	2,016,503	99.59%
208	1	208	58,693	1,967,238	2,016,742	99.60%
209	2	418	58,695	1,967,656	2,016,980	99.60%
210	2	420	58,697	1,968,076	2,017,216	99.60%

211	2	422	58,699	1,968,498	2,017,450	99.61%
214	6	1,284	58,705	1,969,782	2,018,146	99.62%
215	3	645	58,708	1,970,427	2,018,372	99.62%
216	1	216	58,709	1,970,643	2,018,595	99.62%
217	4	868	58,713	1,971,511	2,018,817	99.63%
218	1	218	58,714	1,971,729	2,019,035	99.63%
219	1	219	58,715	1,971,948	2,019,252	99.63%
220	1	220	58,716	1,972,168	2,019,468	99.64%
221	4	884	58,720	1,973,052	2,019,683	99.64%
222	2	444	58,722	1,973,496	2,019,894	99.65%
223	2	446	58,724	1,973,942	2,020,103	99.65%
225	3	675	58,727	1,974,617	2,020,517	99.65%
226	1	226	58,728	1,974,843	2,020,721	99.66%
227	2	454	58,730	1,975,297	2,020,924	99.66%
228	2	456	58,732	1,975,753	2,021,125	99.66%
229	3	687	58,735	1,976,440	2,021,324	99.67%
230	2	460	58,737	1,976,900	2,021,520	99.67%
231	2	462	58,739	1,977,362	2,021,714	99.67%
232	2	464	58,741	1,977,826	2,021,906	99.68%
234	3	702	58,744	1,978,528	2,022,286	99.68%
235	1	235	58,745	1,978,763	2,022,473	99.68%
236	2	472	58,747	1,979,235	2,022,659	99.69%
238	2	476	58,749	1,979,711	2,023,027	99.69%
239	1	239	58,750	1,979,950	2,023,209	99.69%
240	2	480	58,752	1,980,430	2,023,390	99.70%
242	1	242	58,753	1,980,672	2,023,748	99.70%
243	2	486	58,755	1,981,158	2,023,926	99.70%
244	2	488	58,757	1,981,646	2,024,102	99.70%
245	3	735	58,760	1,982,381	2,024,276	99.71%
246	1	246	58,761	1,982,627	2,024,447	99.71%
247	3	741	58,764	1,983,368	2,024,617	99.72%
248	2	496	58,766	1,983,864	2,024,784	99.72%
249	1	249	58,767	1,984,113	2,024,949	99.72%
250	7	1,750	58,774	1,985,863	2,025,113	99.73%
251	1	251	58,775	1,986,114	2,025,270	99.74%
252	2	504	58,777	1,986,618	2,025,426	99.74%
253	1	253	58,778	1,986,871	2,025,580	99.74%
255	1	255	58,779	1,987,126	2,025,886	99.74%
256	1	256	58,780	1,987,382	2,026,038	99.74%
257	1	257	58,781	1,987,639	2,026,189	99.75%
260	2	520	58,783	1,988,159	2,026,639	99.75%
261	5	1,305	58,788	1,989,464	2,026,787	99.76%
262	1	262	58,789	1,989,726	2,026,930	99.76%
263	2	526	58,791	1,990,252	2,027,072	99.76%
264	1	264	58,792	1,990,516	2,027,212	99.76%
265	3	795	58,795	1,991,311	2,027,351	99.77%
267	2	534	58,797	1,991,845	2,027,623	99.77%
268	1	268	58,798	1,992,113	2,027,757	99.77%
269	1	269	58,799	1,992,382	2,027,890	99.78%
271	1	271	58,800	1,992,653	2,028,154	99.78%
272	2	544	58,802	1,993,197	2,028,285	99.78%
273	1	273	58,803	1,993,470	2,028,414	99.78%
274	3	822	58,806	1,994,292	2,028,542	99.79%
276	2	552	58,808	1,994,844	2,028,792	99.79%
277	1	277	58,809	1,995,121	2,028,915	99.79%

278	2	556	58,811	1,995,677	2,029,037	99.80%
279	2	558	58,813	1,996,235	2,029,157	99.80%
281	1	281	58,814	1,996,516	2,029,393	99.80%
282	2	564	58,816	1,997,080	2,029,510	99.80%
287	1	287	58,817	1,997,367	2,030,085	99.81%
289	1	289	58,818	1,997,656	2,030,313	99.81%
290	1	290	58,819	1,997,946	2,030,426	99.81%
292	3	876	58,822	1,998,822	2,030,650	99.82%
294	2	588	58,824	1,999,410	2,030,868	99.82%
297	1	297	58,825	1,999,707	2,031,189	99.82%
298	1	298	58,826	2,000,005	2,031,295	99.82%
299	1	299	58,827	2,000,304	2,031,400	99.82%
300	1	300	58,828	2,000,604	2,031,504	99.83%
302	1	302	58,829	2,000,906	2,031,710	99.83%
305	1	305	58,830	2,001,211	2,032,016	99.83%
311	1	311	58,831	2,001,522	2,032,622	99.83%
316	1	316	58,832	2,001,838	2,033,122	99.83%
317	1	317	58,833	2,002,155	2,033,221	99.83%
318	1	318	58,834	2,002,473	2,033,319	99.84%
319	1	319	58,835	2,002,792	2,033,416	99.84%
320	1	320	58,836	2,003,112	2,033,512	99.84%
325	1	325	58,837	2,003,437	2,033,987	99.84%
326	1	326	58,838	2,003,763	2,034,081	99.84%
329	2	658	58,840	2,004,421	2,034,360	99.85%
330	1	330	58,841	2,004,751	2,034,451	99.85%
333	1	333	58,842	2,005,084	2,034,721	99.85%
337	1	337	58,843	2,005,421	2,035,077	99.85%
338	2	676	58,845	2,006,097	2,035,165	99.85%
341	1	341	58,846	2,006,438	2,035,423	99.86%
342	1	342	58,847	2,006,780	2,035,508	99.86%
344	1	344	58,848	2,007,124	2,035,676	99.86%
346	1	346	58,849	2,007,470	2,035,842	99.86%
347	1	347	58,850	2,007,817	2,035,924	99.86%
348	1	348	58,851	2,008,165	2,036,005	99.86%
349	1	349	58,852	2,008,514	2,036,085	99.87%
351	1	351	58,853	2,008,865	2,036,243	99.87%
352	1	352	58,854	2,009,217	2,036,321	99.87%
354	1	354	58,855	2,009,571	2,036,475	99.87%
355	1	355	58,856	2,009,926	2,036,551	99.87%
356	1	356	58,857	2,010,282	2,036,626	99.87%
358	(1)	(358)	58,856	2,009,924	2,036,774	99.87%
361	-	-	58,856	2,009,924	2,036,999	99.87%
364	2	728	58,858	2,010,652	2,037,224	99.88%
366	2	732	58,860	2,011,384	2,037,370	99.88%
368	1	368	58,861	2,011,752	2,037,512	99.88%
377	1	377	58,862	2,012,129	2,038,142	99.88%
379	(1)	(379)	58,861	2,011,750	2,038,280	99.88%
380	1	380	58,862	2,012,130	2,038,350	99.88%
381	1	381	58,863	2,012,511	2,038,419	99.88%
382	1	382	58,864	2,012,893	2,038,487	99.89%
383	1	383	58,865	2,013,276	2,038,554	99.89%
385	1	385	58,866	2,013,661	2,038,686	99.89%
390	2	780	58,868	2,014,441	2,039,011	99.89%
391	2	782	58,870	2,015,223	2,039,074	99.90%
397	2	794	58,872	2,016,017	2,039,440	99.90%

398	1	398	58,873	2,016,415	2,039,499	99.90%
399	1	399	58,874	2,016,814	2,039,557	99.90%
402	1	402	58,875	2,017,216	2,039,728	99.90%
406	1	406	58,876	2,017,622	2,039,952	99.91%
407	1	407	58,877	2,018,029	2,040,007	99.91%
409	2	818	58,879	2,018,847	2,040,115	99.91%
413	1	413	58,880	2,019,260	2,040,323	99.91%
417	1	417	58,881	2,019,677	2,040,527	99.92%
419	1	419	58,882	2,020,096	2,040,627	99.92%
423	1	423	58,883	2,020,519	2,040,823	99.92%
428	1	428	58,884	2,020,947	2,041,063	99.92%
434	1	434	58,885	2,021,381	2,041,345	99.92%
436	2	872	58,887	2,022,253	2,041,437	99.93%
441	1	441	58,888	2,022,694	2,041,657	99.93%
445	1	445	58,889	2,023,139	2,041,829	99.93%
446	1	446	58,890	2,023,585	2,041,871	99.93%
448	1	448	58,891	2,024,033	2,041,953	99.93%
451	1	451	58,892	2,024,484	2,042,073	99.93%
456	-	-	58,892	2,024,484	2,042,268	99.93%
463	1	463	58,893	2,024,947	2,042,541	99.94%
464	1	464	58,894	2,025,411	2,042,579	99.94%
466	-	-	58,894	2,025,411	2,042,653	99.94%
476	1	476	58,895	2,025,887	2,043,023	99.94%
477	1	477	58,896	2,026,364	2,043,059	99.94%
481	1	481	58,897	2,026,845	2,043,199	99.94%
482	(1)	(482)	58,896	2,026,363	2,043,233	99.94%
498	1	498	58,897	2,026,861	2,043,793	99.94%
508	1	508	58,898	2,027,369	2,044,133	99.94%
511	(1)	(511)	58,897	2,026,858	2,044,232	99.94%
516	1	516	58,898	2,027,374	2,044,402	99.94%
519	1	519	58,899	2,027,893	2,044,501	99.95%
525	1	525	58,900	2,028,418	2,044,693	99.95%
528	1	528	58,901	2,028,946	2,044,786	99.95%
534	1	534	58,902	2,029,480	2,044,966	99.95%
548	1	548	58,903	2,030,028	2,045,372	99.95%
564	1	564	58,904	2,030,592	2,045,820	99.95%
566	1	566	58,905	2,031,158	2,045,874	99.96%
570	1	570	58,906	2,031,728	2,045,978	99.96%
574	1	574	58,907	2,032,302	2,046,078	99.96%
578	2	1,156	58,909	2,033,458	2,046,174	99.96%
581	1	581	58,910	2,034,039	2,046,240	99.96%
590	1	590	58,911	2,034,629	2,046,429	99.97%
593	1	593	58,912	2,035,222	2,046,489	99.97%
594	1	594	58,913	2,035,816	2,046,508	99.97%
596	1	596	58,914	2,036,412	2,046,544	99.97%
624	1	624	58,915	2,037,036	2,047,020	99.97%
652	1	652	58,916	2,037,688	2,047,468	99.97%
663	1	663	58,917	2,038,351	2,047,633	99.98%
664	1	664	58,918	2,039,015	2,047,647	99.98%
681	1	681	58,919	2,039,696	2,047,868	99.98%
692	1	692	58,920	2,040,388	2,048,000	99.98%
702	1	702	58,921	2,041,090	2,048,110	99.98%
716	-	-	58,921	2,041,090	2,048,250	99.98%
734	1	734	58,922	2,041,824	2,048,430	99.98%
747	1	747	58,923	2,042,571	2,048,547	99.99%

761	1	761	58,924	2,043,332	2,048,659	99.99%
770	(1)	(770)	58,923	2,042,562	2,048,722	99.99%
783	1	783	58,924	2,043,345	2,048,826	99.99%
798	1	798	58,925	2,044,143	2,048,931	99.99%
833	1	833	58,926	2,044,976	2,049,141	99.99%
840	(1)	(840)	58,925	2,044,136	2,049,176	99.99%
913	(1)	(913)	58,924	2,043,223	2,049,614	99.99%
934	1	934	58,925	2,044,157	2,049,761	99.99%
954	1	954	58,926	2,045,111	2,049,881	99.99%
957	(1)	(957)	58,925	2,044,154	2,049,896	99.99%
1,081	1	1,081	58,926	2,045,235	2,050,640	99.99%
1,084	1	1,084	58,927	2,046,319	2,050,655	99.99%
1,534	1	1,534	58,928	2,047,853	2,052,455	99.99%
1,553	1	1,553	58,929	2,049,406	2,052,512	100.00%
1,685	1	1,685	58,930	2,051,091	2,052,776	100.00%
2,158	1	2,158	58,931	2,053,249	2,053,249	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF NOVEMBER 2023
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	1,590	-	1,590	-	-	2.69%
1	458	458	2,048	458	57,438	3.47%
2	311	622	2,359	1,080	114,418	4.00%
3	354	1,062	2,713	2,142	171,087	4.60%
4	394	1,576	3,107	3,718	227,402	5.26%
5	510	2,550	3,617	6,268	283,323	6.13%
6	583	3,498	4,200	9,766	338,734	7.12%
7	702	4,914	4,902	14,680	393,562	8.30%
8	876	7,008	5,778	21,688	447,688	9.79%
9	1,018	9,162	6,796	30,850	500,938	11.51%
10	1,031	10,310	7,827	41,160	553,170	13.26%
11	1,120	12,320	8,947	53,480	604,371	15.16%
12	1,180	14,160	10,127	67,640	654,452	17.16%
13	1,187	15,431	11,314	83,071	703,353	19.17%
14	1,219	17,066	12,533	100,137	751,067	21.23%
15	1,260	18,900	13,793	119,037	797,562	23.37%
16	1,260	20,160	15,053	139,197	842,797	25.50%
17	1,265	21,505	16,318	160,702	886,772	27.64%
18	1,332	23,976	17,650	184,678	929,482	29.90%
19	1,370	26,030	19,020	210,708	970,860	32.22%
20	1,447	28,940	20,467	239,648	1,010,868	34.67%
21	1,457	30,597	21,924	270,245	1,049,429	37.14%
22	1,357	29,854	23,281	300,099	1,086,533	39.44%
23	1,412	32,476	24,693	332,575	1,122,280	41.83%
24	1,335	32,040	26,028	364,615	1,156,615	44.09%
25	1,331	33,275	27,359	397,890	1,189,615	46.35%
26	1,313	34,138	28,672	432,028	1,221,284	48.57%
27	1,281	34,587	29,953	466,615	1,251,640	50.74%
28	1,272	35,616	31,225	502,231	1,280,715	52.90%
29	1,202	34,858	32,427	537,089	1,308,518	54.93%
30	1,152	34,560	33,579	571,649	1,335,119	56.89%
31	1,184	36,704	34,763	608,353	1,360,568	58.89%
32	1,175	37,600	35,938	645,953	1,384,833	60.88%
33	1,078	35,574	37,016	681,527	1,407,923	62.71%
34	1,080	36,720	38,096	718,247	1,429,935	64.54%
35	977	34,195	39,073	752,442	1,450,867	66.19%
36	972	34,992	40,045	787,434	1,470,822	67.84%
37	904	33,448	40,949	820,882	1,489,805	69.37%
38	886	33,668	41,835	854,550	1,507,884	70.87%
39	855	33,345	42,690	887,895	1,525,077	72.32%
40	784	31,360	43,474	919,255	1,541,415	73.65%
41	704	28,864	44,178	948,119	1,556,969	74.84%
42	737	30,954	44,915	979,073	1,571,819	76.09%
43	739	31,777	45,654	1,010,850	1,585,932	77.34%
44	688	30,272	46,342	1,041,122	1,599,306	78.51%

45	634	28,530	46,976	1,069,652	1,611,992	79.58%
46	589	27,094	47,565	1,096,746	1,624,044	80.58%
47	595	27,965	48,160	1,124,711	1,635,507	81.59%
48	522	25,056	48,682	1,149,767	1,646,375	82.47%
49	500	24,500	49,182	1,174,267	1,656,721	83.32%
50	456	22,800	49,638	1,197,067	1,666,567	84.09%
51	459	23,409	50,097	1,220,476	1,675,957	84.87%
52	428	22,256	50,525	1,242,732	1,684,888	85.59%
53	396	20,988	50,921	1,263,720	1,693,391	86.27%
54	385	20,790	51,306	1,284,510	1,701,498	86.92%
55	378	20,790	51,684	1,305,300	1,709,220	87.56%
56	347	19,432	52,031	1,324,732	1,716,564	88.15%
57	322	18,354	52,353	1,343,086	1,723,561	88.69%
58	336	19,488	52,689	1,362,574	1,730,236	89.26%
59	313	18,467	53,002	1,381,041	1,736,575	89.79%
60	298	17,880	53,300	1,398,921	1,742,601	90.30%
61	283	17,263	53,583	1,416,184	1,748,329	90.78%
62	236	14,632	53,819	1,430,816	1,753,774	91.18%
63	243	15,309	54,062	1,446,125	1,758,983	91.59%
64	224	14,336	54,286	1,460,461	1,763,949	91.97%
65	218	14,170	54,504	1,474,631	1,768,691	92.34%
66	213	14,058	54,717	1,488,689	1,773,215	92.70%
67	178	11,926	54,895	1,500,615	1,777,526	93.00%
68	180	12,240	55,075	1,512,855	1,781,659	93.30%
69	174	12,006	55,249	1,524,861	1,785,612	93.60%
70	149	10,430	55,398	1,535,291	1,789,391	93.85%
71	182	12,922	55,580	1,548,213	1,793,021	94.16%
72	153	11,016	55,733	1,559,229	1,796,469	94.42%
73	137	10,001	55,870	1,569,230	1,799,764	94.65%
74	128	9,472	55,998	1,578,702	1,802,922	94.87%
75	121	9,075	56,119	1,587,777	1,805,952	95.07%
76	110	8,360	56,229	1,596,137	1,808,861	95.26%
77	109	8,393	56,338	1,604,530	1,811,660	95.44%
78	102	7,956	56,440	1,612,486	1,814,350	95.62%
79	97	7,663	56,537	1,620,149	1,816,938	95.78%
80	98	7,840	56,635	1,627,989	1,819,429	95.95%
81	98	7,938	56,733	1,635,927	1,821,822	96.11%
82	83	6,806	56,816	1,642,733	1,824,117	96.25%
83	94	7,802	56,910	1,650,535	1,826,329	96.41%
84	72	6,048	56,982	1,656,583	1,828,447	96.53%
85	74	6,290	57,056	1,662,873	1,830,493	96.66%
86	72	6,192	57,128	1,669,065	1,832,465	96.78%
87	61	5,307	57,189	1,674,372	1,834,365	96.88%
88	69	6,072	57,258	1,680,444	1,836,204	97.00%
89	63	5,607	57,321	1,686,051	1,837,974	97.11%
90	55	4,950	57,376	1,691,001	1,839,681	97.20%
91	63	5,733	57,439	1,696,734	1,841,333	97.31%
92	36	3,312	57,475	1,700,046	1,842,922	97.37%
93	51	4,743	57,526	1,704,789	1,844,475	97.46%
94	31	2,914	57,557	1,707,703	1,845,977	97.51%
95	44	4,180	57,601	1,711,883	1,847,448	97.58%
96	46	4,416	57,647	1,716,299	1,848,875	97.66%
97	33	3,201	57,680	1,719,500	1,850,256	97.72%
98	29	2,842	57,709	1,722,342	1,851,604	97.77%
99	31	3,069	57,740	1,725,411	1,852,923	97.82%

100	39	3,900	57,779	1,729,311	1,854,211	97.88%
101	42	4,242	57,821	1,733,553	1,855,460	97.96%
102	39	3,978	57,860	1,737,531	1,856,667	98.02%
103	41	4,223	57,901	1,741,754	1,857,835	98.09%
104	43	4,472	57,944	1,746,226	1,858,962	98.16%
105	26	2,730	57,970	1,748,956	1,860,046	98.21%
106	27	2,862	57,997	1,751,818	1,861,104	98.25%
107	25	2,675	58,022	1,754,493	1,862,135	98.30%
108	35	3,780	58,057	1,758,273	1,863,141	98.36%
109	30	3,270	58,087	1,761,543	1,864,112	98.41%
110	23	2,530	58,110	1,764,073	1,865,053	98.44%
111	29	3,219	58,139	1,767,292	1,865,971	98.49%
112	29	3,248	58,168	1,770,540	1,866,860	98.54%
113	20	2,260	58,188	1,772,800	1,867,720	98.58%
114	31	3,534	58,219	1,776,334	1,868,560	98.63%
115	26	2,990	58,245	1,779,324	1,869,369	98.67%
116	22	2,552	58,267	1,781,876	1,870,152	98.71%
117	22	2,574	58,289	1,784,450	1,870,913	98.75%
118	15	1,770	58,304	1,786,220	1,871,652	98.77%
119	12	1,428	58,316	1,787,648	1,872,376	98.79%
120	13	1,560	58,329	1,789,208	1,873,088	98.82%
121	26	3,146	58,355	1,792,354	1,873,787	98.86%
122	17	2,074	58,372	1,794,428	1,874,460	98.89%
123	15	1,845	58,387	1,796,273	1,875,116	98.91%
124	11	1,364	58,398	1,797,637	1,875,757	98.93%
125	12	1,500	58,410	1,799,137	1,876,387	98.95%
126	26	3,276	58,436	1,802,413	1,877,005	99.00%
127	10	1,270	58,446	1,803,683	1,877,597	99.01%
128	11	1,408	58,457	1,805,091	1,878,179	99.03%
129	10	1,290	58,467	1,806,381	1,878,750	99.05%
130	11	1,430	58,478	1,807,811	1,879,311	99.07%
131	7	917	58,485	1,808,728	1,879,861	99.08%
132	13	1,716	58,498	1,810,444	1,880,404	99.10%
133	12	1,596	58,510	1,812,040	1,880,934	99.12%
134	6	804	58,516	1,812,844	1,881,452	99.13%
135	8	1,080	58,524	1,813,924	1,881,964	99.15%
136	7	952	58,531	1,814,876	1,882,468	99.16%
137	4	548	58,535	1,815,424	1,882,965	99.16%
138	15	2,070	58,550	1,817,494	1,883,458	99.19%
139	7	973	58,557	1,818,467	1,883,936	99.20%
140	9	1,260	58,566	1,819,727	1,884,407	99.22%
141	11	1,551	58,577	1,821,278	1,884,869	99.24%
142	11	1,562	58,588	1,822,840	1,885,320	99.25%
143	4	572	58,592	1,823,412	1,885,760	99.26%
144	5	720	58,597	1,824,132	1,886,196	99.27%
145	7	1,015	58,604	1,825,147	1,886,627	99.28%
146	10	1,460	58,614	1,826,607	1,887,051	99.30%
147	11	1,617	58,625	1,828,224	1,887,465	99.32%
148	8	1,184	58,633	1,829,408	1,887,868	99.33%
149	8	1,192	58,641	1,830,600	1,888,263	99.34%
150	6	900	58,647	1,831,500	1,888,650	99.35%
151	3	453	58,650	1,831,953	1,889,031	99.36%
152	3	456	58,653	1,832,409	1,889,409	99.36%
153	6	918	58,659	1,833,327	1,889,784	99.37%
154	2	308	58,661	1,833,635	1,890,153	99.38%

155	5	775	58,666	1,834,410	1,890,520	99.39%
156	3	468	58,669	1,834,878	1,890,882	99.39%
157	4	628	58,673	1,835,506	1,891,241	99.40%
158	6	948	58,679	1,836,454	1,891,596	99.41%
159	8	1,272	58,687	1,837,726	1,891,945	99.42%
160	7	1,120	58,694	1,838,846	1,892,286	99.43%
161	6	966	58,700	1,839,812	1,892,620	99.44%
162	2	324	58,702	1,840,136	1,892,948	99.45%
163	7	1,141	58,709	1,841,277	1,893,274	99.46%
164	5	820	58,714	1,842,097	1,893,593	99.47%
165	3	495	58,717	1,842,592	1,893,907	99.47%
166	8	1,328	58,725	1,843,920	1,894,218	99.49%
167	3	501	58,728	1,844,421	1,894,521	99.49%
168	4	672	58,732	1,845,093	1,894,821	99.50%
169	2	338	58,734	1,845,431	1,895,117	99.50%
170	5	850	58,739	1,846,281	1,895,411	99.51%
171	4	684	58,743	1,846,965	1,895,700	99.52%
172	3	516	58,746	1,847,481	1,895,985	99.52%
173	4	692	58,750	1,848,173	1,896,267	99.53%
174	2	348	58,752	1,848,521	1,896,545	99.53%
175	6	1,050	58,758	1,849,571	1,896,821	99.54%
176	3	528	58,761	1,850,099	1,897,091	99.55%
177	3	531	58,764	1,850,630	1,897,358	99.55%
178	2	356	58,766	1,850,986	1,897,622	99.56%
179	1	179	58,767	1,851,165	1,897,884	99.56%
180	4	720	58,771	1,851,885	1,898,145	99.56%
181	7	1,267	58,778	1,853,152	1,898,402	99.58%
182	4	728	58,782	1,853,880	1,898,652	99.58%
183	4	732	58,786	1,854,612	1,898,898	99.59%
184	2	368	58,788	1,854,980	1,899,140	99.59%
185	2	370	58,790	1,855,350	1,899,380	99.60%
186	4	744	58,794	1,856,094	1,899,618	99.60%
187	2	374	58,796	1,856,468	1,899,852	99.61%
188	4	752	58,800	1,857,220	1,900,084	99.61%
189	3	567	58,803	1,857,787	1,900,312	99.62%
191	1	191	58,804	1,857,978	1,900,762	99.62%
192	3	576	58,807	1,858,554	1,900,986	99.63%
193	2	386	58,809	1,858,940	1,901,207	99.63%
194	2	388	58,811	1,859,328	1,901,426	99.63%
196	1	196	58,812	1,859,524	1,901,860	99.63%
197	2	394	58,814	1,859,918	1,902,076	99.64%
198	2	396	58,816	1,860,314	1,902,290	99.64%
200	2	400	58,818	1,860,714	1,902,714	99.64%
201	3	603	58,821	1,861,317	1,902,924	99.65%
203	5	1,015	58,826	1,862,332	1,903,338	99.66%
204	2	408	58,828	1,862,740	1,903,540	99.66%
205	2	410	58,830	1,863,150	1,903,740	99.66%
206	5	1,030	58,835	1,864,180	1,903,938	99.67%
207	2	414	58,837	1,864,594	1,904,131	99.68%
208	6	1,248	58,843	1,865,842	1,904,322	99.69%
210	4	840	58,847	1,866,682	1,904,692	99.69%
211	3	633	58,850	1,867,315	1,904,873	99.70%
212	2	424	58,852	1,867,739	1,905,051	99.70%
213	2	426	58,854	1,868,165	1,905,227	99.71%
214	-	-	58,854	1,868,165	1,905,401	99.71%

215	1	215	58,855	1,868,380	1,905,575	99.71%
216	1	216	58,856	1,868,596	1,905,748	99.71%
217	2	434	58,858	1,869,030	1,905,920	99.71%
218	1	218	58,859	1,869,248	1,906,090	99.71%
219	3	657	58,862	1,869,905	1,906,259	99.72%
220	2	440	58,864	1,870,345	1,906,425	99.72%
221	2	442	58,866	1,870,787	1,906,589	99.73%
222	4	888	58,870	1,871,675	1,906,751	99.73%
223	2	446	58,872	1,872,121	1,906,909	99.74%
224	2	448	58,874	1,872,569	1,907,065	99.74%
225	1	225	58,875	1,872,794	1,907,219	99.74%
226	2	452	58,877	1,873,246	1,907,372	99.74%
227	1	227	58,878	1,873,473	1,907,523	99.75%
230	1	230	58,879	1,873,703	1,907,973	99.75%
231	2	462	58,881	1,874,165	1,908,122	99.75%
233	1	233	58,882	1,874,398	1,908,416	99.75%
237	1	237	58,883	1,874,635	1,909,000	99.75%
238	2	476	58,885	1,875,111	1,909,145	99.76%
239	3	717	58,888	1,875,828	1,909,288	99.76%
240	2	480	58,890	1,876,308	1,909,428	99.77%
242	4	968	58,894	1,877,276	1,909,704	99.77%
243	2	486	58,896	1,877,762	1,909,838	99.78%
245	6	1,470	58,902	1,879,232	1,910,102	99.79%
246	1	246	58,903	1,879,478	1,910,228	99.79%
247	1	247	58,904	1,879,725	1,910,353	99.79%
248	1	248	58,905	1,879,973	1,910,477	99.79%
249	1	249	58,906	1,880,222	1,910,600	99.79%
250	7	1,750	58,913	1,881,972	1,910,722	99.81%
251	1	251	58,914	1,882,223	1,910,837	99.81%
252	2	504	58,916	1,882,727	1,910,951	99.81%
253	2	506	58,918	1,883,233	1,911,063	99.81%
254	2	508	58,920	1,883,741	1,911,173	99.82%
255	-	-	58,920	1,883,741	1,911,281	99.82%
256	1	256	58,921	1,883,997	1,911,389	99.82%
257	1	257	58,922	1,884,254	1,911,496	99.82%
258	1	258	58,923	1,884,512	1,911,602	99.82%
260	3	780	58,926	1,885,292	1,911,812	99.83%
261	1	261	58,927	1,885,553	1,911,914	99.83%
263	1	263	58,928	1,885,816	1,912,116	99.83%
264	1	264	58,929	1,886,080	1,912,216	99.83%
265	1	265	58,930	1,886,345	1,912,315	99.83%
267	2	534	58,932	1,886,879	1,912,511	99.84%
268	1	268	58,933	1,887,147	1,912,607	99.84%
269	1	269	58,934	1,887,416	1,912,702	99.84%
270	1	270	58,935	1,887,686	1,912,796	99.84%
271	1	271	58,936	1,887,957	1,912,889	99.84%
276	1	276	58,937	1,888,233	1,913,349	99.85%
277	-	-	58,937	1,888,233	1,913,440	99.85%
278	2	556	58,939	1,888,789	1,913,531	99.85%
284	1	284	58,940	1,889,073	1,914,065	99.85%
287	2	574	58,942	1,889,647	1,914,329	99.85%
288	1	288	58,943	1,889,935	1,914,415	99.86%
291	1	291	58,944	1,890,226	1,914,670	99.86%
292	1	292	58,945	1,890,518	1,914,754	99.86%
293	1	293	58,946	1,890,811	1,914,837	99.86%

294	1	294	58,947	1,891,105	1,914,919	99.86%
296	1	296	58,948	1,891,401	1,915,081	99.86%
297	1	297	58,949	1,891,698	1,915,161	99.87%
298	-	-	58,949	1,891,698	1,915,240	99.87%
299	1	299	58,950	1,891,997	1,915,319	99.87%
301	2	602	58,952	1,892,599	1,915,475	99.87%
303	1	303	58,953	1,892,902	1,915,627	99.87%
306	2	612	58,955	1,893,514	1,915,852	99.88%
307	1	307	58,956	1,893,821	1,915,925	99.88%
308	2	616	58,958	1,894,437	1,915,997	99.88%
309	1	309	58,959	1,894,746	1,916,067	99.88%
311	1	311	58,960	1,895,057	1,916,205	99.88%
313	2	626	58,962	1,895,683	1,916,341	99.89%
316	1	316	58,963	1,895,999	1,916,539	99.89%
318	2	636	58,965	1,896,635	1,916,669	99.89%
322	1	322	58,966	1,896,957	1,916,921	99.89%
323	1	323	58,967	1,897,280	1,916,983	99.90%
329	1	329	58,968	1,897,609	1,917,349	99.90%
334	1	334	58,969	1,897,943	1,917,649	99.90%
335	1	335	58,970	1,898,278	1,917,708	99.90%
337	1	337	58,971	1,898,615	1,917,824	99.90%
340	1	340	58,972	1,898,955	1,917,995	99.91%
349	2	698	58,974	1,899,653	1,918,499	99.91%
351	1	351	58,975	1,900,004	1,918,607	99.91%
352	1	352	58,976	1,900,356	1,918,660	99.91%
356	1	356	58,977	1,900,712	1,918,868	99.91%
358	1	358	58,978	1,901,070	1,918,970	99.92%
360	1	360	58,979	1,901,430	1,919,070	99.92%
362	1	362	58,980	1,901,792	1,919,168	99.92%
364	1	364	58,981	1,902,156	1,919,264	99.92%
367	2	734	58,983	1,902,890	1,919,405	99.92%
372	1	372	58,984	1,903,262	1,919,630	99.93%
378	2	756	58,986	1,904,018	1,919,894	99.93%
381	1	381	58,987	1,904,399	1,920,020	99.93%
384	1	384	58,988	1,904,783	1,920,143	99.93%
391	1	391	58,989	1,905,174	1,920,423	99.93%
396	1	396	58,990	1,905,570	1,920,618	99.94%
398	1	398	58,991	1,905,968	1,920,694	99.94%
399	1	399	58,992	1,906,367	1,920,731	99.94%
404	-	-	58,992	1,906,367	1,920,911	99.94%
405	2	810	58,994	1,907,177	1,920,947	99.94%
417	1	417	58,995	1,907,594	1,921,355	99.94%
426	1	426	58,996	1,908,020	1,921,652	99.95%
429	1	429	58,997	1,908,449	1,921,748	99.95%
431	1	431	58,998	1,908,880	1,921,810	99.95%
436	1	436	58,999	1,909,316	1,921,960	99.95%
439	1	439	59,000	1,909,755	1,922,047	99.95%
444	1	444	59,001	1,910,199	1,922,187	99.95%
445	1	445	59,002	1,910,644	1,922,214	99.96%
452	1	452	59,003	1,911,096	1,922,396	99.96%
467	-	-	59,003	1,911,096	1,922,771	99.96%
468	1	468	59,004	1,911,564	1,922,796	99.96%
475	1	475	59,005	1,912,039	1,922,964	99.96%
477	1	477	59,006	1,912,516	1,923,010	99.96%
479	1	479	59,007	1,912,995	1,923,054	99.96%

493	1	493	59,008	1,913,488	1,923,348	99.97%
495	1	495	59,009	1,913,983	1,923,388	99.97%
501	1	501	59,010	1,914,484	1,923,502	99.97%
517	1	517	59,011	1,915,001	1,923,790	99.97%
524	1	524	59,012	1,915,525	1,923,909	99.97%
525	-	-	59,012	1,915,525	1,923,925	99.97%
526	1	526	59,013	1,916,051	1,923,941	99.97%
532	1	532	59,014	1,916,583	1,924,031	99.98%
556	1	556	59,015	1,917,139	1,924,367	99.98%
558	1	558	59,016	1,917,697	1,924,393	99.98%
566	1	566	59,017	1,918,263	1,924,489	99.98%
576	1	576	59,018	1,918,839	1,924,599	99.98%
584	1	584	59,019	1,919,423	1,924,679	99.98%
591	1	591	59,020	1,920,014	1,924,742	99.99%
593	-	-	59,020	1,920,014	1,924,758	99.99%
637	1	637	59,021	1,920,651	1,925,110	99.99%
650	1	650	59,022	1,921,301	1,925,201	99.99%
701	1	701	59,023	1,922,002	1,925,507	99.99%
702	(1)	(702)	59,022	1,921,300	1,925,512	99.99%
764	1	764	59,023	1,922,064	1,925,884	99.99%
833	(1)	(833)	59,022	1,921,231	1,926,229	99.99%
875	1	875	59,023	1,922,106	1,926,481	99.99%
885	1	885	59,024	1,922,991	1,926,531	99.99%
898	1	898	59,025	1,923,889	1,926,583	99.99%
919	1	919	59,026	1,924,808	1,926,646	100.00%
1,169	1	1,169	59,027	1,925,977	1,927,146	100.00%
1,204	(1)	(1,204)	59,026	1,924,773	1,927,181	100.00%
1,439	1	1,439	59,027	1,926,212	1,927,651	100.00%
1,441	1	1,441	59,028	1,927,653	1,927,653	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF DECEMBER 2023
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	1,474	-	1,474	-	-	2.51%
1	441	441	1,915	441	57,262	3.26%
2	330	660	2,245	1,101	114,083	3.82%
3	310	930	2,555	2,031	170,574	4.35%
4	338	1,352	2,893	3,383	226,755	4.93%
5	412	2,060	3,305	5,443	282,598	5.63%
6	493	2,958	3,798	8,401	338,029	6.47%
7	583	4,081	4,381	12,482	392,967	7.46%
8	701	5,608	5,082	18,090	447,322	8.65%
9	848	7,632	5,930	25,722	500,976	10.10%
10	888	8,880	6,818	34,602	553,782	11.61%
11	925	10,175	7,743	44,777	605,700	13.18%
12	960	11,520	8,703	56,297	656,693	14.82%
13	1,061	13,793	9,764	70,090	706,726	16.62%
14	1,057	14,798	10,821	84,888	755,698	18.42%
15	1,098	16,470	11,919	101,358	803,613	20.29%
16	1,134	18,144	13,053	119,502	850,430	22.22%
17	1,095	18,615	14,148	138,117	896,113	24.09%
18	1,189	21,402	15,337	159,519	940,701	26.11%
19	1,176	22,344	16,513	181,863	984,100	28.11%
20	1,243	24,860	17,756	206,723	1,026,323	30.23%
21	1,175	24,675	18,931	231,398	1,067,303	32.23%
22	1,250	27,500	20,181	258,898	1,107,108	34.36%
23	1,264	29,072	21,445	287,970	1,145,663	36.51%
24	1,223	29,352	22,668	317,322	1,182,954	38.59%
25	1,330	33,250	23,998	350,572	1,219,022	40.86%
26	1,251	32,526	25,249	383,098	1,253,760	42.99%
27	1,228	33,156	26,477	416,254	1,287,247	45.08%
28	1,218	34,104	27,695	450,358	1,319,506	47.15%
29	1,175	34,075	28,870	484,433	1,350,547	49.15%
30	1,143	34,290	30,013	518,723	1,380,413	51.10%
31	1,204	37,324	31,217	556,047	1,409,136	53.15%
32	1,130	36,160	32,347	592,207	1,436,655	55.07%
33	1,134	37,422	33,481	629,629	1,463,044	57.00%
34	1,044	35,496	34,525	665,125	1,488,299	58.78%
35	993	34,755	35,518	699,880	1,512,510	60.47%
36	960	34,560	36,478	734,440	1,535,728	62.11%
37	984	36,408	37,462	770,848	1,557,986	63.78%
38	946	35,948	38,408	806,796	1,579,260	65.39%
39	891	34,749	39,299	841,545	1,599,588	66.91%
40	858	34,320	40,157	875,865	1,619,025	68.37%
41	792	32,472	40,949	908,337	1,637,604	69.72%
42	886	37,212	41,835	945,549	1,655,391	71.23%
43	726	31,218	42,561	976,767	1,672,292	72.46%
44	773	34,012	43,334	1,010,779	1,688,467	73.78%

45	739	33,255	44,073	1,044,034	1,703,869	75.04%
46	706	32,476	44,779	1,076,510	1,718,532	76.24%
47	670	31,490	45,449	1,108,000	1,732,489	77.38%
48	608	29,184	46,057	1,137,184	1,745,776	78.41%
49	604	29,596	46,661	1,166,780	1,758,455	79.44%
50	556	27,800	47,217	1,194,580	1,770,530	80.39%
51	558	28,458	47,775	1,223,038	1,782,049	81.34%
52	513	26,676	48,288	1,249,714	1,793,010	82.21%
53	495	26,235	48,783	1,275,949	1,803,458	83.05%
54	510	27,540	49,293	1,303,489	1,813,411	83.92%
55	460	25,300	49,753	1,328,789	1,822,854	84.71%
56	437	24,472	50,190	1,353,261	1,831,837	85.45%
57	420	23,940	50,610	1,377,201	1,840,383	86.17%
58	346	20,068	50,956	1,397,269	1,848,509	86.75%
59	384	22,656	51,340	1,419,925	1,856,289	87.41%
60	316	18,960	51,656	1,438,885	1,863,685	87.95%
61	324	19,764	51,980	1,458,649	1,870,765	88.50%
62	312	19,344	52,292	1,477,993	1,877,521	89.03%
63	333	20,979	52,625	1,498,972	1,883,965	89.60%
64	283	18,112	52,908	1,517,084	1,890,076	90.08%
65	263	17,095	53,171	1,534,179	1,895,904	90.53%
66	222	14,652	53,393	1,548,831	1,901,469	90.90%
67	230	15,410	53,623	1,564,241	1,906,812	91.29%
68	211	14,348	53,834	1,578,589	1,911,925	91.65%
69	208	14,352	54,042	1,592,941	1,916,827	92.01%
70	206	14,420	54,248	1,607,361	1,921,521	92.36%
71	191	13,561	54,439	1,620,922	1,926,009	92.68%
72	196	14,112	54,635	1,635,034	1,930,306	93.02%
73	177	12,921	54,812	1,647,955	1,934,407	93.32%
74	175	12,950	54,987	1,660,905	1,938,331	93.62%
75	177	13,275	55,164	1,674,180	1,942,080	93.92%
76	144	10,944	55,308	1,685,124	1,945,652	94.16%
77	135	10,395	55,443	1,695,519	1,949,080	94.39%
78	125	9,750	55,568	1,705,269	1,952,373	94.61%
79	136	10,744	55,704	1,716,013	1,955,541	94.84%
80	138	11,040	55,842	1,727,053	1,958,573	95.07%
81	122	9,882	55,964	1,736,935	1,961,467	95.28%
82	97	7,954	56,061	1,744,889	1,964,239	95.45%
83	92	7,636	56,153	1,752,525	1,966,914	95.60%
84	102	8,568	56,255	1,761,093	1,969,497	95.78%
85	100	8,500	56,355	1,769,593	1,971,978	95.95%
86	85	7,310	56,440	1,776,903	1,974,359	96.09%
87	84	7,308	56,524	1,784,211	1,976,655	96.23%
88	89	7,832	56,613	1,792,043	1,978,867	96.39%
89	81	7,209	56,694	1,799,252	1,980,990	96.52%
90	64	5,760	56,758	1,805,012	1,983,032	96.63%
91	89	8,099	56,847	1,813,111	1,985,010	96.78%
92	63	5,796	56,910	1,818,907	1,986,899	96.89%
93	74	6,882	56,984	1,825,789	1,988,725	97.02%
94	61	5,734	57,045	1,831,523	1,990,477	97.12%
95	49	4,655	57,094	1,836,178	1,992,168	97.20%
96	61	5,856	57,155	1,842,034	1,993,810	97.31%
97	59	5,723	57,214	1,847,757	1,995,391	97.41%
98	41	4,018	57,255	1,851,775	1,996,913	97.48%
99	45	4,455	57,300	1,856,230	1,998,394	97.56%

100	69	6,900	57,369	1,863,130	1,999,830	97.67%
101	58	5,858	57,427	1,868,988	2,001,197	97.77%
102	47	4,794	57,474	1,873,782	2,002,506	97.85%
103	36	3,708	57,510	1,877,490	2,003,768	97.91%
104	43	4,472	57,553	1,881,962	2,004,994	97.99%
105	29	3,045	57,582	1,885,007	2,006,177	98.04%
106	42	4,452	57,624	1,889,459	2,007,331	98.11%
107	38	4,066	57,662	1,893,525	2,008,443	98.17%
108	33	3,564	57,695	1,897,089	2,009,517	98.23%
109	23	2,507	57,718	1,899,596	2,010,558	98.27%
110	35	3,850	57,753	1,903,446	2,011,576	98.33%
111	30	3,330	57,783	1,906,776	2,012,559	98.38%
112	24	2,688	57,807	1,909,464	2,013,512	98.42%
113	17	1,921	57,824	1,911,385	2,014,441	98.45%
114	17	1,938	57,841	1,913,323	2,015,353	98.48%
115	15	1,725	57,856	1,915,048	2,016,248	98.50%
116	15	1,740	57,871	1,916,788	2,017,128	98.53%
117	14	1,638	57,885	1,918,426	2,017,993	98.55%
118	20	2,360	57,905	1,920,786	2,018,844	98.59%
119	23	2,737	57,928	1,923,523	2,019,675	98.62%
120	30	3,600	57,958	1,927,123	2,020,483	98.68%
121	27	3,267	57,985	1,930,390	2,021,261	98.72%
122	17	2,074	58,002	1,932,464	2,022,012	98.75%
123	20	2,460	58,022	1,934,924	2,022,746	98.78%
124	19	2,356	58,041	1,937,280	2,023,460	98.82%
125	12	1,500	58,053	1,938,780	2,024,155	98.84%
126	15	1,890	58,068	1,940,670	2,024,838	98.86%
127	24	3,048	58,092	1,943,718	2,025,506	98.90%
128	13	1,664	58,105	1,945,382	2,026,150	98.93%
129	4	516	58,109	1,945,898	2,026,781	98.93%
130	11	1,430	58,120	1,947,328	2,027,408	98.95%
131	17	2,227	58,137	1,949,555	2,028,024	98.98%
132	17	2,244	58,154	1,951,799	2,028,623	99.01%
133	17	2,261	58,171	1,954,060	2,029,205	99.04%
134	9	1,206	58,180	1,955,266	2,029,770	99.05%
135	9	1,215	58,189	1,956,481	2,030,326	99.07%
136	9	1,224	58,198	1,957,705	2,030,873	99.08%
137	12	1,644	58,210	1,959,349	2,031,411	99.10%
138	17	2,346	58,227	1,961,695	2,031,937	99.13%
139	14	1,946	58,241	1,963,641	2,032,446	99.16%
140	10	1,400	58,251	1,965,041	2,032,941	99.17%
141	6	846	58,257	1,965,887	2,033,426	99.18%
142	6	852	58,263	1,966,739	2,033,905	99.19%
143	6	858	58,269	1,967,597	2,034,378	99.20%
144	8	1,152	58,277	1,968,749	2,034,845	99.22%
145	8	1,160	58,285	1,969,909	2,035,304	99.23%
146	10	1,460	58,295	1,971,369	2,035,755	99.25%
147	10	1,470	58,305	1,972,839	2,036,196	99.27%
148	8	1,184	58,313	1,974,023	2,036,627	99.28%
149	8	1,192	58,321	1,975,215	2,037,050	99.29%
150	6	900	58,327	1,976,115	2,037,465	99.30%
151	10	1,510	58,337	1,977,625	2,037,874	99.32%
152	7	1,064	58,344	1,978,689	2,038,273	99.33%
153	6	918	58,350	1,979,607	2,038,665	99.34%
154	6	924	58,356	1,980,531	2,039,051	99.35%

155	10	1,550	58,366	1,982,081	2,039,431	99.37%
156	6	936	58,372	1,983,017	2,039,801	99.38%
157	4	628	58,376	1,983,645	2,040,165	99.39%
158	3	474	58,379	1,984,119	2,040,525	99.39%
159	7	1,113	58,386	1,985,232	2,040,882	99.40%
160	7	1,120	58,393	1,986,352	2,041,232	99.42%
161	6	966	58,399	1,987,318	2,041,575	99.43%
162	4	648	58,403	1,987,966	2,041,912	99.43%
163	9	1,467	58,412	1,989,433	2,042,245	99.45%
164	3	492	58,415	1,989,925	2,042,569	99.45%
165	2	330	58,417	1,990,255	2,042,890	99.46%
166	5	830	58,422	1,991,085	2,043,209	99.47%
167	7	1,169	58,429	1,992,254	2,043,523	99.48%
168	6	1,008	58,435	1,993,262	2,043,830	99.49%
169	4	676	58,439	1,993,938	2,044,131	99.49%
170	2	340	58,441	1,994,278	2,044,428	99.50%
171	3	513	58,444	1,994,791	2,044,723	99.50%
172	1	172	58,445	1,994,963	2,045,015	99.50%
173	3	519	58,448	1,995,482	2,045,306	99.51%
174	1	174	58,449	1,995,656	2,045,594	99.51%
175	3	525	58,452	1,996,181	2,045,881	99.52%
176	4	704	58,456	1,996,885	2,046,165	99.52%
177	2	354	58,458	1,997,239	2,046,445	99.53%
178	5	890	58,463	1,998,129	2,046,723	99.54%
179	7	1,253	58,470	1,999,382	2,046,996	99.55%
180	3	540	58,473	1,999,922	2,047,262	99.55%
181	3	543	58,476	2,000,465	2,047,525	99.56%
182	4	728	58,480	2,001,193	2,047,785	99.56%
183	4	732	58,484	2,001,925	2,048,041	99.57%
184	6	1,104	58,490	2,003,029	2,048,293	99.58%
185	6	1,110	58,496	2,004,139	2,048,539	99.59%
186	2	372	58,498	2,004,511	2,048,779	99.59%
187	5	935	58,503	2,005,446	2,049,017	99.60%
188	1	188	58,504	2,005,634	2,049,250	99.61%
189	2	378	58,506	2,006,012	2,049,482	99.61%
190	4	760	58,510	2,006,772	2,049,712	99.62%
191	1	191	58,511	2,006,963	2,049,938	99.62%
192	1	192	58,512	2,007,155	2,050,163	99.62%
193	1	193	58,513	2,007,348	2,050,387	99.62%
194	2	388	58,515	2,007,736	2,050,610	99.62%
195	3	585	58,518	2,008,321	2,050,831	99.63%
196	3	588	58,521	2,008,909	2,051,049	99.63%
197	1	197	58,522	2,009,106	2,051,264	99.64%
198	4	792	58,526	2,009,898	2,051,478	99.64%
199	1	199	58,527	2,010,097	2,051,688	99.64%
200	4	800	58,531	2,010,897	2,051,897	99.65%
201	1	201	58,532	2,011,098	2,052,102	99.65%
202	2	404	58,534	2,011,502	2,052,306	99.66%
203	2	406	58,536	2,011,908	2,052,508	99.66%
204	2	408	58,538	2,012,316	2,052,708	99.66%
205	2	410	58,540	2,012,726	2,052,906	99.67%
206	-	-	58,540	2,012,726	2,053,102	99.67%
208	3	624	58,543	2,013,350	2,053,494	99.67%
209	3	627	58,546	2,013,977	2,053,687	99.68%
210	5	1,050	58,551	2,015,027	2,053,877	99.69%

212	3	636	58,554	2,015,663	2,054,247	99.69%
213	1	213	58,555	2,015,876	2,054,429	99.69%
214	4	856	58,559	2,016,732	2,054,610	99.70%
215	4	860	58,563	2,017,592	2,054,787	99.71%
217	2	434	58,565	2,018,026	2,055,133	99.71%
218	3	654	58,568	2,018,680	2,055,304	99.71%
219	1	219	58,569	2,018,899	2,055,472	99.72%
220	3	660	58,572	2,019,559	2,055,639	99.72%
222	4	888	58,576	2,020,447	2,055,967	99.73%
223	2	446	58,578	2,020,893	2,056,127	99.73%
224	2	448	58,580	2,021,341	2,056,285	99.73%
225	1	225	58,581	2,021,566	2,056,441	99.74%
226	2	452	58,583	2,022,018	2,056,596	99.74%
227	1	227	58,584	2,022,245	2,056,749	99.74%
229	2	458	58,586	2,022,703	2,057,053	99.74%
230	2	460	58,588	2,023,163	2,057,203	99.75%
231	2	462	58,590	2,023,625	2,057,351	99.75%
235	1	235	58,591	2,023,860	2,057,935	99.75%
236	2	472	58,593	2,024,332	2,058,080	99.76%
237	2	474	58,595	2,024,806	2,058,223	99.76%
238	3	714	58,598	2,025,520	2,058,364	99.77%
239	1	239	58,599	2,025,759	2,058,502	99.77%
240	1	240	58,600	2,025,999	2,058,639	99.77%
241	-	-	58,600	2,025,999	2,058,775	99.77%
242	2	484	58,602	2,026,483	2,058,911	99.77%
243	2	486	58,604	2,026,969	2,059,045	99.78%
244	2	488	58,606	2,027,457	2,059,177	99.78%
246	2	492	58,608	2,027,949	2,059,437	99.78%
250	10	2,500	58,618	2,030,449	2,059,949	99.80%
251	1	251	58,619	2,030,700	2,060,067	99.80%
252	3	756	58,622	2,031,456	2,060,184	99.81%
253	1	253	58,623	2,031,709	2,060,298	99.81%
254	2	508	58,625	2,032,217	2,060,411	99.81%
255	2	510	58,627	2,032,727	2,060,522	99.81%
257	2	514	58,629	2,033,241	2,060,740	99.82%
258	1	258	58,630	2,033,499	2,060,847	99.82%
260	-	-	58,630	2,033,499	2,061,059	99.82%
263	1	263	58,631	2,033,762	2,061,377	99.82%
266	2	532	58,633	2,034,294	2,061,692	99.82%
267	2	534	58,635	2,034,828	2,061,795	99.83%
268	1	268	58,636	2,035,096	2,061,896	99.83%
273	3	819	58,639	2,035,915	2,062,396	99.83%
274	2	548	58,641	2,036,463	2,062,493	99.84%
275	1	275	58,642	2,036,738	2,062,588	99.84%
282	2	564	58,644	2,037,302	2,063,246	99.84%
283	2	566	58,646	2,037,868	2,063,338	99.85%
288	2	576	58,648	2,038,444	2,063,788	99.85%
293	-	-	58,648	2,038,444	2,064,228	99.85%
294	(1)	(294)	58,647	2,038,150	2,064,316	99.85%
295	1	295	58,648	2,038,445	2,064,405	99.85%
296	3	888	58,651	2,039,333	2,064,493	99.86%
298	1	298	58,652	2,039,631	2,064,663	99.86%
300	1	300	58,653	2,039,931	2,064,831	99.86%
301	2	602	58,655	2,040,533	2,064,914	99.86%
306	1	306	58,656	2,040,839	2,065,319	99.86%

307	2	614	58,658	2,041,453	2,065,399	99.87%
308	1	308	58,659	2,041,761	2,065,477	99.87%
309	1	309	58,660	2,042,070	2,065,554	99.87%
311	2	622	58,662	2,042,692	2,065,706	99.87%
314	1	314	58,663	2,043,006	2,065,928	99.88%
316	1	316	58,664	2,043,322	2,066,074	99.88%
323	1	323	58,665	2,043,645	2,066,578	99.88%
324	1	324	58,666	2,043,969	2,066,649	99.88%
327	1	327	58,667	2,044,296	2,066,859	99.88%
328	2	656	58,669	2,044,952	2,066,928	99.89%
329	2	658	58,671	2,045,610	2,066,995	99.89%
333	1	333	58,672	2,045,943	2,067,255	99.89%
336	1	336	58,673	2,046,279	2,067,447	99.89%
337	1	337	58,674	2,046,616	2,067,510	99.89%
339	1	339	58,675	2,046,955	2,067,634	99.90%
342	1	342	58,676	2,047,297	2,067,817	99.90%
344	1	344	58,677	2,047,641	2,067,937	99.90%
351	2	702	58,679	2,048,343	2,068,350	99.90%
352	1	352	58,680	2,048,695	2,068,407	99.90%
353	2	706	58,682	2,049,401	2,068,463	99.91%
357	1	357	58,683	2,049,758	2,068,679	99.91%
359	1	359	58,684	2,050,117	2,068,785	99.91%
361	1	361	58,685	2,050,478	2,068,889	99.91%
368	1	368	58,686	2,050,846	2,069,246	99.91%
383	2	766	58,688	2,051,612	2,069,996	99.92%
385	1	385	58,689	2,051,997	2,070,092	99.92%
386	1	386	58,690	2,052,383	2,070,139	99.92%
387	1	387	58,691	2,052,770	2,070,185	99.92%
388	1	388	58,692	2,053,158	2,070,230	99.93%
401	1	401	58,693	2,053,559	2,070,802	99.93%
402	1	402	58,694	2,053,961	2,070,845	99.93%
405	1	405	58,695	2,054,366	2,070,971	99.93%
407	1	407	58,696	2,054,773	2,071,053	99.93%
409	1	409	58,697	2,055,182	2,071,133	99.93%
410	-	-	58,697	2,055,182	2,071,172	99.93%
411	1	411	58,698	2,055,593	2,071,211	99.94%
413	1	413	58,699	2,056,006	2,071,287	99.94%
414	1	414	58,700	2,056,420	2,071,324	99.94%
422	2	844	58,702	2,057,264	2,071,612	99.94%
427	2	854	58,704	2,058,118	2,071,782	99.95%
444	1	444	58,705	2,058,562	2,072,326	99.95%
452	1	452	58,706	2,059,014	2,072,574	99.95%
453	1	453	58,707	2,059,467	2,072,604	99.95%
457	-	-	58,707	2,059,467	2,072,720	99.95%
466	1	466	58,708	2,059,933	2,072,981	99.95%
468	1	468	58,709	2,060,401	2,073,037	99.95%
473	1	473	58,710	2,060,874	2,073,172	99.96%
477	1	477	58,711	2,061,351	2,073,276	99.96%
478	1	478	58,712	2,061,829	2,073,301	99.96%
479	1	479	58,713	2,062,308	2,073,325	99.96%
486	1	486	58,714	2,062,794	2,073,486	99.96%
510	1	510	58,715	2,063,304	2,074,014	99.96%
520	1	520	58,716	2,063,824	2,074,224	99.97%
524	(1)	(524)	58,715	2,063,300	2,074,304	99.96%
525	1	525	58,716	2,063,825	2,074,325	99.97%

537	1	537	58,717	2,064,362	2,074,565	99.97%
554	1	554	58,718	2,064,916	2,074,888	99.97%
556	1	556	58,719	2,065,472	2,074,924	99.97%
624	(1)	(624)	58,718	2,064,848	2,076,080	99.97%
626	1	626	58,719	2,065,474	2,076,116	99.97%
647	1	647	58,720	2,066,121	2,076,473	99.97%
651	1	651	58,721	2,066,772	2,076,537	99.97%
672	1	672	58,722	2,067,444	2,076,852	99.98%
698	1	698	58,723	2,068,142	2,077,216	99.98%
705	1	705	58,724	2,068,847	2,077,307	99.98%
756	1	756	58,725	2,069,603	2,077,919	99.98%
827	1	827	58,726	2,070,430	2,078,700	99.98%
837	2	1,674	58,728	2,072,104	2,078,800	99.99%
849	1	849	58,729	2,072,953	2,078,896	99.99%
904	1	904	58,730	2,073,857	2,079,281	99.99%
1,039	1	1,039	58,731	2,074,896	2,080,091	99.99%
1,102	1	1,102	58,732	2,075,998	2,080,406	99.99%
1,455	1	1,455	58,733	2,077,453	2,081,818	99.99%
1,701	1	1,701	58,734	2,079,154	2,082,556	100.00%
1,897	1	1,897	58,735	2,081,051	2,082,948	100.00%
4,223	1	4,223	58,736	2,085,274	2,085,274	100.00%
6,089	-	-	58,736	2,085,274	2,085,274	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF JANUARY 2024
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	1,507	-	1,507	-	-	2.57%
1	441	441	1,948	441	57,155	3.32%
2	349	698	2,297	1,139	113,869	3.92%
3	350	1,050	2,647	2,189	170,234	4.51%
4	383	1,532	3,030	3,721	226,249	5.17%
5	482	2,410	3,512	6,131	281,881	5.99%
6	564	3,384	4,076	9,515	337,031	6.95%
7	615	4,305	4,691	13,820	391,617	8.00%
8	742	5,936	5,433	19,756	445,588	9.26%
9	884	7,956	6,317	27,712	498,817	10.77%
10	918	9,180	7,235	36,892	551,162	12.33%
11	990	10,890	8,225	47,782	602,589	14.02%
12	1,066	12,792	9,291	60,574	653,026	15.84%
13	1,086	14,118	10,377	74,692	702,397	17.69%
14	1,101	15,414	11,478	90,106	750,682	19.57%
15	1,101	16,515	12,579	106,621	797,866	21.44%
16	1,158	18,528	13,737	125,149	843,949	23.42%
17	1,174	19,958	14,911	145,107	888,874	25.42%
18	1,136	20,448	16,047	165,555	932,625	27.36%
19	1,275	24,225	17,322	189,780	975,240	29.53%
20	1,308	26,160	18,630	215,940	1,016,580	31.76%
21	1,295	27,195	19,925	243,135	1,056,612	33.97%
22	1,292	28,424	21,217	271,559	1,095,349	36.17%
23	1,301	29,923	22,518	301,482	1,132,794	38.39%
24	1,266	30,384	23,784	331,866	1,168,938	40.54%
25	1,361	34,025	25,145	365,891	1,203,816	42.86%
26	1,310	34,060	26,455	399,951	1,237,333	45.10%
27	1,260	34,020	27,715	433,971	1,269,540	47.25%
28	1,233	34,524	28,948	468,495	1,300,487	49.35%
29	1,227	35,583	30,175	504,078	1,330,201	51.44%
30	1,212	36,360	31,387	540,438	1,358,688	53.50%
31	1,208	37,448	32,595	577,886	1,385,963	55.56%
32	1,158	37,056	33,753	614,942	1,412,030	57.54%
33	1,091	36,003	34,844	650,945	1,436,939	59.40%
34	990	33,660	35,834	684,605	1,460,757	61.09%
35	1,033	36,155	36,867	720,760	1,483,585	62.85%
36	1,011	36,396	37,878	757,156	1,505,380	64.57%
37	949	35,113	38,827	792,269	1,526,164	66.19%
38	938	35,644	39,765	827,913	1,545,999	67.79%
39	855	33,345	40,620	861,258	1,564,896	69.24%
40	874	34,960	41,494	896,218	1,582,938	70.73%
41	821	33,661	42,315	929,879	1,600,106	72.13%
42	810	34,020	43,125	963,899	1,616,453	73.51%
43	769	33,067	43,894	996,966	1,631,990	74.83%
44	729	32,076	44,623	1,029,042	1,646,758	76.07%

45	680	30,600	45,303	1,059,642	1,660,797	77.23%
46	653	30,038	45,956	1,089,680	1,674,156	78.34%
47	645	30,315	46,601	1,119,995	1,686,862	79.44%
48	578	27,744	47,179	1,147,739	1,698,923	80.43%
49	558	27,342	47,737	1,175,081	1,710,406	81.38%
50	531	26,550	48,268	1,201,631	1,721,331	82.28%
51	531	27,081	48,799	1,228,712	1,731,725	83.19%
52	463	24,076	49,262	1,252,788	1,741,588	83.98%
53	453	24,009	49,715	1,276,797	1,750,988	84.75%
54	452	24,408	50,167	1,301,205	1,759,935	85.52%
55	396	21,780	50,563	1,322,985	1,768,430	86.19%
56	355	19,880	50,918	1,342,865	1,776,529	86.80%
57	399	22,743	51,317	1,365,608	1,784,273	87.48%
58	373	21,634	51,690	1,387,242	1,791,618	88.11%
59	343	20,237	52,033	1,407,479	1,798,590	88.70%
60	332	19,920	52,365	1,427,399	1,805,219	89.27%
61	293	17,873	52,658	1,445,272	1,811,516	89.77%
62	283	17,546	52,941	1,462,818	1,817,520	90.25%
63	277	17,451	53,218	1,480,269	1,823,241	90.72%
64	303	19,392	53,521	1,499,661	1,828,685	91.24%
65	255	16,575	53,776	1,516,236	1,833,826	91.67%
66	241	15,906	54,017	1,532,142	1,838,712	92.08%
67	219	14,673	54,236	1,546,815	1,843,357	92.46%
68	203	13,804	54,439	1,560,619	1,847,783	92.80%
69	181	12,489	54,620	1,573,108	1,852,006	93.11%
70	178	12,460	54,798	1,585,568	1,856,048	93.41%
71	188	13,348	54,986	1,598,916	1,859,912	93.73%
72	158	11,376	55,144	1,610,292	1,863,588	94.00%
73	142	10,366	55,286	1,620,658	1,867,106	94.24%
74	115	8,510	55,401	1,629,168	1,870,482	94.44%
75	151	11,325	55,552	1,640,493	1,873,743	94.70%
76	157	11,932	55,709	1,652,425	1,876,853	94.97%
77	118	9,086	55,827	1,661,511	1,879,806	95.17%
78	116	9,048	55,943	1,670,559	1,882,641	95.36%
79	129	10,191	56,072	1,680,750	1,885,360	95.58%
80	117	9,360	56,189	1,690,110	1,887,950	95.78%
81	114	9,234	56,303	1,699,344	1,890,423	95.98%
82	98	8,036	56,401	1,707,380	1,892,782	96.15%
83	85	7,055	56,486	1,714,435	1,895,043	96.29%
84	89	7,476	56,575	1,721,911	1,897,219	96.44%
85	85	7,225	56,660	1,729,136	1,899,306	96.59%
86	78	6,708	56,738	1,735,844	1,901,308	96.72%
87	64	5,568	56,802	1,741,412	1,903,232	96.83%
88	74	6,512	56,876	1,747,924	1,905,092	96.96%
89	59	5,251	56,935	1,753,175	1,906,878	97.06%
90	67	6,030	57,002	1,759,205	1,908,605	97.17%
91	57	5,187	57,059	1,764,392	1,910,265	97.27%
92	64	5,888	57,123	1,770,280	1,911,868	97.38%
93	63	5,859	57,186	1,776,139	1,913,407	97.48%
94	54	5,076	57,240	1,781,215	1,914,883	97.58%
95	44	4,180	57,284	1,785,395	1,916,305	97.65%
96	63	6,048	57,347	1,791,443	1,917,683	97.76%
97	46	4,462	57,393	1,795,905	1,918,998	97.84%
98	44	4,312	57,437	1,800,217	1,920,267	97.91%
99	37	3,663	57,474	1,803,880	1,921,492	97.97%

100	32	3,200	57,506	1,807,080	1,922,680	98.03%
101	36	3,636	57,542	1,810,716	1,923,836	98.09%
102	26	2,652	57,568	1,813,368	1,924,956	98.14%
103	31	3,193	57,599	1,816,561	1,926,050	98.19%
104	19	1,976	57,618	1,818,537	1,927,113	98.22%
105	24	2,520	57,642	1,821,057	1,928,157	98.26%
106	36	3,816	57,678	1,824,873	1,929,177	98.32%
107	30	3,210	57,708	1,828,083	1,930,161	98.37%
108	19	2,052	57,727	1,830,135	1,931,115	98.41%
109	30	3,270	57,757	1,833,405	1,932,050	98.46%
110	22	2,420	57,779	1,835,825	1,932,955	98.49%
111	21	2,331	57,800	1,838,156	1,933,838	98.53%
112	24	2,688	57,824	1,840,844	1,934,700	98.57%
113	19	2,147	57,843	1,842,991	1,935,538	98.60%
114	40	4,560	57,883	1,847,551	1,936,357	98.67%
115	7	805	57,890	1,848,356	1,937,136	98.68%
116	19	2,204	57,909	1,850,560	1,937,908	98.72%
117	18	2,106	57,927	1,852,666	1,938,661	98.75%
118	13	1,534	57,940	1,854,200	1,939,396	98.77%
119	23	2,737	57,963	1,856,937	1,940,118	98.81%
120	15	1,800	57,978	1,858,737	1,940,817	98.83%
121	18	2,178	57,996	1,860,915	1,941,501	98.86%
122	25	3,050	58,021	1,863,965	1,942,167	98.91%
123	21	2,583	58,042	1,866,548	1,942,808	98.94%
124	19	2,356	58,061	1,868,904	1,943,428	98.98%
125	12	1,500	58,073	1,870,404	1,944,029	99.00%
126	11	1,386	58,084	1,871,790	1,944,618	99.01%
127	7	889	58,091	1,872,679	1,945,196	99.03%
128	16	2,048	58,107	1,874,727	1,945,767	99.05%
129	5	645	58,112	1,875,372	1,946,322	99.06%
130	14	1,820	58,126	1,877,192	1,946,872	99.09%
131	10	1,310	58,136	1,878,502	1,947,408	99.10%
132	21	2,772	58,157	1,881,274	1,947,934	99.14%
133	6	798	58,163	1,882,072	1,948,439	99.15%
134	14	1,876	58,177	1,883,948	1,948,938	99.17%
135	8	1,080	58,185	1,885,028	1,949,423	99.19%
136	8	1,088	58,193	1,886,116	1,949,900	99.20%
137	7	959	58,200	1,887,075	1,950,369	99.21%
138	8	1,104	58,208	1,888,179	1,950,831	99.23%
139	7	973	58,215	1,889,152	1,951,285	99.24%
140	8	1,120	58,223	1,890,272	1,951,732	99.25%
141	10	1,410	58,233	1,891,682	1,952,171	99.27%
142	10	1,420	58,243	1,893,102	1,952,600	99.29%
143	12	1,716	58,255	1,894,818	1,953,019	99.31%
144	10	1,440	58,265	1,896,258	1,953,426	99.32%
145	4	580	58,269	1,896,838	1,953,823	99.33%
146	3	438	58,272	1,897,276	1,954,216	99.34%
147	8	1,176	58,280	1,898,452	1,954,606	99.35%
148	5	740	58,285	1,899,192	1,954,988	99.36%
149	5	745	58,290	1,899,937	1,955,365	99.37%
150	5	750	58,295	1,900,687	1,955,737	99.37%
151	4	604	58,299	1,901,291	1,956,104	99.38%
152	5	760	58,304	1,902,051	1,956,467	99.39%
153	8	1,224	58,312	1,903,275	1,956,825	99.40%
154	11	1,694	58,323	1,904,969	1,957,175	99.42%

155	10	1,550	58,333	1,906,519	1,957,514	99.44%
156	6	936	58,339	1,907,455	1,957,843	99.45%
157	4	628	58,343	1,908,083	1,958,166	99.46%
158	3	474	58,346	1,908,557	1,958,485	99.46%
159	7	1,113	58,353	1,909,670	1,958,801	99.47%
160	4	640	58,357	1,910,310	1,959,110	99.48%
161	4	644	58,361	1,910,954	1,959,415	99.49%
162	8	1,296	58,369	1,912,250	1,959,716	99.50%
163	6	978	58,375	1,913,228	1,960,009	99.51%
164	3	492	58,378	1,913,720	1,960,296	99.52%
165	5	825	58,383	1,914,545	1,960,580	99.52%
167	4	668	58,387	1,915,213	1,961,138	99.53%
168	5	840	58,392	1,916,053	1,961,413	99.54%
169	5	845	58,397	1,916,898	1,961,683	99.55%
170	3	510	58,400	1,917,408	1,961,948	99.55%
171	3	513	58,403	1,917,921	1,962,210	99.56%
172	6	1,032	58,409	1,918,953	1,962,469	99.57%
173	2	346	58,411	1,919,299	1,962,722	99.57%
174	1	174	58,412	1,919,473	1,962,973	99.57%
175	7	1,225	58,419	1,920,698	1,963,223	99.59%
176	1	176	58,420	1,920,874	1,963,466	99.59%
177	4	708	58,424	1,921,582	1,963,708	99.59%
178	4	712	58,428	1,922,294	1,963,946	99.60%
179	2	358	58,430	1,922,652	1,964,180	99.60%
180	3	540	58,433	1,923,192	1,964,412	99.61%
181	4	724	58,437	1,923,916	1,964,641	99.62%
182	3	546	58,440	1,924,462	1,964,866	99.62%
183	4	732	58,444	1,925,194	1,965,088	99.63%
184	5	920	58,449	1,926,114	1,965,306	99.64%
185	4	740	58,453	1,926,854	1,965,519	99.64%
186	3	558	58,456	1,927,412	1,965,728	99.65%
187	1	187	58,457	1,927,599	1,965,934	99.65%
188	3	564	58,460	1,928,163	1,966,139	99.66%
189	2	378	58,462	1,928,541	1,966,341	99.66%
190	2	380	58,464	1,928,921	1,966,541	99.66%
191	3	573	58,467	1,929,494	1,966,739	99.67%
192	9	1,728	58,476	1,931,222	1,966,934	99.68%
193	5	965	58,481	1,932,187	1,967,120	99.69%
194	2	388	58,483	1,932,575	1,967,301	99.69%
195	5	975	58,488	1,933,550	1,967,480	99.70%
196	-	-	58,488	1,933,550	1,967,654	99.70%
197	3	591	58,491	1,934,141	1,967,828	99.71%
198	3	594	58,494	1,934,735	1,967,999	99.71%
199	1	199	58,495	1,934,934	1,968,167	99.72%
200	3	600	58,498	1,935,534	1,968,334	99.72%
201	2	402	58,500	1,935,936	1,968,498	99.72%
202	2	404	58,502	1,936,340	1,968,660	99.73%
203	2	406	58,504	1,936,746	1,968,820	99.73%
204	3	612	58,507	1,937,358	1,968,978	99.74%
205	2	410	58,509	1,937,768	1,969,133	99.74%
206	1	206	58,510	1,937,974	1,969,286	99.74%
207	1	207	58,511	1,938,181	1,969,438	99.74%
208	1	208	58,512	1,938,389	1,969,589	99.74%
209	1	209	58,513	1,938,598	1,969,739	99.75%
210	1	210	58,514	1,938,808	1,969,888	99.75%

211	2	422	58,516	1,939,230	1,970,036	99.75%
212	(1)	(212)	58,515	1,939,018	1,970,182	99.75%
213	3	639	58,518	1,939,657	1,970,329	99.75%
214	2	428	58,520	1,940,085	1,970,473	99.76%
215	(1)	(215)	58,519	1,939,870	1,970,615	99.76%
216	2	432	58,521	1,940,302	1,970,758	99.76%
218	2	436	58,523	1,940,738	1,971,040	99.76%
219	2	438	58,525	1,941,176	1,971,179	99.77%
221	1	221	58,526	1,941,397	1,971,453	99.77%
222	1	222	58,527	1,941,619	1,971,589	99.77%
223	4	892	58,531	1,942,511	1,971,724	99.78%
225	1	225	58,532	1,942,736	1,971,986	99.78%
226	1	226	58,533	1,942,962	1,972,116	99.78%
227	1	227	58,534	1,943,189	1,972,245	99.78%
228	1	228	58,535	1,943,417	1,972,373	99.78%
233	3	699	58,538	1,944,116	1,973,008	99.79%
234	1	234	58,539	1,944,350	1,973,132	99.79%
236	2	472	58,541	1,944,822	1,973,378	99.79%
237	2	474	58,543	1,945,296	1,973,499	99.80%
238	1	238	58,544	1,945,534	1,973,618	99.80%
240	2	480	58,546	1,946,014	1,973,854	99.80%
241	1	241	58,547	1,946,255	1,973,970	99.80%
242	2	484	58,549	1,946,739	1,974,085	99.81%
245	1	245	58,550	1,946,984	1,974,424	99.81%
247	3	741	58,553	1,947,725	1,974,648	99.81%
250	8	2,000	58,561	1,949,725	1,974,975	99.83%
252	1	252	58,562	1,949,977	1,975,177	99.83%
254	(1)	(254)	58,561	1,949,723	1,975,377	99.83%
256	2	512	58,563	1,950,235	1,975,579	99.83%
258	1	258	58,564	1,950,493	1,975,777	99.83%
259	1	259	58,565	1,950,752	1,975,875	99.83%
261	1	261	58,566	1,951,013	1,976,069	99.84%
262	4	1,048	58,570	1,952,061	1,976,165	99.84%
266	2	532	58,572	1,952,593	1,976,533	99.85%
268	2	536	58,574	1,953,129	1,976,713	99.85%
269	1	269	58,575	1,953,398	1,976,801	99.85%
271	2	542	58,577	1,953,940	1,976,975	99.86%
273	1	273	58,578	1,954,213	1,977,145	99.86%
274	1	274	58,579	1,954,487	1,977,229	99.86%
277	1	277	58,580	1,954,764	1,977,478	99.86%
280	1	280	58,581	1,955,044	1,977,724	99.86%
281	2	562	58,583	1,955,606	1,977,805	99.87%
282	1	282	58,584	1,955,888	1,977,884	99.87%
283	1	283	58,585	1,956,171	1,977,962	99.87%
284	1	284	58,586	1,956,455	1,978,039	99.87%
286	1	286	58,587	1,956,741	1,978,191	99.87%
287	1	287	58,588	1,957,028	1,978,266	99.87%
290	2	580	58,590	1,957,608	1,978,488	99.88%
292	1	292	58,591	1,957,900	1,978,632	99.88%
293	2	586	58,593	1,958,486	1,978,703	99.88%
294	1	294	58,594	1,958,780	1,978,772	99.88%
295	1	295	58,595	1,959,075	1,978,840	99.89%
297	1	297	58,596	1,959,372	1,978,974	99.89%
298	1	298	58,597	1,959,670	1,979,040	99.89%
301	-	-	58,597	1,959,670	1,979,235	99.89%

302	1	302	58,598	1,959,972	1,979,300	99.89%
305	2	610	58,600	1,960,582	1,979,492	99.89%
308	1	308	58,601	1,960,890	1,979,678	99.90%
309	1	309	58,602	1,961,199	1,979,739	99.90%
310	1	310	58,603	1,961,509	1,979,799	99.90%
315	2	630	58,605	1,962,139	1,980,094	99.90%
319	2	638	58,607	1,962,777	1,980,322	99.91%
320	1	320	58,608	1,963,097	1,980,377	99.91%
323	1	323	58,609	1,963,420	1,980,539	99.91%
324	1	324	58,610	1,963,744	1,980,592	99.91%
325	1	325	58,611	1,964,069	1,980,644	99.91%
327	1	327	58,612	1,964,396	1,980,746	99.91%
328	1	328	58,613	1,964,724	1,980,796	99.92%
332	1	332	58,614	1,965,056	1,980,992	99.92%
333	1	333	58,615	1,965,389	1,981,040	99.92%
337	1	337	58,616	1,965,726	1,981,228	99.92%
338	1	338	58,617	1,966,064	1,981,274	99.92%
344	-	-	58,617	1,966,064	1,981,544	99.92%
346	1	346	58,618	1,966,410	1,981,634	99.92%
350	1	350	58,619	1,966,760	1,981,810	99.93%
353	1	353	58,620	1,967,113	1,981,939	99.93%
358	1	358	58,621	1,967,471	1,982,149	99.93%
362	1	362	58,622	1,967,833	1,982,313	99.93%
367	1	367	58,623	1,968,200	1,982,513	99.93%
368	1	368	58,624	1,968,568	1,982,552	99.94%
369	1	369	58,625	1,968,937	1,982,590	99.94%
380	1	380	58,626	1,969,317	1,982,997	99.94%
381	2	762	58,628	1,970,079	1,983,033	99.94%
385	1	385	58,629	1,970,464	1,983,169	99.94%
386	2	772	58,631	1,971,236	1,983,202	99.95%
388	(1)	(388)	58,630	1,970,848	1,983,264	99.95%
391	1	391	58,631	1,971,239	1,983,360	99.95%
400	1	400	58,632	1,971,639	1,983,639	99.95%
404	1	404	58,633	1,972,043	1,983,759	99.95%
420	1	420	58,634	1,972,463	1,984,223	99.95%
421	1	421	58,635	1,972,884	1,984,251	99.95%
430	1	430	58,636	1,973,314	1,984,494	99.96%
436	1	436	58,637	1,973,750	1,984,650	99.96%
450	1	450	58,638	1,974,200	1,985,000	99.96%
458	1	458	58,639	1,974,658	1,985,192	99.96%
461	1	461	58,640	1,975,119	1,985,261	99.96%
462	1	462	58,641	1,975,581	1,985,283	99.96%
465	1	465	58,642	1,976,046	1,985,346	99.97%
472	1	472	58,643	1,976,518	1,985,486	99.97%
477	(1)	(477)	58,642	1,976,041	1,985,581	99.97%
478	(1)	(478)	58,641	1,975,563	1,985,601	99.96%
486	1	486	58,642	1,976,049	1,985,769	99.97%
503	-	-	58,642	1,976,049	1,986,109	99.97%
507	1	507	58,643	1,976,556	1,986,189	99.97%
527	1	527	58,644	1,977,083	1,986,569	99.97%
528	1	528	58,645	1,977,611	1,986,587	99.97%
548	1	548	58,646	1,978,159	1,986,927	99.97%
557	1	557	58,647	1,978,716	1,987,071	99.97%
589	1	589	58,648	1,979,305	1,987,551	99.98%
627	1	627	58,649	1,979,932	1,988,083	99.98%

630	1	630	58,650	1,980,562	1,988,122	99.98%
636	1	636	58,651	1,981,198	1,988,194	99.98%
662	1	662	58,652	1,981,860	1,988,480	99.98%
664	1	664	58,653	1,982,524	1,988,500	99.98%
666	1	666	58,654	1,983,190	1,988,518	99.99%
732	1	732	58,655	1,983,922	1,989,046	99.99%
744	1	744	58,656	1,984,666	1,989,130	99.99%
758	1	758	58,657	1,985,424	1,989,214	99.99%
791	1	791	58,658	1,986,215	1,989,379	99.99%
797	1	797	58,659	1,987,012	1,989,403	99.99%
822	1	822	58,660	1,987,834	1,989,478	100.00%
867	1	867	58,661	1,988,701	1,989,568	100.00%
885	(1)	(885)	58,660	1,987,816	1,989,586	100.00%
1,414	1	1,414	58,661	1,989,230	1,990,644	100.00%
1,441	1	1,441	58,662	1,990,671	1,990,671	100.00%
1,706	-	-	58,662	1,990,671	1,990,671	100.00%
2,815	-	-	58,662	1,990,671	1,990,671	100.00%

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF FEBRUARY 2024
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	1,592	-	1,592	-	-	2.71%
1	508	508	2,100	508	57,144	3.58%
2	364	728	2,464	1,236	113,780	4.20%
3	333	999	2,797	2,235	170,052	4.76%
4	356	1,424	3,153	3,659	225,991	5.37%
5	458	2,290	3,611	5,949	281,574	6.15%
6	553	3,318	4,164	9,267	336,699	7.09%
7	654	4,578	4,818	13,845	391,271	8.20%
8	792	6,336	5,610	20,181	445,189	9.55%
9	878	7,902	6,488	28,083	498,315	11.05%
10	995	9,950	7,483	38,033	550,563	12.74%
11	1,009	11,099	8,492	49,132	601,816	14.46%
12	1,003	12,036	9,495	61,168	652,060	16.17%
13	1,145	14,885	10,640	76,053	701,301	18.11%
14	1,197	16,758	11,837	92,811	749,397	20.15%
15	1,151	17,265	12,988	110,076	796,296	22.11%
16	1,139	18,224	14,127	128,300	842,044	24.05%
17	1,248	21,216	15,375	149,516	886,653	26.18%
18	1,198	21,564	16,573	171,080	930,014	28.22%
19	1,309	24,871	17,882	195,951	972,177	30.44%
20	1,287	25,740	19,169	221,691	1,013,031	32.64%
21	1,233	25,893	20,402	247,584	1,052,598	34.74%
22	1,280	28,160	21,682	275,744	1,090,932	36.91%
23	1,365	31,395	23,047	307,139	1,127,986	39.24%
24	1,329	31,896	24,376	339,035	1,163,675	41.50%
25	1,261	31,525	25,637	370,560	1,198,035	43.65%
26	1,326	34,476	26,963	405,036	1,231,134	45.91%
27	1,337	36,099	28,300	441,135	1,262,907	48.18%
28	1,288	36,064	29,588	477,199	1,293,343	50.37%
29	1,203	34,887	30,791	512,086	1,322,491	52.42%
30	1,145	34,350	31,936	546,436	1,350,436	54.37%
31	1,163	36,053	33,099	582,489	1,377,236	56.35%
32	1,135	36,320	34,234	618,809	1,402,873	58.28%
33	1,080	35,640	35,314	654,449	1,427,375	60.12%
34	1,062	36,108	36,376	690,557	1,450,797	61.93%
35	1,028	35,980	37,404	726,537	1,473,157	63.68%
36	979	35,244	38,383	761,781	1,494,489	65.35%
37	960	35,520	39,343	797,301	1,514,842	66.98%
38	923	35,074	40,266	832,375	1,534,235	68.55%
39	910	35,490	41,176	867,865	1,552,705	70.10%
40	838	33,520	42,014	901,385	1,570,265	71.53%
41	834	34,194	42,848	935,579	1,586,987	72.95%
42	797	33,474	43,645	969,053	1,602,875	74.31%
43	802	34,486	44,447	1,003,539	1,617,966	75.67%
44	663	29,172	45,110	1,032,711	1,632,255	76.80%

45	753	33,885	45,863	1,066,596	1,645,881	78.08%
46	635	29,210	46,498	1,095,806	1,658,754	79.16%
47	596	28,012	47,094	1,123,818	1,670,992	80.18%
48	609	29,232	47,703	1,153,050	1,682,634	81.22%
49	562	27,538	48,265	1,180,588	1,693,667	82.17%
50	521	26,050	48,786	1,206,638	1,704,138	83.06%
51	504	25,704	49,290	1,232,342	1,714,088	83.92%
52	459	23,868	49,749	1,256,210	1,723,534	84.70%
53	429	22,737	50,178	1,278,947	1,732,521	85.43%
54	418	22,572	50,596	1,301,519	1,741,079	86.14%
55	419	23,045	51,015	1,324,564	1,749,219	86.85%
56	373	20,888	51,388	1,345,452	1,756,940	87.49%
57	365	20,805	51,753	1,366,257	1,764,288	88.11%
58	363	21,054	52,116	1,387,311	1,771,271	88.73%
59	340	20,060	52,456	1,407,371	1,777,891	89.31%
60	269	16,140	52,725	1,423,511	1,784,171	89.77%
61	288	17,568	53,013	1,441,079	1,790,182	90.26%
62	280	17,360	53,293	1,458,439	1,795,905	90.73%
63	285	17,955	53,578	1,476,394	1,801,348	91.22%
64	265	16,960	53,843	1,493,354	1,806,506	91.67%
65	222	14,430	54,065	1,507,784	1,811,399	92.05%
66	200	13,200	54,265	1,520,984	1,816,070	92.39%
67	213	14,271	54,478	1,535,255	1,820,541	92.75%
68	210	14,280	54,688	1,549,535	1,824,799	93.11%
69	184	12,696	54,872	1,562,231	1,828,847	93.42%
70	179	12,530	55,051	1,574,761	1,832,711	93.73%
71	144	10,224	55,195	1,584,985	1,836,396	93.97%
72	160	11,520	55,355	1,596,505	1,839,937	94.24%
73	139	10,147	55,494	1,606,652	1,843,318	94.48%
74	155	11,470	55,649	1,618,122	1,846,560	94.74%
75	143	10,725	55,792	1,628,847	1,849,647	94.99%
76	119	9,044	55,911	1,637,891	1,852,591	95.19%
77	123	9,471	56,034	1,647,362	1,855,416	95.40%
78	122	9,516	56,156	1,656,878	1,858,118	95.61%
79	101	7,979	56,257	1,664,857	1,860,698	95.78%
80	99	7,920	56,356	1,672,777	1,863,177	95.95%
81	100	8,100	56,456	1,680,877	1,865,557	96.12%
82	78	6,396	56,534	1,687,273	1,867,837	96.25%
83	90	7,470	56,624	1,694,743	1,870,039	96.40%
84	89	7,476	56,713	1,702,219	1,872,151	96.56%
85	75	6,375	56,788	1,708,594	1,874,174	96.68%
86	74	6,364	56,862	1,714,958	1,876,122	96.81%
87	58	5,046	56,920	1,720,004	1,877,996	96.91%
88	60	5,280	56,980	1,725,284	1,879,812	97.01%
89	67	5,963	57,047	1,731,247	1,881,568	97.12%
90	53	4,770	57,100	1,736,017	1,883,257	97.21%
91	68	6,188	57,168	1,742,205	1,884,893	97.33%
92	61	5,612	57,229	1,747,817	1,886,461	97.43%
93	57	5,301	57,286	1,753,118	1,887,968	97.53%
94	44	4,136	57,330	1,757,254	1,889,418	97.61%
95	45	4,275	57,375	1,761,529	1,890,824	97.68%
96	45	4,320	57,420	1,765,849	1,892,185	97.76%
97	47	4,559	57,467	1,770,408	1,893,501	97.84%
98	36	3,528	57,503	1,773,936	1,894,770	97.90%
99	46	4,554	57,549	1,778,490	1,896,003	97.98%

100	44	4,400	57,593	1,782,890	1,897,190	98.05%
101	35	3,535	57,628	1,786,425	1,898,333	98.11%
102	40	4,080	57,668	1,790,505	1,899,441	98.18%
103	39	4,017	57,707	1,794,522	1,900,509	98.25%
104	27	2,808	57,734	1,797,330	1,901,538	98.29%
105	28	2,940	57,762	1,800,270	1,902,540	98.34%
106	29	3,074	57,791	1,803,344	1,903,514	98.39%
107	30	3,210	57,821	1,806,554	1,904,459	98.44%
108	28	3,024	57,849	1,809,578	1,905,374	98.49%
109	38	4,142	57,887	1,813,720	1,906,261	98.55%
110	25	2,750	57,912	1,816,470	1,907,110	98.60%
111	33	3,663	57,945	1,820,133	1,907,934	98.65%
112	25	2,800	57,970	1,822,933	1,908,725	98.70%
113	27	3,051	57,997	1,825,984	1,909,491	98.74%
114	28	3,192	58,025	1,829,176	1,910,230	98.79%
115	18	2,070	58,043	1,831,246	1,910,941	98.82%
116	21	2,436	58,064	1,833,682	1,911,634	98.86%
117	14	1,638	58,078	1,835,320	1,912,306	98.88%
118	16	1,888	58,094	1,837,208	1,912,964	98.91%
119	17	2,023	58,111	1,839,231	1,913,606	98.94%
120	17	2,040	58,128	1,841,271	1,914,231	98.96%
121	9	1,089	58,137	1,842,360	1,914,839	98.98%
122	16	1,952	58,153	1,844,312	1,915,438	99.01%
123	12	1,476	58,165	1,845,788	1,916,021	99.03%
124	11	1,364	58,176	1,847,152	1,916,592	99.05%
125	18	2,250	58,194	1,849,402	1,917,152	99.08%
126	8	1,008	58,202	1,850,410	1,917,694	99.09%
127	13	1,651	58,215	1,852,061	1,918,228	99.11%
128	7	896	58,222	1,852,957	1,918,749	99.12%
129	19	2,451	58,241	1,855,408	1,919,263	99.16%
130	14	1,820	58,255	1,857,228	1,919,758	99.18%
131	9	1,179	58,264	1,858,407	1,920,239	99.20%
132	10	1,320	58,274	1,859,727	1,920,711	99.21%
133	6	798	58,280	1,860,525	1,921,173	99.22%
134	5	670	58,285	1,861,195	1,921,629	99.23%
135	3	405	58,288	1,861,600	1,922,080	99.24%
136	13	1,768	58,301	1,863,368	1,922,528	99.26%
137	5	685	58,306	1,864,053	1,922,963	99.27%
138	7	966	58,313	1,865,019	1,923,393	99.28%
139	10	1,390	58,323	1,866,409	1,923,816	99.30%
140	9	1,260	58,332	1,867,669	1,924,229	99.31%
141	8	1,128	58,340	1,868,797	1,924,633	99.33%
142	7	994	58,347	1,869,791	1,925,029	99.34%
143	5	715	58,352	1,870,506	1,925,418	99.35%
144	5	720	58,357	1,871,226	1,925,802	99.35%
145	7	1,015	58,364	1,872,241	1,926,181	99.37%
146	10	1,460	58,374	1,873,701	1,926,553	99.38%
147	6	882	58,380	1,874,583	1,926,915	99.39%
148	7	1,036	58,387	1,875,619	1,927,271	99.41%
149	6	894	58,393	1,876,513	1,927,620	99.42%
150	5	750	58,398	1,877,263	1,927,963	99.42%
151	3	453	58,401	1,877,716	1,928,301	99.43%
152	7	1,064	58,408	1,878,780	1,928,636	99.44%
153	10	1,530	58,418	1,880,310	1,928,964	99.46%
154	4	616	58,422	1,880,926	1,929,282	99.47%

155	9	1,395	58,431	1,882,321	1,929,596	99.48%
156	6	936	58,437	1,883,257	1,929,901	99.49%
158	10	1,580	58,447	1,884,837	1,930,499	99.51%
159	2	318	58,449	1,885,155	1,930,788	99.51%
160	3	480	58,452	1,885,635	1,931,075	99.52%
161	5	805	58,457	1,886,440	1,931,359	99.52%
162	3	486	58,460	1,886,926	1,931,638	99.53%
163	7	1,141	58,467	1,888,067	1,931,914	99.54%
164	5	820	58,472	1,888,887	1,932,183	99.55%
165	5	825	58,477	1,889,712	1,932,447	99.56%
166	3	498	58,480	1,890,210	1,932,706	99.56%
167	3	501	58,483	1,890,711	1,932,962	99.57%
168	1	168	58,484	1,890,879	1,933,215	99.57%
169	5	845	58,489	1,891,724	1,933,467	99.58%
170	1	170	58,490	1,891,894	1,933,714	99.58%
171	1	171	58,491	1,892,065	1,933,960	99.58%
172	1	172	58,492	1,892,237	1,934,205	99.58%
173	4	692	58,496	1,892,929	1,934,449	99.59%
174	2	348	58,498	1,893,277	1,934,689	99.59%
175	5	875	58,503	1,894,152	1,934,927	99.60%
176	2	352	58,505	1,894,504	1,935,160	99.61%
177	4	708	58,509	1,895,212	1,935,391	99.61%
178	4	712	58,513	1,895,924	1,935,618	99.62%
179	3	537	58,516	1,896,461	1,935,841	99.63%
180	3	540	58,519	1,897,001	1,936,061	99.63%
181	4	724	58,523	1,897,725	1,936,278	99.64%
182	5	910	58,528	1,898,635	1,936,491	99.65%
183	1	183	58,529	1,898,818	1,936,699	99.65%
184	6	1,104	58,535	1,899,922	1,936,906	99.66%
185	4	740	58,539	1,900,662	1,937,107	99.66%
186	1	186	58,540	1,900,848	1,937,304	99.67%
187	1	187	58,541	1,901,035	1,937,500	99.67%
188	4	752	58,545	1,901,787	1,937,695	99.67%
190	1	190	58,546	1,901,977	1,938,077	99.68%
191	3	573	58,549	1,902,550	1,938,267	99.68%
192	2	384	58,551	1,902,934	1,938,454	99.69%
193	2	386	58,553	1,903,320	1,938,639	99.69%
194	1	194	58,554	1,903,514	1,938,822	99.69%
195	3	585	58,557	1,904,099	1,939,004	99.70%
197	4	788	58,561	1,904,887	1,939,362	99.70%
198	2	396	58,563	1,905,283	1,939,537	99.71%
199	2	398	58,565	1,905,681	1,939,710	99.71%
200	3	600	58,568	1,906,281	1,939,881	99.71%
202	2	404	58,570	1,906,685	1,940,217	99.72%
203	3	609	58,573	1,907,294	1,940,383	99.72%
204	1	204	58,574	1,907,498	1,940,546	99.72%
206	1	206	58,575	1,907,704	1,940,870	99.73%
207	3	621	58,578	1,908,325	1,941,031	99.73%
208	2	416	58,580	1,908,741	1,941,189	99.73%
210	2	420	58,582	1,909,161	1,941,501	99.74%
211	1	211	58,583	1,909,372	1,941,655	99.74%
212	1	212	58,584	1,909,584	1,941,808	99.74%
213	1	213	58,585	1,909,797	1,941,960	99.74%
214	1	214	58,586	1,910,011	1,942,111	99.74%
215	1	215	58,587	1,910,226	1,942,261	99.75%

216	1	216	58,588	1,910,442	1,942,410	99.75%
217	1	217	58,589	1,910,659	1,942,558	99.75%
218	2	436	58,591	1,911,095	1,942,705	99.75%
222	1	222	58,592	1,911,317	1,943,285	99.75%
223	2	446	58,594	1,911,763	1,943,429	99.76%
224	2	448	58,596	1,912,211	1,943,571	99.76%
225	1	225	58,597	1,912,436	1,943,711	99.76%
226	1	226	58,598	1,912,662	1,943,850	99.77%
227	-	-	58,598	1,912,662	1,943,988	99.77%
228	1	228	58,599	1,912,890	1,944,126	99.77%
229	3	687	58,602	1,913,577	1,944,263	99.77%
230	2	460	58,604	1,914,037	1,944,397	99.78%
231	1	231	58,605	1,914,268	1,944,529	99.78%
233	1	233	58,606	1,914,501	1,944,791	99.78%
234	4	936	58,610	1,915,437	1,944,921	99.79%
235	2	470	58,612	1,915,907	1,945,047	99.79%
236	-	-	58,612	1,915,907	1,945,171	99.79%
238	(1)	(238)	58,611	1,915,669	1,945,419	99.79%
240	3	720	58,614	1,916,389	1,945,669	99.79%
241	2	482	58,616	1,916,871	1,945,791	99.80%
242	4	968	58,620	1,917,839	1,945,911	99.80%
245	1	245	58,621	1,918,084	1,946,259	99.80%
246	4	984	58,625	1,919,068	1,946,374	99.81%
247	1	247	58,626	1,919,315	1,946,485	99.81%
248	1	248	58,627	1,919,563	1,946,595	99.81%
250	8	2,000	58,635	1,921,563	1,946,813	99.83%
251	4	1,004	58,639	1,922,567	1,946,914	99.83%
253	1	253	58,640	1,922,820	1,947,108	99.84%
255	1	255	58,641	1,923,075	1,947,300	99.84%
256	1	256	58,642	1,923,331	1,947,395	99.84%
257	(1)	(257)	58,641	1,923,074	1,947,489	99.84%
264	1	264	58,642	1,923,338	1,948,154	99.84%
266	(1)	(266)	58,641	1,923,072	1,948,342	99.84%
268	2	536	58,643	1,923,608	1,948,532	99.84%
269	-	-	58,643	1,923,608	1,948,625	99.84%
270	3	810	58,646	1,924,418	1,948,718	99.85%
274	1	274	58,647	1,924,692	1,949,078	99.85%
275	1	275	58,648	1,924,967	1,949,167	99.85%
279	1	279	58,649	1,925,246	1,949,519	99.85%
280	1	280	58,650	1,925,526	1,949,606	99.85%
281	1	281	58,651	1,925,807	1,949,692	99.86%
284	2	568	58,653	1,926,375	1,949,947	99.86%
287	4	1,148	58,657	1,927,523	1,950,196	99.87%
288	1	288	58,658	1,927,811	1,950,275	99.87%
290	1	290	58,659	1,928,101	1,950,431	99.87%
291	1	291	58,660	1,928,392	1,950,508	99.87%
292	1	292	58,661	1,928,684	1,950,584	99.87%
293	2	586	58,663	1,929,270	1,950,659	99.88%
294	1	294	58,664	1,929,564	1,950,732	99.88%
296	1	296	58,665	1,929,860	1,950,876	99.88%
297	2	594	58,667	1,930,454	1,950,947	99.88%
298	2	596	58,669	1,931,050	1,951,016	99.89%
303	2	606	58,671	1,931,656	1,951,351	99.89%
307	3	921	58,674	1,932,577	1,951,611	99.89%
309	2	618	58,676	1,933,195	1,951,735	99.90%

311	1	311	58,677	1,933,506	1,951,855	99.90%
319	1	319	58,678	1,933,825	1,952,327	99.90%
322	1	322	58,679	1,934,147	1,952,501	99.90%
326	1	326	58,680	1,934,473	1,952,729	99.90%
330	1	330	58,681	1,934,803	1,952,953	99.91%
332	1	332	58,682	1,935,135	1,953,063	99.91%
335	1	335	58,683	1,935,470	1,953,225	99.91%
336	1	336	58,684	1,935,806	1,953,278	99.91%
337	1	337	58,685	1,936,143	1,953,330	99.91%
341	1	341	58,686	1,936,484	1,953,534	99.91%
346	2	692	58,688	1,937,176	1,953,784	99.92%
349	1	349	58,689	1,937,525	1,953,928	99.92%
357	1	357	58,690	1,937,882	1,954,304	99.92%
358	1	358	58,691	1,938,240	1,954,350	99.92%
363	-	-	58,691	1,938,240	1,954,575	99.92%
367	-	-	58,691	1,938,240	1,954,755	99.92%
371	1	371	58,692	1,938,611	1,954,935	99.93%
374	-	-	58,692	1,938,611	1,955,067	99.93%
376	2	752	58,694	1,939,363	1,955,155	99.93%
391	1	391	58,695	1,939,754	1,955,785	99.93%
392	1	392	58,696	1,940,146	1,955,826	99.93%
393	1	393	58,697	1,940,539	1,955,866	99.93%
394	2	788	58,699	1,941,327	1,955,905	99.94%
397	1	397	58,700	1,941,724	1,956,016	99.94%
398	1	398	58,701	1,942,122	1,956,052	99.94%
402	-	-	58,701	1,942,122	1,956,192	99.94%
405	-	-	58,701	1,942,122	1,956,297	99.94%
407	-	-	58,701	1,942,122	1,956,367	99.94%
411	1	411	58,702	1,942,533	1,956,507	99.94%
419	1	419	58,703	1,942,952	1,956,779	99.94%
425	1	425	58,704	1,943,377	1,956,977	99.95%
426	1	426	58,705	1,943,803	1,957,009	99.95%
432	1	432	58,706	1,944,235	1,957,195	99.95%
444	1	444	58,707	1,944,679	1,957,555	99.95%
446	1	446	58,708	1,945,125	1,957,613	99.95%
465	1	465	58,709	1,945,590	1,958,145	99.95%
467	1	467	58,710	1,946,057	1,958,199	99.96%
484	1	484	58,711	1,946,541	1,958,641	99.96%
499	1	499	58,712	1,947,040	1,959,016	99.96%
504	1	504	58,713	1,947,544	1,959,136	99.96%
507	1	507	58,714	1,948,051	1,959,205	99.96%
511	1	511	58,715	1,948,562	1,959,293	99.96%
526	1	526	58,716	1,949,088	1,959,608	99.97%
532	1	532	58,717	1,949,620	1,959,728	99.97%
547	1	547	58,718	1,950,167	1,960,013	99.97%
556	1	556	58,719	1,950,723	1,960,175	99.97%
574	1	574	58,720	1,951,297	1,960,481	99.97%
579	1	579	58,721	1,951,876	1,960,561	99.97%
589	1	589	58,722	1,952,465	1,960,711	99.98%
593	1	593	58,723	1,953,058	1,960,767	99.98%
663	1	663	58,724	1,953,721	1,961,677	99.98%
670	1	670	58,725	1,954,391	1,961,761	99.98%
672	1	672	58,726	1,955,063	1,961,783	99.98%
753	1	753	58,727	1,955,816	1,962,593	99.98%
756	1	756	58,728	1,956,572	1,962,620	99.99%

830	-	-	58,728	1,956,572	1,963,212	99.99%
841	1	841	58,729	1,957,413	1,963,300	99.99%
884	1	884	58,730	1,958,297	1,963,601	99.99%
912	1	912	58,731	1,959,209	1,963,769	99.99%
928	-	-	58,731	1,959,209	1,963,849	99.99%
1,019	1	1,019	58,732	1,960,228	1,964,304	99.99%
1,026	1	1,026	58,733	1,961,254	1,964,332	99.99%
1,338	1	1,338	58,734	1,962,592	1,965,268	100.00%
1,808	1	1,808	58,735	1,964,400	1,966,208	100.00%
5,971	-	-	58,735	1,964,400	1,970,371	100.00%
7,876	-	-	58,735	1,964,400	1,972,276	100.00%
13,847	1	13,847	58,736	1,978,247	1,978,247	100.00%

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

PREPARED DIRECT TESTIMONY

OF

GREGORY R. HERBERT, ASSISTANT PROJECT MANAGER

GANNETT FLEMING
VALUATION AND RATE CONSULTANTS, LLC

REGARDING INCOME STATEMENT, OPERATING REVENUE AND EXPENSE ADJUSTMENTS

February 2024

Q. State your name and business address.

A. My name is Gregory R. Herbert. My business address is 207 Senate Avenue, Camp Hill, Pennsylvania.

Q. By whom are you employed?

A. I am employed by Gannett Fleming Valuation and Rate Consultants, LLC ("Gannett Fleming").

Q. Please state your position with Gannett Fleming, and briefly describe your general duties and responsibilities.

A. My title is Assistant Project Manager, Rate Studies. My duties and responsibilities include the preparation of accounting and financial data for utilities regarding revenues under present and proposed rates, including pro forma adjustments to the base year and projected rate year revenues, and the design of customer rates. Additionally, my responsibilities include developing pro forma revenue requirements, and conducting cost allocations by customer class, capital recovery fee, lead-lag, and depreciation studies for investor-owned and municipal-owned utilities.

Q. Have you presented testimony in rate proceedings before a regulatory agency?

A. Yes. I have presented testimony before the Pennsylvania Public Utility Commission, the Virginia State Corporation Commission, the Illinois Commerce

Commission, and the New Jersey Board of Public Utilities. A full list of the cases in which I have testified or assisted Gannett Fleming staff is attached as Appendix A.

Q What is your educational background?

A. I have a Bachelor of Science Degree in Economics from the Pennsylvania State University.

Q. Would you please describe your professional affiliations?

A. I am a member of the American Water Works Association and the National Association of Water Companies. I am also a member of the Pennsylvania Municipal Authorities Association.

Q. Briefly describe your work experience.

A. I joined Gannett Fleming in May 2017. Prior to my employment at Gannett Fleming, I was a Senior Analyst in the Performance Reporting Group of Cambridge Associates, LLC where I oversaw the financial preparation of monthly and annual performance and benchmarking reports for public and private endowment clients.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to explain and support the Veolia Water Pennsylvania, Inc. ("VWPA") Water Division and Wastewater Division income statements, pro forma revenue and expense claims based on the Historic Test Year ("HTY"), Future Test Year ("FTY") and Fully Projected Future Test Year

("FPFTY") ending September 30, 2023, 2024 and October 31, 2025. Additionally, I will be supporting the water and wastewater proposed rate design.

Q. Have you prepared exhibits which present and support VWPA's claims in this proceeding?

A. Yes. Exhibit No. GRH-1 sets forth: VWPA's Combined Water and Wastewater income statement, summary of rate base, and summary of operation and maintenance expense, taxes other than income, depreciation and tax adjustments for the Historic, Future, and Fully Projected Future Test Years. Exhibit No. GRH-2 sets forth: VWPA's water income statement, revenue and revenue adjustments under present rates for the twelve months ended September 30, 2023, 2024, and October 31, 2025; VWPA's revenue and revenue adjustments under proposed rates for the twelve months ending October 31, 2025; and a summary of VWPA'S rate base. Exhibit No. GRH-3 sets forth VWPA's water operation and maintenance expense, taxes other than income, depreciation and tax adjustments for the Historic, Future and Fully Projected Future Test Years. Exhibit No. GRH-4 sets forth: VWPA's wastewater income statement, revenue and revenue adjustments under present rates for the twelve months ended September 30, 2023, 2024, and October 31, 2025; VWPA's revenue and revenue adjustments under proposed rates for the twelve months ending October 31, 2025; and a summary of VWPA'S rate base. Exhibit No. GRH-5 sets forth VWPA's wastewater operation and maintenance expense, taxes other than income, depreciation and tax adjustments for the Historic, Future and Fully Projected Future Test Years.

WATER OPERATIONS INTRODUCTION

Q. Please summarize the Company's request in this filing.

A. The Company is requesting $15,494,620 in additional annual water revenue or an increase of 26.4% in total revenue, which includes the roll-in to base rates of the Company's current Distribution System Improvement Charge ("DSIC"). The total change to the Company's base rates is an increase of $19,442,205 where the DSIC and State Tax Adjustment Surcharge ("STAS") will be reset to zero.

Q. Please describe Schedule 1 of Exhibit No. GRH-2.

The three income statements labeled Schedule 1 in Water Exhibit GRH-2 are summarized by the following service areas:

The Combined Water Division, which includes all water service areas of VWPA Water, Bethel Water, Kensington Water, Overbrook Water and Mahoning Township.

Main Division which includes the revenue requirements of VWPA Water (or existing Main Division), Bethel Water, Overbrook Water, and Kensington Water service areas, and

Mahoning Township which was acquired by the Company during the prior case, and as part of the Final Order, the Company was required to develop a separate revenue requirement and income statement for Mahoning Township.

The Company's income statements in Schedule 1 of Exhibit No. GRH-2, incorporate the information contained in Schedules 2 through 11 as well as Exhibit No. GRH-3

WATER PRO FORMA RATE BASE

Q. Please describe Schedule 1.1.

A. Schedule 1.1 summarizes the Company's Original Cost Measure of Value or Rate Base as of September 30, 2023, 2024 and October 31, 2025. As stated in the schedule, the Original Cost of Utility Plant in Service and Accumulated Depreciation for each year are derived from the Company's Depreciation Study performed as of December 31, 2021 and rolled forward with actual plant additions, retirements and transfers through September 30, 2023 and projected plant additions, retirements and transfers through September 30, 2024 and October 31, 2025. The CIAC and Contributions are based on the Company's HTY figures. Additions to CIAC and Contributions for the FTY and FPFTY are included in the totals for Schedule 1.1. Deferred Taxes are supported in Statement 3 and Exhibit No. GRH-3 Schedule 35. Materials and Supplies equal the 12-month average of Material and Supplies in the HTY as shown in response to MFR-V-11. Cash Working Capital is supported in Statement 4 and Exhibit No. HW-1.

Q. What is the Company's total Original Cost Measure of Value as of October 31, 2025?

A. The Company's total Original Cost Measure of Value as of October 31, 2025 is $356,215,489.

WATER PRO FORMA REVENUE ADJUSTMENTS

Q. Describe the development of pro forma revenues under present and proposed rates.

A. Schedule 4, in Exhibit No. GRH-2 develops the pro forma revenues under present rates. Column 1 equals per books revenue by customer class. Column 3 summarizes the application of present rates to the consumption analysis shown on Schedule 5. Column 4 is the calculated adjustment factor needed to adjust bill analysis revenues from Column 3 to the levels of Column 2. This adjustment factor is used in Schedule 2 and adjusts revenue under proposed rates. Column 5 is equal revenue under present rates after application of the adjustment factor. Column 6 summarizes the application of present rates to the pro forma adjustments in Schedules 5, 7 and 9. Column 7 represents the annualized DSIC revenue based on the current level of 7.5%. Column 8 is the pro forma revenue under present rates, the sum of Columns 5, 6, and 7. Schedule 2 develops the pro forma revenues under proposed rates. Column 2 is the pro forma revenues from present rates derived in Column 8 of Schedule 4. Column 3 is the revenues under proposed rates from the bill analysis in Schedule 2. Column 4 is the adjustment factor from Schedule 4. Column 5 multiplies Column 4 by Column 3 to develop revenues under proposed rates. Column 6 summarizes the application of proposed rates to the pro forma adjustments in Schedules 3, 7 and 9. Column 7 summarizes the total pro forma revenues under proposed rates and is the sum of Columns 5 and 6. Column 8 shows the pro forma proposed dollar increase and Column 9 is the pro forma percentage increase.

Q. Please explain the revenue adjustments under present rates in Exhibit No. GRH-2, Schedules 9, 9.1, 9.2, 9.3, and 9.4.

A. Schedule 9 summarizes the adjustments on Schedules 9.1 and 9.2 and calculates revenue related to the adjustments under present and proposed rates.

Adjustment 1 on Schedule 9.1 annualizes revenue for customer growth by customer class. Lines 1 through 11 calculate the revenue associated with the HTY annualized growth. Lines 12 through 18 calculate the revenue associated with the FTY growth in number of customers. Lines 19 through 25 calculate the revenue associated with the FPFTY growth in number of customers.

Adjustment 2 on Schedule 9.2 calculates the Declining Usage adjustment for the residential and commercial classes based on present rates based on the regression analysis in Workpaper GRH-1-1. Line 1 is the number of normalized bills based on the bill analysis on Schedule 6. Line 2 is the actual daily usage per customer (gallons) for the test year. Line 3 is the projected daily usage for 2024, or FTY. Line 4 is the difference between Line 2 and Line 3, or the projected declining usage for the future test year. Line 5 annualizes this difference by multiplying the declining usage in line 5 by the number of bills in line 1. Lines 7-9 calculate the revenue impact under present rates for declining usage for the Future Test Year.

A similar calculation is done for 2025, the fully projected future test year. Line 10 is the number of normalized bills based on the bill analysis on Schedule 6. Line 11 is the actual daily usage per customer (gallons) for the test year. Line 12 is the projected daily usage for 2025, or FPFTY. Line 13 is the difference between

Line 11 and Line 12, or the projected declining usage for the future test year. Line 14 annualizes this difference by multiplying the declining usage in line 14 by the number of bills in line 10. Lines 16-19 calculate the revenue impact under present rates for declining usage for the Fully Projected Future Test Year. See Workpaper GRH-1-1 for the detailed regression analysis.

Adjustment 3 on Schedule 9.3 adjusts revenue for the change of Commercial customers identified as Residential customers and Industrial customers classified as Commercial customers in the historic test year billing data. The adjustment moves the Commercial customers erroneously classified as Residential customers to the Commercial class, and moves Industrial customers erroneously classified as Commercial customers to the Industrial class. This adjustment is not reflected in Schedule 9 but is included in the calculation of revenues under present and proposed rates on Schedules 5 and 3.

An additional adjustment in Schedule 9.4 for the Overbrook service area shows the change in rate structure from charging each customer premise by number and types of water fixtures within the household or commercial establishment to metered rates. The number of monthly bills is multiplied by 3,700 gallons, which is the service area's average monthly usage, to calculate the projected annual usage for Overbrook.

A revenue contribution under proposed rates of $237,000 was contributed from the Main Division to Mahoning Township to mitigate the rate increase to the Mahoning customers. This contribution allowed for the proposed rates for Mahoning customers to be the same as the proposed rates for the Main Division.

Q. Please describe Schedule 10 of Exhibit No. GRH-2.

A. Schedule 10 in Exhibit No. GRH-2 shows bill comparisons at various usage levels for each customer class.

Q. Please describe Schedule 11 of Exhibit No. GRH-2.

A. Schedule 11 in Exhibit No. GRH-2 shows a summary of present and proposed tariff rates for each customer class and service area.

WATER PRO FORMA OPERATION AND MAINTENANCE EXPENSE ADJUSTMENTS

Q. Please explain the development of the pro forma HTY, FTY and FPFTY operation and maintenance expense shown in Exhibit No. GRH-3.

A. The pro forma HTY, FTY and FPFTY adjustments are summarized in Exhibit No. GRH-3, Schedule 1. The four Schedule 1 Expense summaries are broken out by the Combined Water Division (all water service areas), the Main Division (VWPA, Overbrook and Kensington), Bethel Water, and Mahoning Township. The adjustments are detailed in Schedules 2-31.

Q. Please explain the calculation of each adjustment.

A. Adjustment 1 adjusts Labor Expense for the FTY and FPFTY as shown in Workpaper GRH-2-1. The Company is hiring eleven new employees in 2024 which is reflected in the adjustment.

Adjustment 2 calculates the Employee Group Health and Life Insurance expense for the FTY and FPFTY. This expense was adjusted to include the new employees in the FTY and FPFTY and increases the cost using the inflation factors described in Adjustment 30 for the FPFTY.

Adjustment 3 calculates the Employee Pension Benefits expense for the FTY and FPFTY. This expense was adjusted using the estimated ASC 715-30 Net Periodic Pension Cost for the HTY and by the inflation rate for the FPFTY as described in Adjustment 30.

Adjustment 4 calculates the Employee PEBOP expense for the FTY and FPFTY. This expense was adjusted using the estimated ASC 715-30 Net Periodic Pension Cost for the HTY and by the inflation rate for the FPFTY as described in Adjustment 30.

Adjustment 5 calculates the 401K Matching and Other Benefits for the FTY and FPFTY. This expense was adjusted for the FTY and FPFTY based on 3.75% of the total gross labor expense calculated in Workpaper GRH-2-1.

Adjustment 6 calculates the Purchased Water Expense for the FTY and FPFTY. The expense for the Future Test Year was based on the HTY cost of purchased water, increased by the Future Test Year Inflation Rate for Main, Veolia PA Water service area and Mahoning Township. Bethel Water Purchased Water Expense was based on the HTY cost, increased by 7.9% which is the rate increase that will be in effect for the purchased water from Chester Water Authority. The per books expense for the Fully Projected Future Test Year was increased by the

Fully Projected Future Test Year Inflation rate. The calculation of the inflation rates is detailed in Adjustment 30.

Adjustment 7 calculates the Purchased Power Expense for the FTY and FPFTY. The expense for the Future Test Year was based on the three-year trended cost per kWH of purchased power. The expense for the Fully Projected Future Test year was increased by 2021 through the Fully Projected Future Test Year trended cost per kWH of purchased power. The calculation of the inflation rates is detailed in Adjustment 30. The actual expense for this account for the year ending September 30, 2023 was $2,245,114 (see Line 5 of Adjustment 7) which included $204,029 that was recorded in Account 50620, Fuel – Power Production. Adjustment 8 shows the adjustment of Account 50620 to show the corrected amount of costs booked for Fuel – Power Production.

Adjustment 8 calculates the Fuel – Power Production Expense for the FTY and FPFTY. The amount for the FTY was adjusted to the correct expense of $2,000 in this account for 2023 and then was increased by the FTY Inflation rate. The expense for the Fully Projected Future Test year was increased by the FPFTY Inflation rate. The calculation of the inflation rates is detailed in Adjustment 30.

Adjustments 9 and 10 calculate the Chemical and Materials and Supplies Expenses for the FTY and FPFTY. In the Chemical account, the expense for the FTY was based on the FTY estimated cost. The expense for the FPFTY was increased by the FPFTY Inflation rate. The calculation of the inflation rates is detailed in Adjustment 30. The Materials and Supplies expense was based on the

HTY costs, increased by the FTY Inflation rate, and the FPFTY expense was increased by the FPFTY Inflation rate detailed in Adjustment 30.

Adjustment 11 calculates the Management & Services Expense for the FTY and FPFTY based on the Company's response to MFR-III-06 and excludes non-recoverable management fees incurred in 2023.

Adjustment 12 calculates the Lab Testing Fees for the FTY and FPFTY. The FTY expense is calculated based on the average of the expense for 2022 and 2023. The expense for the FPFTY was increased by the FPFTY Inflation rate. The calculation of the inflation rates is detailed in Adjustment 30.

Adjustment 13 calculates the Outside Contracts Expense for the FTY and FPFTY. The expense for the FTY was based on the two-year average expense, increased by the FTY Inflation Rate. The expense for the FPFTY was increased by the FPFTY Year Inflation rate as shown in Adjustment 30.

Adjustment 14 calculates the Outside Professional Services Expense for the FTY and FPFTY. The FTY expense is based on the three-year average, increased by the FTY Inflation Rate. The expenses for the FPFTY are increased by the FPFTY Inflation rate. The calculation of the inflation rates is detailed in Adjustment 30.

Adjustments for 15 and 20, Rent – Building and Property Expense and Advertising Expense were not applied, as there were $0 in costs recorded during the HTY.

Adjustment 16 calculated the Rental of Equipment for the FTY and FPFTY. The expense for the FTY was based on the HTY costs, increased by the FTY

Inflation rate. The expenses for the FPFTY are increased by the FPFTY Inflation rate. The calculation of the inflation rates is detailed in Adjustment 30.

Adjustment 17 calculates the Transportation Expense for the FTY and FPFTY. The Lease portion of the expense for the FTY and FPFTY is based on Company projections. The additional expenses in this account are increased by the relevant Inflation Rates for each year.

Adjustment 18 for the Property and General Liability Insurance Expense is adjusted downward to $0 for the FTY and FPFTY, as the Company is booking these costs with Management and Services Fees for the FTY and FPFTY.

The Workers Compensation Expenses, Adjustment 19, for the FTY and FPFTY is based on projected estimates provided by the Company.

Adjustment 21 calculates the Regulatory Commission Expense – Rate Case Amortization for the FPFTY. The FPFTY expense includes the normalization of projected rate case expense over 3 years.

Adjustment 22 and 23 calculates the Regulatory Commission Expense and Bad Debt Expense for the FTY and the FPFTY and is adjusted based on projected revenues under present rates for the FTY and FPFTY and under proposed rates for the FPFTY.

Adjustment 24 calculates the Fringe Benefits Transferred for the FTY and the FPFTY. The expense adjustment was based on the historic percentage of benefits transferred of 37.54%. This percentage is multiplied by the total projected fringe benefits listed in the adjustment.

Adjustment 25 calculates the Office Expense and Utilities for the FTY and the FPFTY. The expense for the FTY is based on the three-year average costs and was increased by the FTY inflation rate. The FPFTY expense was increased by the FPFTY inflation rate. The calculation of the inflation rates is detailed in Adjustment 30.

Adjustment 26 calculates the Postage and Air Freight Expense for the FTY and the FPFTY. The FTY and FPFTY expense adjustments were based on the 2024 increase to bulk postage.

Adjustment 27 calculates Other O&M expenses for the FTY and FPFTY. The expense for the FTY is based on the two-year average of historic expense, increased by the FTY Inflation Rate. The expense for the FPFTY is increased by the FPFTY Inflation rate. The calculation of the inflation rates is detailed in Adjustment 30.

Adjustment 28 shows the Operation and Maintenance expense adjustment due to estimated costs incurred for the Company's Customer Assistance Program.

Adjustment 29 shows the Transaction Costs incurred by the Company for the Kensington, Overbrook and Mahoning Township acquisitions.

Adjustment 30 calculates the FTY and FPFTY Inflation Adjustment rate based on the Consumer Price Index (CPI) published by the Blue Chip Financial Forecasts as of September 1, 2023. The calculation averages four quarters of projected 2024 CPI for the FTY inflation rate. The FPFTY Inflation Rate is calculated based on the first quarter of 2025 projected CPI and estimates for the second, third and fourth quarters based on the CPI for the first quarter.

WATER PRO FORMA TAXES OTHER THAN INCOME, DEPRECIATION AND INCOME TAX ADJUSTMENTS

Q. Please explain the development of the pro forma HTY, FTY and FPFTY taxes other than income, depreciation and income taxes shown in Exhibit No. GRH-3.

A. The pro forma Historic Test Year, Future Test Year and Fully Projected Future Test Year adjustments are summarized in Exhibit No. GRH-3, Schedule 1. The adjustments are detailed in Schedules 32-35.

Q. Please describe your adjustments to Taxes Other Than Income.

A. Adjustment 31 calculates the FTY and FPFTY adjustment for Real Estate Taxes. The FTY Adjustment eliminates the refund received in 2023 and increases the Public Utility Realty Tax Act ("PURTA") and Property tax by the FTY inflation rate. The FPFTY expense increases the FTY expense by the FPFTY inflation rate.

Adjustment 32 calculates the FTY and FPFTY adjustment for Payroll taxes based on the Payroll Tax workpapers, Workpaper GRH-2-1.

Adjustment 33 shows the Adjustment to Depreciation Expense based on Company provided data. Additionally, the schedule reflects the amortization of acquisition adjustments for Brown Manor, Kensington, Overbrook and Mahoning Township.

Adjustment 34 shows the adjustment for Income Taxes for the FTY, and FPFTY under present rates and Income Taxes for FPFTY under proposed rates.

WATER CUSTOMER RATE DESIGN

Q. What are the appropriate factors to be considered in the design of the rate structure?

A. In preparing a rate structure, one should consider the allocated costs of service, the impact of radical changes from the present rate structure, the understandability and ease of application of the rate structure, community and social influences, and the value of service. General guidelines should be developed with management to determine the extent to which each of these criteria is to be incorporated in the rate structure to be designed, inasmuch as the pricing of a commodity or service is a function of management.

Q. Did management provide rate design guidelines to you?

A. Yes, it did. The guidelines included (1) increase the customer charges to be more in line with customer costs, (2) develop private fire rates to move toward the cost of providing private fire service, (3) maintain the blocking structure by customer class for the Main Division that was implemented in the last case, (4) increase the public fire hydrant charges that are below 25% of the cost of service to a rate that moves toward 25% of the cost of service, (5) propose rates for Mahoning, Overbrook and Kensington to be the same as the rates proposed for the Main Division, (6) move the Bethel Water monthly customer charges to be the same as the monthly customer charges proposed for the Main Division, (7) change the Bethel volumetric rate structure by customer class to be the same as the Main Division volumetric rate structure, (8) propose Bethel volumetric rates which move

closer to consolidating to the Main Division rates in future rate proceedings, and (9) increase rates by customer classification in a manner that moves the revenues recovered from each classification toward the indicated cost of service

.**Q. Do the proposed rates comply with these guidelines?**

A. Yes, they do.

Q. Please describe the rate structures for each classification.

A. The existing Main Division residential rate structure consists of monthly customer charges, which vary by meter size, and a single block consumption rate. The single block structure for residential customers is appropriate because larger-use residential customers do not typically have better load factors and, therefore, do not warrant lower consumption rates as consumption increases. This proposed single block structure results in a consumption rate of $11.7100 per thousand gallons. Mahoning, Overbrook and Kensington proposed rates move to these proposed Main Division rates and single block rate structure for the residential class.

The proposed residential Bethel Water customer charges move to the proposed Main Division rates. The Bethel volumetric rate structure moves from a three-block rate structure to a single block rate structure, similar to the Main Division rate structure, which results in a consumption rate of $5.0500 per thousand gallons. The proposed rate structure changes allow for the Bethel Water service area to potentially consolidate to the Main Division rates in future rate

proceedings.

Q. Please explain the rate structure for non-residential customers.

A. The proposed existing Main Division non-residential rate structure will continue with the same customer charges by meter size as the proposed residential customer charges and a two-block consumption rate structure, except for large industrial. The first block rate (up to 25,000 gallons per month) for the non-residential classes is the same as the residential single block rate. The second block rate (usage over 25,000 gallons per month) varies among the commercial, industrial and public classes and is lower than the first block rate. This enables the proposed revenues to be more aligned with the allocated cost of service for these classes. The Mahoning, Overbrook and Kensington non-residential customers move to this Main Division rate structure under proposed rates.

The proposed non-residential Bethel Water rate structure moves the customer charges by meter size to the proposed Main Division rates, and a change from the present three-block rate structure to a two-block rate structure, similar to the Main Division. The proposed first block rate (up to 25,000 gallons per month) for the non-residential classes is the same as the residential single block rate. The second block rate (usage over 25,000 gallons per month) results in a consumption rate of $4.0190 per thousand gallons. These proposed changes align the Bethel Water service area to potentially consolidate to the Main Division rates in future rate proceedings.

The proposed rate structure for the large industrial class is the same basic

structure under existing rates with the take-or-pay provision based on a monthly requirement of 7,000,000 gallons per month rather than the existing 84 million gallons per year. The proposed customer charges are the same as the other classes and there is a single consumption rate.

Q. Please explain the increases in the customer charges.

A. The existing customer charges for residential, commercial, industrial, large industrial and public classes are well-below cost of service. The proposed customer charges reflect an approximate 27.0% increase over the existing base rate customer charges.

The increase to the 5/8-inch customer charge is from $15.59 (including DSIC) to $19.80 per month. This increase reflects the movement toward the indicated cost of service of $21.03 per month based on fully-allocated customer costs and $19.80 per month based on direct customer costs. The customer cost analyses include the unrecovered cost of Public Fire Service of $4.87 per month. The calculation of customer costs is shown on Schedule H of VWPA Exhibit No. CEH-1.

Q. What changes are you proposing to Private Fire Protection rates?

A. The existing private fire protection rates generate revenues that are below the cost of service for private fire. Therefore, the proposed rates for private fire protection are increased approximately 58% to move revenues toward the indicated cost of service. The Bethel proposed private fire rates were calculated based on the

present Main Division private fire rates, increased by 42% in order to move closer to consolidating the rates to the Main Division in future rate proceedings.

Q. Please explain the proposed Public Fire Protection hydrant rates.

A. The current cost of providing public fire protection service is $142.00 per hydrant per month. The present monthly rate per hydrant is $25.83 per month in the Harrisburg service area, $25.83 per month in Mechanicsburg, $20.00 per month in Bloomsburg and Dallas. All of these rates are below 25% of the cost of service.

The Public Fire Hydrant Rate calculated at 25% of the cost of service is approximately $35.50 per month. The public hydrant rate for Bloomsburg and Dallas of $20.00 per month will be increased to $24.00 per month to move closer to the Harrisburg, Mechanicsburg and Mahoning proposed rates. The $25.83 per month charge in Harrisburg, Mechanicsburg and Mahoning will be increased to $28.41 per month. The rate for Bethel will be maintained at $28.66 and $38.20 per month, as these rates are currently above the Main Division public fire hydrant rates. Although the proposed rates still remain below the 25% cost of service level, the proposed rates reflect a movement toward the 25% cost of service level.

Q. Do the proposed rates result in movement toward the cost of service for each classification?

A. Yes, as Schedule A of Exhibit No. CEH-1 demonstrates, the revenues under proposed rates are better aligned with the cost of service by classification than the revenues under present rates.

Q. Have you prepared comparisons of present and proposed rates for each classification?

A. Yes. Schedule 11 of Exhibit No. GRH-2 presents comparisons of the present and proposed rate schedules. The schedule shows the customer charges and the consumption rates for each classification, as well as private and public fire rates.

Q. Have you prepared proof of revenue schedules under present and proposed rates?

A. The Company has provided billing data to develop the application of present and proposed rates to the bill analysis in Exhibit No. GRH-2.

WASTEWATER OPERATIONS INTRODUCTION

Q. Please summarize the Company's request in this filing.

A. The Company is requesting $568,719 in additional annual wastewater revenue or an increase of 34.8% in total revenue.

Q. Please describe Schedule 1 of Exhibit No. GRH-4

Schedule 1 of Exhibit No. GRH-4 is the Company's income statement which incorporates the information contained in Schedules 2 through 7 as well as Exhibit No. GRH-5. The three Schedule 1s are summarized by the following wastewater service areas:

The Combined Wastewater Division, which includes all the wastewater service areas of Columbia County and Mahoning Township,
Columbia County Wastewater, and
Mahoning Township Wastewater.

WASTEWATER PRO FORMA RATE BASE

Q. Please describe Schedule 1.1.

A. Schedule 1.1 summarizes the Company's Original Cost Measure of Value or Rate Base as of September 30, 2023, 2024 and October 31, 2025. As stated in the schedule, the Original Cost of Utility Plant in Service and Accumulated Depreciation for each year are derived from the Company's Depreciation Study performed as of December 31, 2021 and rolled forward with actual plant additions, retirements and transfers through September 30, 2023 and projected plant additions, retirements and transfers through September 30, 2024 and October 31, 2025. Cash Working Capital is supported in Statement 4 and Exhibit No. HW-1.

Q. What is the Company's total Original Cost Measure of Value as of October 31, 2025?

A. The Company's total Original Cost Measure of Value as of October 31, 2025 is $5,726,939.

WASTEWATER PRO FORMA REVENUE ADJUSTMENTS

Q. Describe the development of pro forma revenues under present and proposed rates.

A. Schedule 4, in Exhibit No. GRH-2 develops the pro forma revenues under present rates. Column 1 equals per books revenue by customer class. Column 3 summarizes the application of present rates to the consumption analysis shown on Schedule 5. Column 4 is the calculated adjustment factor needed to adjust bill analysis revenues from Column 3 to the levels of Column 2. This adjustment factor is used in Schedule 2 and adjusts revenue under proposed rates. Column 5 is equal revenue under present rates after application of the adjustment factor. Column 6 summarizes the application of present rates to the pro forma adjustments in Schedules 5, 7 and 9. Column 8 is the pro forma revenue under present rates, the sum of Columns 5, 6, and 7. Schedule 2 develops the pro forma revenues under proposed rates. Column 1 is the pro forma revenues from present rates derived in Column 8 of Schedule 4. Column 2 is the revenues under proposed rates from the bill analysis in Schedule 2. Column 3 is the adjustment factor from Schedule 4. Column 5 multiplies Column 4 by Column 3 to develop revenues under proposed rates. Column 6 summarizes the application of proposed rates to the pro forma adjustments in Schedules 3, 7 and 9. Column 7 summarizes the total pro forma revenues under proposed rates and is the sum of Columns 5 and 6. Column 8 shows the pro forma proposed increase and Column 9 is the pro forma percentage increase.

Q. Please explain the revenue adjustments under present rates in Exhibit No. GRH-4, Schedules 7 and 7.1.

A. Schedule 7 summarizes the adjustments on Schedule 7.1 and calculates revenue related to the adjustments under present and proposed rates.

Adjustment 1 on Schedule 7.1 annualizes revenue for customer growth by customer class. Lines 1 through 11 calculate the revenue associated with the HTY annualized growth. Lines 12 through 18 calculate the revenue associated with the FTY growth in number of customers. Lines 19 through 25 calculate the revenue associated with the FPFTY growth in number of customers.

Q. Please describe Schedule 8 of Exhibit No. GRH-5.

A. Schedule 8 shows bill comparisons at various usage levels for each customer class.

Q. Please describe Schedule 9 of Exhibit No. GRH-5.

A. Schedule 9 shows a summary of present and proposed tariff rates for each customer class and service area.

WASTEWATER PRO FORMA OPERATION AND MAINTENANCE EXPENSE ADJUSTMENTS

Q. Please explain the development of the pro forma HTY, FTY and FPFTY historic test year operation and maintenance expense shown in Exhibit No. GRH-5.

A. The pro forma HTY, FTY and FPFTY adjustments are summarized in Exhibit No. GRH-5, Schedule 1. The three expense Schedule 1s are summarized by the Combined Wastewater Division (all service areas), Columbia County Wastewater, and Mahoning Township Wastewater. The adjustments are detailed in Schedules 2-18. The Sewer expense adjustments by expense account are labeled as the same adjustment number that corresponds with the Water Operation and Maintenance expense adjustments for ease of developing the Combined Water and Wastewater Schedules in Exhibit No. GRH-1.

Q. Please explain the calculation of each adjustment.

A. Adjustment 1 adjusts Labor Expense for the projected wage percentage increases during the FTY and FPFTY.

Adjustment 2 calculates the Employee Group Health and Life Insurance expense for the FTY and FPFTY. This expense was based on the historic test year cost, increased by the FTY Inflation Rate. The expense for the FPFTY year was increased by the FPFTY Inflation rate. The calculation of the inflation rates is detailed in Adjustment 30.

Adjustment 3 calculates the Employee Pension Benefits expense for the FTY and FPFTY. This expense was based on the historic test year cost, increased by the FTY Inflation Rate. The expense for the FPFTY year was increased by the FPFTY Inflation rate. The calculation of the inflation rates is detailed in Adjustment 30.

Adjustment 4 calculates the Employee PEBOP expense for the FTY and FPFTY. This expense was based on the historic test year cost, increased by the FTY Inflation Rate. The expense for the FPFTY year was increased by the FPFTY Inflation rate. The calculation of the inflation rates is detailed in Adjustment 30.

Adjustment 5 calculates the 401K Matching and Other Benefits for the FTY and FPFTY. This expense was adjusted for the FTY and FPFTY based on 1.7% of the total gross labor expense.

Adjustments 9 and 10 calculate the Chemical and Materials and Supplies Expenses for the FTY and FPFTY. In each expense, the expense for the FTY was based on the three-year average, increased by the FTY Inflation Rate. The expense for the FPFTY year was increased by the FPFTY Inflation rate. The calculation of the inflation rates is detailed in Adjustment 30.

Adjustment 12 calculates the Lab Testing Fees for the FTY and FPFTY. The FTY expense is calculated based on the average of the expense for 2022 and 2023, increased by the FTY Inflation rate. The expense for the FPFTY was increased by the FPFTY Inflation rate. The calculation of the inflation rates is detailed in Adjustment 30.

Adjustment 13 calculates the Outside Contracts Expense for the FTY and FPFTY. The expense for the FTY was based on the two-year average expense, increased by the FTY Inflation rate. The expense for the FPFTY was increased by the FPFTY Year Inflation rate as shown in Adjustment 30.

Adjustment 14 calculates the Outside Professional Services Expense for the FTY and FPFTY. The FTY expense is based on the three-year average,

increased by the FTY Inflation Rate. The expense for the FPFTY is increased by the FPFTY Inflation rate. The calculation of the inflation rates is detailed in Adjustment 30.

Adjustment 17 calculates the Transportation Expense for the FTY and FPFTY. The Lease portion of the expense for the FTY and FPFTY is based on Company projections. The additional expenses in this account are increased by the relevant Inflation Rates for each year.

Adjustment 18 for the Property and General Liability Insurance Expense is adjusted downward to $0 for the FTY and FPFTY, as the Company is booking these costs with Management and Services Fees for the FTY and FPFTY.

Adjustment 19 calculates Workers Compensation expenses for the FTY and FPFTY. The expense for the FTY is based on the historic test year cost, increased by the FTY Inflation rate. The expenses for the FPFTY are increased by the FPFTY Inflation rate. The calculation of the inflation rates is detailed in Adjustment 30.

Adjustment 22 and 23 calculates the Regulatory Commission Expense and Bad Debt Expense for the FTY and the FPFTY and is adjusted based on projected revenues under present rates for the FTY and FPFTY and under proposed rates for the FPFTY.

Adjustment 25 calculates the Office Expense and Utilities for the FTY and the FPFTY. The expense for the FTY was based on the three-year average cost, increased by the FTY Inflation rate. The expense for the FPFTY is increased by

the FPFTY Inflation rate. The calculation of the inflation rates is detailed in Adjustment 30.

Adjustment 30 calculates the FTY and FPFTY Inflation Adjustment rate based on the Consumer Price Index (CPI) published by the Blue Chip Financial Forecasts as of September 1, 2023. The calculation averages four quarters of projected 2024 CPI for the FTY inflation rate. The FPFTY Inflation Rate is calculated based on the first quarter of 2025 projected CPI and estimates for the second, third and fourth quarters based on the CPI for the first quarter.

WASTEWATER PRO FORMA TAXES OTHER THAN INCOME, DEPRECIATION AND INCOME TAX ADJUSTMENTS

Q. Please explain the development of the pro forma HTY, FTY and FPFTY taxes other than income, depreciation and income taxes shown in Exhibit No. GRH-5.

A. The pro forma Historic Test Year, Future Test Year and Fully Projected Future Test Year adjustments are summarized in Exhibit No. GRH-5, Schedule 1. The adjustments are detailed in Schedules 19-21.

Q. Please describe your adjustments to Taxes Other Than Income.

A. Adjustment 32 calculates the FTY and FPFTY adjustment for Payroll taxes based on the historic test year cost, increased by the annual payroll tax rate of 7.65%.

Adjustment 33 shows the Adjustment to Depreciation Expense based on Company provided data estimated for the FTY and FPFTY. Additionally, the

schedule reflects the adjustment for amortization of the Mahoning Wastewater acquisition.

Adjustment 34 shows the adjustment for Income Taxes for the FTY, and FPFTY under present rates and Income Taxes for FPFTY under proposed rates.

WASTEWATER CUSTOMER RATE DESIGN

Q. What are the appropriate factors to be considered in the design of the rate structure?

A. In preparing a rate structure, one should consider the allocated costs of service, the impact of radical changes from the present rate structure, the understandability and ease of application of the rate structure, community and social influences, and the value of service. General guidelines should be developed with management to determine the extent to which each of these criteria is to be incorporated in the rate structure to be designed, inasmuch as the pricing of a commodity or service is a function of management.

Q. Did management provide rate design guidelines to you?

A. Yes, it did. The guidelines included (1) increase customer charges to be more in line with customer costs and consolidate Mahoning customer charges in the non-residential class, (2) maintain the Mahoning monthly flat rate structure for the residential class, (3) eliminate the two block volumetric rate block structure, (4) maintain the special non-residential rates for the four Mahoning Wastewater customers, (5) maintain the Columbia County rate structure with an across-the-

board increase to the present rates, and (6) increase rates by customer classification in a manner that moves the revenues recovered from each classification toward the indicated cost of service.

Q. Do the proposed rates comply with these guidelines?

A. Yes, they do.

Q. Please describe the rate structures for the Mahoning Wastewater residential customer classification.

A. The existing residential rate structure consists of a monthly flat rate customer charge for all meter sizes. This proposed monthly flat rate is $77.00, or an increase of 37.0% from the present monthly flat rate of $56.20

Q. Please explain the rate structure for non-residential customers.

A. The proposed non-residential rate structure will consolidate to one customer charge for all meter sizes that results in a proposed customer charge of $65.85. The two tier, inclining rate block structure was eliminated, and the proposed volumetric rate for all usage is $6.3790 per thousand gallons.

The proposed Columbia Country Wastewater rates maintain its current monthly minimum and five tier declining block structure. It was justified to give these customers an across-the-board increase that recovers the projected revenue requirement and moves proposed rates closer in line for a single-tariff rate structure in future rate proceedings, as these rates have not been changed since

the year 1998.

Q. Do the proposed rates result in movement toward the cost of service for each classification?

A. Yes, each Schedule A of Exhibit No. CEH-3 demonstrates, the revenues under proposed rates are better aligned with the cost of service by classification than the revenues under present rates.

Q. Have you prepared comparisons of present and proposed rates for each classification?

A. Yes. Schedule 9 of Exhibit No. GRH-4 presents comparisons of the present and proposed rate schedules. The schedule shows the customer charges and the consumption rates for each classification, as well as private and public fire rates.

Q. Have you prepared proof of revenue schedules under present and proposed rates?

A. The Company has provided billing data to develop the application of present and proposed rates to the bill analysis in Exhibit No. GRH-4.

Q. Does this conclude your direct testimony?

A. Yes, it does. However, I reserve the right to supplement my testimony as additional issues and facts arise during the course of the proceeding. Thank you.

APPENDIX A

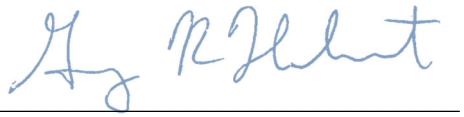
GREGORY R. HERBERT – LIST OF CASES TESTIFIED OR ASSISTED

Year	Jurisdiction	Docket No.	Client Utility	Subject
2017	MO PSC	SR-2017-0286	Missouri-American Water Company	Cost of Service/Rate Design
2018	PA PUC	2018-200208	SUEZ Water Pennsylvania	Revenue Requirements
2018	NJ BPU	WR18050593	SUEZ Water New Jersey, Inc	Cost Allocation/Rate Design
2019	PA PUC	2018-3006814	UGI Utilities Inc. - Gas Division	Cost of Service Allocation Studies
2019	PA PUC	2019-3006904	Newtown Artesian Water Co.	Revenue Req./Rate Design
2019	PA PUC	2019-3010955	City of Lancaster – Sewer Fund	Rev. Req../Cost of Service/Rates
2020	PA PUC	2020-3017206	Philadelphia Gas Works	Cost of Service
2020	PA PUC	2020-3019369	Pennsylvania American Water	Cost of Service
2020	PA PUC	2020-3019371	Pennsylvania American Water	Cost of Service
2020	PA PUC	2020-3020256	City of Bethlehem	Rev. Req./Cost of Service/Rates
2020	CA PUC	A2101003	San Jose Water Company	Rate Design
2021	PA PUC	2021-3026116	Borough of Hanover	Revenue and Revenue Requirements
2021	PA PUC	2021-3026682	City of Lancaster – Water Fund	Revenue and Revenue Requirements
2021	PA PUC	2021-3027385	Aqua Pennsylvania, Inc.	Cost of Service/Rate Design
2021	PA PUC	2021-3027386	Aqua Pennsylvania Wastewater, Inc.	Cost of Service/Rate Design
2022	PA-PUC	2022-3031704	Borough of Ambler	Rev. Req./Rate Design
2022	PA-PUC	2022-3031673	Pennsylvania American Water	Cost of Service
2022	PA-PUC	2022-3031340	York Water Company	Cost of Service/Rate Design
2022	PA-PUC	2022-3032806	York Water Company	Cost of Service/Rate Design
2022	KY-PSC	2022-00161	Northern Kentucky Water District	Cost of Service/Rate Design
2022	PUCO	22-1094-WW-AIR	Aqua Ohio Inc.	Cost of Service
2022	PUCO	22-1096-ST-AIR	Aqua Ohio Inc.	Cost of Service
2023	PA-PUC	2023-3037933	Philadelphia Gas Works	Cost of Service
2023	VA-SCC	PUR-2023-00073	Aqua Virginia, Inc.	Bill Analysis/Rate Design
2024	NJ-BPU	WR24010057	Aqua New Jersey, Inc.	Bill Analysis/Rate Design

VERIFICATION

I, Gregory R. Herbert, hereby state that the facts set forth above are true and correct to the best of my knowledge, information and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: June, 26 2024



BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

EXHIBITS TO ACCOMPANY DIRECT TESTIMONY

OF

GREGORY R. HERBERT

GANNETT FLEMING

VALUATION AND RATE CONSULTANTS, LLC

VEOLIA WATER PENNSYLVANIA, INC.

February 2024

Exhibit No. GRH-1

VEOLIA WATER PENNSYLVANIA INC.

HARRISBURG, PENNSYLVANIA

COMBINED WATER AND WASTEWATER INCOME STATEMENT AND PRO FORMA REVENUES AND SUMMARY PRO FORMA EXPENSE ADJUSTMENTS AS OF OCTOBER 31, 2025

GANNETT FLEMING

Excellence Delivered As Promised

Gannett Fleming
Valuation and Rate Consultants, LLC

Corporate Headquarters
207 Senate Avenue
Camp Hill, PA 17011
P 717.763.7211 | **F** 717.763.8150

gannettfleming.com

January 26, 2024

Veolia Water M&S (Paramus), Inc.
461 Farm Road, Suite 400
Paramus, NJ 07640

Attention Mr. James C. Cagle
Vice President, Rates and Regulatory Affairs

Pursuant to your request, we have developed income statements, proof of revenues, pro forma revenue, and expense claims based on the Historic Test Year ending September 30, 2023, Future Test Year ending September 30, 2024, and Fully Projected Future Test Year ending October 31, 2025. In addition, we conducted rate design studies based on the pro forma revenue requirements for the test year ended October 31, 2025 for the Company's water and wastewater operations.

The attached Exhibits present the results of the studies, as well as supporting schedules which set forth the revenues calculated under the present and proposed schedule of rates. Exhibit No. GRH-1 presents the combined water and wastewater income statement and pro forma revenues and the summary of pro forma expense adjustments, Exhibit No. GRH-2 presents the water income statements and pro forma revenues, Exhibit No. GRH-3 presents the water pro forma expense adjustments, Exhibit No. GRH-4 presents the wastewater income statements and pro forma revenues, and Exhibit No. GRH-5 presents the wastewater pro forma expense adjustments.

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

GREGORY R. HERBERT
Assistant Project Manager, Rate Studies

VEOLIA WATER PENNSYLVANIA INC.

COMBINED WATER AND WASTEWATER OPERATIONS

STATEMENT OF THE CALCULATION OF THE RATE OF RETURN UNDER PRESENT RATES FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2023, 2024 AND OCTOBER 31, 2025
AND THE ANTICIPATED RATE OF RETURN UNDER PROPOSED RATES FOR THE YEAR ENDING OCTOBER 31, 2025

Line No.	Description	12 Months Ended 30-Sep-23	Pro Forma FTY Adjustments Ref.	Pro Forma FTY Adjustments Amount	Pro Forma Present Rates, 30-Sep-24	Pro Forma FPFTY Adjustments and DSIC Adjustment Ref.	Pro Forma FPFTY Adjustments and DSIC Adjustment Amount	Pro Forma Present Rates, 31-Oct-25	Under Proposed Rates, Supplement No. ___ to Tariff Water Pa-PUC No. 7 Ref.	Increase	Pro Forma 31-Oct-25
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)	(10)
1	Operating Revenues	$ 55,784,278	GRH-1 Sch 5	$ 368,282	$ 56,152,560	GRH-1 Sch 4,7	$ 4,247,184	$ 60,399,745	GRH-1 Sch 2,7	$ 16,063,286	$ 76,463,031
2											
3	Operating Revenue Deductions										
4	Operation and Maintenance										
5	Expenses	$ 21,946,646	GRH-2	$ 2,555,162	$ 24,501,809	GRH-2	$ 1,986,027	$ 26,487,836	GRH-2	$ 182,157	$ 26,669,993
6	Taxes Other than Income	$ 1,152,201	GRH-2	$ 86,326	$ 1,238,527	GRH-2	$ 30,236	$ 1,268,763		$ -	$ 1,268,763
7											
8											
9	Depreciation	8,840,555	GRH-2	1,085,278	9,925,834	GRH-2	1,992,121	11,917,955	GRH-2	$ -	11,917,955
10	Amortization of Acquisition Adjustment	57,744	GRH-2	-	57,744	GRH-2	325,630	383,374	GRH-2	$ -	383,374
11	Amortization of Regulatory Asset	-	GRH-2	-	-	GRH-2	-	-	GRH-2		-
12											
13	Total Operating										
14	Revenue Deductions	$ 31,997,147	GRH-2	$ 3,726,766	$ 35,723,913	GRH-2	$ 4,334,015	$ 40,057,928		$ 182,157	$ 40,240,085
15											
16	Total Income Before Taxes and Return	$ 23,787,131		$ (3,358,484)	$ 20,428,647		$ (86,830)	$ 20,341,817		$ 15,881,130	$ 36,222,946
17											
18	Less Federal and State Taxes	$ 4,495,020	GRH-2	$ (1,173,856)	$ 3,321,164		$ (127,545)	$ 3,193,619	GRH-2	$ 4,263,064	$ 7,456,683
19											
20											
21	Net Operating Income										
22	Available for Return	$ 19,292,111		$ (2,184,628)	$ 17,107,483		$ 40,714	$ 17,148,197		$ 11,618,065	$ 28,766,263
23											
24											
25	Rate Base	$ 293,604,062	GRH-1.1	$ 39,791,873	$ 333,395,935		$ 28,546,493	$ 361,942,428		$ -	$ 361,942,428
26											
27	Rate of Return	6.57%			5.13%			4.74%			7.95%

VEOLIA WATER PENNSYLVANIA INC.
COMBINED WATER AND WASTEWATER OPERATIONS
ORIGINAL COST MEASURE OF VALUE AS OF SEPTEMBER 30, 2023,
SEPTEMBER 30, 2024 AND OCTOBER 31, 2025

Main Service Area		As of 9/30/2023	As of 9/30/2024	As of 10/31/2025
Original Cost of Utility Plant In Service	(a)	$ 489,805,749	$ 537,327,261	$ 575,473,480
Mahoning Acquisition Adj		2,758,003	2,758,003	2,482,203
Brown Manor Acquisition Adj		199,162	141,418	83,674
Pro Forma UPIS - Kensington		-	225,000	202,500
Pro Forma UPIS - Overbrook		-	273,300	245,970
Plant Held for Future Use		52,964	52,964	52,964
Less: Accumulated Depreciation	(a)	(87,555,204)	(94,918,623)	(103,762,146)
Net Utility Plant		405,260,674	445,859,323	474,778,644
CIAC and Contributions		(91,198,127)	(91,198,127) (b)	(91,198,127) (b)
Add:				
Deferred Taxes		$ (12,569,792)	$ (13,715,744)	$ (14,844,697)
Regulatory Liability - New Fed Rate		(9,000,852)	(8,735,964)	(8,435,964)
Regulatory Liability - 2018 Portion		(1,207,724)	(1,248,742)	(832,495)
Materials and Supplies		1,656,030	1,656,030	1,656,030
Cash Working Capital		663,853	779,158	819,035
Total Original Cost Measure of Value		$ 293,604,062	$ 333,395,935	$ 361,942,428

(a) Source: Data provided by Company.
(b) 2024 and 2025 CIAC and Advances included in total Net Utility Plant.

Veolia Water Pennsylvania
Docket No. R-2024-3045192 & R-2024-3045193
Operation and Maintenance Expenses - Combined Water and Wastewater
For the Historical, Future and Fully Projected Future Test Year

Exhibit No. GRH-1
Schedule-2
Summary of Water and Wastewater Adjustments
Page 1 of 1

Line No.	Account Number	Utility Operating Expenses	Adjustment No.	VW Pennsylvania 12-Months Ending 9/30/2023	Future Test Year Adjustments	Future Test Year 9/30/2024	Fully Projected Future Test Year Adjustments Present Rates	Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Adjustments Proposed Rates	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	601.0	Labor Expense	1	$ 5,860,476	$ 1,413,454	$ 7,273,930	$ 200,033	$ 7,473,963		$ 7,473,963
2	604.0	Employee Group Health & Life	2	927,846	643,078	1,570,924	34,560	1,605,485		1,605,485
3	604.0	Employee Pension Benefits	3	369,408	251,783	621,192	13,666	634,858		634,858
4	604.0	Employee Post Retirement Benefits Other than Pension	4	75,670	(927,976)	(852,305)	(18,751)	(871,056)		(871,056)
5	604.0	Other Employee Benefits	5	370,926	62,931	433,856	12,216	446,073		446,073
6	610.0	Purchased Water	6	1,825,613	127,448	1,953,061	42,967	1,996,029		1,996,029
7	615.0	Purchased Power	7	2,245,114	343,730	2,588,843	399,980	2,988,823		2,988,823
8	616.0	Fuel for Power Production	8	2,000	48	2,048	45	2,093		2,093
9	618.0	Chemicals	9	987,158	339,549	1,326,708	29,188	1,355,895		1,355,895
10	620.0	Materials and Supplies	10	399,824	9,935	409,759	9,015	418,774		418,774
11	634.0	Management and Service Fees	11	4,076,177	437,747	4,513,925	166,251	4,680,176		4,680,176
12	635.0	Lab Testing Fees	12	371,267	(53,879)	317,388	6,983	324,371		324,371
13	636.0	Outside Contractors	13	2,587,505	(22,709)	2,564,797	56,426	2,621,222		2,621,222
14	636.0	Outside Professional Services	14	243,942	(110,604)	133,338	2,933	136,272		136,272
15	641.0	Rental - Building/Real Property	15	-	-	-	-	-		-
16	642.0	Rental of Equipment	16	119,512	2,838	122,350	2,692	125,042		125,042
17	650.0	Transportation Expense	17	564,982	81,483	646,465	107,537	754,003		754,003
18	657.0	Prop& Gen Liab. Insurance	18	(374)	374	-	-	-		-
19	658.0	Worker Compensation	19	19,183	27,635	46,818	1,390	48,207		48,207
20	660.0	Advertising	20	-	-	-	-	-		-
21	666.0	Rate Case Expense - Amort	21	-	-	-	236,460	236,460		236,460
22	666.0	Regulatory Commission Expense	22	355,283	(10,489)	344,794	26,045	370,839	98,658	469,497
23	667.0	Amortization of Tax Reform Liability	22.1	(264,888)	-	(264,888)	(451,359)	(716,247)		(716,247)
24	670.0	Bad Debt Expense	23	253,310	55,482	308,792	7,869	316,661	83,499	400,160
25	675.0	Fringe Benefit Expense Transfer	24	(858,759)	(156,197)	(1,014,956)	(24,592)	(1,039,548)		(1,039,548)
26	675.6	Office Expense and Utilities	25	846,564	37,949	884,514	(9,041)	875,473		875,473
27	675.9	Postage and Air Freight Expense	26	422,855	(13,902)	408,953	12,393	421,346		421,346
28	Various	Other O&M	27	146,049	15,453	161,503	3,553	165,056		165,056
			28	-	-	-	1,000,000	1,000,000		1,000,000
29		**Adjustments for Acquisitions**	29	-	-	-	117,570	117,570		117,570
30		**Total Operation and Maintenance Expenses**		$ 21,946,646	$ 2,555,162	$ 24,501,809	$ 1,986,027	$ 26,487,836	$ 182,157	$ 26,669,993
31										
32		Inflation Rate Calculator	30		2.38%		2.20%			
33										
34		**Taxes Other Than Income**								
35		Real Estate Tax	31	$ 447,173	$ (104,684)	$ 342,489	$ 7,535	$ 350,024	$ -	$ 350,024
36		Payroll	32	705,028	191,010	896,038	22,697	918,735	-	918,735
37										
38		**Total Taxes Other Than Income**		$ 1,152,201	$ 86,326	$ 1,238,527	$ 30,232	$ 1,268,759	$ -	$ 1,268,759
39										
40		**Depreciation Expense**	33	$ 8,840,555	$ 1,085,278	$ 9,925,834	$ 1,992,121	$ 11,917,955		11,917,955
41		**Amortization of Acquisition Adjustment**		57,744	-	57,744	$ 325,630	383,374		383,374
42		**Amortization of Regulatory Liability**		-		$ -		$ -		-
43										
44		**Income Taxes**	34	$ 4,495,020	$ (1,173,856)	$ 3,321,164	$ (216,427)	$ 3,104,737	$ 4,351,946	$ 7,456,683
45										
46		**Total**		$ 36,492,167	$ 2,552,910	$ 39,045,077	$ 4,117,584	$ 43,162,661	$ 4,534,103	$ 47,696,765

Exhibit No. GRH-2

VEOLIA WATER PENNSYLVANIA INC.

HARRISBURG, PENNSYLVANIA

WATER INCOME STATEMENT

AND

PRO FORMA REVENUES

AS OF OCTOBER 31, 2025

GANNETT FLEMING

Excellence Delivered As Promised

VEOLIA WATER PENNSYLVANIA INC.
COMBINED WATER OPERATIONS
STATEMENT OF THE CALCULATION OF THE RATE OF RETURN UNDER PRESENT RATES FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2023, 2024 AND OCTOBER 31, 2025
AND THE ANTICIPATED RATE OF RETURN UNDER PROPOSED RATES FOR THE YEAR ENDING OCTOBER 31, 2025

Line No.	Description	12 Months Ended 30-Sep-23	Pro Forma FTY Adjustments Ref.	Pro Forma FTY Adjustments Amount	Pro Forma Present Rates, 30-Sep-24	Pro Forma FPFTY Adjustments and DSIC Adjustment Ref.	Pro Forma FPFTY Adjustments and DSIC Adjustment Amount	Pro Forma Present Rates, 31-Oct-25	Under Proposed Rates, Supplement No. ___ to Tariff Water Pa-PUC No. 7 Ref.	Increase	Pro Forma 31-Oct-25
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)	(10)
1	Operating Revenues	$ 54,126,420	GRH-1 Sch 5	$ 379,186	$ 54,505,607	GRH-1 Sch 4,7	$ 4,258,088	$ 58,763,695	GRH-1 Sch 2,7	$ 15,494,620	$ 74,258,315
2											
3	Operating Revenue Deductions										
4	Operation and Maintenance										
5	Expenses	$ 20,796,646	GRH-2	$ 2,573,820	$ 23,370,466	GRH-2	$ 1,962,222	$ 25,332,688	GRH-2	$ 178,515	$ 25,511,202
6	Taxes Other than Income	$ 1,152,160	GRH-2	$ 86,323	$ 1,238,482	GRH-2	$ 30,229	$ 1,268,711		$ -	$ 1,268,711
7											
8											
9	Depreciation	8,828,651	GRH-2	842,255	9,670,905	GRH-2	1,920,219	11,591,125	GRH-2	$ -	11,591,125
10	Amortization of Acquisition Adjustment	57,744	GRH-2	-	57,744	GRH-2	172,596	230,340	GRH-2	$ -	230,340
11	Amortization of Regulatory Asset	-	GRH-2	-	-	GRH-2	-	-	GRH-2		-
12											
13	Total Operating										
14	Revenue Deductions	$ 30,835,201	GRH-2	$ 3,502,397	$ 34,337,597	GRH-2	$ 4,085,266	$ 38,422,863		$ 178,515	$ 38,601,378
15											
16	Total Income Before Taxes and Return	$ 23,291,220		$ (3,123,211)	$ 20,168,009		$ 172,823	$ 20,340,832		$ 15,316,105	$ 35,656,937
17											
18	Less Federal and State Taxes	$ 4,495,020	GRH-2	$ (1,199,126)	$ 3,295,894		$ (147,208)	$ 3,148,686	GRH-2	$ 4,197,111	$ 7,345,797
19											
20											
21	Net Operating Income										
22	Available for Return	$ 18,796,199		$ (1,924,084)	$ 16,872,115		$ 320,031	$ 17,192,146		$ 11,118,994	$ 28,311,140
23											
24											
25	Rate Base	$ 289,304,070	GRH-1.1	$ 37,913,998	$ 327,218,068		$ 28,997,421	$ 356,215,489		$ -	$ 356,215,489
26											
27	Rate of Return	6.50%			5.16%			4.83%			7.95%

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA WATER, BETHEL WATER, KENSINGTON WATER, AND OVERBROOK WATER
STATEMENT OF THE CALCULATION OF THE RATE OF RETURN UNDER PRESENT RATES FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2023, 2024 AND OCTOBER 31, 2025
AND THE ANTICIPATED RATE OF RETURN UNDER PROPOSED RATES FOR THE YEAR ENDING OCTOBER 31, 2025

Line No.	Description	12 Months Ended 30-Sep-23	Pro Forma FTY Adjustments Ref.	Pro Forma FTY Adjustments Amount	Pro Forma Present Rates, 30-Sep-24	Pro Forma FPFTY Adjustments and DSIC Adjustment Ref.	Pro Forma FPFTY Adjustments and DSIC Adjustment Amount	Pro Forma Present Rates, 31-Oct-25	Under Proposed Rates, Supplement No. ___ to Tariff Water Pa-PUC No. 7 Ref.	Increase	Pro Forma 31-Oct-25
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)	(10)
1	Operating Revenues	$ 53,526,545	GRH-1	$ 379,186	$ 53,905,731	GRH-1	$ 4,217,125	$ 58,122,857	GRH-1	$ 14,878,448	$ 73,001,304
2	Revenue to Mahoning Township										(237,000)
3	Operating Revenue Deductions										
4	Operation and Maintenance										
5	Expenses	$ 20,435,361	GRH-2	$ 2,549,231	$ 22,984,592	GRH-2	$ 1,838,216	$ 24,822,808	GRH-2	$ 175,918	$ 24,998,726
6	Taxes Other than Income	$ 1,145,000	GRH-2	$ 86,164	$ 1,231,163	GRH-2	$ 30,078	$ 1,261,241		$ -	$ 1,261,241
7											
8											
9	Depreciation	8,828,651	GRH-2	633,724	9,462,375	GRH-2	1,910,783	11,373,158	GRH-2	$ -	11,373,158
10	Amortization of Acquisition Adjustment	57,744	GRH-2	-	57,744	GRH-2	49,830	107,574	GRH-2	$ -	107,574
11	Amortization of Regulatory Asset	-	GRH-2		-	GRH-2		-	GRH-2		-
12											
13	Total Operating										
14	Revenue Deductions	$ 30,466,755	GRH-2	$ 3,269,118	$ 33,735,873	GRH-2	$ 3,828,908	$ 37,564,781		$ 175,918	$ 37,740,699
15											
16	Total Income Before Taxes and Return	$ 23,059,790		$ (2,889,932)	$ 20,169,858		$ 388,218	$ 20,558,076		$ 14,702,530	$ 35,023,605
17											
18	Less Federal and State Taxes	$ 4,427,686	GRH-2	$ (1,083,711)	$ 3,343,974		$ (92,091)	$ 3,251,883	GRH-2	$ 3,964,026	$ 7,215,909
19											
20											
21	Net Operating Income										
22	Available for Return	$ 18,632,104		$ (1,806,220)	$ 16,825,884		$ 480,309	$ 17,306,192		$ 10,738,504	$ 27,807,696
23											
24											
25	Rate Base	$ 282,415,470	GRH-1.1	$ 38,114,079	$ 320,529,548		$ 29,347,803	$ 349,877,351		$ -	$ 349,877,351
26											
27	Rate of Return	6.60%			5.25%			4.95%			7.95%

VEOLIA WATER PENNSYLVANIA INC.
MAHONING TOWNSHIP
STATEMENT OF THE CALCULATION OF THE RATE OF RETURN UNDER PRESENT RATES FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2023, 2024 AND OCTOBER 31, 2025
AND THE ANTICIPATED RATE OF RETURN UNDER PROPOSED RATES FOR THE YEAR ENDING OCTOBER 31, 2025

Line No.	Description	12 Months Ended 30-Sep-23	Pro Forma FTY Adjustments Ref.	Pro Forma FTY Adjustments Amount	Pro Forma Present Rates, 30-Sep-24	Pro Forma FPFTY Adjustments and DSIC Adjustment Ref.	Pro Forma FPFTY Adjustments and DSIC Adjustment Amount	Pro Forma Present Rates, 31-Oct-25	Under Proposed Rates, Supplement No. ___ to Tariff Water Pa-PUC No. 7 Ref.	Increase	Pro Forma 31-Oct-25
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)	(10)
1	Operating Revenues	$ 599,875	GRH-1	$ -	$ 599,875	GRH-1	$ 40,963	$ 640,838	GRH-1	$ 616,172	$ 1,257,010
2	Revenue from Main and Bethel										237,000
3	Operating Revenue Deductions										
4	Operation and Maintenance										
5	Expenses	$ 361,286	GRH-2	$ 24,589	$ 385,874	GRH-2	$ 124,005	$ 509,880	GRH-2	$ 2,596	$ 512,476
6	Taxes Other than Income	$ 7,160	GRH-2	$ 159	$ 7,319	GRH-2	$ 151	$ 7,469		$ -	$ 7,469
7											
8											
9	Depreciation	-	GRH-2	208,531	208,531	GRH-2	9,436	217,967	GRH-2	$ -	217,967
10	Amortization of Acquisition Adjustment	-	GRH-2	-	-	GRH-2	122,766	122,766	GRH-2	$ -	122,766
11	Amortization of Regulatory Asset	-	GRH-2		-	GRH-2		-	GRH-2		-
12											
13	Total Operating										
14	Revenue Deductions	$ 368,445	GRH-2	$ 233,279	$ 601,724	GRH-2	$ 256,358	$ 858,082		$ 2,596	$ 860,679
15											
16	Total Income Before Taxes and Return	$ 231,429		$ (233,279)	$ (1,849)		$ (215,395)	$ (217,244)		$ 613,576	$ 633,332
17											
18	Less Federal and State Taxes	$ 67,334	GRH-2	$ (115,415)	$ (48,080)		$ (55,117)	$ (103,198)	GRH-2	$ 233,086	$ 129,888
19											
20											
21	Net Operating Income										
22	Available for Return	$ 164,095		$ (117,864)	$ 46,231		$ (160,278)	$ (114,047)		$ 380,491	$ 503,444
23											
24											
25	Rate Base	$ 6,888,600	GRH-1.1	$ (200,081)	$ 6,688,520		$ (350,382)	$ 6,338,138		$ -	$ 6,338,138
26											
27	Rate of Return	2.38%			0.69%			-1.80%			7.94%

VEOLIA WATER PENNSYLVANIA INC.
WATER OPERATIONS
ORIGINAL COST MEASURE OF VALUE AS OF SEPTEMBER 30, 2023,
SEPTEMBER 30, 2024 AND OCTOBER 31, 2025

VWPA, Kensington and Overbrook		As of 9/30/2023	As of 9/30/2024	As of 10/31/2025
Original Cost of Utility Plant In Service	(a)	$ 467,605,755	$ 512,999,741	$ 550,992,912
Pro Forma UPIS - Brown Manor		199,162	141,418	83,674
Pro Forma UPIS - Kensington			225,000	202,500
Pro Forma UPIS - Overbrook			273,300	245,970
Plant Held for Future Use		52,964	52,964	52,964
Less: Accumulated Depreciation	(a)	(81,773,213)	(88,797,886)	(96,999,406)
Net Utility Plant		386,084,669	424,894,537	454,578,614
CIAC and Contributions		(84,960,608)	(84,960,608) (b)	(84,960,608) (b)
Add:				
Deferred Taxes		$ (12,518,928)	$ (13,640,529)	$ (14,747,777)
Regulatory Liability - New Fed Rate		(8,866,421)	(8,601,533)	(8,301,533)
Regulatory Liability - 2018 Portion		(1,097,941)	(1,134,760)	(756,507)
Materials and Supplies		1,656,030	1,656,030	1,656,030
Cash Working Capital		601,863	713,305	749,697
Total Original Cost Measure of Value		$ 280,898,663	$ 318,926,441	$ 348,217,916

(a) Source: Data provided by Company.
(b) 2024 and 2025 CIAC and Advances included in total Net Utility Plant.

Bethel Water		As of 9/30/2023	As of 9/30/2024	As of 10/31/2025
Original Cost of Utility Plant In Service	(a)	$ 8,684,578	$ 8,648,177	$ 8,717,347
Less: Accumulated Depreciation	(a)	(675,693)	(551,779)	(604,497)
Net Utility Plant		8,008,886	8,096,398	8,112,850
CIAC and Contributions		(6,237,519)	(6,237,519) (b)	(6,237,519) (b)
Add:				
Deferred Taxes		$ (50,864)	$ (50,864)	$ (50,864)
Regulatory Liability - New Fed Rate		(134,430)	(134,430)	(134,430)
Regulatory Liability - 2018 Portion		(109,783)	(113,982)	(75,988)
Materials and Supplies		-	-	-
Cash Working Capital		40,517	43,503	45,385
Total Original Cost Measure of Value		$ 1,516,807	$ 1,603,107	$ 1,659,435

(a) Source: Data provided by Company.
(b) 2024 and 2025 CIAC and Advances included in total Net Utility Plant.

Mahoning Township		As of 9/30/2023	As of 9/30/2024	As of 10/31/2025
Original Cost of Utility Plant In Service	(a)	$ 8,105,664	$ 8,138,588	$ 8,168,467
Mahoning Acquisition Adj		1,227,662	1,227,662	1,104,896
Less: Accumulated Depreciation	(a)	(2,450,066)	(2,658,547)	(2,894,392)
Net Utility Plant		6,883,260	6,707,703	6,378,971
CIAC and Contributions		-	-	-
Add:				
Deferred Taxes		$ -	$ (24,351)	$ (46,056)
Regulatory Liability		-	-	-
Materials and Supplies		-	-	-
Cash Working Capital		5,340	5,167	5,223
Total Original Cost Measure of Value		$ 6,888,600	$ 6,688,520	$ 6,338,138
Total Water Original Cost Measure of Value		$ 289,304,070	$ 327,218,068	$ 356,215,489

VEOLIA WATER PENNSYLVANIA INC.

TYPE OF CAPITAL	RATIOS	COST RATE	WEIGHTED COST RATE
LONG-TERM DEBT	46.00%	4.60%	2.12%
COMMON EQUITY	54.00%	10.80%	5.83%
TOTAL	100.00%		7.95%

Source: Direct testimony of Harold Walker.

VEOLIA WATER PENNSYLVANIA INC.

SUMMARY OF PRO FORMA REVENUES UNDER PROPOSED RATES FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2023 AND OCTOBER 31, 2025
AND THE CALCULATION OF THE REVENUE INCREASE UNDER PROPOSED RATES

Customer Classification	Pro Forma Revenues, Present Rates (Schedule 4)	Bill Analysis Revenues, Proposed Rates (Schedule 3)	Adjustment Factor (Sch. 4, col 4)	Revenues, Proposed Rates	Pro Forma Adjustments Proposed Rates (Schedules 3, 7 and 9)	Total Pro Forma Revenue Proposed Rates	Proposed Increase	Percent Increase
(1)	(2)	(3)	(4)	(5)=(4)X(3)	(6)	(7)=(5)+(6)	(8)=(7)-(2)	(9)
METERED SALES								
Residential	$ 35,662,778	$ 44,444,915	0.99965322	$ 44,429,503	$ 331,783	$ 44,761,285	$ 9,098,508	25.5%
Commercial	15,938,754	19,263,384	1.00183070	19,298,649	553,605	19,852,254	3,913,500	24.6%
Industrial	1,404,833	1,810,425	1.00018857	1,810,766	4,442	1,815,208	410,375	29.2%
Public Authority	1,716,898	2,206,907	1.00001543	2,206,941	12,525	2,219,467	502,568	29.3%
Sales for Resale	721,446	1,297,118	1.00375660	1,301,990		1,301,990	580,545	80.5%
Total Metered Sales	55,444,709	69,022,748		69,047,849	902,355	69,950,205	14,505,496	26.2%
Private Fire	1,854,942	2,715,427	0.99999998	2,715,427	16,040	2,731,467	876,525	47.3%
Public Fire	1,131,942	1,244,810	1.00000000	1,244,810		1,244,810	112,868	10.0%
Other Operating Revenues	332,102	332,102		332,102		332,102	-	0.0%
Total	$ 58,763,695	$ 73,315,088		$ 73,340,189	$ 918,395	$ 74,258,584	$ 15,494,889	26.4%

VEOLIA WATER PENNSYLVANIA INC.

SUMMARY OF APPLICATION OF PROPOSED RATES TO CUSTOMER BILL ANALYSIS AND PRO FORMA ADJUSTMENTS
FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023 AND 2024 AND OCTOBER 31, 2025

Rate Zone	Residential	Commercial	Industrial	Large Industrial	Public	Sales for Resale	Metered Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Proposed Rate Application, Schedule 6							
Sales excl. Mahoning and Bethel	$ 42,407,252	$ 18,648,633	$ 1,249,138	$ 561,287	$ 2,206,664		$ 65,072,974
Sales for Bethel Water	1,267,248	190,134			243	1,297,118	2,754,742
Sales for Mahoning Township	770,415	424,617					1,195,032
Total	$ 44,444,915	$ 19,263,384	$ 1,249,138	$ 561,287	$ 2,206,907	$ 1,297,118	$ 69,022,748
Pro Forma Adjustments, Schedule 9 - 2018 and 2019							
Sales excl. Mahoning and Bethel	$ 331,783	$ 553,605	$ 4,442		$ 12,525		$ 902,355
Sales for Bethel Water							-
Sales for Mahoning Township							-
Total	$ 331,783	$ 553,605	$ 4,442	$ -	$ 12,525	$ -	$ 902,355

VEOLIA WATER PENNSYLVANIA INC.

SUMMARY OF REVENUE UNDER PRESENT RATES AND PRO FORMA REVENUES UNDER PRESENT RATES
FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2023 AND OCTOBER 31, 2025

Customer Classification	Adjusted Revenues, Per Books Present Rates 09/30/2023 (a)	Bill Analysis Revenues, Present Rates (Schedule 5)	Ref.	Adjustment Factor	Revenues Under Present Rates	Pro Forma Adjustments Present Rates (Schedule 5, 7 and 9)	Add Back Annualized DSIC Revenue	Total Pro Forma Revenue Present Rates
(1)	(2)	(3)		(4)=(2)/(3)	(5)=(4)X(3)	(6)	(7)	(8)=(5)+(6)+(7)
METERED SALES								
Residential	$ 33,279,746	$ 33,291,291	Sch. 6	0.99965322	$ 33,279,746	$ (105,069)	$ 2,488,101	$ 35,662,778
Commercial	14,058,192	14,032,503	Sch. 6	1.00183070	14,058,192	768,556	1,112,006	15,938,754
Industrial	1,299,967	1,299,722	Sch. 6	1.00018857	1,299,967	6,854	98,012	1,404,833
Public Authority	1,587,630	1,587,606	Sch. 6	1.00001543	1,587,630	9,485	119,784	1,716,898
Sales for Resale	721,446	718,746		1.00375660	721,446			721,446
Total Sales of Water	$ 50,946,981	$ 50,929,867			$ 50,946,981	$ 679,826	$ 3,817,902	$ 55,444,709
Private Fire	$ 1,715,395	$ 1,715,395	Sch. 7	0.99999998	1,715,395	$ 10,133	$ 129,415	1,854,942
Public Fire	1,131,942	1,131,942	Sch 8	1.00000000	1,131,942			1,131,942
Other Operating Revenues	332,102	332,102			332,102			332,102
Total	$ 54,126,420	$ 54,109,306			$ 54,126,420	$ 689,958	$ 3,947,317	$ 58,763,695

(a) Excludes DSIC and Unbilled Revenue.

VEOLIA WATER PENNSYLVANIA INC.

SUMMARY OF APPLICATION OF PRESENT RATES TO CUSTOMER BILL ANALYSIS AND PRO FORMA ADJUSTMENTS
FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023 AND 2024 AND OCTOBER 31, 2025

Rate Zone	Residential	Commercial	Industrial	Large Industrial	Public Authority	Sales for Resale	Metered Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Present Rate Application, Schedule 6							
Sales excl. Mahoning and Bethel	$ 32,155,701	$ 13,717,810	$ 901,545	$ 398,177	$ 1,587,528		$ 48,760,760
Sales for Bethel Water	758,191	148,189	-	-	78	718,746	1,625,204
Sales for Mahoning Township	377,399	166,504					543,903
Total	$ 33,291,291	$ 14,032,503	$ 901,545	$ 398,177	$ 1,587,606	$ 718,746	$ 50,929,867
Pro Forma Adjustments - Schedule 9 - 2024							
Sales excl. Mahoning and Bethel	$ (31,432)	$ 391,384	$ 3,427		$ 15,808		$ 379,186
Sales for Bethel Water				-			-
Sales for Mahoning Township							-
Subtotal	$ (31,432)	$ 391,384	$ 3,427	$ -	$ 15,808	$ -	$ 379,186
Pro Forma Adjustments - Schedule 9 - 2025							
Sales excl. Mahoning and Bethel	$ (73,637)	$ 377,172	$ 3,427		$ (6,323)		$ 300,639
Sales for Bethel Water							-
Sales for Mahoning Township							-
Subtotal	$ (73,637)	$ 377,172	$ 3,427	$ -	$ (6,323)	$ -	$ 300,639
Total Adjustments	$ (105,069)	$ 768,556	$ 6,854	$ -	$ 9,485		$ 679,826

VEOLIA WATER PENNSYLVANIA INC.
MAIN DIVISION

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
				Residential - Monthly				
1	Customer Charge							
2	5/8	671,127		$ 14.50	$ 9,731,341		$ 19.80	$ 13,288,314
3	3/4	18,194		14.50	263,809		19.80	360,236
4	1	5,682		30.05	170,754		41.03	233,146
5	1 1/2	235		60.11	14,152		82.08	19,324
6	2	72		102.96	7,393		140.59	10,094
7	3	1		193.12	162		263.71	222
8	Subtotal	695,311			10,187,611			13,911,336
9								
10	First Block	-	2,418,417	9.0510	21,889,092	2,418,417	11.7100	28,319,663
11	Subtotal	-	2,418,417		21,889,092	2,418,417		28,319,663
12								
13	Total Residential	695,311	2,418,417		$ 32,076,703	2,418,417		$ 42,230,999
14								
15								
16				Commercial - Monthly				
17	Customer Charge							
18	5/8	30,511		$ 14.50	$ 442,405		$ 19.80	$ 604,111
19	3/4	473		14.50	6,862		19.80	9,370
20	1	13,365		30.05	401,616		41.03	548,363
21	1 1/2	6,387		60.11	383,921		82.08	524,242
22	2	6,253		102.96	643,786		140.59	879,078
23	3	327		193.12	63,131		263.71	86,208
24	4	412		321.90	132,513		439.56	180,948
25	6	305		643.80	196,380		879.12	268,161
26	8	28		1,030.16	28,827		1,406.70	39,364
27	Subtotal	58,060			2,299,441			3,139,845
28								
29	First Block (First 25,000)	-	602,309	9.0510	5,451,500	602,309	11.7100	7,053,040
30	Second Block (Over 25,000)	-	906,375	6.5790	5,963,042	906,375	9.3200	8,447,416
31	Subtotal	-	1,508,684		11,414,542	1,508,684		15,500,455
32								
33	Total Commercial	58,060	1,508,684		$ 13,713,983	1,508,684		$ 18,640,300

VEOLIA WATER PENNSYLVANIA INC.
MAIN DIVISION

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
34								
35				Industrial - Monthly				
36	Customer Charge							
37	5/8	120		$ 14.50	$ 1,740		$ 19.80	$ 2,376
38	3/4	12		14.50	174		19.80	238
39	1	120		30.05	3,600		41.03	4,915
40	1 1/2	48		60.11	2,873		82.08	3,923
41	2	93		102.96	9,555		140.59	13,048
42	3	94		193.12	18,178		263.71	24,823
43	4	30		321.90	9,682		439.56	13,221
44	6	36		643.80	23,351		879.12	31,886
45	8	12		1,030.16	12,362		1,406.70	16,880
46	Subtotal	565			81,515			111,310
47								
48	First Block (First 25,000)	-	7,915	9.0510	71,638	7,915	11.7100	92,683
49	Second Block (Over 25,000)	-	100,186	7.4700	748,392	100,186	10.4320	1,045,145
50	Subtotal	-	108,101		820,030	108,101		1,137,828
51								
52	Total Industrial	565	108,101		$ 901,545	108,101		$ 1,249,138
53								
54				Large Industrial - Monthly				
55	Customer Charge							
56	4	12		321.90	3,863		439.56	$ 5,275
57	Subtotal	12			3,863	-		5,275
58								
59	Take or Pay Consumption		84,000	4.0700	$ 341,880	84,000	5.7390	$ 482,076
60	Over Minimum Consumption	-	12,883	4.0700	52,434	12,883	5.7390	73,936
61	Subtotal	-	96,883		394,314	96,883		556,012
62								
63	Total Large Industrial	12	96,883		$ 398,177	96,883		$ 561,287
64								
65	Total Industrial	577	204,984		$ 1,299,722	204,984		$ 1,810,425
66								
67				Public Authority - Monthly				
68								
69	Customer Charge							
70	5/8			$ 14.50	$ -		$ 19.80	$ -
71	3/4	1,183		14.50	17,160		19.80	23,432
72	1	490		30.05	14,731		41.03	20,113
73	1 1/2	354		60.11	21,304		82.08	29,090
74	2	691		102.96	71,184		140.59	97,200
75	3	140		193.12	27,104		263.71	37,012
76	4	66		321.90	21,244		439.56	29,010
77	6	46		643.80	29,486		879.12	40,264
78	8	12		1,030.16	12,362		1,406.70	16,880
79	10	3		1,480.85	4,507		2,022.13	6,154
80	Subtotal	2,987			219,082			299,155
81								
82	First Block (First 25,000)	-	27,943	9.0510	252,914	27,943	11.7100	327,215
83	Second Block (Over 25,000)	-	169,560	6.5790	1,115,532	169,560	9.3200	1,580,295
84	Subtotal	-	197,503		1,368,446	197,503		1,907,509
85								
86	Total Public Authority	2,987	197,503		$ 1,587,528	197,503		$ 2,206,664
87								
88	Total	756,935	4,329,588		$ 48,677,936	4,329,588		$ 64,888,388

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA WATER BETHEL

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
				Residential - Monthly				
1	Customer Charge							
2	5/8	29,657		$ 6.31	$ 187,135		$ 19.80	$ 587,207
3	3/4	12		15.01	183		19.80	242
4	1	85		23.68	2,003		41.03	3,471
5	1 1/2	12		58.40	712		82.08	1,001
6	2	36		75.76	2,730		140.59	5,066
7	3	-		119.21	-		263.71	-
8	Subtotal	29,802			192,764			596,987
9								
10	First Block (First 11,000)/(All Usage Prpsd.)	-	123,170	4.2900	528,400	132,725	5.0500	670,261
11	Second Block (Next 40,000)/(No Block Prpsd.)		9,145	3.8910	35,582		-	-
12	Third Block (Over 51,000)/(No Block Prpsd.)		410	3.5240	1,445		-	-
13	Subtotal	-	132,725		565,427	132,725		670,261
14								
15	Total Residential	29,802	132,725		$ 758,191	132,725		$ 1,267,248
16								
17								
18				Commercial - Monthly				
19	Customer Charge							
20	5/8	464		$ 6.31	$ 2,925		$ 19.80	$ 9,179
21	3/4	-		15.01	-		19.80	-
22	1	108		23.68	2,555		41.03	4,427
23	1 1/2	169		58.40	9,883		82.08	13,891
24	2	191		75.76	14,480		140.59	26,871
25	3	-		119.21	-		263.71	-
26	4	-		252.72	-		439.56	-
27	6	-		336.17	-		879.12	-
28	8	-		527.39	-		1,406.70	-
29	Subtotal	932			29,844			54,368
30								
31	First Block (First 11,000)/(First 25,000)	-	5,821	4.2900	24,972	9,463	5.0500	47,789
32	Second Block (Next 40,000)/(Over 25,000)	-	9,258	3.8910	36,021	21,890	4.0190	87,976
33	Third Block (Over 51,000)/(No Block Prpsd.)		16,275	3.5240	57,352	-	-	-
34	Subtotal	-	31,353		118,345	31,353		135,765
35								
36	Total Class	932	31,353		$ 148,189	31,353		$ 190,134

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA WATER BETHEL

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
37								
38				Public Authority - Monthly				
39								
40	Customer Charge							
41	5/8	12		$ 6.31	$ 77		$ 19.80	$ 242
42	1			15.01	-		19.80	-
43	1 1/2			23.68	-		41.03	-
44	2			58.40	-		82.08	-
45	3			75.76	-		140.59	-
46	4			119.21	-		263.71	-
47	6			252.72	-		439.56	-
48	Subtotal	12			77			242
49								
50	First Block (First 11,000)/(First 25,000)	-	0	4.2900	1	0	5.0500	1
51	Second Block (Next 40,000)/(Over 25,000)	-	-	3.8910	-	-	4.0190	-
52	Third Block (Over 51,000)/(No Block Prpsd.)		-	3.5240	-	-	-	-
53	Subtotal	-	0		1	0		1
54								
55	Total Public Authority	12	0		$ 78	0		$ 243
56								
57				Sales for Resale - Monthly				
58								
59	Customer Charge							
60	6	12		336.17	4,034		879.12	10,549
61	Subtotal	12			4,034			10,549
62								
63	All Usage		219,776	3.2520	714,712	219,776	5.8540	1,286,569
64	Subtotal	-	219,776		714,712	219,776		1,286,569
65								
66	Total Sales for Resale	12	219,776		$ 718,746	219,776		$ 1,297,118
67								
68	Total	30,758	383,855		$ 1,625,204	383,855		$ 2,754,742

VEOLIA WATER PENNSYLVANIA INC.
OVERBROOK WATER OPERATIONS

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Bill and Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
				Residential - Monthly				
1	Customer Charge, Each Family							
2	Domestic Service Charge	1,980		$ 8.56	$ 16,954			
3	Hot and Cold Water Kitchen	1,980		6.90	13,662			
4	First Bath Tub/Water Closet	1,980		2.19	4,341			
5	Additonal Bath Tub/Water Closet	990		1.10	1,084			
6	First Lavatory	1,980		1.10	2,168			
7	Additional Lavatory	1,386		0.55	760			
8	Washer	1,584		3.43	5,425			
9	Dishwaser	1,683		2.06	3,459			
10	Disposal	1,584		0.68	1,084			
11	Inside Spigot	594		2.06	1,221			
12	Outside Spigot	1,980		2.06	4,069			
13	Subtotal	17,721			54,226			
14								
15	Customer Charge							
16	5/8					1,980	$ 19.80	$ 39,204
17	Subtotal							39,204
18								
19	All Usage	-		-	-	7,326	11.7100	85,787
20	Subtotal	-	-		-	7,326		85,787
21								
22	Total Residential	17,721	-		$ 54,226	7,326		$ 124,991
23								
24		Commercial - Monthly						
25	Customer Charge							
26	Domestic Service Charge	132		$ 8.56	1,130			
27	Additional Commercial Charge	132		5.14	678			
28	Hot and Cold Water Kitchen	132		6.90	911			
29	First Bath Tub/Shower	33		1.10	36			
30	First Lavatory	132		1.10	145			
31	Washer	33		3.43	113			
32	Dishwasher	66		2.06	136			
33	Disposal	99		0.68	68			
34	Outside Spigot	132		2.06	271			
35	Sprinlers	33		$ 10.28	339			
36	Subtotal	924			3,827			
37								
38								
39	Customer Charge							
40	5/8					132	$ 19.80	$ 2,614
41	Subtotal							2,614
42								
43	All Usage	-		-	-	488	11.7100	5,719
44	Subtotal	-	-		-	488		5,719
45								
46	Total Class	924	-		3,827	488		$ 8,333
47								
48								
49	Total	18,645	-		$ 58,053	7,814		$ 133,324
50								

51 **Rates are based on the number and types of water fixtures within each premise. Number of fixtures is estimated based on amount of revenue.*

VEOLIA WATER PENNSYLVANIA INC.
KENSINGTON WATER OPERATIONS

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
				Residential - Monthly				
1	Customer Charge							
2	5/8	828		$ 15.00	$ 12,416		$ 19.80	$ 16,389
3	Subtotal	828			12,416			16,389
4								
5	Allowance/All Usage Proposed		1,238	-	-	1,238	11.71	14,495
6	Over Allowance/All Usage Proposed	-	1,740	7.1000	12,355	1,740	11.71	20,378
7	Subtotal	-	2,978		12,355	2,978		34,872
8								
9	Total Residential	828	2,978		$ 24,771	2,978		$ 51,262
10								
11	Total	828	2,978		$ 24,771	2,978		$ 51,262

VEOLIA WATER PENNSYLVANIA INC.
MAHONING TOWNSHIP

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
				Residential - Monthly				
1	Customer Charge							
2	5/8	12,964		$ 21.38	$ 277,162		$ 19.80	$ 256,680
3	3/4	26		26.95	695		19.80	511
4	1	96		32.95	3,174		41.03	3,953
5	1 1/2			44.94	-		82.08	-
6	2			56.95	-		140.59	-
7	4			104.96	-		439.56	-
8	Subtotal	13,086			281,032			261,143
9								
10	Allowance		22,028	-	-	22,028	11.7100	257,945
11	Over Allowance	-	21,463	4.4900	96,367	21,463	11.7100	251,327
12	Subtotal	-	43,490		96,367	43,490		509,272
13								
14	Total Residential	13,086	43,490		$ 377,399	43,490		$ 770,415
15								
16								
17				Commercial - Monthly				
18	Customer Charge							
19	5/8	222		$ 21.38	$ 4,753		$ 19.80	$ 4,402
20	3/4	288		26.95	7,762		19.80	5,702
21	1	150		32.95	4,950		41.03	6,164
22	1 1/2	276		44.94	12,412		82.08	22,670
23	2	120		56.95	6,834		140.59	16,871
24	3	12		56.95	683		263.71	3,165
25	4	36		104.96	3,779		439.56	15,824
26	6	48		152.97	7,345		879.12	42,212
27	Subtotal	1,153			48,518			117,010
28								
29	Allowance	-	5,136	-	-	6,207	11.7100	72,683
30	Over Allowance	-	26,277	4.4900	117,986	25,206	9.3200	234,924
31	Subtotal	-	31,413		117,986	31,413		307,607
32								
33	Total Class	1,153	31,413		$ 166,504	31,413		$ 424,617
34								
35								
36	Total	14,239	74,904		$ 543,903	74,904		$ 1,195,032

VEOLIA WATER PENNSYLVANIA INC.

APPLICATION OF PRESENT AND PROPOSED RATES TO PRIVATE FIRE CONNECTIONS AS OF 09-30-2023

Rate Zone, Connection Size	No. of Bills	Present Rates Rate	Present Rates Revenue	Number	Proposed Rates Rate	Proposed Rates Revenue
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Main						
2" or smaller	867	$ 21.23	$ 18,410	867	$ 33.61	$ 29,145
3"	60	57.26	3,434	60	90.64	5,435
4"	2,339	73.44	171,754	2,339	116.26	271,897
6"	3,972	122.08	484,930	3,972	193.25	767,634
8"	2,868	181.96	521,873	2,868	288.04	826,118
10"	464	260.05	120,594	464	411.66	190,901
12"	120	361.50	43,356	120	572.25	68,632
14"	-	664.08	-	-	1,051.24	-
Hydrants	6,589	47.30	311,651	6,589	74.88	493,370
Bethel						
4" - Monthly	108	57.29	$ 6,206	108	104.28	$ 11,297
6" - Monthly	240	114.59	27,471	240	173.35	41,558
4" - Quarterly	12	171.87	2,062	12	312.84	3,754
6" - Quarterly	4	343.77	1,383	4	520.05	2,092
Mahoning						
Hydrants	48	47.30	2,270	48	74.88	3,594
Total Private Fire	17,691		$ 1,715,395	17,691		$ 2,715,427
HTY, FTY and FPFTY Adjustment						
6"	83	122.08	10,133	83	193.25	16,040

VEOLIA WATER PENNSYLVANIA INC.

APPLICATION OF PRESENT AND PROPOSED RATES TO
THE NUMBER OF PUBLIC FIRE HYDRANTS AS OF SEPTEMBER 30, 2023

Service Area	Pro Forma Number of Bills	Present Monthly Rate	Pro Forma Present Revenue	Proposed Monthly Rate	Pro Forma Proposed Revenue
(1)	(2)	(3)	(4)	(5)	(6)
Bloomsburg/Dallas	4,444	$ 20.00	$ 88,877	$ 24.00	$ 106,652
Harrisburg	27,189	25.83	702,280	28.41	772,508
Mechanicsburg	7,814	25.83	201,839	28.41	222,023
Bethel	336	28.66	$ 9,630	28.66	$ 9,630
Bethel	2,160	38.20	82,512	38.20	82,512
Mahoning	1,812	25.83	46,804	28.41	51,484
Total	43,755		$ 1,131,942		$ 1,244,810

VEOLIA WATER PENNSYLVANIA INC.
MAIN DIVISION

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO PROFORMA ADJUSTMENTS
YEAR ENDED SEPTEMBER 30, 2021, 2022 AND OCTOBER 31, 2024

Rate Block 1000 Gallons	Number Of Bills	Total Consumption	Test Year/Present Rate	Revenue	Proposed Rate	Proposed Revenue
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Residential - Monthly			
Customer Charge						
5/8	8,880	-	$ 14.50	$ 128,760	$ 19.80	$ 175,824
3/4	(96)		15	(1,392)	20	(1,901)
1	(396)		30	(11,900)	41	(16,248)
1 1/2	(96)		60	(5,771)	82	(7,880)
2	(30)		103	(3,089)	141	(4,218)
Subtotal	8,262	-		106,609		145,578
All Usage - Test Year	-	30,614	9.0510	277,085	11.7100	358,487
Misclassified Usage - Blk 1		(21,616)	9.0510	(195,644)	11.7100	(253,121)
Misclassified Usage - Blk 2		(4,737)	6.5790	(31,168)	9.3200	(44,153)
Subtotal	-	4,261		50,273		61,213
Total Residential	8,262	4,261	-	156,882	-	206,791
			Commercial - Monthly			
Customer Charge						
5/8	6,522	-	14.50	94,569	19.80	129,136
3/4	96	-	14.50	1,392	19.80	1,901
1	384	-	30.05	11,539	41.03	15,756
1 1/2	96		60.11	5,771	82.08	7,880
2	30		102.96	3,089	140.59	4,218
Subtotal	7,128	-		116,360		158,889
Test Year First Block (First 25)	-	29,266	9.0510	264,884	11.7100	342,702
Test Year Second Block (Over 25)	-	4,687	6.5790	30,835	9.3200	43,681
Subtotal	-	33,953		295,719		386,383
Total Class	7,128	33,953		412,079		545,273
			Industrial - Monthly			
Customer Charge						
1	12		30.05	361	41.03	492
Subtotal	12	-		361		492
Test Year First Block (First 25)	-	297	9.0510	2,688	11.7100	3,478
Test Year Second Block (Over 25)	-	51	7.4700	378	9.3200	472
Subtotal	-	348		3,066		3,949
Total Class	12	348		3,427		4,442
			Large Industrial - Monthly			
Customer Charge						
4		-	321.90	-	439.56	-
6		-	643.80	-	879.12	-
Subtotal	-	-		-		-
Take or Pay Volume	-		-	-	-	-
Subtotal	-	-		-		-
Total	-	-		-		-
			Public Authority - Monthly			
Customer Charge						
5/8	18	-	14.50	261	19.80	356
Subtotal	18	-		261		356
First Block (First 160)	-	450	6.5790	2,961	11.7100	5,270
Second Block (Over 160)	-	740	-	-	9.3200	6,900
Subtotal	-	1,190		2,961		12,169
Total	18	1,190		3,222		12,525
Total	15,420	39,751		575,610		769,031

ADJUSTMENT 1 - CUSTOMER GROWTH REVENUE ADJUSTMENT UNDER PRESENT RATES
FOR THE TEST YEARS ENDING SEPTEMBER 30, 2023 AND 2024 AND OCTOBER 31, 2025

	Residential	Commercial	Industrial	Public Authority	Private Fire	Total
Historic TY Customer Growth Calculation						
1 Actual Normalized Bills	712,224	60,408	648	2,796	1,018	777,094
2 Actual Annualized Bills	714,084	60,528	648	2,880	1,016	779,156
3 Projected Daily Usage in gallons (a)	113.72	818.90	6,379.09	2,204.31		9,516
4 Monthly Volumes per Normalization (1000 Gallons) Line 3 X30 /1000	3.41	24.57	191.37	66.13		
5 HTY Customer Annualized Growth Bills (Line 2-Line 1) Divided by 2	930	60	-	42	(1)	1,031
6 HTY Customer Annualized Growth Volumes (Line 4 X Line 5 / 2)	3,173	1,474	-	2,777	-	7,425
Priced At First Block	3,173	1,474		1,050		5,697
Priced At Second Block				1,727		1,727
Historic TY Customer Growth Revenue Calculation						
7 Average Service Charge	$ 14.50	$ 14.50		$ 30.05	$ 122.08	
8 Revenue From Service Charge (Line 7 X Line 5)	$ 13,485	$ 870		$ 1,262	$ (122)	
9 Volume Charge - First Block	9.051	9.051		9.051		
Volume Charge - Second Block		6.579		6.579		
10 Revenue from Volumetric Charge (Line 9 X Line 6)						
Priced At First Block	$ 28,720	$ 13,341		$ 9,504		
Priced At Second Block				11,365		
11 Total Historical TY Adjustment (Line 8 + Line 10)	$ 42,205	$ 14,211	$ -	$ 22,131	$ (122)	$ 78,425
Future Test Year Customer Growth Calculation						
12 Forecasted Customer Growth	603.0	30.0		(1.0)	3.5	
13 Annualized Bills (Line 12 X 12)	7,236	360		(12)	42	
14 Average Volumes Per Normalization						
Priced At First Block	3.41	24.57		25.00		
Priced At Second Block				41.13		
15 Normalized Volumes (Line 13 X Line 14)	24,689	8,844				
16 Revenue From Service Charge (Line 7 X Line 13)	$ 104,922	$ 5,220	$ -	$ (361)	$ 5,127	$ 114,909
17 Revenue from Volumetric Charge (Line 9 X Line 15)						
Priced At First Block	$ 223,462	$ 80,048		$ (2,715)		$ 300,795
Priced At Second Block	$ -	$ -		(3,247)		(3,247)
18 Total FTY Adjustment (Line 16 + Line 17)	$ 328,384	$ 85,268	$ -	$ (6,323)	$ 5,127	$ 412,457
Fully Projected Future Test Year Customer Growth Calculation						
19 Forecasted Customer Growth	603.0	30.0	-	(1.0)	3.5	
20 Annualized Bills (Line 12 X 12)	7,236	360		(12)	42	
21 Average Volumes Per Normalization						
Priced At First Block	3.41	24.57	-	25.00	-	
Priced At Second Block	-	-		41.13		
Total	3.41	24.57	-	66.13	-	
22 Normalized Volumes (Line 13 X Line 14)	24,689	8,844		(300)		
23 Revenue From Service Charge (Line 7 X Line 13)	$ 104,922	$ 5,220	$ -	$ (361)	$ 5,127	$ 114,909
24 Revenue from Volumetric Charge (Line 9 X Line 15)						
Priced At First Block	$ 223,462	$ 80,048		$ (2,715)		$ 300,795
Priced At Second Block	$ -	$ -		$ (3,247)		(3,246)
25 Total FTY Adjustment (Line 16 + Line 17)	$ 328,384	$ 85,268	$ -	$ (6,323)	$ 5,127	$ 412,457
Total Adjustment	$ 698,974	$ 184,748	$ -	$ 9,485	$ 10,133	$ 903,339

(a) For residential and commercial, see declining usage workpaper. For Industrial and Public, based on 2017 usage.

	Number of Customers	Residential	Commercial	Industrial	Public Authority	Private Fire Protection
26	**Period Ending 09/30/21**	58,301.0	4,984.0	54.0	242.0	1,011.1
27	**Period Ending 09/30/22**	59,115.0	5,028.0	55.0	237.0	1,021.9
28	**Historic Test Year Period Ending 09/30/23**	59,507.0	5,044.0	54.0	240.0	1,018.2
29	**Increase 2021-2022**	814.0	44.0	1.0	(5.0)	10.8
30	**Increase 2022-2023**	392.0	16.0	(1.0)	3.0	(3.8)
31	**Average Growth/(Decline)**	603.0	30.0	-	(1.0)	3.5

ADJUSTMENT 2 - DECLINING USAGE REVENUE ADJUSTMENT - PRESENT RATES
FOR THE TEST YEAR ENDING SEPTEMBER 30, 2024

		Residential		Commercial
1	Actual Normalized Bills	712,224		60,408
2	Actual 2023 Daily Usage (Gallons)	114.24		821.99
3	Projected Daily Usage in gallons - 2024	113.72		818.90
4	Difference in Daily Usage - Line 3 - Line 2	(0.51)		(3.09)
5	Difference in 1000 gallon Monthly Usage - Line 4 X 30 divided by 1000	(0.02)		(0.09)
6	Annual Declining Usage Adjustment - Line 1 X Line 5	(10,969)		(5,608)
7	Priced At First Block	(10,969)		(5,608)
8	First Block Under Present Rates	$ 9.0510	$	9.0510
9	Adjustment Under Present Rates	$ (99,280)	$	(50,755)

DECLINING USAGE REVENUE ADJUSTMENT - PRESENT RATES
FOR THE TEST YEAR ENDING OCTOBER 31, 2025

		Residential		Commercial
10	Actual Normalized Bills	712,224		60,408
11	Actual 2023 Daily Usage (Gallons)	114.24		821.99
12	Projected Daily Usage in gallons - 2025	113.21		815.81
13	Difference in Daily Usage - Line 11 - Line 12	(1.03)		(6.19)
14	Difference in 1000 gallon Monthly Usage - Line 13 X 30 divided by 1000	(0.03)		(0.19)
15	Annual Declining Usage Adjustment - Line 10 X Line 5	(21,938)		(11,215)
16	Priced At First Block	(21,938)		(11,215)
17	First Block Under Present Rates	$ 9.0510	$	9.0510
18	Adjustment Under Present Rates	$ (198,560)	$	(101,509)
19	Incremental Adjustment over 2024	$ (99,280)	$	(50,755)

VEOLIA WATER PENNSYLVANIA INC.
MAIN DIVISION

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
				Residential - Monthly				
1	Customer Charge							
2	5/8	(6,522)		$ 14.50	$ (94,569)		$ 19.80	$ (129,136)
3	3/4	(96)		14.50	(1,392)		19.80	(1,901)
4	1	(396)		30.05	(11,900)		41.03	(16,248)
5	1 1/2	(96)		60.11	(5,771)		82.08	(7,880)
6	2	(30)		102.96	(3,089)		140.59	(4,218)
7	3			193.12	-		263.71	-
8	Subtotal	(7,140)			(116,721)			(159,382)
9								
10	First Block	-	(21,616)	9.0510	(195,644)	(21,616)	11.7100	(253,121)
			(4,737)	6.5790	(31,168)	(4,737)	9.3200	(44,153)
11	Subtotal	-	(26,353)		(226,812)	(26,353)		(297,274)
12								
13	Total Residential	(7,140)	(26,353)		$ (343,533)	(26,353)		$ (456,655)
14								
15								
16				Commercial - Monthly				
17	Customer Charge							
18	5/8	6,522		$ 14.50	$ 94,569		$ 19.80	$ 129,136
19	3/4	96		14.50	1,392		19.80	1,901
20	1	384		30.05	11,539		41.03	15,756
21	1 1/2	96		60.11	5,771		82.08	7,880
22	2	30		102.96	3,089		140.59	4,218
23	3			193.12	-		263.71	-
24	4			321.90	-		439.56	-
25	6			643.80	-		879.12	-
26	8			1,030.16	-		1,406.70	-
27	Subtotal	7,128			116,360			158,889
28								
29	First Block (First 25,000)	-	21,319	9.0510	192,956	21,319	11.7100	249,643
30	Second Block (Over 25,000)	-	4,687	6.5790	30,835	4,687	9.3200	43,681
31	Subtotal	-	26,006		223,791	26,006		293,324
32								
33	Total Commercial	7,128	26,006		$ 340,151	26,006		$ 452,213

VEOLIA WATER PENNSYLVANIA INC.
MAIN DIVISION

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
34								
35				Industrial - Monthly				
36	Customer Charge							
37	5/8			$ 14.50	$ -		$ 19.80	$ -
38	3/4			14.50	-		19.80	-
39	1	12		30.05	361		41.03	492
40	1 1/2			60.11	-		82.08	-
41	2			102.96	-		140.59	-
42	3			193.12	-		263.71	-
43	4			321.90	-		439.56	-
44	6			643.80	-		879.12	-
45	8			1,030.16	-		1,406.70	-
46	Subtotal	12			361			492
47								
48	First Block (First 25,000)	-	297	9.0510	2,688	297	11.7100	3,478
49	Second Block (Over 25,000)	-	51	7.4700	378	51	10.4320	528
50	Subtotal	-	348		3,066	348		4,006
51								
52	Total Industrial	12	348		$ 3,427	348		$ 4,498
53								
54				Large Industrial - Monthly				
55	Customer Charge							
56	4			321.90	-		439.56	$ -
57	Subtotal	-			-	-		-
58								
59	Take or Pay Consumption			4.0700	$ -		5.7390	$ -
60	Over Minimum Consumption	-		4.0700	-		5.7390	-
61	Subtotal	-	-		-	-		-
62								
63	Total Large Industrial	-	-		$ -	-		$ -
64								
65	Total Industrial	12	348		$ 3,427	348		$ 4,498
66								
67				Public Authority - Monthly				
68								
69	Customer Charge							
70	5/8			$ 14.50	$ -		$ 19.80	$ -
71	3/4			14.50	-		19.80	-
72	1			30.05	-		41.03	-
73	1 1/2			60.11	-		82.08	-
74	2			102.96	-		140.59	-
75	3			193.12	-		263.71	-
76	4			321.90	-		439.56	-
77	6			643.80	-		879.12	-
78	8			1,030.16	-		1,406.70	-
79	10			1,480.85	-		2,022.13	-
80	Subtotal	-			-			-
81								
82	First Block (First 25,000)	-		9.0510	-		11.7100	-
83	Second Block (Over 25,000)	-		6.5790	-		9.3200	-
84	Subtotal	-	-		-	-		-
85								
86	Total Public Authority	-	-		$ -	-		$ -
87								
88	Total	-	-		$ 45	-		$ 56

VEOLIA WATER PENNSYLVANIA INC.
OVERBROOK WATER

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
				Residential - Monthly				
1	Customer Charge, Each Family							
2	Domestic Service Charge	(1,980)		$ 8.56	$ (16,954)			
3	Hot and Cold Water Kitchen	(1,980)		6.90	(13,662)			
4	First Bath Tub/Water Closet	(1,980)		2.19	(4,341)			
5	Additonal Bath Tub/Water Closet	(990)		1.10	(1,084)			
6	First Lavatory	(1,980)		1.10	(2,168)			
7	Additional Lavatory	(1,386)		0.55	(760)			
8	Washer	(1,584)		3.43	(5,425)			
9	Dishwaser	(1,683)		2.06	(3,459)			
10	Disposal	(1,584)		0.68	(1,084)			
11	Inside Spigot	(594)		2.06	(1,221)			
12	Outside Spigot	(1,980)		2.06	(4,069)			
13	Subtotal	(17,721)			(54,226)			
14								
15	Customer Charge							
16	5/8	1,980		$ 14.50	$ 28,710		$ 19.80	$ 39,204
17	Subtotal							39,204
18								
19	Over Allowance	-	7,326	9.0510	66,308	7,326	11.71	85,787
20	Subtotal	-	7,326		66,308	7,326		85,787
21								
22	Total Residential	-	7,326		$ 40,792	7,326		$ 124,991
23								
24		Commercial - Monthly						
25	Customer Charge							
26	Domestic Service Charge	(132)		$ 8.56	(1,130)			
27	Additional Commercial Charge	(132)		5.14	(678)			
28	Hot and Cold Water Kitchen	(132)		6.90	(911)			
29	First Bath Tub/Shower	(33)		1.10	(36)			
30	First Lavatory	(132)		1.10	(145)			
31	Washer	(33)		3.43	(113)			
32	Dishwasher	(66)		2.06	(136)			
33	Disposal	(99)		0.68	(68)			
34	Outside Spigot	(132)		2.06	(271)			
35	Sprinlers	(33)		$ 10.28	(339)			
36	Subtotal	(924)			(3,827)			
37								
38								
39	Customer Charge							
40	5/8	132		14.50	$ 1,914		$ 19.80	$ 2,614
41	Subtotal							2,614
42								
43	All Usage	-	488	9.0510	4,421	488	11.7100	5,719
44	Subtotal	-	488		4,421	488		5,719
45								
46	Total Class	-	488		2,508	488		$ 8,333
47								
48								
49	Total	-	7,814		$ 43,299	7,814		$ 133,324
50								

51 **Rates are based on the number and types of water fixtures within each premise. Number of fixtures is estimated based on amount of revenue.*
52
53

VEOLIA WATER PENNSYLVANIA INC.

COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
RESIDENTIAL - MONTHLY
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES*	PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 15.59	$ 19.80	$ 4.21	27.02%
1,000	$ 25.32	$ 31.51	$ 6.19	24.46%
2,000	$ 35.05	$ 43.22	$ 8.17	23.32%
3,000	$ 44.78	$ 54.93	$ 10.15	22.67%
3,500	$ 49.64	$ 60.79	$ 11.14	22.45%
4,000	$ 54.51	$ 66.64	$ 12.13	22.26%
5,000	$ 64.24	$ 78.35	$ 14.11	21.97%
6,000	$ 73.97	$ 90.06	$ 16.09	21.76%
7,000	$ 83.70	$ 101.77	$ 18.07	21.59%
8,000	$ 93.43	$ 113.48	$ 20.05	21.46%
9,000	$ 103.16	$ 125.19	$ 22.03	21.36%
10,000	$ 112.89	$ 136.90	$ 24.01	21.27%
11,000	$ 122.62	$ 148.61	$ 25.99	21.20%
12,000	$ 132.35	$ 160.32	$ 27.97	21.14%
13,000	$ 142.08	$ 172.03	$ 29.95	21.08%
14,000	$ 151.81	$ 183.74	$ 31.93	21.04%
15,000	$ 161.53	$ 195.45	$ 33.92	21.00%
16,000	$ 171.26	$ 207.16	$ 35.90	20.96%
17,000	$ 180.99	$ 218.87	$ 37.88	20.93%
18,000	$ 190.72	$ 230.58	$ 39.86	20.90%
19,000	$ 200.45	$ 242.29	$ 41.84	20.87%
20,000	$ 210.18	$ 254.00	$ 43.82	20.85%
25,000	$ 258.83	$ 312.55	$ 53.72	20.75%
30,000	$ 307.48	$ 371.10	$ 63.62	20.69%
35,000	$ 356.13	$ 429.65	$ 73.52	20.64%
40,000	$ 404.78	$ 488.20	$ 83.42	20.61%
45,000	$ 453.43	$ 546.75	$ 93.32	20.58%
50,000	$ 502.08	$ 605.30	$ 103.22	20.56%
60,000	$ 599.38	$ 722.40	$ 123.02	20.53%
70,000	$ 696.68	$ 839.50	$ 142.82	20.50%
80,000	$ 793.97	$ 956.60	$ 162.63	20.48%
90,000	$ 891.27	$ 1,073.70	$ 182.43	20.47%
100,000	$ 988.57	$ 1,190.80	$ 202.23	20.46%
110,000	$ 1,085.87	$ 1,307.90	$ 222.03	20.45%
120,000	$ 1,183.17	$ 1,425.00	$ 241.83	20.44%
130,000	$ 1,280.46	$ 1,542.10	$ 261.64	20.43%
140,000	$ 1,377.76	$ 1,659.20	$ 281.44	20.43%
150,000	$ 1,475.06	$ 1,776.30	$ 301.24	20.42%
160,000	$ 1,572.36	$ 1,893.40	$ 321.04	20.42%
170,000	$ 1,669.66	$ 2,010.50	$ 340.84	20.41%
180,000	$ 1,766.96	$ 2,127.60	$ 360.64	20.41%

** Present rates include 7.50% DSIC.

VEOLIA WATER PENNSYLVANIA INC.

COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
COMMERCIAL - MONTHLY
2-INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES*	PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 110.68	$ 140.59	$ 29.91	27.02%
1,000	$ 120.41	$ 152.30	$ 31.89	26.48%
5,000	$ 159.33	$ 199.14	$ 39.81	24.98%
10,000	$ 207.98	$ 257.69	$ 49.71	23.90%
11,000	$ 217.71	$ 269.40	$ 51.69	23.74%
12,000	$ 227.44	$ 281.11	$ 53.67	23.60%
13,000	$ 237.17	$ 292.82	$ 55.65	23.46%
14,000	$ 246.90	$ 304.53	$ 57.63	23.34%
15,000	$ 256.63	$ 316.24	$ 59.61	23.23%
16,000	$ 266.36	$ 327.95	$ 61.59	23.12%
17,000	$ 276.09	$ 339.66	$ 63.57	23.03%
18,000	$ 285.82	$ 351.37	$ 65.55	22.93%
19,000	$ 295.55	$ 363.08	$ 67.53	22.85%
20,000	$ 305.28	$ 374.79	$ 69.51	22.77%
25,000	$ 353.93	$ 433.34	$ 79.41	22.44%
30,000	$ 389.29	$ 479.94	$ 90.65	23.29%
35,000	$ 424.65	$ 526.54	$ 101.89	23.99%
40,000	$ 460.01	$ 573.14	$ 113.13	24.59%
45,000	$ 495.38	$ 619.74	$ 124.36	25.10%
50,000	$ 530.74	$ 666.34	$ 135.60	25.55%
60,000	$ 601.46	$ 759.54	$ 158.08	26.28%
75,000	$ 707.55	$ 899.34	$ 191.79	27.11%
85,000	$ 778.27	$ 992.54	$ 214.27	27.53%
95,000	$ 849.00	$ 1,085.74	$ 236.74	27.88%
105,000	$ 919.72	$ 1,178.94	$ 259.22	28.18%
115,000	$ 990.45	$ 1,272.14	$ 281.69	28.44%
125,000	$ 1,061.17	$ 1,365.34	$ 304.17	28.66%
135,000	$ 1,131.89	$ 1,458.54	$ 326.65	28.86%
145,000	$ 1,202.62	$ 1,551.74	$ 349.12	29.03%
155,000	$ 1,273.34	$ 1,644.94	$ 371.60	29.18%
165,000	$ 1,344.07	$ 1,738.14	$ 394.07	29.32%
175,000	$ 1,414.79	$ 1,831.34	$ 416.55	29.44%
185,000	$ 1,485.52	$ 1,924.54	$ 439.02	29.55%

** Present rates include 7.50% DSIC.

VEOLIA WATER PENNSYLVANIA INC.

COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
INDUSTRIAL - MONTHLY
4-INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES*	BILLS UNDER PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 346.04	$ 439.56	$ 93.52	27.02%
1,000	$ 355.77	$ 451.27	$ 95.50	26.84%
5,000	$ 394.69	$ 498.11	$ 103.42	26.20%
10,000	$ 443.34	$ 556.66	$ 113.32	25.56%
15,000	$ 491.99	$ 615.21	$ 123.22	25.05%
20,000	$ 540.64	$ 673.76	$ 133.12	24.62%
25,000	$ 589.29	$ 732.31	$ 143.02	24.27%
30,000	$ 629.44	$ 784.47	$ 155.03	24.63%
35,000	$ 669.59	$ 836.63	$ 167.04	24.95%
40,000	$ 709.74	$ 888.79	$ 179.05	25.23%
45,000	$ 749.89	$ 940.95	$ 191.06	25.48%
50,000	$ 790.04	$ 993.11	$ 203.07	25.70%
100,000	$ 1,191.56	$ 1,514.71	$ 323.15	27.12%
150,000	$ 1,593.07	$ 2,036.31	$ 443.24	27.82%
200,000	$ 1,994.58	$ 2,557.91	$ 563.33	28.24%
225,000	$ 2,195.34	$ 2,818.71	$ 623.37	28.40%
250,000	$ 2,396.09	$ 3,079.51	$ 683.42	28.52%
275,000	$ 2,596.85	$ 3,340.31	$ 743.46	28.63%
300,000	$ 2,797.61	$ 3,601.11	$ 803.50	28.72%
350,000	$ 3,199.12	$ 4,122.71	$ 923.59	28.87%

** Present rates include 7.50% DSIC.

VEOLIA WATER PENNSYLVANIA INC.

COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
LARGE INDUSTRIAL - MONTHLY
6 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES*	BILLS UNDER PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
7,000,000	$ 31,318.84	$ 41,052.12	$ 9,733.29	31.08%
8,000,000	35,694.09	46,791.12	11,097.04	31.09%
9,000,000	40,069.34	52,530.12	12,460.79	31.10%
10,000,000	44,444.59	58,269.12	13,824.54	31.11%
11,000,000	48,819.84	64,008.12	15,188.29	31.11%
12,000,000	53,195.09	69,747.12	16,552.04	31.12%
13,000,000	57,570.34	75,486.12	17,915.79	31.12%
14,000,000	61,946.66	81,225.12	19,278.46	31.12%
15,000,000	66,320.84	86,964.12	20,643.29	31.13%
16,000,000	70,696.09	92,703.12	22,007.04	31.13%

** Present rates include 7.50% DSIC.

VEOLIA WATER PENNSYLVANIA INC.

COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
PUBLIC - MONTHLY
5/8 INCH METERS

CONSUMPTION 100 GALLONS	BILLS UNDER PRESENT RATES*	PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 15.59	$ 19.80	$ 4.21	27.02%
1,000	$ 25.32	$ 31.51	$ 6.19	24.46%
2,000	$ 35.05	$ 43.22	$ 8.17	23.32%
3,000	$ 44.78	$ 54.93	$ 10.15	22.67%
4,000	$ 54.51	$ 66.64	$ 12.13	22.26%
5,000	$ 64.24	$ 78.35	$ 14.11	21.97%
10,000	$ 112.89	$ 136.90	$ 24.01	21.27%
15,000	$ 161.53	$ 195.45	$ 33.92	21.00%
20,000	$ 210.18	$ 254.00	$ 43.82	20.85%
25,000	$ 258.83	$ 312.55	$ 53.72	20.75%
30,000	$ 294.20	$ 359.15	$ 64.95	22.08%
35,000	$ 329.56	$ 405.75	$ 76.19	23.12%
40,000	$ 364.92	$ 452.35	$ 87.43	23.96%
45,000	$ 400.28	$ 498.95	$ 98.67	24.65%
50,000	$ 435.64	$ 545.55	$ 109.91	25.23%
93,000	$ 739.76	$ 946.31	$ 206.55	27.92%
150,000	$ 1,142.89	$ 1,477.55	$ 334.66	29.28%
200,000	$ 1,496.51	$ 1,943.55	$ 447.04	29.87%
225,000	$ 1,673.32	$ 2,176.55	$ 503.23	30.07%
250,000	$ 1,850.13	$ 2,409.55	$ 559.42	30.24%
275,000	$ 2,026.94	$ 2,642.55	$ 615.61	30.37%
300,000	$ 2,203.75	$ 2,875.55	$ 671.80	30.48%
350,000	$ 2,557.37	$ 3,341.55	$ 784.18	30.66%

** Present rates include 7.50% DSIC.

VEOLIA WATER PENNSYLVANIA INC.
BETHEL CUSTOMERS
COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
RESIDENTIAL - MONTHLY
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES*	BILLS UNDER PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 6.78	$ 19.80	$ 13.02	191.90%
1,000	$ 11.40	$ 24.85	$ 13.46	118.08%
2,000	$ 16.01	$ 29.90	$ 13.89	86.80%
3,000	$ 20.62	$ 34.95	$ 14.33	69.51%
3,500	$ 22.92	$ 37.48	$ 14.55	63.47%
4,000	$ 25.23	$ 40.00	$ 14.77	58.54%
5,000	$ 29.84	$ 45.05	$ 15.21	50.96%
6,000	$ 34.45	$ 50.10	$ 15.65	45.41%
7,000	$ 39.07	$ 55.15	$ 16.08	41.17%
8,000	$ 43.68	$ 60.20	$ 16.52	37.83%
9,000	$ 48.29	$ 65.25	$ 16.96	35.12%
10,000	$ 52.90	$ 70.30	$ 17.40	32.89%
11,000	$ 57.51	$ 75.35	$ 17.84	31.01%
12,000	$ 61.70	$ 80.40	$ 18.70	30.32%
13,000	$ 65.88	$ 85.45	$ 19.57	29.71%
14,000	$ 70.06	$ 90.50	$ 20.44	29.17%
15,000	$ 74.24	$ 95.55	$ 21.31	28.70%
16,000	$ 78.43	$ 100.60	$ 22.17	28.27%
17,000	$ 82.61	$ 105.65	$ 23.04	27.89%
18,000	$ 86.79	$ 110.70	$ 23.91	27.55%
19,000	$ 90.98	$ 115.75	$ 24.77	27.23%
20,000	$ 95.16	$ 120.80	$ 25.64	26.95%
25,000	$ 116.07	$ 146.05	$ 29.98	25.83%
30,000	$ 136.99	$ 171.30	$ 34.31	25.05%
35,000	$ 157.90	$ 196.55	$ 38.65	24.48%
40,000	$ 178.81	$ 221.80	$ 42.99	24.04%
45,000	$ 199.73	$ 247.05	$ 47.32	23.69%
50,000	$ 220.64	$ 272.30	$ 51.66	23.41%
60,000	$ 258.92	$ 322.80	$ 63.88	24.67%
70,000	$ 296.80	$ 373.30	$ 76.50	25.77%
80,000	$ 334.69	$ 423.80	$ 89.11	26.63%
90,000	$ 372.57	$ 474.30	$ 101.73	27.31%
100,000	$ 410.45	$ 524.80	$ 114.35	27.86%
110,000	$ 448.34	$ 575.30	$ 126.96	28.32%
120,000	$ 486.22	$ 625.80	$ 139.58	28.71%
130,000	$ 524.10	$ 676.30	$ 152.20	29.04%
140,000	$ 561.98	$ 726.80	$ 164.82	29.33%
150,000	$ 599.87	$ 777.30	$ 177.43	29.58%
160,000	$ 637.75	$ 827.80	$ 190.05	29.80%
170,000	$ 675.63	$ 878.30	$ 202.67	30.00%
180,000	$ 713.52	$ 928.80	$ 215.28	30.17%

** Present rates include 7.50% DSIC.

VEOLIA WATER PENNSYLVANIA INC.
BETHEL CUSTOMERS
COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
COMMERCIAL - MONTHLY
5/8-INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES*	PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 6.78	$ 19.80	$ 13.02	191.90%
1,000	$ 11.40	$ 24.85	$ 13.46	118.08%
5,000	$ 29.84	$ 45.05	$ 15.21	50.96%
10,000	$ 52.90	$ 70.30	$ 17.40	32.89%
11,000	$ 57.51	$ 75.35	$ 17.84	31.01%
12,000	$ 61.70	$ 80.40	$ 18.70	30.32%
13,000	$ 65.88	$ 85.45	$ 19.57	29.71%
14,000	$ 70.06	$ 90.50	$ 20.44	29.17%
15,000	$ 74.24	$ 95.55	$ 21.31	28.70%
16,000	$ 78.43	$ 100.60	$ 22.17	28.27%
17,000	$ 82.61	$ 105.65	$ 23.04	27.89%
18,000	$ 86.79	$ 110.70	$ 23.91	27.55%
19,000	$ 90.98	$ 115.75	$ 24.77	27.23%
20,000	$ 95.16	$ 120.80	$ 25.64	26.95%
25,000	$ 116.07	$ 146.05	$ 29.98	25.83%
30,000	$ 136.99	$ 166.15	$ 29.16	21.29%
35,000	$ 157.90	$ 186.24	$ 28.34	17.95%
40,000	$ 178.81	$ 206.34	$ 27.52	15.39%
45,000	$ 199.73	$ 226.43	$ 26.70	13.37%
50,000	$ 220.64	$ 246.53	$ 25.88	11.73%
60,000	$ 258.92	$ 286.72	$ 27.79	10.73%
75,000	$ 315.74	$ 347.00	$ 31.26	9.90%
85,000	$ 353.63	$ 387.19	$ 33.56	9.49%
95,000	$ 391.51	$ 427.38	$ 35.87	9.16%
105,000	$ 429.39	$ 467.57	$ 38.18	8.89%
115,000	$ 467.28	$ 507.76	$ 40.48	8.66%
125,000	$ 505.16	$ 547.95	$ 42.79	8.47%
135,000	$ 543.04	$ 588.14	$ 45.10	8.30%
145,000	$ 580.93	$ 628.33	$ 47.40	8.16%
155,000	$ 618.81	$ 668.52	$ 49.71	8.03%
165,000	$ 656.69	$ 708.71	$ 52.02	7.92%
175,000	$ 694.57	$ 748.90	$ 54.33	7.82%
185,000	$ 732.46	$ 789.09	$ 56.63	7.73%

** Present rates include 7.50% DSIC.

VEOLIA WATER PENNSYLVANIA INC.
OVERBROOK CUSTOMERS
COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
RESIDENTIAL - MONTHLY
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES*	BILLS UNDER PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 27.22	$ 19.80	$ (7.42)	-27.27%
1,000	$ 27.22	$ 31.51	$ 4.29	15.74%
2,000	$ 27.22	$ 43.22	$ 16.00	58.75%
3,000	$ 27.22	$ 54.93	$ 27.71	101.77%
3,500	$ 27.22	$ 60.79	$ 33.56	123.27%
4,000	$ 27.22	$ 66.64	$ 39.42	144.78%
5,000	$ 27.22	$ 78.35	$ 51.13	187.79%
6,000	$ 27.22	$ 90.06	$ 62.84	230.81%
7,000	$ 27.22	$ 101.77	$ 74.55	273.82%
8,000	$ 27.22	$ 113.48	$ 86.26	316.83%
9,000	$ 27.22	$ 125.19	$ 97.97	359.85%
10,000	$ 27.22	$ 136.90	$ 109.68	402.86%
11,000	$ 27.22	$ 148.61	$ 121.39	445.87%
12,000	$ 27.22	$ 160.32	$ 133.10	488.88%
13,000	$ 27.22	$ 172.03	$ 144.81	531.90%
14,000	$ 27.22	$ 183.74	$ 156.52	574.91%
15,000	$ 27.22	$ 195.45	$ 168.23	617.92%
16,000	$ 27.22	$ 207.16	$ 179.94	660.94%
17,000	$ 27.22	$ 218.87	$ 191.65	703.95%
18,000	$ 27.22	$ 230.58	$ 203.36	746.96%
19,000	$ 27.22	$ 242.29	$ 215.07	789.97%
20,000	$ 27.22	$ 254.00	$ 226.78	832.99%
25,000	$ 27.22	$ 312.55	$ 285.33	1048.05%
30,000	$ 27.22	$ 371.10	$ 343.88	1263.12%
35,000	$ 27.22	$ 429.65	$ 402.43	1478.18%
40,000	$ 27.22	$ 488.20	$ 460.98	1693.25%
45,000	$ 27.22	$ 546.75	$ 519.53	1908.31%
50,000	$ 27.22	$ 605.30	$ 578.08	2123.38%
60,000	$ 27.22	$ 722.40	$ 695.18	2553.50%
70,000	$ 27.22	$ 839.50	$ 812.28	2983.63%
80,000	$ 27.22	$ 956.60	$ 929.38	3413.76%
90,000	$ 27.22	$ 1,073.70	$ 1,046.48	3843.89%
100,000	$ 27.22	$ 1,190.80	$ 1,163.58	4274.02%
110,000	$ 27.22	$ 1,307.90	$ 1,280.68	4704.15%
120,000	$ 27.22	$ 1,425.00	$ 1,397.78	5134.28%
130,000	$ 27.22	$ 1,542.10	$ 1,514.88	5564.41%
140,000	$ 27.22	$ 1,659.20	$ 1,631.98	5994.54%
150,000	$ 27.22	$ 1,776.30	$ 1,749.08	6424.67%
160,000	$ 27.22	$ 1,893.40	$ 1,866.18	6854.80%
170,000	$ 27.22	$ 2,010.50	$ 1,983.28	7284.93%
180,000	$ 27.22	$ 2,127.60	$ 2,100.38	7715.06%

* Present rates include 7.50% DSIC. Present monthly rates are estimated.

VEOLIA WATER PENNSYLVANIA INC.
KENSINGTON CUSTOMERS
COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
RESIDENTIAL - MONTHLY
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES*	BILLS UNDER PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 16.13	$ 19.80	$ 3.68	22.79%
1,000	$ 16.13	$ 31.51	$ 15.39	95.41%
2,000	$ 18.67	$ 43.22	$ 24.55	131.54%
3,000	$ 26.30	$ 54.93	$ 28.63	108.87%
3,500	$ 30.12	$ 60.79	$ 30.67	101.84%
4,000	$ 33.93	$ 66.64	$ 32.71	96.39%
5,000	$ 41.56	$ 78.35	$ 36.79	88.50%
6,000	$ 49.20	$ 90.06	$ 40.86	83.06%
7,000	$ 56.83	$ 101.77	$ 44.94	79.08%
8,000	$ 64.46	$ 113.48	$ 49.02	76.04%
9,000	$ 72.09	$ 125.19	$ 53.10	73.65%
10,000	$ 79.73	$ 136.90	$ 57.17	71.71%
11,000	$ 87.36	$ 148.61	$ 61.25	70.11%
12,000	$ 94.99	$ 160.32	$ 65.33	68.77%
13,000	$ 102.62	$ 172.03	$ 69.41	67.63%
14,000	$ 110.26	$ 183.74	$ 73.48	66.65%
15,000	$ 117.89	$ 195.45	$ 77.56	65.79%
16,000	$ 125.52	$ 207.16	$ 81.64	65.04%
17,000	$ 133.15	$ 218.87	$ 85.72	64.37%
18,000	$ 140.79	$ 230.58	$ 89.79	63.78%
19,000	$ 148.42	$ 242.29	$ 93.87	63.25%
20,000	$ 156.05	$ 254.00	$ 97.95	62.77%
25,000	$ 194.21	$ 312.55	$ 118.34	60.93%
30,000	$ 232.38	$ 371.10	$ 138.72	59.70%
35,000	$ 270.54	$ 429.65	$ 159.11	58.81%
40,000	$ 308.70	$ 488.20	$ 179.50	58.15%
45,000	$ 346.86	$ 546.75	$ 199.89	57.63%
50,000	$ 385.03	$ 605.30	$ 220.27	57.21%
60,000	$ 461.35	$ 722.40	$ 261.05	56.58%
70,000	$ 537.68	$ 839.50	$ 301.82	56.13%
80,000	$ 614.00	$ 956.60	$ 342.60	55.80%
90,000	$ 690.33	$ 1,073.70	$ 383.37	55.54%
100,000	$ 766.65	$ 1,190.80	$ 424.15	55.32%
110,000	$ 842.98	$ 1,307.90	$ 464.92	55.15%
120,000	$ 919.30	$ 1,425.00	$ 505.70	55.01%
130,000	$ 995.63	$ 1,542.10	$ 546.47	54.89%
140,000	$ 1,071.95	$ 1,659.20	$ 587.25	54.78%
150,000	$ 1,148.28	$ 1,776.30	$ 628.02	54.69%
160,000	$ 1,224.60	$ 1,893.40	$ 668.80	54.61%
170,000	$ 1,300.93	$ 2,010.50	$ 709.57	54.54%
180,000	$ 1,377.25	$ 2,127.60	$ 750.35	54.48%

** Present rates include 7.50% DSIC.

VEOLIA WATER PENNSYLVANIA INC.
MAHONING CUSTOMERS
COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
RESIDENTIAL - MONTHLY
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES*	BILLS UNDER PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 22.98	$ 19.80	$ (3.18)	-13.85%
1,000	$ 22.98	$ 31.51	$ 8.53	37.10%
2,000	$ 22.98	$ 43.22	$ 20.24	88.05%
3,000	$ 27.81	$ 54.93	$ 27.12	97.52%
3,500	$ 30.22	$ 60.79	$ 30.56	101.12%
4,000	$ 32.64	$ 66.64	$ 34.00	104.19%
5,000	$ 37.46	$ 78.35	$ 40.89	109.14%
6,000	$ 42.29	$ 90.06	$ 47.77	112.96%
7,000	$ 47.12	$ 101.77	$ 54.65	115.99%
8,000	$ 51.94	$ 113.48	$ 61.54	118.47%
9,000	$ 56.77	$ 125.19	$ 68.42	120.52%
10,000	$ 61.60	$ 136.90	$ 75.30	122.25%
11,000	$ 66.42	$ 148.61	$ 82.19	123.73%
12,000	$ 71.25	$ 160.32	$ 89.07	125.01%
13,000	$ 76.08	$ 172.03	$ 95.95	126.12%
14,000	$ 80.90	$ 183.74	$ 102.84	127.11%
15,000	$ 85.73	$ 195.45	$ 109.72	127.98%
16,000	$ 90.56	$ 207.16	$ 116.60	128.76%
17,000	$ 95.38	$ 218.87	$ 123.49	129.46%
18,000	$ 100.21	$ 230.58	$ 130.37	130.09%
19,000	$ 105.04	$ 242.29	$ 137.25	130.67%
20,000	$ 109.87	$ 254.00	$ 144.14	131.19%
25,000	$ 134.00	$ 312.55	$ 178.55	133.25%
30,000	$ 158.13	$ 371.10	$ 212.97	134.68%
35,000	$ 182.27	$ 429.65	$ 247.38	135.73%
40,000	$ 206.40	$ 488.20	$ 281.80	136.53%
45,000	$ 230.53	$ 546.75	$ 316.22	137.17%
50,000	$ 254.67	$ 605.30	$ 350.63	137.68%
60,000	$ 302.94	$ 722.40	$ 419.47	138.47%
70,000	$ 351.20	$ 839.50	$ 488.30	139.04%
80,000	$ 399.47	$ 956.60	$ 557.13	139.47%
90,000	$ 447.74	$ 1,073.70	$ 625.96	139.81%
100,000	$ 496.01	$ 1,190.80	$ 694.80	140.08%
110,000	$ 544.27	$ 1,307.90	$ 763.63	140.30%
120,000	$ 592.54	$ 1,425.00	$ 832.46	140.49%
130,000	$ 640.81	$ 1,542.10	$ 901.29	140.65%
140,000	$ 689.08	$ 1,659.20	$ 970.13	140.79%
150,000	$ 737.34	$ 1,776.30	$ 1,038.96	140.91%
160,000	$ 785.61	$ 1,893.40	$ 1,107.79	141.01%
170,000	$ 833.88	$ 2,010.50	$ 1,176.62	141.10%
180,000	$ 882.15	$ 2,127.60	$ 1,245.46	141.18%

** Present rates include 7.50% DSIC.

VEOLIA WATER PENNSYLVANIA INC.
MAHONING CUSTOMERS
COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
COMMERCIAL - MONTHLY
3/4 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES*	BILLS UNDER PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 28.97	$ 19.80	$ (9.17)	-31.66%
1,000	$ 28.97	$ 31.51	$ 2.54	8.76%
2,000	$ 28.97	$ 43.22	$ 14.25	49.18%
3,000	$ 33.80	$ 54.93	$ 21.13	62.52%
3,500	$ 36.21	$ 60.79	$ 24.57	67.86%
4,000	$ 38.62	$ 66.64	$ 28.02	72.53%
5,000	$ 43.45	$ 78.35	$ 34.90	80.32%
6,000	$ 48.28	$ 90.06	$ 41.78	86.54%
7,000	$ 53.11	$ 101.77	$ 48.67	91.64%
8,000	$ 57.93	$ 113.48	$ 55.55	95.89%
9,000	$ 62.76	$ 125.19	$ 62.43	99.48%
10,000	$ 67.59	$ 136.90	$ 69.31	102.56%
11,000	$ 72.41	$ 148.61	$ 76.20	105.23%
12,000	$ 77.24	$ 160.32	$ 83.08	107.56%
13,000	$ 82.07	$ 172.03	$ 89.96	109.63%
14,000	$ 86.89	$ 183.74	$ 96.85	111.46%
15,000	$ 91.72	$ 195.45	$ 103.73	113.10%
16,000	$ 96.55	$ 207.16	$ 110.61	114.57%
17,000	$ 101.37	$ 218.87	$ 117.50	115.91%
18,000	$ 106.20	$ 230.58	$ 124.38	117.12%
19,000	$ 111.03	$ 242.29	$ 131.26	118.23%
20,000	$ 115.85	$ 254.00	$ 138.15	119.24%
25,000	$ 139.99	$ 312.55	$ 172.56	123.27%
30,000	$ 164.12	$ 359.15	$ 195.03	118.83%
35,000	$ 188.25	$ 405.75	$ 217.50	115.53%
40,000	$ 212.39	$ 452.35	$ 239.96	112.98%
45,000	$ 236.52	$ 498.95	$ 262.43	110.95%
50,000	$ 260.66	$ 545.55	$ 284.89	109.30%
60,000	$ 308.92	$ 638.75	$ 329.83	106.77%
70,000	$ 357.19	$ 731.95	$ 374.76	104.92%
80,000	$ 405.46	$ 825.15	$ 419.69	103.51%
90,000	$ 453.73	$ 918.35	$ 464.62	102.40%
100,000	$ 501.99	$ 1,011.55	$ 509.56	101.51%
110,000	$ 550.26	$ 1,104.75	$ 554.49	100.77%
120,000	$ 598.53	$ 1,197.95	$ 599.42	100.15%
130,000	$ 646.80	$ 1,291.15	$ 644.35	99.62%
140,000	$ 695.06	$ 1,384.35	$ 689.29	99.17%
150,000	$ 743.33	$ 1,477.55	$ 734.22	98.77%
160,000	$ 791.60	$ 1,570.75	$ 779.15	98.43%
170,000	$ 839.87	$ 1,663.95	$ 824.08	98.12%
180,000	$ 888.13	$ 1,757.15	$ 869.02	97.85%

** Present rates include 7.50% DSIC.

VEOLIA WATER PENNSYLVANIA INC.

COMPARISON OF PRESENT AND PROPOSED RATES

Main Division Customers

Residential

MTR SIZE	Present Rate	Proposed Rate	% Increase	
Service Charge				
5/8"-3/4"	$ 14.50	$ 19.80	36.55%	5.30
1"	30.05	41.03	36.54%	10.98
1-1/2"	60.11	82.08	36.55%	21.97
2"	102.96	140.59	36.55%	37.63
3"	193.12	263.71	36.55%	70.59
4"	321.90	439.56	36.55%	117.66
6"	643.80	879.12	36.55%	235.32
8"	1,030.16	1,406.70	36.55%	376.54
10"	1,480.85	2,022.13	36.55%	541.28
Consumption Charge				
No Block	$ 9.0510	$ 11.7100	29.38%	
First 25 MGL				
All Over 25 MGL				

Commercial (includes Apt)

	Present Rate	Proposed Rate	% Increase
Service Charge			
	$ 14.50	$ 19.80	36.55%
	30.05	41.03	36.54%
	60.11	82.08	36.55%
	102.96	140.59	36.55%
	193.12	263.71	36.55%
	321.90	439.56	36.55%
	643.80	879.12	36.55%
	1,030.16	1,406.70	36.55%
	1,480.85	2,022.13	36.55%
Consumption Charge			
	$ 9.0510	$ 11.7100	29.38%
	6.5790	9.3200	41.66%

Industrial

	Present Rate	Proposed Rate	% Increase
Service Charge			
	$ 14.50	$ 19.80	36.55%
	30.05	41.03	36.54%
	60.11	82.08	36.55%
	102.96	140.59	36.55%
	193.12	263.71	36.55%
	321.90	439.56	36.55%
	643.80	879.12	36.55%
	1,030.16	1,406.70	36.55%
	1,480.85	2,022.13	36.55%
Consumption Charge			
	$ 9.0510	$ 11.7100	29.38%
	7.4700	10.4320	39.65%

Main Division Customers

Public Authority

MTR SIZE	Present Rate	Proposed Rate	% Increase
Service Charge			
5/8"-3/4"	$ 14.50	$ 19.80	36.55%
1"	30.05	41.03	36.54%
1-1/2"	60.11	82.08	36.55%
2"	102.96	140.59	36.55%
3"	193.12	263.71	36.55%
4"	321.90	439.56	36.55%
6"	643.80	879.12	36.55%
8"	1,030.16	1,406.70	36.55%
10"	1,480.85	2,022.13	36.55%
Consumption Charge			
No Block			
First 25 MGL	$ 9.0510	$ 11.7100	29.38%
All Over 25 MGL	6.5790	9.3200	41.66%

Large Industrial

	Present Rate	Proposed Rate	% Increase
Service Charge			
	$ 14.50	$ 19.80	36.55%
	30.05	41.03	36.54%
	60.11	82.08	36.55%
	102.96	140.59	36.55%
	193.12	263.71	36.55%
	321.90	439.56	36.55%
	643.80	879.12	36.55%
	1,030.16	1,406.70	36.55%
	1,480.85	2,022.13	36.55%
Minimum Charge		40,173.00	
Consumption Charge			
	$ 4.07000	$ 5.7390	41.01%

Bethel Water Cutomers

Residential

MTR SIZE	Present Rate	Proposed Rate	% Increase	
Service Charge				
5/8"	$ 6.31	$ 19.80	213.79%	13.49
3/4"	15.01	19.80	31.91%	4.79
1"	23.68	41.03	73.27%	17.35
1-1/2"	58.40	82.08	40.55%	23.68
2"	75.76	140.59	85.57%	64.83
3"	119.21	263.71	121.21%	144.50
4"	252.72	439.56	73.93%	186.84
6"	336.17	879.12	161.51%	542.95
8"	527.39	1,406.70	166.73%	879.31
10"	892.16	2,022.13	126.66%	1,129.97
Consumption Charge				
First Block First 11 MGL	$ 4.2900	N/A		
Second Block Next 40 MGL	3.8910	N/A		
Third Block Over 51 MGL	3.5240	N/A		
Proposed No Block		$ 5.0500		
Proposed First 25 MGL				
Proposed All Over 25 MGL				

Commercial (includes Apt)

	Present Rate	Proposed Rate	% Increase
Service Charge			
	$ 6.31	$ 19.80	213.79%
	15.01	19.80	31.91%
	23.68	41.03	73.27%
	58.40	82.08	40.55%
	75.76	140.59	85.57%
	119.21	263.71	121.21%
	252.72	439.56	73.93%
	336.17	879.12	161.51%
	527.39	1,406.70	166.73%
	892.16	2,022.13	126.66%
Consumption Charge			
	$ 4.2900	N/A	
	3.8910	N/A	
	3.5240	N/A	
		5.0500	
		4.0190	

Sales for Resale

	Present Rate	Proposed Rate	% Increase
Service Charge			
	$ 6.31	$ 19.80	213.79%
	15.01	19.80	31.91%
	23.68	41.03	73.27%
	58.40	82.08	40.55%
	75.76	140.59	85.57%
	119.21	263.71	121.21%
	252.72	439.56	73.93%
	336.17	879.12	161.51%
	527.39	1,406.70	166.73%
	892.16	2,022.13	126.66%
Consumption Charge			
	$ 3.2520	$ 5.8540	80.012%

Kensington Customers

Residential

MTR SIZE	Present Rate	Proposed Rate	% Increase	
Service Charge				
5/8"-3/4"	$ 15.00	$ 19.80	32.00%	4.80
1"	15.00	41.03	173.53%	26.03
1-1/2"	15.00	82.08	447.20%	67.08
2"	15.00	140.59	837.27%	125.59
3"	15.00	263.71	1658.07%	248.71
4"	15.00	439.56	2830.40%	424.56
6"	15.00	879.12	5760.80%	864.12
8"	15.00	1,406.70	9278.00%	1,391.70
10"	15.00	2,022.13	13380.87%	2,007.13
Consumption Charge				
Allowance/Proposed No Blk	$ -	$ 11.7100		
First Block/Proposed No Blk	7.1000	11.7100	64.930%	
Proposed First 25 MGL				
Proposed All Over 25 MGL				

Commercial (includes Apt)

	Present Rate	Proposed Rate	% Increase
Service Charge			
	$ 15.00	$ 19.80	32.00%
	15.00	41.03	173.53%
	15.00	82.08	447.20%
	15.00	140.59	837.27%
	15.00	263.71	1658.07%
	15.00	439.56	2830.40%
	15.00	879.12	5760.80%
	15.00	2,022.13	13380.87%
Consumption Charge			
	$ -	N/A	
	7.1000	N/A	
		$ 11.7100	64.930%
		$ 9.3200	

Overbrook Customers

Residential & Non-Residential

	Present Rate	Proposed Rate	% Increase
Service Charge			
	Various*	$ 19.80	
	Various*	41.03	
	Various*	82.08	
	Various*	140.59	
	Various*	263.71	
	Various*	439.56	
	Various*	879.12	
	Various*	1,406.70	
	Various*	2,022.13	
Consumption Charge Residential (All Usage)			
	$ -	$ 11.7100	
Consumption Charge Non-Residential			
		$ 11.7100	
		$ 9.3200	

**Present rate structure charges customers by number and types of water fixtures in household or commercial establishment.*

VEOLIA WATER PENNSYLVANIA INC.

COMPARISON OF PRESENT AND PROPOSED RATES

Mahoning Township Customers

MTR SIZE	Residential Present Rate	Residential Proposed Rate	Residential % Increase		Commercial (includes Apt) Present Rate	Commercial (includes Apt) Proposed Rate	Commercial (includes Apt) % Increase
	Service Charge				**Service Charge**		
5/8"	$ 21.38	$ 19.80	-7.39%	(1.58)	$ 21.38	$ 19.80	-7.39%
3/4"	$ 26.95	$ 19.80	-26.53%	(7.15)	$ 26.95	$ 19.80	-26.53%
1"	$ 32.95	$ 41.03	24.52%	8.08	$ 32.95	$ 41.03	24.52%
1-1/2"	$ 44.94	$ 82.08	82.64%	37.14	$ 44.94	$ 82.08	82.64%
2"	$ 56.95	$ 140.59	146.87%	83.64	$ 56.95	$ 140.59	146.87%
3"	$ 56.95	$ 263.71	363.06%	206.76	$ 56.95	$ 263.71	363.06%
4"	$ 104.96	$ 439.56	318.79%	334.60	$ 104.96	$ 439.56	318.79%
6"	$ 152.97	$ 879.12	474.70%	726.15	$ 152.97	$ 879.12	474.70%
8"		$ 1,406.70		1,406.70	$ -	$ 1,406.70	
10"		$ 2,022.13		2,022.13	$ -	$ 2,022.13	
Geisinger	$ 26.95	$ 19.80	-26.531%		$ 26.95	$ 19.80	-26.531%
	Consumption Charge				**Consumption Charge**		
Allowance/Proposed No Blk	$ -	$ 11.7100			$ -	N/A	
First Block/Proposed No Blk	$ 4.4900	$ 11.7100	160.802%		$ 4.4900	N/A	
Proposed First 25 MGL						$ 11.7100	
Proposed All Over 25 MGL						$ 9.3200	

FIRE PROTECTION

Main Division, Mahoning Township, Kensington and Overbrook Customers

CONNECTION SIZE	Private Fire Protection-Monthly Current Per Unit	Private Fire Protection-Monthly Proposed Rate	Private Fire Protection-Monthly % Increase	Private Fire Hydrant-Monthly Current Per Unit	Private Fire Hydrant-Monthly Proposed Rate	Private Fire Hydrant-Monthly % Increase	Public Fire Protection-Monthly	Current Per Unit	Proposed Rate
2"	$ 21.23	$ 33.61	58.31%	$ 47.30	$ 74.88	58.31%	Hydrants-BMB	$ 20.00	$ 24.00
3"	57.26	90.64	58.30%				Hydrants-DAL	20.00	24.00
4"	73.44	116.26	58.31%				Hydrants-HAR	25.83	28.41
6"	122.08	193.25	58.30%				Hydrants-MEC	25.83	28.41
8"	181.96	288.04	58.30%						
10"	260.05	411.66	58.30%						
12"	361.50	572.25	58.30%						
14"	664.08	1,051.23	58.30%						

Bethel Water Customers

CONNECTION SIZE	Private Fire Protection-Monthly Current Per Unit	Private Fire Protection-Monthly Proposed Rate	Private Fire Protection-Monthly % Increase	Private Fire Hydrant-Monthly Current Per Unit	Private Fire Hydrant-Monthly Proposed Rate	Private Fire Hydrant-Monthly % Increase	Public Fire Protection-Monthly	Current Per Unit	Proposed Rate
2"				38.20	67.17	75.83%	Hydrants-Bethel	$ 28.66	$ 28.66
3"				26.08	67.17	157.54%	Hydrants-Bethel	38.20	38.20
4"	57.29	104.28	82.02%				Hydrants-Bethel*	1.29	1.29
6"	114.59	173.35	51.28%						
8"	171.88	258.38	50.33%				*Non-Subdivsion customers.		
10"	306.39	369.27	20.52%						
12"									
14"									

Exhibit No. GRH-3

VEOLIA WATER PENNSYLVANIA INC.

HARRISBURG, PENNSYLVANIA

WATER PRO FORMA EXPENSE ADJUSTMENTS

AS OF OCTOBER 31, 2025

GANNETT FLEMING

Excellence Delivered As Promised

Veolia Water Pennsylvania
Docket No. R-2024-3045192
Operation and Maintenance Expenses - Combined
For the Historical, Future and Fully Projected Future Test Year

Exhibit No. GRH-3
Schedule-1
Summary of Adjustments
Page 1 of 4

Line No.	Account Number	Utility Operating Expenses	Adjustment No.	VW Pennsylvania 12-Months Ending 9/30/2023	Future Test Year Adjustments	Future Test Year 9/30/2024	Fully Projected Future Test Year Adjustments Present Rates	Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Adjustments Proposed Rates	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	601.0	Labor Expense	1	$ 5,811,878	$ 1,412,069	$ 7,223,947	$ 198,659	$ 7,422,605		$ 7,422,605
2	604.0	Employee Group Health & Life	2	920,667	642,907	1,563,574	34,399	1,597,973		1,597,973
3	604.0	Employee Pension Benefits	3	367,354	251,734	619,088	13,620	632,708		632,708
4	604.0	Employee Post Retirement Benefits Other than Pension	4	75,249	(927,986)	(852,737)	(18,760)	(871,497)		(871,497)
5	604.0	Other Employee Benefits	5	370,146	62,843	432,988	12,194	445,183		445,183
6	610.0	Purchased Water	6	1,825,613	127,448	1,953,061	42,967	1,996,029		1,996,029
7	615.0	Purchased Power	7	2,245,114	343,730	2,588,843	399,980	2,988,823		2,988,823
8	616.0	Fuel for Power Production	8	2,000	48	2,048	45	2,093		2,093
9	618.0	Chemicals	9	986,229	339,344	1,325,574	29,163	1,354,736		1,354,736
10	620.0	Materials and Supplies	10	396,023	8,687	404,710	8,904	413,613		413,613
11	634.0	Management and Service Fees	11	4,076,177	437,747	4,513,925	166,251	4,680,176		4,680,176
12	635.0	Lab Testing Fees	12	247,303	(39,540)	207,763	4,571	212,334		212,334
13	636.0	Outside Contractors	13	1,723,551	(49,002)	1,674,549	36,840	1,711,389		1,711,389
14	636.0	Outside Professional Services	14	162,491	(75,815)	86,676	1,907	88,583		88,583
15	641.0	Rental - Building/Real Property	15	-	-	-	-	-		-
16	642.0	Rental of Equipment	16	119,512	2,838	122,350	2,692	125,042		125,042
17	650.0	Transportation Expense	17	559,928	81,363	641,291	107,424	748,715		748,715
18	657.0	Prop& Gen Liab. Insurance	18	(312)	312	-	-	-		-
19	658.0	Worker Compensation	19	19,075	27,648	46,723	1,388	48,111		48,111
20	660.0	Advertising	20	-	-	-	-	-		-
21	666.0	Rate Case Expense - Amort	21	-	-	-	236,460	236,460		236,460
22	666.0	Regulatory Commission Expense	22	344,697	(10,419)	334,278	26,114	360,392	95,027	455,419
23	667.0	Amortization of Tax Reform Liability	22.1	(264,888)	-	(264,888)	(451,359)	(716,247)		(716,247)
24	670.0	Bad Debt Expense	23	253,213	55,515	308,728	7,901	316,629	83,488	400,116
25	675.0	Fringe Benefit Expense Transfer	24	(858,759)	(156,197)	(1,014,956)	(24,592)	(1,039,548)		(1,039,548)
26	675.6	Office Expense and Utilities	25	845,482	36,993	882,475	(8,059)	874,416		874,416
27	675.9	Postage and Air Freight Expense	26	422,855	(13,902)	408,953	12,393	421,346		421,346
28	Various	Other O&M	27	146,049	15,453	161,503	3,553	165,056		165,056
29		Customer Assistance Program	28	-	-	-	1,000,000	1,000,000		1,000,000
30		**Adjustments for Acquisitions**	29	$ -	$ -	$ -	$ 117,570	$ 117,570		$ 117,570
31		**Total Operation and Maintenance Expenses**		$ 20,796,646	$ 2,573,820	$ 23,370,466	$ 1,962,222	$ 25,332,688	$ 178,515	$ 25,511,202
32										
33		Inflation Rate Calculator	30		2.38%		2.20%			
34										
35		**Taxes Other Than Income**								
36		Real Estate Tax	31	$ 447,173	$ (104,684)	$ 342,489	$ 7,535	$ 350,024	$ -	$ 350,024
37		Payroll	32	704,987	191,007	895,993	22,694	918,687	-	$ 918,687
38										
39		**Total Taxes Other Than Income**		$ 1,152,160	$ 86,323	$ 1,238,482	$ 30,229	$ 1,268,711	$ -	$ 1,268,711
40										
41		**Depreciation Expense**	33	$ 8,828,651	$ 842,255	$ 9,670,905	$ 1,920,219	$ 11,591,125		$ 11,591,125
42		**Amortization of Acquisition Adjustment**		57,744	-	57,744	172,596	230,340		230,340
43		**Amortization of Regulatory Liability**								
44										
45		**Income Taxes**	34	$ 4,495,020	$ (1,199,126)	$ 3,295,894	$ (147,208)	$ 3,148,686	$ 4,197,111	$ 7,345,797
46										
47		**Total**		$ 35,330,221	$ 2,303,271	$ 37,633,491	$ 3,938,058	$ 41,571,549	$ 4,375,626	$ 45,947,175

Line No.	Account Number	Utility Operating Expenses	Adjustment No.	VW Pennsylvania 12-Months Ending 9/30/2023	Future Test Year Adjustments	Future Test Year 9/30/2024	Fully Projected Future Test Year Adjustments Present Rates	Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Adjustments Proposed Rates	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	601.0	Labor Expense	1	$ 5,804,592	$ 1,411,862	$ 7,216,454	$ 198,452	$ 7,414,906		$ 7,414,906
2	604.0	Employee Group Health & Life	2	920,056	642,481	1,562,536	34,376	1,596,912		1,596,912
3	604.0	Employee Pension Benefits	3	367,110	251,567	618,677	13,611	632,288		632,288
4	604.0	Employee Post Retirement Benefits Other than Pension	4	75,199	(927,369)	(852,171)	(18,748)	(870,919)		(870,919)
5	604.0	Other Employee Benefits	5	369,900	62,801	432,701	12,194	444,895		444,895
6	610.0	Purchased Water	6	152,819	3,629	156,448	3,442	159,890		159,890
7	615.0	Purchased Power	7	2,168,330	331,974	2,500,304	386,300	2,886,605		2,886,605
8	616.0	Fuel for Power Production	8	2,000	48	2,048	45	2,093		2,093
9	618.0	Chemicals	9	978,820	336,795	1,315,615	28,944	1,344,558		1,344,558
10	620.0	Materials and Supplies	10	389,405	8,542	397,947	8,755	406,702		406,702
11	634.0	Management and Service Fees	11	3,946,587	423,831	4,370,418	160,966	4,531,383		4,531,383
12	635.0	Lab Testing Fees	12	244,207	(39,045)	205,162	4,514	209,676		209,676
13	636.0	Outside Contractors	13	1,701,975	(48,389)	1,653,586	36,379	1,689,965		1,689,965
14	636.0	Outside Professional Services	14	160,457	(74,866)	85,591	1,883	87,474		87,474
15	641.0	Rental - Building/Real Property	15	-	-	-	-	-		-
16	642.0	Rental of Equipment	16	119,376	2,835	122,211	2,689	124,900		124,900
17	650.0	Transportation Expense	17	559,489	81,363	640,853	107,424	748,276		748,276
18	657.0	Prop& Gen Liab. Insurance	18	(307)	307	-	-	-		-
19	658.0	Worker Compensation	19	19,062	27,648	46,710	1,388	48,098		48,098
20	660.0	Advertising	20	-	-	-	-	-		-
21	666.0	Rate Case Expense - Amort	21	-	-	-	236,460	236,460		236,460
22	666.0	Regulatory Commission Expense	22	332,605	(10,054)	322,551	25,198	347,750	91,693	439,443
23	667.0	Amortization of Tax Reform Liability	22.1	(260,924)	-	(260,924)	(444,605)	(705,529)		(705,529)
24	670.0	Bad Debt Expense	23	240,243	53,442	293,686	6,725	300,411	79,211	379,622
25	675.0	Fringe Benefit Expense Transfer	24	(858,940)	(156,016)	(1,014,956)	(24,592)	(1,039,548)		(1,039,548)
26	675.6	Office Expense and Utilities	25	818,918	36,675	855,593	(8,650)	846,943		846,943
27	675.9	Postage and Air Freight Expense	26	368,844	(12,126)	356,718	10,810	367,528		367,528
28	Various	Other O&M	27	144,824	15,324	160,148	3,523	163,671		163,671
29		Customer Assistance Program	28	-	-	-	1,000,000	1,000,000		1,000,000
30		**Adjustments for Acquisitions**	29	$ -	$ -	$ -	$ 8,924	$ 8,924		$ 8,924
31		**Total Operation and Maintenance Expenses**		$ 18,764,647	$ 2,423,258	$ 21,187,906	$ 1,796,406	$ 22,984,312	$ 170,905	$ 23,155,217
32										
33		Inflation Rate Calculator	30		2.38%		2.20%			
34										
35		**Taxes Other Than Income**								
36		Real Estate Tax	31	$ 440,481	$ (104,843)	$ 335,638	$ 7,384	$ 343,022	$ -	$ 343,022
37		Payroll	32	704,519	191,007	895,525	22,694	918,219	-	$ 918,219
38										
39		**Total Taxes Other Than Income**		$ 1,145,000	$ 86,164	$ 1,231,163	$ 30,078	$ 1,261,241	$ -	$ 1,261,241
40										
41		**Depreciation Expense**	33	$ 8,788,099	$ 633,003	$ 9,421,102	$ 1,894,472	$ 11,315,574		$ 11,315,574
42		**Amortization of Acquisition Adjustment**		57,744	-	57,744	49,830	107,574		107,574
43		**Amortization of Regulatory Liability**								
44										
45		**Income Taxes**	34	$ 4,432,291	$ (1,088,316)	$ 3,343,974	$ (92,091)	$ 3,251,883	$ 3,964,026	$ 7,215,909
46										
47		**Total**		$ 33,187,781	$ 2,054,108	$ 35,241,889	$ 3,678,695	$ 38,920,584	$ 4,134,931	$ 43,055,515

Line No.	Account Number	Utility Operating Expenses	Adjustment No.	Bethel 12-Months Ending 9/30/2023	Future Test Year Adjustments	Future Test Year 9/30/2024	Fully Projected Future Test Year Adjustments Present Rates	Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Adjustments Proposed Rates	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	601.0	Labor Expense	1	$ 3,429	$ 98	$ 3,526	$ 97	$ 3,623		$ 3,623
2	604.0	Employee Group Health & Life	2	-	-	-	-	-		-
3	604.0	Employee Pension Benefits	3	-	-	-	-	-		-
4	604.0	Employee Post Retirement Benefits Other than Pension	4	-	-	-	-	-		-
5	604.0	Other Employee Benefits	5	-	-	-	-	-		-
6	610.0	Purchased Water	6	1,521,987	120,237	1,642,224	36,129	1,678,353		1,678,353
7	615.0	Purchased Power	7	-	-	-	-	-		-
8	616.0	Fuel for Power Production	8	-	-	-	-	-		-
9	618.0	Chemicals	9	-	-	-	-	-		-
10	620.0	Materials and Supplies	10	702	15	717	16	733		733
11	634.0	Management and Service Fees	11	69,634	7,478	77,112	2,840	79,953		79,953
12	635.0	Lab Testing Fees	12	3,096	(495)	2,601	57	2,658		2,658
13	636.0	Outside Contractors	13	21,576	(613)	20,962	461	21,424		21,424
14	636.0	Outside Professional Services	14	2,034	(949)	1,085	24	1,109		1,109
15	641.0	Rental - Building/Real Property	15	-	-	-	-	-		-
16	642.0	Rental of Equipment	16	-	-	-	-	-		-
17	650.0	Transportation Expense	17	67	-	67	-	67		67
18	657.0	Prop& Gen Liab. Insurance	18	-	-	-	-	-		-
19	658.0	Worker Compensation	19	-	-	-	-	-		-
20	660.0	Advertising	20	-	-	-	-	-		-
21	666.0	Rate Case Expense - Amort	21	-	-	-	-	-		-
22	666.0	Regulatory Commission Expense	22	7,039	(213)	6,826	533	7,360	1,941	9,300
23	667.0	Amortization of Tax Reform Liability	22.1	-	-	-	-	-		-
24	670.0	Bad Debt Expense	23	9,320	1,490	10,810	844	11,654	3,073	14,727
25	675.0	Fringe Benefit Expense Transfer	24	752	(752)	-	-	-		-
26	675.6	Office Expense and Utilities	25	14,238	170	14,408	317	14,725		14,725
27	675.9	Postage and Air Freight Expense	26	16,405	(539)	15,866	481	16,347		16,347
28	Various	Other O&M	27	434	46	480	11	490		490
29		Customer Assistance Program	28	-	-	-	-	-		-
30		**Adjustments for Acquisitions**	29		-	-	-	-		-
31		**Total Operation and Maintenance Expenses**		$ 1,670,714	$ 125,972	$ 1,796,686	$ 41,810	$ 1,838,496	$ 5,013	$ 1,843,510
32										
33		Inflation Rate Calculator	30		2.38%		2.20%			
34										
35		**Taxes Other Than Income**								
36		Real Estate Tax	31	$ -	$ -	$ -	$ -	$ -	$ -	$ -
37		Payroll	32	-	-	-	-	-	-	$ -
38										
39		**Total Taxes Other Than Income**		$ -	$ -	$ -	$ -	$ -	$ -	$ -
40										
41		**Depreciation Expense**	33	$ 40,552	$ 721	$ 41,272	$ 16,312	$ 57,584		$ 57,584
42		**Amortization of Acquisition Adjustment**		$ -		-		-		-
43		**Amortization of Regulatory Liability**								
44										
45		**Income Taxes**	34	$ (4,605)	$ 4,605	$ -	$ -	$ -	$ -	$ -
46										
47		**Total**		$ 1,706,660	$ 131,298	$ 1,837,958	$ 58,122	$ 1,896,080	$ 5,013	$ 1,901,094

Line No.	Account Number	Utility Operating Expenses	Adjustment No.	Mahoning Township 12-Months Ending 9/30/2023	Future Test Year Adjustments	Future Test Year 9/30/2024	Fully Projected Future Test Year Adjustments Present Rates	Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Adjustments Proposed Rates	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	601.0	Labor Expense	1	$ 3,857	$ 110	$ 3,967	$ 109	$ 4,076		$ 4,076
2	604.0	Employee Group Health & Life	2	611	427	1,038	23	1,061		1,061
3	604.0	Employee Pension Benefits	3	244	167	411	9	420		420
4	604.0	Employee Post Retirement Benefits Other than Pension	4	50	(616)	(566)	(12)	(579)		(579)
5	604.0	Other Employee Benefits	5	246	42	288	0	288		288
6	610.0	Purchased Water	6	150,807	3,582	154,389	3,397	157,785		157,785
7	615.0	Purchased Power	7	76,783	11,756	88,539	13,679	102,218		102,218
8	616.0	Fuel for Power Production	8	-	-	-	-	-		-
9	618.0	Chemicals	9	7,409	2,549	9,959	219	10,178		10,178
10	620.0	Materials and Supplies	10	5,916	130	6,046	133	6,179		6,179
11	634.0	Management and Service Fees	11	59,956	6,439	66,395	2,445	68,840		68,840
12	635.0	Lab Testing Fees	12	-	-	-	-	-		-
13	636.0	Outside Contractors	13	-	-	-	-	-		-
14	636.0	Outside Professional Services	14	-	-	-	-	-		-
15	641.0	Rental - Building/Real Property	15	-	-	-	-	-		-
16	642.0	Rental of Equipment	16	136	3	139	3	142		142
17	650.0	Transportation Expense	17	372	-	372	-	372		372
18	657.0	Prop& Gen Liab. Insurance	18	(5)	5	-	-	-		-
19	658.0	Worker Compensation	19	13	-	13	-	13		13
20	660.0	Advertising	20	-	-	-	-	-		-
21	666.0	Rate Case Expense - Amort	21	-	-	-	-	-		-
22	666.0	Regulatory Commission Expense	22	5,053	(153)	4,900	383	5,283	1,393	6,676
23	667.0	Amortization of Tax Reform Liability	22.1	(3,964)	-	(3,964)	(6,754)	(10,718)		(10,718)
24	670.0	Bad Debt Expense	23	3,650	583	4,233	331	4,564	1,203	5,767
25	675.0	Fringe Benefit Expense Transfer	24	(571)	571	-	-	-		-
26	675.6	Office Expense and Utilities	25	12,326	147	12,474	274	12,748		12,748
27	675.9	Postage and Air Freight Expense	26	37,605	(1,236)	36,369	1,102	37,471		37,471
28	Various	Other O&M	27	791	84	875	19	894		894
29		Customer Assistance Program	28							
30		**Adjustments for Acquisitions**	29	-	-	-	108,645	108,645		108,645
31		**Total Operation and Maintenance Expenses**		$ 361,286	$ 24,589	$ 385,874	$ 124,005	$ 509,880	$ 2,596	$ 512,476
32										
33		Inflation Rate Calculator	30		2.38%		2.20%			
34										
35		**Taxes Other Than Income**								
36		Real Estate Tax	31	$ 6,692	$ 159	$ 6,851	$ 151	$ 7,001	$ -	$ 7,001
37		Payroll	32	468	-	468	-	468	-	$ 468
38										
39		**Total Taxes Other Than Income**		$ 7,160	$ 159	$ 7,319	$ 151	$ 7,469	$ -	$ 7,469
40										
41		**Depreciation Expense**	33	$ -	$ 208,531	$ 208,531	$ 9,436	$ 217,967		$ 217,967
42		**Amortization of Acquisition Adjustment**		$ -	-	-	122,766	122,766		122,766
43		**Amortization of Regulatory Liability**								
44										
45		**Income Taxes**	34	$ 67,334	$ (115,415)	$ (48,080)	$ (55,117)	$ (103,198)	$ 233,086	$ 129,888
46										
47		**Total**		$ 435,780	$ 117,864	$ 553,644	$ 201,241	$ 754,885	$ 235,682	$ 990,566

Line No.	Description	12-Months Ending 9/30/2023	Future Test Year		Fully Projected Future Test Year	
1	VW Pennsylvania	$ 5,804,592	$ 7,216,454	**(a)**	$ 7,414,906	**(a)**
2	Bethel Water	3,429	3,526	**(b)**	3,623	**(b)**
3	Mahoning Township	3,857	3,967	**(b)**	4,076	**(b)**
4						
5	**Total Labor Expense**	$ 5,811,878	$ 7,223,947		$ 7,422,605	
6						
7	Adjustment		$ 1,412,069		$ 198,659	
8						
9	**Reference Notes:**					
10	**(a)** See Workpaper GRH-2.1					
	(b) Increased by 2.85% in FTY and 2.75% in FPFTY.					

Line No.		12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 920,056	$ 1,562,536	$ 1,596,912
2	Bethel Water	-	-	-
3	Mahoning Township	611	1,038	1,061
4				
5	**Total Employee Group Health and Life Insurance**	$ 920,667	$ 1,563,574	$ 1,597,973
6				
7	Adjustment		$ 642,907	$ 34,399
8				

	Description	Future Test Year	Fully Projected Future Test Year
12	Medical Insurance - VW PA	$ 1,428,469 **(a)**	$ 1,459,895 **(b)**
15	Dental	83,095 **(a)**	84,923 **(b)**
18	Group Life Insurance	52,011 **(a)**	53,155 **(b)**
22	**Total Employee Pensions & Benefits**	$ 1,563,574	$ 1,597,973

	New Employees Adjustment	Number of New Employees	Average HTY Cost of Coverage	Total Employees with Coverage (%)
26	2023 Medical	11	$ 15,278	77%
27	2023 Dental	11	813	75%
28	2023 Group Life			
29	Basic STD	11	32	100%
30	Basic LTD	11	335	100%
31	Basic Life 1X annual	11	106	62%
32	Basic Life 3 X annual	11	322	31%
33	Basic Life 20K and 37K	11	21	4%

Inflation Rate:

Fully Projected Future Test Year 2.200%

Refrence Notes:

(a) The company provided Future Test Year Employee Group Health and Life Insurance expenses are adjusted for the eleven new employees in 2024. The new employee adjustment takes the number of new hires, multiplied by the average Cost of Coverage of existing employees and the percentage of existing employees with coverage, and added to the Future Test Year Insurance expenses.

(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 367,110	618,677 **(a)**	$ 632,288 **(b)**
2	Bethel Water	-	-	-
3	Mahoning Township	244	411	420
4				
5	**Total Employee Pension Benefits**	$ 367,354	$ 619,088	$ 632,708
6				
7	Adjustment		$ 251,734	$ 13,620
8				
9	**Inflation Rate:**			
10	Fully Projected Future Test Year	2.200%		
11				
12	**Reference Notes:**			
13	**(a)** Used 2023 estimated ASC 715-30 Net Periodic Pension Cost provided by Actuary.			
14	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.			

Line No.	Description	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 75,199	$ (852,171)	$ (870,919)
2	Bethel Water	-	-	-
3	Mahoning Township	50	(566)	(579)
4				
5	**Total Employee PEBOP Expense**	$ 75,249	$ (852,737)	$ (871,497)
6				
7	Adjustment		$ (927,986)	$ (18,760)
8				
9	**Inflation Rate:**			
10	Fully Projected Future Test Year	2.200%		
11				
12	**Reference Notes:**			
13	**(a)** Used 2023 estimated ASC 715-30 Net Periodic Pension Cost provided by Actuary.			
14	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.			

Line No.	Description	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	401K Matching			
2	VW Pennsylvania	$ 369,835	$ 432,635 **(a)**	$ 444,828 **(b)**
3	Bethel Water	-	-	-
4	Mahoning Township	246	287 **(a)**	287 **(b)**
5	Other Benefits			
6	VW Pennsylvania	$ 65	$ 66 **(c)**	$ 68 **(d)**
7	Bethel Water	-	-	-
8	Mahoning Township	0	0	0
9				
10	**Total 401K Matching and Other Benefits**	$ 370,146	$ 432,988	$ 445,183
11				
12	Adjustment		$ 62,843	$ 12,194

Year	Gross Salary	401K Contribution (%)
2024	11,552,917	3.75%
2025	11,870,623	3.75%

Inflation Rate:

Future Test Year	2.375%
Fully Projected Future Test Year	2.200%

Reference Notes:

(a) 401K Matching adjustment takes the Future Test Year's Gross Salary, multiplied by the Historic Test Year's 401K contribution percentage.
(b) 401K Matching adjustment takes the Fully Projected Future Test Year's Gross Salary, multiplied by the Historic Test Year's 401K contribution percentage.
(c) Based upon the Historic Test Year with the Future Test Year inflation rate.
(d) Based upon the Future Test Year with the Fully Projected Future Test Year inflation rate.

Line No.	Description	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 152,819	$ 156,448 **(a)**	$ 159,890 **(c)**
2	Bethel Water	1,521,987	1,642,224 **(b)**	1,678,353 **(c)**
3	Mahoning Township	150,807	154,389 **(a)**	157,785 **(c)**
4				
5	**Total Purchased Water**	$ 1,825,613	$ 1,953,061	$ 1,996,029
6				
7	Adjustment		$ 127,448	$ 42,967
8				

Year	Cost of Water	Consumption 1000 Gal
2021	$ 1,718,267	16,208
2022	$ 1,669,526	12,811
2023	$ 1,825,613	13,612

Inflation Rate/Known Rate Increase:	
Future Test Year	2.375%
Fully Projected Future Test Year	2.200%
Bethel/Chester Water Authority FTY Increase in January 2024	7.900%

Reference Notes:

(a) Based upon historic test year costs with Future Test Year inflation rate.

(b) The Company will experience a rate incease of 7.9% for purchased water from Chester Water Authority.

(c) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 2,168,330	$ 2,500,304 **(a)**	2,886,605 **(b)**
2	Bethel Water	-	-	-
3	Mahoning Township	76,783	88,539	102,218
4				
5	**Total Purchased Power Expense**	$ 2,245,114	$ 2,588,843	$ 2,988,823
6				
7	Adjustment		$ 343,730	$ 399,980
8				

Year	Power Expense	kWh	Cost Per kWh
2021	$ 1,433,492	18,627,330	0.0770
2022	$ 1,646,455	18,443,605	0.0893
2023	$ 2,244,981	18,777,763	0.1196
2024	$ 2,588,691	18,777,763	0.1379
2025	$ 2,988,647	18,777,763	0.1592

Adjustment Factor:

Future Test Year	15.310%
Fully Projected Future Test Year	15.450%

Reference Notes:

(a) Based upon historical 3-yr trend of Cost per kWh.

(b) Based upon historical 3-Yr and Future Test Year trend of cost per kWh.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 2,000	$ 2,048 **(a)**	$ 2,093 **(b)**
2	Bethel Water	-	-	-
3	Mahoning Township	-	-	-
4				
5	**Total Fuel for Power Production**	$ 2,000	$ 2,048	$ 2,093
6				
7	Adjustment		$ 48	$ 45
8				
9	**Inflation Rate:**			
10	Future Test Year	2.375%		
11	Fully Projected Future Test Year	2.200%		
12				
13	**Reference Notes:**			
14	**(a)** Based upon historic test year Diesel Fuel for Generator expense with Future Test Year			
15	inflation rate.			
16	**(b)** Based upon Future Test Year expense with Fully Projected Future Test Year inflation rate			

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 978,820	$ 1,315,615 **(a)**	$ 1,344,558 **(b)**
2	Bethel Water	-	-	-
3	Mahoning Township	7,409	9,959 **(a)**	10,178 **(b)**
4				
5	**Total Chemical Expense**	$ 986,229	$ 1,325,574	$ 1,354,736
6				
7	Adjustment		$ 339,344	$ 29,163

Year	Chemical Expense
2021	$ 537,215
2022	898,942
2023	978,820
FTY Estimated Expense	1,325,574

Inflation Rate:

Fully Projected Future Test Year	2.200%

Reference Notes:

(a) Based upon estimated FTY cost of chemicals.

(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 389,405	$ 397,947 **(a)**	$ 406,702 **(b)**
2	Bethel Water	702	717 **(a)**	733 **(b)**
3	Mahoning Township	5,916	6,046	6,179
4				
5	**Total Materials and Supplies**	$ 396,023	$ 404,710	$ 413,613
6				
7	Adjustment		$ 8,687	$ 8,904

Year	Materials and Supplies Expense
2021	$ 319,412
2022	336,249
2023	395,321

Inflation Rate:

Future Test Year	2.375%
Fully Projected Future Test Year	2.200%

Reference Notes:

(a) Based upon historic test year cost with Future Test Year inflation rate.

(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 3,946,587	$ 4,370,418 **(a)**	$ 4,531,383 **(b)**
2	Bethel Water	69,634	77,112 **(a)**	79,953 **(b)**
3	Mahoning Township	59,956	66,395 **(a)**	68,840 **(b)**
4				
5	Non-Recoverable Management Fees (c)	$ 26,935 **(b)**	$ -	$ -
6				
7	**Total Management & Service Fees**	$ 4,049,242	$ 4,513,925	$ 4,680,176
8				
9	Adjustment		$ 464,682	$ 166,251
10				
11	**Reference Notes:**			
12	**(a) Please see MFR III-06**			
13	**(b)** Non-recoverable for rate making purposes.			

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	244,207	$ 205,162 **(a)**	$ 209,676 **(b)**
2	Bethel Water	3,096	2,601 **(a)**	2,658 **(b)**
3	Mahoning Township	-	-	-
4				
5	**Total Lab Testing Fees**	$ 247,303	$ 207,763	$ 212,334
6				
7	Adjustment		$ (39,540)	$ 4,571

Year	Lab Testing Fees
2021	$ 164,697
2022	158,583
2023	247,303
2022 and 2023 Average	202,943

Inflation Rate:	
Future Test Year	2.375%
Fully Projected Future Test Year	2.200%

Reference Notes:

(a) Based upon two year average with Future Test Year inflation rate.

(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 1,701,975	$ 1,653,586 **(a)**	$ 1,689,965 **(b)**
2	Bethel Water	21,576	20,962	$ 21,424
3	Mahoning Township	-	-	-
4				
5				
6	**Total Outside Contractors**	$ 1,723,551	$ 1,674,549	$ 1,711,389
7				
8	Adjustment		$ (49,002)	$ 36,840
9				

	Year	Outside Contractor's Expense
12	2022	1,547,851
13	2023	1,723,551
14		
15	Two Year Average	$ 1,635,701

17	**Inflation Rate:**	
18	Future Test Year	2.375%
19	Fully Projected Future Test Year	2.200%
20		
21	**Reference Notes:**	
22	**(a)** Based upon two year average with Future Test Year inflation rate.	
23	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.	

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 160,457	$ 85,591 **(a)**	$ 87,474 **(b)**
2	Bethel Water	2,034	1,085 **(a)**	1,109 **(b)**
3	Mahoning Township	-	-	-
4				
5	**Total Outside Professional Services**	$ 162,491	$ 86,676	$ 88,583
6				
7	Adjustment		$ (75,815)	$ 1,907

Year	Outside Professional Services Expense
2021	$ 65,434
2022	26,072
2023	162,491
3 Year Average	$ 84,666

Inflation Rate:

Future Test Year	2.375%
Fully Projected Future Test Year	2.200%

Reference Notes:

(a) Based upon three year average with Future Test Year inflation rate.
(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania			
2	Bethel Water	$ -		
3	Mahoning Township			
4				
5	**Total Rent**	$ -	$ -	$ -
6				
7	Adjustment		$ -	$ -
8				
9		**Rent**		
10	**Year**	**Expense**	**Contract**	
11				
12				
13				
14				
15	**Reference Notes:**			
16				
17	**No adjustment, $0 in Rent Expense			
18				

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 119,376	$ 122,211 **(a)**	$ 124,900 **(b)**
2	Bethel Water	-	-	-
3	Mahoning Township	136	139 **(a)**	142 **(b)**
4				
5	**Total Office Equipment Rental**	$ 119,512	$ 122,350	$ 125,042
6				
7	Adjustment		$ 2,838	$ 2,692
8				
9	**Inflation Rate:**			
10	Future Test Year	2.375%		
11	Fully Projected Future Test Year	2.200%		
12				
13	**Reference Notes:**			
14	**(a)** Based upon historic test year with Future Test Year inflation rate.			
15	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.			

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	Leases	$ 448,809	$ 487,830 **(a)**	$ 591,887 **(a)**
2	Car Allowance	$ -	$ - **(b)**	$ - **(c)**
3	Fuel	$ 254,005	$ 300,733 **(b)**	$ 307,349 **(c)**
4	Maintenance & Repair	$ 110,391	$ 111,578 **(b)**	$ 114,033 **(c)**
5	Insurance	$ 32,274	$ 42,936 **(b)**	$ 43,881 **(c)**
6	Other	$ 59,339	$ 49,994 **(b)**	$ 51,094 **(c)**
7				
8	Total Costs	$ 904,818	$ 993,071	$ 1,108,244
9				
10	Less Cap and Billed Out	$ (344,889)	$ (352,219) **(b)**	$ (359,967) **(c)**
11				
12	**Total Transportation Expense**	$ 559,929	$ 640,853	$ 748,276
13				
14	Adjustment		$ 80,924	$ 107,424
15				
16	**Addiional Leases FTY, FPFTY**	**Avg. Mth Lease**	**No. FTY Leases**	**No. FPFTY Leases**
17	15 Additional Vehicle Leases	$ 1,084	15	10
	Estimate of Leases Expiring	$ 1,084	(12)	(2)
18	**Total Additional Annual Lease Costs**			
19	**(No. of Additional Leases X Avg. Mth. Cost X 12)**		$ 39,021	$ 104,057
20				

21	Description	2021	2022	2023	3 Year Average
22					
23	Car Allowance	$ -	$ -	$ -	$ -
24	Fuel	$ 233,797	$ 393,467	$ 254,005	$ 293,756
25	Maintenance & Repair	$ 96,996	$ 119,583	$ 110,391	$ 108,990
26	Insurance	$ 51,115	$ 42,431	$ 32,274	$ 41,940
27	Other	$ 29,438	$ 57,726	$ 59,339	$ 48,834
28					
29	Less Cap and Billed Out	$ (346,761)	$ (340,492)	$ (344,889)	$ (344,047)
30					
31	**Inflation Rate:**				
32	Future Test Year	2.375%			
33	Fully Projected Future Test Year	2.200%			
34					
35	**Reference:**				
36	**(a)** Based on projected 2024 costs for Future Test Year and 2025 costs for Fully Projected Future Test Year.				
37	**(b)** Based upon three year average with Future Test Year inflation rate.				
38	**(c)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.				

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year		Fully Projected Future Test Year	
1	VW Pennsylvania	$ (307)	$ -	**(a)**	$ -	**(a)**
2	Bethel Water	-	-	**(a)**	-	**(a)**
3	Mahoning Township	(5)	-	**(a)**	-	**(a)**
4						
5	**Total Property and General Corporate Liability Insurance**	$ (312)	$ -		$ -	
6						
7	Adjustment		$ 312		$ -	
8						
9	**Reference Notes:**					
10	**(a)** Property and General Liability Insurance costs are included in the Management and Services Fees account					

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 19,062	46,697 **(a)**	48,098 **(a)**
2	Bethel Water	-	-	-
3	Mahoning Township	13	13	13
4				
5	**Total Worker Compensation**	$ 19,075	$ 46,710	$ 48,111
6				
7	Adjustment		$ 27,635	$ 1,401
8				
9	**Reference Notes:**			
10	**(a)** Based on projected estimates provided by the Company.			

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ -	$ -	$ -
2	Bethel Water	-	-	-
3	Mahoning Township	-	-	-
4				
5	**Total Advertising Expense**	$ -	$ -	$ -
6				
7	Adjustment		$ -	$ -
8				
9				
10				
11				
12				
13	**Reference Notes:**			
14				
15	**No adjustment, $0 in Advertising Expense			

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	**Rate Case Expense Details:**			
2	Legal Services			$ 350,000
3	Customer Notifications, Transcripts & Misc.			20,000
4	Consulting Services:			
5	Rate of Return			25,000
6	Cost of Service			74,000
7	Lead-lag Study			116,000
8	Revenue Requirement			44,000
9	Depreciation Study			83,320
10	**Total Rate Case Expenses**			$ 712,320
11				
12	Deduct: Regulatory Liability - Employee Retention Credit			(2,941)
13				
14	**Net Rate Case Expenses**			709,379
15				
16	Current Amortization			
17	Amortize Rate Case Expenses Over 3 Years	$ -	$ -	$ 236,460
18				
19	**Total Regulatory Commission Expense**	$ -	$ -	$ 236,460
20				
21	Adjustment		$ -	$ 236,460

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	**Regulatory Commission Expense:**				
2	VW Pennsylvania	$ 332,605	$ 322,551	$ 347,750	$ 439,443
3	Bethel Water	7,039	6,826	7,360	9,300
4	Mahoning Township	5,053	4,900	5,283	6,676
5					
6	**Total Regulatory Commission Expense**	$ 344,697	$ 334,278	$ 360,392	$ 455,419
7					
8	Adjustment		$ (213)	$ 533	$ 1,941
9					
10	2018 Portion				
11	Amortization of Tax Reform Regulatory Liability - VWPA			$ (410,018)	
12	Amortization of Tax Reform Regulatory Liability - Mahoning			$ (6,229)	
13	New Fed Rate				
14	Amortization of Tax Reform Regulatory Liability - VWPA		$ (260,924)	$ (295,511)	
15	Amortization of Tax Reform Regulatory Liability - Mahoning		$ (3,964)	$ (4,489)	
16					

17					
18					**Fully Projected Future Test Year Under**
19		**Per 2023 PAPUC**			
20	**Regulatory Commission Expense:**	**Assesment**	**Future Test Year**	**Fully Projected Future Test Year**	**Proposed Rates 10/31/2025**
21					
22					
23	Taxable Revenue	$ 54,126,420	$ 54,505,607	$ 58,763,695	$ 74,258,315
24	Amount Assessed	331,952	334,278	360,392	455,419
25					
26					

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	VW Pennsylvania	$ 240,243	$ 278,643	$ 300,411	$ 379,622
2	Bethel Water	9,320	10,810	11,654	14,727
3	Mahoning Township	3,650	4,233	4,564	5,767
4					
5	**Total Bad Debt Expense**	$ 253,213	$ 293,686	$ 316,629	$ 400,116
6					
7	Adjustment		$ 40,473	$ 22,943	$ 83,488

		2023	2022	2021
12	Historic Uncollectable Expense	$ 253,213	$ 346,201	$ 158,160
14	Historic Test Year Revenues	50,225,535	50,282,489	37,320,528
16	Effective Uncollectable Rate	0.504%	0.689%	0.424%
18	Average 3 Year Uncollectable Rate	0.539%		

	Future Test Year	Fully Projected Future Test Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
Revenues	$ 54,505,607	$ 58,763,695	$ 74,258,315
Uncollectable Expense	$ 293,686	$ 316,629	$ 400,116

Line No.	GL A/C #	Categories	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	70251	FICA Taxes	$ 704,519 **(a)**	$ 868,216	$ 890,909
2	70252	Federal Unemployment Taxes		5,040	5,040
3	70253	State Unemployment Taxes		22,270	22,270
4	91460	Worker compensation	19,062	46,710	48,098
5	91500	Employee Pension Cost	367,354	618,677	632,288
6	91550	Post Retirement Health Care Accrued	75,249	(852,171)	(870,919)
7	91700	Employee Group Health & Life	920,667	1,562,536	1,596,912
8	91800	Employee 401K	370,081	$ 432,635	$ 444,828
9	91850	Other Employee Benefits	65	$ 66	$ 68
10	91860	Other Awards	-	-	-
11		Total Costs	$ 2,456,996	$ 2,703,978	$ 2,769,494
12					
13		**Account 90950/90953 (A/G)**			
14					
15		Fringe Benefits Capitalized/Transferred Out/Other Accounts	$ (858,940)	$ (1,014,956)	$ (1,039,548)
16					
17		**Total Fringe Benefits Transferred**	$ (858,940)	$ (1,014,956)	$ (1,039,548)
18					
19					
20					
21		Net Transferred In/Out % (3 Yr Avg)	-37.54%		
22					
23		**Inflation Rate:**			
24		Future Test Year	2.375%		
25		Fully Projected Future Test Year	2.200%		
26					
27		**Reference Notes:**			
28		**(a)** Includes Federal and State Unemployment Taxes.			
29					

Line No.	Description	12 Months Ended 12/31/2017	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 818,918	$ 828,711 **(a)**	$ 846,943 **(b)**
3	Bethel Water	14,238	14,408 **(a)**	14,725 **(b)**
2	Mahoning Township	12,326	12,474 **(a)**	12,748 **(b)**
4				
5	**Total Office Expense and Utilities**	$ 845,482	$ 855,593	$ 874,416
6				
7	Adjustment		$ 10,111	$ 18,823

	Year	Office Expense and Utilities
11	2021	$ 833,531
12	2022	828,219
13	2023	845,482
14		
15	3 Year Average	$ 835,744

17	**Inflation Rate:**	
18	Future Test Year	2.375%
19	Fully Projected Future Test Year	2.200%

21 **Reference Notes:**
22 **(a)** Based upon three year average with Future Test Year inflation rate
23 **(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate

Line No.	Description	12 Months Ended 12/31/2017	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 368,844	$ 356,718 **(a)**	$ 367,528 **(b)**
2	Bethel Water	16,405	15,866 **(a)**	16,347 **(b)**
3	Mahoning Township	37,605	36,369 **(a)**	37,471 **(b)**
4				
5	**Total Postage and Air Freight**	$ 422,855	$ 408,953	$ 421,346
6				
7	Adjustment		$ (13,902)	$ 12,393
8				

	Year	Services Expense
9		
10	2021	$ 373,638
11	2022	394,283
12	2023	422,855
13		
14	3 Year Average	$ 396,925
15		
16	**Postage Rate:**	
17	2023	$ 0.66
18	2024	0.68
19	Percent Change	3.03%
20		

21 **Reference Notes:**
22 **(a)** Based upon three year average with the 2023 to 2024 postage rate percentage change.
23 **(b)** Based upon Future Test Year cost with the 2023 to 2024 postage rate percentage change.

Line No.	Description	12 Months Ended 12/31/2017	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 144,824	$ 160,148	$ 163,671
2	Bethel Water	434	480	490
3	Mahoning Township	791	875	894
4				
5	**Total Other O&M**	$ 146,049	$ 161,503	$ 165,056
6				
7	Adjustment		$ 15,453	$ 3,553

Year	Other O&M Expense
2022	169,463
2023	146,049
2 Year Average	$ 157,756

Inflation Rate:

Future Test Year	2.38%
Fully Projected Future Test Year	2.20%

Reference Notes:

(a) Based upon two year average with Future Test Year inflation rate.
(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	**Customer Assistance Program:**			
2	VW Pennsylvania	-	-	$ 1,000,000
3				
4	**Total Customer Assistance Program Expense**			$ 1,000,000
5				
6	Adjustment		$ -	$ 1,000,000
7				
8	**Reference Notes:**			
9	**(a)** Please reference Company Witness Jordan and Company Witness Cagle direct testimony			
10	for descriptions of the Customer Assistance Program.			

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	Transaction Costs - Amortized	$ -	$ -	$ 117,570
2				
3	**Total Transaction Costs Acquisition Adjustments**		$ -	$ 117,570
4				
5	Adjustment		$ -	$ 117,570
6				
7	Acqusition Transaction Costs	Total	Amortize Over 5 Years	
8	Kensington	$ 28,240	$ 5,648	
9	Mahoning	543,227	108,645	
10	Overbrook	16,381	3,276	
11	Total	$ 587,848	$ 117,570	

Line No.	Description				
1	Source: Blue Chip Financial Forecasts September 1, 2023				
2					
3	Consumer Price Index				
4					
5	**Future Test Year:**				
6		Annual		Quarter	
7	1Q2024	2.40%		0.60%	
8	2Q2024	2.30%		0.58%	
9	3Q2024	2.50%		0.63%	
10	4Q2024	2.30%		0.58%	
11					
12	**Inflation Adjustment:**			2.38%	
13					
14	**Fully Projected Future Test Year:**				
15		Annual		Quarter	
16	1Q2025	2.20%		0.55%	
17	2Q2025	2.20%	**(a)**	0.55%	
18	3Q2025	2.20%	**(a)**	0.55%	
19	4Q2025	2.20%	**(a)**	0.55%	
20					
21	**Inflation Adjustment:**			2.20%	
22					
23	**Reference Notes:**				
24	**(a)** Index not available, used 1Q of 2025 index.				

Line No.	Description	12 Months Ended 12/31/2017	Future Test Year	Fully Projected Future Test Year
1	Real Estate Taxes	$ 440,481	$ 335,638 **(a)**	$ 343,022 **(b)**
2	Bethel	-	-	-
3	Mahoning Township	6,692	6,851	7,001
4				
5	**Total Real Estate Taxes**	$ 447,173	$ 342,489	$ 350,024
6				
7	Adjustment		$ (104,684)	$ 7,535
8				

Line No.	Description	12 Months Ended 12/31/2023	Future Test Year	Fully Projected Future Test Year
9				
10				
11				
12				
13	PURTA	$ 268,555	$ 274,933	$ 280,982
14	Less Refund	112,629	-	-
15	Property Tax	59,297	60,705	62,041
16				
17	Total	$ 440,481	$ 335,638	$ 343,022
18				
19	**Inflation Rate:**			
20	Future Test Year	2.38%		
21	Fully Projected Future Test Year	2.20%		
22				
23	**Reference Notes:**			
24	**(a)** Based upon historic test year (less refund), with Future Test Year inflation rate.			
25	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.			

Historical:

	12-Months Ending 12/31/2017	Future Test Year	Fully Projected Future Test Year
Total Water	$ 704,519	895,525	918,219
Adjustment		$ 191,007	$ 22,694

Future Test Year

	FICA	Medicare	FUI	SUI	Total
Total Water	702,437	165,779	5,040	22,270	$ 895,525

FTY Tax Rates	FICA	Medicare	FUI	SUI
2024	6.20%	1.45%	0.600%	2.3905%

Fully Projected Future Test Year

	FICA	Medicare	FUI	SUI	Total
Total Water	720,572	170,338	5,040	22,270	$ 918,219

FPFTY Tax Rates	FICA	Medicare	FUI	SUI
2025	6.20%	1.45%	0.600%	2.3905%

Reference Notes:
(a) See workpaper GRH-3-1.

Historical:

	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
VW Pennsylvania	$ 8,788,099	10,771,505	12,561,109
Depreciation on CIAC/Advances	-	(1,350,403)	(1,245,535)
Bethel Water	40,552	118,674	150,495
Depreciation on CIAC/Advances	-	(77,401)	(92,911)
Mahoning Township	-	208,531	217,967
Depreciation on CIAC/Advances	-	-	-
	$ 8,828,651	$ 9,670,905	$ 11,591,125
Depreciation Expense Adjustment			
VW Pennsylvania Adjustment		633,003	1,894,472
Mahoning Township Adjustment		208,531	9,436
Bethel Water Adjustment		721	16,312
Total		842,255	1,920,219
Amortization of Acquisition Adjustments			
Brown Manor		57,744	57,744
Kensington			22,500
Overbrook			27,330
Mahoning Township			122,766
		57,744	230,340

Reference Notes:

(a) Data provided by Company.

Line No.	Description	Sep-23 Federal Income Tax Current Rates	Sep-23 State Income Tax Current Rates	Sep-24 Federal Income Tax Current Rates	Sep-24 State Income Tax Current Rates	Sep-24 Total Income Taxes	Oct-25 Federal Income Tax Current Rates	Oct-25 State Income Tax Current Rates	Oct-25 Total Income Taxes	Oct-25 Federal Income Tax Proposed Rates	Oct-25 State Income Tax Proposed Rates	Oct-25 Total Income Taxes Proposed Rates
1	Operating Income Before Income Taxes	$ 23,291,220	$ 23,291,220	$ 20,168,009	$ 20,168,009		$ 20,340,832	$ 20,340,832		$ 35,656,937	$ 35,656,937	
2	Interest Expense (1)	6,121,674	6,121,674	6,923,934	6,923,934		7,537,520	7,537,520		7,537,520	7,537,520	
3	State Income Tax	1,030,012		651,441			582,266			1,823,695		
4	Repair Adjustment on 2023 Additions	2,465,323	2,465,323									
5	Repair Adjustment on 2024 Additions			1,997,215	1,997,215							
6	Repair Adjustment on 2025 Additions						1,914,088	1,914,088		1,914,088	1,914,088	
7	Excess Of Tax Depreciation Over Book	3,325,662	3,556,903	3,459,696	3,685,154		3,461,880	3,705,528		3,461,880	3,705,528	
8	Taxable Income	$ 10,348,548	$ 11,147,320	$ 7,135,722	$ 7,561,705		$ 6,845,078	$ 7,183,696		$ 20,919,754	$ 22,499,801	
9	Income Tax Rate	21.00%	9.24%	21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
10	Pro Forma Income Tax : Current	2,173,195	1,030,012	1,498,502	651,441		1,437,466	582,266		4,393,148	1,823,695	
11	CTA Adjustment											
12	Amortization of Flow through Taxes											
13	Amortization of Income Tax Credit						-			-		
14	Total - Current Income Taxes	$ 2,173,195	$ 1,030,012	$ 1,498,502	$ 651,441		$ 1,437,466	$ 582,266		$ 4,393,148	$ 1,823,695	
	Deferred Income Tax:											
15	Repair Adjustment			$ 1,997,215			1,914,088			1,914,088		
16	Less: State Deduction (Fr. Sch.6-6)											
17	Income Tax Rate			21.00%			21.00%			21.00%		
18	Deferred Income Tax - Repair Adjustment			419,415			401,958			401,958		
19	Excess Of Tax Depreciation Over Book			$ 3,459,696			$ 3,461,880			$ 3,461,880	$ -	
20	Less: State Deferred Income Tax			-			-			-		
21	Income Tax Rate			21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
22	Deferred Income Tax - Tax/Book Deprec.			726,536	-		726,995	-		726,995	-	
23	Total Deferred Income Tax (L18+L22)			1,145,951	-		1,128,953	-		1,128,953	-	
24	Total Income Taxes (L14+L22)	$ 2,173,195	$ 1,030,012	$ 2,644,453	$ 651,441	$ 3,295,894	$ 2,566,420	$ 582,266	$ 3,148,686	$ 5,522,102	$ 1,823,695	$ 7,345,797
	Adjustment											
25	Rate Base	$ 289,304,070	$ 289,304,070	$ 327,218,068	$ 327,218,068		$ 356,215,489	$ 356,215,489		$ 356,215,489	$ 356,215,489	
26	Weighted Cost Of Debt	2.12%	2.12%	2.12%	2.12%		2.12%	2.12%		2.12%	2.12%	
27	Interest Expense (1)	$ 6,121,674	$ 6,121,674	$ 6,923,934	$ 6,923,934		$ 7,537,520	$ 7,537,520		$ 7,537,520	$ 7,537,520	

Line No.	Description	Sep-23 Federal Income Tax Current Rates	Sep-23 State Income Tax Current Rates	Sep-24 Federal Income Tax Current Rates	Sep-24 State Income Tax Current Rates	Sep-24 Total Income Taxes	Oct-25 Federal Income Tax Current Rates	Oct-25 State Income Tax Current Rates	Oct-25 Total Income Taxes	Oct-25 Federal Income Tax Proposed Rates	Oct-25 State Income Tax Proposed Rates	Oct-25 Total Income Taxes Proposed Rates
1	Operating Income Before Income Taxes	$ 23,059,790	$ 23,059,790	$ 20,169,858	$ 20,169,858		$ 20,558,076	$ 20,558,076		$ 35,023,605	$ 35,023,605	
2	Interest Expense (1)	5,975,911	5,975,911	6,782,405	6,782,405		7,403,405	7,403,405		7,403,405	7,403,405	
3	State Income Tax	1,257,163		674,189			619,497			1,791,984		
4	Repair Adjustment on 2023 Additions	2,408,834	2,408,834									
5	Repair Adjustment on 2024 Additions			1,954,135	1,954,135							
6	Repair Adjustment on 2025 Additions						1,877,110	1,877,110		1,877,110	1,877,110	
7	Excess Of Tax Depreciation Over Book	3,252,061	3,478,215	3,386,821	3,607,562		3,395,498	3,634,532		3,395,498	3,634,532	
8	Taxable Income	$ 12,574,654	$ 13,605,663	$ 7,372,308	$ 7,825,756		$ 7,262,565	$ 7,643,028		$ 20,555,608	$ 22,108,558	
9	Income Tax Rate	21.00%	9.24%	21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
10	Pro Forma Income Tax : Current	2,640,677	1,257,163	1,548,185	674,189		1,525,139	619,497		4,316,678	1,791,984	
11	CTA Adjustment											
12	Amortization of Flow through Taxes											
13	Amortization of Income Tax Credit						-			-		
14	Total - Current Income Taxes	$ 2,640,677	$ 1,257,163	$ 1,548,185	$ 674,189		$ 1,525,139	$ 619,497		$ 4,316,678	$ 1,791,984	
	Deferred Income Tax:											
15	Repair Adjustment			$ 1,954,135			1,877,110			1,877,110		
16	Less: State Deduction (Fr. Sch.6-6)											
17	Income Tax Rate			21.00%			21.00%			21.00%		
18	Deferred Income Tax - Repair Adjustment			410,368			394,193			394,193		
19	Excess Of Tax Depreciation Over Book			$ 3,386,821			$ 3,395,498			$ 3,395,498	$ -	
20	Less: State Deferred Income Tax			-			-			-		
21	Income Tax Rate			21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
22	Deferred Income Tax - Tax/Book Deprec.			711,232	-		713,055	-		713,055	-	
23	Total Deferred Income Tax (L18+L22)			1,121,601	-		1,107,248	-		1,107,248	-	
24	Total Income Taxes (L14+L22)	$ 2,640,677	$ 1,257,163	$ 2,669,785	$ 674,189	$ 3,343,974	$ 2,632,387	$ 619,497	$ 3,251,883	$ 5,423,926	$ 1,791,984	$ 7,215,909
	Adjustment											
25	Rate Base	$ 282,415,470	$ 282,415,470	$ 320,529,548	$ 320,529,548		$ 349,877,351	$ 349,877,351		$ 349,877,351	$ 349,877,351	
26	Weighted Cost Of Debt	2.12%	2.12%	2.12%	2.12%		2.12%	2.12%		2.12%	2.12%	
27	Interest Expense (1)	$ 5,975,911	$ 5,975,911	$ 6,782,405	$ 6,782,405		$ 7,403,405	$ 7,403,405		$ 7,403,405	$ 7,403,405	

Line No.	Description	Sep-23 Federal Income Tax Current Rates	Sep-23 State Income Tax Current Rates	Sep-24 Federal Income Tax Current Rates	Sep-24 State Income Tax Current Rates	Sep-24 Total Income Taxes	Oct-25 Federal Income Tax Current Rates	Oct-25 State Income Tax Current Rates	Oct-25 Total Income Taxes	Oct-25 Federal Income Tax Proposed Rates	Oct-25 State Income Tax Proposed Rates	Oct-25 Total Income Taxes Proposed Rates
1	Operating Income Before Income Taxes	$ 231,429	$ 231,429	$ (1,849)	$ (1,849)		$ (217,244)	$ (217,244)		$ 633,332	$ 633,332	
2	Interest Expense (1)	145,763	145,763	141,529	141,529		134,115	134,115		134,115	134,115	
3	State Income Tax	645		(22,748)			(37,231)			31,712		
4	Repair Adjustment on 2023 Additions	56,489	56,489									
5	Repair Adjustment on 2024 Additions			43,080	43,080							
6	Repair Adjustment on 2025 Additions						36,978	36,978		36,978	36,978	
7	Excess Of Tax Depreciation Over Book	73,601	78,688	72,875	77,592		66,382	70,996		66,382	70,996	
8	Taxable Income	$ 11,421	$ 6,979	$ (236,586)	$ (264,051)		$ (417,488)	$ (459,333)		$ 364,146	$ 391,243	
9	Income Tax Rate	21.00%	9.24%	21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
10	Pro Forma Income Tax : Current	2,398	645	(49,683)	(22,748)		(87,672)	(37,231)		76,471	31,712	
11	CTA Adjustment											
12	Amortization of Flow through Taxes											
13	Amortization of Income Tax Credit						-			-		
14	Total - Current Income Taxes	$ 2,398	$ 645	$ (49,683)	$ (22,748)		$ (87,672)	$ (37,231)		$ 76,471	$ 31,712	
	Deferred Income Tax:											
15	Repair Adjustment			$ 43,080			36,978			36,978		
16	Less: State Deduction (Fr. Sch.6-6)											
17	Income Tax Rate			21.00%			21.00%			21.00%		
18	Deferred Income Tax - Repair Adjustment			9,047			7,765			7,765		
19	Excess Of Tax Depreciation Over Book			$ 72,875			$ 66,382			$ 66,382	$ -	
20	Less: State Deferred Income Tax			-			-			-		
21	Income Tax Rate			21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
22	Deferred Income Tax - Tax/Book Deprec.			15,304	-		13,940	-		13,940	-	
23	Total Deferred Income Tax (L18+L22)			24,351	-		21,705	-		21,705	-	
24	Total Income Taxes (L14+L22)	$ 2,398	$ 645	$ (25,332)	$ (22,748)	$ (48,080)	$ (65,967)	$ (37,231)	$ (103,198)	$ 98,176	$ 31,712	$ 129,888
	Adjustment											
25	Rate Base	$ 6,888,600	$ 6,888,600	$ 6,688,520	$ 6,688,520		$ 6,338,138	$ 6,338,138		$ 6,338,138	$ 6,338,138	
26	Weighted Cost Of Debt	2.12%	2.12%	2.12%	2.12%		2.12%	2.12%		2.12%	2.12%	
27	Interest Expense (1)	$ 145,763	$ 145,763	$ 141,529	$ 141,529		$ 134,115	$ 134,115		$ 134,115	$ 134,115	

Exhibit No. GRH-4

VEOLIA WATER PENNSYLVANIA INC.

HARRISBURG, PENNSYLVANIA

INCOME STATEMENT AND
PRO FORMA REVENUES
AS OF OCTOBER 31, 2025

GANNETT FLEMING

Excellence Delivered As Promised

VEOLIA WATER PENNSYLVANIA INC.

STATEMENT OF THE CALCULATION OF THE RATE OF RETURN UNDER PRESENT RATES FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2023, 2024 AND OCTOBER 31, 2025
AND THE ANTICIPATED RATE OF RETURN UNDER PROPOSED RATES FOR THE YEAR ENDING OCTOBER 31, 2025

Line No.	Description	12 Months Ended 30-Sep-23	Pro Forma FTY Adjustments Ref.	Pro Forma FTY Adjustments Amount	Pro Forma Present Rates, 30-Sep-24	Pro Forma FPFTY Adjustments and DSIC Adjustment Ref.	Pro Forma FPFTY Adjustments and DSIC Adjustment Amount	Pro Forma Present Rates, 31-Oct-25	Under Proposed Rates, Supplement No. ___ to Tariff Water Pa-PUC No. 7 Ref.	Increase	Pro Forma 31-Oct-25
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)	(10)
1	Operating Revenues	$ 1,657,858	GRH-1	$ (10,904)	$ 1,646,954	GRH-1	$ (10,904)	$ 1,636,050	GRH-1	$ 568,719	$ 2,204,769
2											
3	Operating Revenue Deductions										
4	Operation and Maintenance										
5	Expenses	$ 1,150,000	GRH-2	$ (18,657)	$ 1,131,343	GRH-2	$ 23,806	$ 1,155,148	GRH-2	$ 3,643	$ 1,158,791
6	Taxes Other than Income	$ 42	GRH-2	$ 3	$ 45	GRH-2	$ 7	$ 52		$ -	$ 52
7											
8											
9	Depreciation	11,905	GRH-2	243,023	254,928	GRH-2	71,902	326,830	GRH-2	$ -	326,830
10	Amortization of Acquisition Adjustment	-	GRH-2	-	-	GRH-2	153,034	153,034	GRH-2	$ -	153,034
11	Amortization of Regulatory Asset	-	GRH-2		-	GRH-2	-	-	GRH-2		-
12											
13	Total Operating										
14	Revenue Deductions	$ 1,161,946	GRH-2	$ 224,369	$ 1,386,316	GRH-2	$ 248,749	$ 1,635,065		$ 3,643	$ 1,638,707
15											
16	Total Income Before Taxes and Return	$ 495,911		$ (235,273)	$ 260,638		$ (259,653)	$ 985		$ 565,076	$ 566,061
17											
18	Less Federal and State Taxes	$ -	GRH-2	$ 25,270	$ 25,270		$ (69,219)	$ (43,949)	GRH-2	$ 154,849	$ 110,901
19											
20											
21	Net Operating Income										
22	Available for Return	$ 495,911		$ (260,544)	$ 235,368		$ (190,434)	$ 44,933		$ 410,227	$ 455,161
23											
24											
25	Rate Base	$ 4,299,992	GRH-1.1	$ 1,877,875	$ 6,177,867		$ (450,928)	$ 5,726,939		$ -	$ 5,726,939
26											
27	Rate of Return	11.53%			3.81%			0.78%			7.95%

VEOLIA WATER PENNSYLVANIA INC.

STATEMENT OF THE CALCULATION OF THE RATE OF RETURN UNDER PRESENT RATES FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2023, 2024 AND OCTOBER 31, 2025
AND THE ANTICIPATED RATE OF RETURN UNDER PROPOSED RATES FOR THE YEAR ENDING OCTOBER 31, 2025

Line No.	Description	12 Months Ended 30-Sep-23	Pro Forma FTY Adjustments Ref.	Pro Forma FTY Adjustments Amount	Pro Forma Present Rates, 30-Sep-24	Pro Forma FPFTY Adjustments and DSIC Adjustment Ref.	Pro Forma FPFTY Adjustments and DSIC Adjustment Amount	Pro Forma Present Rates, 31-Oct-25	Under Proposed Rates, Supplement No. ___ to Tariff Water Pa-PUC No. 7 Ref.	Increase	Pro Forma 31-Oct-25
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)	(10)
1	Operating Revenues	$ 1,611,229	GRH-1	$ (10,904)	$ 1,600,324	GRH-1	$ (10,904)	$ 1,589,420	GRH-1	$ 459,094	$ 2,048,514
2											
3											
4	Operating Revenue Deductions										
5	Operation and Maintenance										
6	Expenses	$ 1,054,514	GRH-2	$ (20,859)	$ 1,033,655	GRH-2	$ 22,469	$ 1,056,124	GRH-2	$ 3,540	$ 1,059,665
7	Taxes Other than Income	$ 3	GRH-2	$ 0	$ 4	GRH-2	$ 0	$ 4		$ -	$ 4
8											
9											
10	Depreciation	-	GRH-2	239,879	239,879	GRH-2	70,060	309,939	GRH-2	$ -	309,939
11	Amortization of Acquisition Adjustment	-	GRH-2	-	-	GRH-2	153,034	153,034	GRH-2	$ -	153,034
12	Amortization of Regulatory Asset	-	GRH-2		-	GRH-2	-	-	GRH-2		-
13											
14	Total Operating										
15	Revenue Deductions	$ 1,054,517	GRH-2	$ 219,021	$ 1,273,538	GRH-2	$ 245,563	$ 1,519,101		$ 3,540	$ 1,522,642
16											
17	Total Income Before Taxes and Return	$ 556,711		$ (229,925)	$ 326,787		$ (256,468)	$ 70,319		$ 455,554	$ 525,873
18											
19	Less Federal and State Taxes	$ -	GRH-2	$ 47,840	$ 47,840		$ (67,194)	$ (19,353)	GRH-2	$ 124,837	$ 105,483
20											
21											
22	Net Operating Income										
23	Available for Return	$ 556,711		$ (277,765)	$ 278,946		$ (189,274)	$ 89,672		$ 330,717	$ 420,389
24											
25											
26	Rate Base	$ 3,829,347	GRH-1.1	$ 1,892,790	$ 5,722,137		$ (432,681)	$ 5,289,456		$ -	$ 5,289,456
27											
28	Rate of Return	14.54%			4.87%			1.70%			7.95%

VEOLIA WATER PENNSYLVANIA INC.

STATEMENT OF THE CALCULATION OF THE RATE OF RETURN UNDER PRESENT RATES FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2023, 2024 AND OCTOBER 31, 2025
AND THE ANTICIPATED RATE OF RETURN UNDER PROPOSED RATES FOR THE YEAR ENDING OCTOBER 31, 2025

Line No.	Description	12 Months Ended 30-Sep-23	Pro Forma FTY Adjustments Ref.	Pro Forma FTY Adjustments Amount	Pro Forma Present Rates, 30-Sep-24	Pro Forma FPFTY Adjustments and DSIC Adjustment Ref.	Pro Forma FPFTY Adjustments and DSIC Adjustment Amount	Pro Forma Present Rates, 31-Oct-25	Under Proposed Rates, Supplement No. ___ to Tariff Water Pa-PUC No. 7 Ref.	Increase	Pro Forma 31-Oct-25
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)	(10)
1	Operating Revenues	$ 46,629	GRH-1	$ -	$ 46,629	GRH-1	$ -	$ 46,629	GRH-1	$ 109,625	$ 156,255
2											
3											
4	Operating Revenue Deductions										
5	Operation and Maintenance										
6	Expenses	$ 95,486	GRH-2	$ 2,201	$ 97,687	GRH-2	$ 1,337	$ 99,024	GRH-2	$ 102	$ 99,127
7	Taxes Other than Income	$ 38	GRH-2	$ 3	$ 41	GRH-2	$ 7	$ 48		$ -	$ 48
8											
9											
10	Depreciation	11,905	GRH-2	3,144	15,049	GRH-2	1,842	16,891	GRH-2	$ -	16,891
11	Amortization of Acquisition Adjustment	-	GRH-2	-	-	GRH-2	-	-	GRH-2	$ -	-
12	Amortization of Regulatory Asset	-	GRH-2		-	GRH-2	-	-	GRH-2		-
13											
14	Total Operating										
15	Revenue Deductions	$ 107,429	GRH-2	$ 5,349	$ 112,778	GRH-2	$ 3,185	$ 115,963		$ 102	$ 116,066
16											
17	Total Income Before Taxes and Return	$ (60,800)		$ (5,349)	$ (66,149)		$ (3,185)	$ (69,334)		$ 109,523	$ 40,189
18											
19	Less Federal and State Taxes	$ -	GRH-2	$ (22,570)	$ (22,570)		$ (2,025)	$ (24,595)	GRH-2	$ 30,013	$ 5,417
20											
21											
22	Net Operating Income										
23	Available for Return	$ (60,800)		$ 17,222	$ (43,578)		$ (1,160)	$ (44,739)		$ 79,510	$ 34,771
24											
25											
26	Rate Base	$ 470,645	GRH-1.1	$ (14,915)	$ 455,730		$ (18,246)	$ 437,484		$ -	$ 437,484
27											
28	Rate of Return	-12.92%			-9.56%			-10.23%			7.95%

VEOLIA WATER PENNSYLVANIA INC.
WASTEWATER OPERATIONS
ORIGINAL COST MEASURE OF VALUE AS OF SEPTEMBER 30, 2023,
SEPTEMBER 30, 2024 AND OCTOBER 31, 2025

Mahoning Township		As of 9/30/2023	As of 9/30/2024	As of 10/31/2025
Original Cost of Utility Plant In Service	(a)	$ 4,972,748	$ 7,103,751	$ 7,157,751
Mahoning Acquisition Adj	(a)	1,530,341	1,530,341	1,377,307
Less: Accumulated Depreciation	(a)	(2,686,623)	(2,925,752)	(3,260,894)
Net Utility Plant		3,816,466	5,708,340	5,274,164
CIAC and Contributions		-	-	-
Add:				
Deferred Taxes		$ -	$ -	$ -
Regulatory Liability		-	-	-
Materials and Supplies		-	-	-
Cash Working Capital		12,881	13,797	15,292
Total Original Cost Measure of Value		$ 3,829,347	$ 5,722,137	$ 5,289,456

(a) Source: Data provided by Company.

Columbia County		As of 9/30/2023	As of 9/30/2024	As of 10/31/2025
Original Cost of Utility Plant In Service	(a)	$ 437,003	$ 437,003	$ 437,003
Less: Accumulated Depreciation	(a)	30,390	15,341	(2,957)
Net Utility Plant		467,393	452,344	434,046
CIAC and Contributions		-	-	-
Add:				
Deferred Taxes		$ -	$ -	$ -
Regulatory Liability		-	-	-
Materials and Supplies		-	-	-
Cash Working Capital		3,252	3,386	3,438
Total Original Cost Measure of Value		$ 470,645	$ 455,730	$ 437,484
Total Wastewater Original Cost Measure of Value		$ 4,299,992	$ 6,177,867	$ 5,726,939

(a) Source: Data provided by Company.

VEOLIA WASTEWATER PENNSYLVANIA INC.

TYPE OF CAPITAL	RATIOS	COST RATE	WEIGHTED COST RATE
LONG-TERM DEBT	46.00%	4.60%	2.12%
COMMON EQUITY	54.00%	10.80%	5.83%
TOTAL	100.00%		7.95%

Source: Direct testimony of Harold Walker III.

VEOLIA WASTEWATER PENNSYLVANIA INC.

SUMMARY OF PRO FORMA REVENUES UNDER PROPOSED RATES FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2024 AND OCTOBER 31, 2025
AND THE CALCULATION OF THE REVENUE INCREASE UNDER PROPOSED RATES

Customer Classification	Pro Forma Revenues, Present Rates (Schedule 4)	Bill Analysis Revenues, Proposed Rates (Schedule 3)	Adjustment Factor (Sch. 4, col 4)	Revenues, Proposed Rates	Pro Forma Adjustments Proposed Rates (Schedules 3 and 7)	Total Pro Forma Revenue Proposed Rates	Proposed Increase	Percent Increase
(1)	(2)	(3)	(4)	(5)=(4)X(3)	(6)	(7)=(5)+(6)	(8)=(7)-(2)	(9)
COMBINED METERED SALES								
Residential	$ 889,534	$ 1,236,787	0.99999980	$ 1,236,787	$ (9,015)	$ 1,227,771	$ 338,238	38.0%
Non-Residential	746,309	978,624	1.00008690	978,709	(1,919)	976,790	230,482	30.9%
Total Wastewater Sales	1,635,842	2,215,411		2,215,495	(10,934)	2,204,561	568,719	34.8%
Other Operating Revenues	207	207		207		207	-	0.0%
Total	$ 1,636,050	$ 2,215,618		$ 2,215,703	$ (10,934)	$ 2,204,769	$ 568,719	34.8%

VEOLIA WASTEWATER PENNSYLVANIA INC.

SUMMARY OF APPLICATION OF PROPOSED RATES TO CUSTOMER BILL ANALYSIS AND PRO FORMA ADJUSTMENTS
FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2024 AND OCTOBER 31, 2025

Rate Zone	Residential	Commercial	Industrial	Metered Total
(1)	(2)	(3)	(4)	(5)
Proposed Rate Application, Schedule 6				
Sales for Mahoning Township	$ 1,236,787	$ 822,383		$ 2,059,170
Sales for Columbia County		60,824	95,417	156,241
Total	$ 1,236,787	$ 883,207	$ 95,417	$ 2,215,411
Pro Forma Adjustments, Schedule 9 - 2024 and 2025				
Sales for Mahoning Township	$ (9,015)	$ (1,919)		$ (10,934)
Sales for Columbia County				-
Total	$ (9,015)	$ (1,919)	$ -	$ (10,934)

VEOLIA WASTEWATER PENNSYLVANIA INC.

SUMMARY OF REVENUE UNDER PRESENT RATES AND PRO FORMA REVENUES UNDER PRESENT RATES
FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2023 AND 2024 AND OCTOBER 31, 2025

Customer Classification	Adjusted Revenues, Per Books Present Rates 09/30/2023 (a)	Bill Analysis Revenues, Present Rates (Schedule 5)	Ref.	Adjustment Factor	Revenues Under Present Rates	Pro Forma Adjustments Present Rates (Schedules 5 and 7)	Add Back Annualized DSIC Revenue	Total Pro Forma Revenue Present Rates
(1)	(2)	(3)		(4)=(2)/(3)	(5)=(4)X(3)	(6)	(7)	(8)=(5)+(6)+(7)
COMBINED METERED SALES								
Residential	$ 902,694	$ 902,694	Sch. 6	0.99999980	$ 902,694	$ (13,160)		$ 889,534
Non-Residential	754,957	754,891	Sch. 6	1.00008690	754,957	(8,648)		746,309
Total Wastewater Sales	$ 1,657,650	$ 1,657,585			$ 1,657,650	$ (21,808)	$ -	$ 1,635,842
Other Operating Revenues	207	207			207			207
Total	$ 1,657,858	$ 1,657,792			$ 1,657,858	$ (21,808)	$ -	$ 1,636,050

(a) Excludes DSIC and Unbilled Revenue.

VEOLIA WASTEWATER PENNSYLVANIA INC.

SUMMARY OF APPLICATION OF PRESENT RATES TO CUSTOMER BILL ANALYSIS AND PRO FORMA ADJUSTMENTS
FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023 AND 2024, AND OCTOBER 31, 2025

Rate Zone	Residential	Commercial	Industrial	Metered Total
(1)	(2)	(3)	(4)	(5)
Present Rate Application, Schedule 6				
Sales for Mahoning Township	$ 902,694	$ 708,322		$ 1,611,016
Sales for Columbia County		18,146	28,423	46,569
Total	$ 902,694	$ 726,468	$ 28,423	$ 1,657,585
Pro Forma Adjustments - Schedule 9 - 2024				
Sales for Mahoning Township	$ (6,580)	$ (4,324)		$ (10,904)
Sales for Columbia County				-
Subtotal	$ (6,580)	$ (4,324)	$ -	$ (10,904)
Pro Forma Adjustments - Schedule 9 - 2025				
Sales for Mahoning Township	$ (6,580)	$ (4,324)		$ (10,904)
Sales for Columbia County				-
Subtotal	$ (6,580)	$ (4,324)	$ -	$ (10,904)
Total Adjustments	$ (13,160)	$ (8,648)	$ -	$ (21,808)

VEOLIA WASTEWATER PENNSYLVANIA INC.

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
1			Flat Rate Residential - Monthly - Mahoning Township					
2	Flat Rate - EDUs							
3	5/8	16,062		$ 56.20	$ 902,694		$ 77.00	$ 1,236,787
4	Subtotal	16,062			902,694			1,236,787
5								
6	Total Residential	16,062			$ 902,694			$ 1,236,787
7								
8			Commercial - Monthly - Mahoning Township					
9	Minimum Charge - EDUs							
10	Rate 1	11,092		$ 56.20	$ 623,384		$ 65.85	$ 730,424
11	Rate 2	22		61.18	1,346		65.85	1,449
12	Fabtex	12		525.71	6,309		615.98	7,392
13	Atlantic Equipment	12		307.98	3,696		360.86	4,330
14	Geisinger - Justin Dr. II	12		2,191.67	26,300		2,568.00	30,816
15	Geisinger - Hughes North	12		1,264.43	15,173		1,481.54	17,778
16	Subtotal	11,162			676,208			792,189
17								
18	First Block (First 435,000)	-	2,082	5.6447	11,754	2,082	6.3790	13,283
19	Second Block (Over 435,000)	-	2,651	7.6800	20,360	2,651	6.3790	16,911
20	Subtotal	-	4,733		32,114	4,733		30,194
21								
22	Total Commercial	11,162	4,733		$ 708,322	4,733		$ 822,383
23								
24	Total	27,224	4,733		$ 1,611,016	4,733		$ 2,059,170

VEOLIA WASTEWATER PENNSYLVANIA INC.

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
1			Commercial - Monthly - Columbia County Operations					
2								
3	Minimum Charge - EDUs							
4	Rate 3	60		$ 277.08	16,625		$ 928.50	$ 55,710
5	Subtotal	60			16,625			55,710
6								
7	First Block (First 5,000) - (Min.)		31	-	-	31	$ -	-
8	Second Block (Next 5,000)		120	2.2170	266	120	7.4540	893
9	Third Block (Next 90,0000)		622	1.9950	1,240	622	6.7070	4,169
10	Fourth Block (Next 100,000)		9	1.7730	15	9	5.9610	52
11	Fifth Block (Over 200,000)		-	1.5520	-	-	5.2180	-
12	Subtotal	-	781		1,521	781		5,114
13								
14	Total Commercial	60	781		$ 18,146	781		$ 60,824
15								
16			Industrial - Monthly - Columbia County Operations					
17	Customer Charge							
18	Rate 3	47		277.08	$ 12,893		$ 928.50	$ 43,206
19	Subtotal	47			12,893			43,206
20								
21	First Block (First 5,000) - (Min.)	-	24	-	-	24	-	-
22	Second Block (Next 5,000)		121	2.2170	269	121	7.4540	903
23	Third Block (Next 90,0000)		1,107	1.9950	2,209	1,107	6.7070	7,427
24	Fourth Block (Next 100,000)		1,200	1.7730	2,128	1,200	5.9610	7,153
25	Fifth Block (Over 200,000)	-	7,039	1.5520	10,924	7,039	5.2180	36,728
26	Subtotal	-	9,491		15,530	9,491		52,211
27								
28	Total Industrial	47	9,491		$ 28,423	9,491		$ 95,417
29								
30	Total	107	10,272		$ 46,569	10,272		$ 156,241

VEOLIA WASTEWATER PENNSYLVANIA INC.

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO PROFORMA ADJUSTMENTS
YEAR ENDED SEPTEMBER 30, 2023 AND 2024, AND OCTOBER 31, 2025

Rate Block 1000 Gallons	Number Of Bills	Total Consumption	Test Year/Present Rate	Revenue	Proposed Rate	Proposed Revenue
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Residential - Monthly - Mahoning Township			
Customer Charge						
5/8	(117)	-	$ 56.20	$ (6,580)	$ 77.00	$ (9,015)
Subtotal	(117)	-		(6,580)		(9,015)
Total Residential	(117)	-		(6,580)	-	(9,015)
			Commercial - Monthly - Mahoning Township			
Customer Charge						
5/8		-	56.20	-	65.85	-
3/4		-	61.18	-	65.85	-
1	(12)	-	277.08	(3,325)	65.85	(790)
Subtotal	(12)	-		(3,325)		(790)
Test Year First Block (First 25)	-	(177)	5.6447	(999)	6.3790	(1,128)
Test Year Second Block (Over 25)	-		7.6800	-	6.3790	-
Subtotal	-	(177)		(999)		(1,128)
Total Class	(12)	(177)		(4,324)		(1,919)
Total	(129)	(177)		(10,904)		(10,934)

ADJUSTMENT 1 - CUSTOMER GROWTH REVENUE ADJUSTMENT UNDER PRESENT RATES
FOR THE TEST YEARS ENDING SEPTEMBER 30, 2023 AND 2024, AND OCTOBER 31, 2025

		Residential	Commercial	Total
	Historic TY Customer Growth Calculation			
1	Actual Normalized Bills	16,062	11,162	27,224
2	Actual Annualized Bills	16,020	11,162	27,182
3	Projected Daily Usage in gallons (a)		491.35	491
4	Monthly Volumes per Normalization (1000 Gallons) Line 3 X30 /1000	-	14.74	
5	HTY Customer Annualized Growth Bills (Line 2-Line 1) Divided by 2	(21)	-	(21)
6	HTY Customer Annualized Growth Volumes (Line 4 X Line 5 / 2)	-	-	-
	Priced At First Block	-		-
	Priced At Second Block			-
	Historic TY Customer Growth Revenue Calculation			
7	Average Service Charge	$ 56.20	$ 56.20	
8	Revenue From Service Charge (Line 7 X Line 5)	$ (1,185)		
9	Volume Charge - First Block	0	5.6447	
	Volume Charge - Second Block		7.68	
10	Revenue from Volumetric Charge (Line 9 X Line 6)			
	Priced At First Block	$ -	$ -	
	Priced At Second Block			
11	Total Historical TY Adjustment (Line 8 + Line 10)	$ (1,185)		$ (1,185)

ADJUSTMENT 1 - CUSTOMER GROWTH REVENUE ADJUSTMENT UNDER PRESENT RATES
FOR THE TEST YEARS ENDING SEPTEMBER 30, 2023 AND 2024, AND OCTOBER 31, 2025

		Residential	Commercial	Total
	Future Test Year Customer Growth Calculation			
12	Forecasted Customer Growth	(4.0)	(0.5)	
13	Annualized Bills (Line 12 X 12)	(48)	(6)	
14	Average Volumes Per Normalization			
	Priced At First Block	-	14.74	
	Priced At Second Block			
15	Normalized Volumes (Line 13 X Line 14)	-	(88)	
16	Revenue From Service Charge (Line 7 X Line 13)	$ (2,698)	$ (337)	$ (3,035)
17	Revenue from Volumetric Charge (Line 9 X Line 15)			
	Priced At First Block	$ -	$ (499)	$ (499)
	Priced At Second Block	$ -	$ -	-
18	Total FTY Adjustment (Line 16 + Line 17)	$ (2,698)	$ (836)	$ (3,534)
	Fully Projected Future Test Year Customer Growth Calculation			
19	Forecasted Customer Growth	(4.0)	(0.5)	
20	Annualized Bills (Line 12 X 12)	(48)	(6)	
21	Average Volumes Per Normalization			
	Priced At First Block	-	14.74	
	Priced At Second Block	-	-	
	Total	-	14.74	
22	Normalized Volumes (Line 13 X Line 14)	-	(88)	
23	Revenue From Service Charge (Line 7 X Line 13)	$ (2,698)	$ (337)	$ (3,035)
24	Revenue from Volumetric Charge (Line 9 X Line 15)			
	Priced At First Block	$ -	$ (499)	$ (499)
	Priced At Second Block	$ -	$ -	1
25	Total FTY Adjustment (Line 16 + Line 17)	$ (2,698)	$ (836)	$ (3,534)
	Total Adjustment	$ (6,580)	$ (1,673)	$ (8,253)

(a) For residential and commercial, see declining usage workpaper. For Industrial and Public, based on 2017 usage.

	Number of Customers	Residential	Commercial
26	**Period Ending 09/30/21**	1,343.0	103.0
27	**Period Ending 09/30/22**	1,337.0	103.0
28	**Historic Test Year Period Ending 09/30/23**	1,335.0	102.0
29	**Increase 2021-2022**	(6.0)	-
30	**Increase 2022-2023**	(2.0)	(1.0)
31	**Average Growth/(Decline)**	(4.0)	(0.5)

VEOLIA WASTEWATER PENNSYLVANIA INC.
MAHONING TOWNSHIP
COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
RESIDENTIAL - MONTHLY
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES	BILLS UNDER PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 56.20	$ 77.00	$ 20.80	37.01%
1,000	$ 56.20	$ 77.00	$ 20.80	37.01%
2,000	$ 56.20	$ 77.00	$ 20.80	37.01%
3,000	$ 56.20	$ 77.00	$ 20.80	37.01%
3,500	$ 56.20	$ 77.00	$ 20.80	37.01%
4,000	$ 56.20	$ 77.00	$ 20.80	37.01%
5,000	$ 56.20	$ 77.00	$ 20.80	37.01%
6,000	$ 56.20	$ 77.00	$ 20.80	37.01%
7,000	$ 56.20	$ 77.00	$ 20.80	37.01%
8,000	$ 56.20	$ 77.00	$ 20.80	37.01%
9,000	$ 56.20	$ 77.00	$ 20.80	37.01%
10,000	$ 56.20	$ 77.00	$ 20.80	37.01%
11,000	$ 56.20	$ 77.00	$ 20.80	37.01%
12,000	$ 56.20	$ 77.00	$ 20.80	37.01%
13,000	$ 56.20	$ 77.00	$ 20.80	37.01%
14,000	$ 56.20	$ 77.00	$ 20.80	37.01%
15,000	$ 56.20	$ 77.00	$ 20.80	37.01%
16,000	$ 56.20	$ 77.00	$ 20.80	37.01%
17,000	$ 56.20	$ 77.00	$ 20.80	37.01%
18,000	$ 56.20	$ 77.00	$ 20.80	37.01%
19,000	$ 56.20	$ 77.00	$ 20.80	37.01%
20,000	$ 56.20	$ 77.00	$ 20.80	37.01%
25,000	$ 56.20	$ 77.00	$ 20.80	37.01%
30,000	$ 56.20	$ 77.00	$ 20.80	37.01%
35,000	$ 56.20	$ 77.00	$ 20.80	37.01%
40,000	$ 56.20	$ 77.00	$ 20.80	37.01%
45,000	$ 56.20	$ 77.00	$ 20.80	37.01%
50,000	$ 56.20	$ 77.00	$ 20.80	37.01%
60,000	$ 56.20	$ 77.00	$ 20.80	37.01%
70,000	$ 56.20	$ 77.00	$ 20.80	37.01%
80,000	$ 56.20	$ 77.00	$ 20.80	37.01%
90,000	$ 56.20	$ 77.00	$ 20.80	37.01%
100,000	$ 56.20	$ 77.00	$ 20.80	37.01%
110,000	$ 56.20	$ 77.00	$ 20.80	37.01%
120,000	$ 56.20	$ 77.00	$ 20.80	37.01%
130,000	$ 56.20	$ 77.00	$ 20.80	37.01%
140,000	$ 56.20	$ 77.00	$ 20.80	37.01%
150,000	$ 56.20	$ 77.00	$ 20.80	37.01%
160,000	$ 56.20	$ 77.00	$ 20.80	37.01%
170,000	$ 56.20	$ 77.00	$ 20.80	37.01%
180,000	$ 56.20	$ 77.00	$ 20.80	37.01%

VEOLIA WASTEWATER PENNSYLVANIA INC.
MAHONING TOWNSHIP
COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
COMMERCIAL - MONTHLY
2-INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES	BILLS UNDER PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 56.20	$ 65.85	$ 9.65	17.17%
1,000	$ 61.84	$ 72.23	$ 10.38	16.79%
5,000	$ 84.42	$ 97.75	$ 13.32	15.78%
10,000	$ 112.65	$ 129.64	$ 16.99	15.09%
11,000	$ 118.29	$ 136.02	$ 17.73	14.99%
12,000	$ 123.94	$ 142.40	$ 18.46	14.90%
13,000	$ 129.58	$ 148.78	$ 19.20	14.81%
14,000	$ 135.23	$ 155.16	$ 19.93	14.74%
15,000	$ 140.87	$ 161.54	$ 20.66	14.67%
16,000	$ 146.52	$ 167.91	$ 21.40	14.61%
17,000	$ 152.16	$ 174.29	$ 22.13	14.55%
18,000	$ 157.80	$ 180.67	$ 22.87	14.49%
19,000	$ 163.45	$ 187.05	$ 23.60	14.44%
20,000	$ 169.09	$ 193.43	$ 24.34	14.39%
25,000	$ 197.32	$ 225.33	$ 28.01	14.19%
30,000	$ 235.72	$ 257.22	$ 21.50	9.12%
35,000	$ 274.12	$ 289.12	$ 15.00	5.47%
40,000	$ 312.52	$ 321.01	$ 8.49	2.72%
45,000	$ 350.92	$ 352.91	$ 1.99	0.57%
50,000	$ 389.32	$ 384.80	$ (4.52)	-1.16%
60,000	$ 466.12	$ 448.59	$ (17.53)	-3.76%
75,000	$ 581.32	$ 544.28	$ (37.04)	-6.37%
85,000	$ 658.12	$ 608.07	$ (50.05)	-7.61%
95,000	$ 734.92	$ 671.86	$ (63.06)	-8.58%
105,000	$ 811.72	$ 735.65	$ (76.07)	-9.37%
115,000	$ 888.52	$ 799.44	$ (89.08)	-10.03%
125,000	$ 965.32	$ 863.23	$ (102.09)	-10.58%
135,000	$ 1,042.12	$ 927.02	$ (115.10)	-11.05%
145,000	$ 1,118.92	$ 990.81	$ (128.11)	-11.45%
155,000	$ 1,195.72	$ 1,054.60	$ (141.12)	-11.80%
165,000	$ 1,272.52	$ 1,118.39	$ (154.13)	-12.11%
175,000	$ 1,349.32	$ 1,182.18	$ (167.14)	-12.39%
185,000	$ 1,426.12	$ 1,245.97	$ (180.15)	-12.63%

VEOLIA WASTEWATER PENNSYLVANIA INC.
COLUMBIA COUNTY
COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
COMMERCIAL AND INDUSTRIAL - MONTHLY
4-INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES	BILLS UNDER PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 277.08	$ 928.50	$ 651.42	235.10%
1,000	$ 277.08	$ 928.50	$ 651.42	235.10%
5,000	$ 277.08	$ 928.50	$ 651.42	235.10%
10,000	$ 288.17	$ 965.77	$ 677.60	235.14%
15,000	$ 298.14	$ 999.30	$ 701.16	235.18%
20,000	$ 308.12	$ 1,032.84	$ 724.72	235.21%
25,000	$ 318.09	$ 1,066.37	$ 748.28	235.24%
30,000	$ 328.07	$ 1,099.91	$ 771.84	235.27%
35,000	$ 338.04	$ 1,133.44	$ 795.40	235.30%
40,000	$ 348.02	$ 1,166.98	$ 818.96	235.32%
45,000	$ 357.99	$ 1,200.51	$ 842.52	235.35%
50,000	$ 367.97	$ 1,234.05	$ 866.08	235.37%
100,000	$ 467.72	$ 1,569.40	$ 1,101.68	235.55%
150,000	$ 556.37	$ 1,867.45	$ 1,311.08	235.65%
200,000	$ 645.02	$ 2,165.50	$ 1,520.48	235.73%
225,000	$ 683.82	$ 2,295.95	$ 1,612.13	235.76%
250,000	$ 722.62	$ 2,426.40	$ 1,703.78	235.78%
275,000	$ 761.42	$ 2,556.85	$ 1,795.43	235.80%
300,000	$ 800.22	$ 2,687.30	$ 1,887.08	235.82%
350,000	$ 877.82	$ 2,948.20	$ 2,070.38	235.86%

VEOLIA WATER PENNSYLVANIA INC.

COMPARISON OF PRESENT AND PROPOSED RATES

Mahoning Township Customers

Residential

Flat Rate Charge

MTR SIZE	Present Rate	Proposed Rate	% Increase
All Meter Sizes	$ 56.20	$ 77.00	37.011%

Non-Residential

Service Charge

MTR SIZE	Present Rate	Proposed Rate	% Increase
Rate 1	$ 56.20	$ 65.85	17.17%
Rate 2	$ 61.18	$ 65.85	7.63%
Rate 3	$ 277.08	$ 65.85	-76.23%
Geisinger - Justin Dr. II	$ 2,191.67	$ 2,568.00	17.17%
Geisinger - Huges North	$ 1,264.43	$ 1,481.54	17.17%
Atlantic Equipment	$ 307.98	$ 360.86	17.17%
FAB-TEX	$ 525.71	$ 615.98	17.17%

Consumption Charge

First 435 MGL/No Blk Proposed	$ 5.6447	$ 6.3790	13.009%
Over 435 MGL/No Blk Proposed	$ 7.6800	$ 6.3790	-16.940%

Columbia County Customers

Non-Residential

Service Charge

MTR SIZE	Present Rate	Proposed Rate	% Increase
All Meter Sizes	$ 277.08	$ 928.50	235.100%

Consumption Charge

First 5 MGL (Min)	$ -	$ -	
Next 5 MGL	2.2170	7.4540	236.22%
Next 90 MGL	1.9950	6.7070	236.19%
Next 100 MGL	1.7730	5.9610	236.21%
Over 200 MGL	1.5520	5.2180	236.21%

Exhibit No. GRH-5

VEOLIA WATER PENNSYLVANIA INC.

HARRISBURG, PENNSYLVANIA

WASTEWATER

PRO FORMA EXPENSE ADJUSTMENTS

AS OF OCTOBER 31, 2025

GANNETT FLEMING

Excellence Delivered As Promised

Veolia Water Pennsylvania
Docket No. R-2024-3045193
Operation and Maintenance Expenses - Combined
For the Historical, Future and Fully Projected Future Test Year

Exhibit No. GRH-5
Schedule-1
Summary of Adjustments
Page 1 of 3

Line No.	Account Number	Utility Operating Expenses	Adjustment No.	12-Months Ending 9/30/2023	Future Test Year Adjustments	Future Test Year 9/30/2024	Fully Projected Future Test Year Adjustments Present Rates	Fully Projected Future Test Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Adjustments Proposed Rates	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	601.0	Labor Expense	1	$ 48,598	$ 1,385	$ 49,983	$ 1,375	$ 51,358		$ 51,358
2	604.0	Employee Group Health & Life	2	7,179	171	7,350	162	7,511		7,511
3	604.0	Employee Pension Benefits	3	2,055	49	2,104	46	2,150		2,150
4	604.0	Employee Post Retirement Benefits Other than Pension	4	422	10	432	9	441		441
5	604.0	Other Employee Benefits	5	780	88	868	22	890		890
6	610.0	Purchased Water	6	-	-	-	-	-		-
7	615.0	Purchased Power	7	-	-	-	-	-		-
8	616.0	Fuel for Power Production	8	-	-	-	-	-		-
9	618.0	Chemicals	9	929	205	1,134	25	1,159		1,159
10	620.0	Materials and Supplies	10	3,801	1,248	5,049	111	5,160		5,160
11	634.0	Management and Service Fees	11	-	-	-	-	-		-
12	635.0	Lab Testing Fees	12	123,964	(14,339)	109,625	2,412	112,037		112,037
13	636.0	Outside Contractors	13	863,955	26,293	890,248	19,585	909,833		909,833
14	636.0	Outside Professional Services	14	81,451	(34,789)	46,662	1,027	47,688		47,688
15	641.0	Rental - Building/Real Property	15	-	-	-	-	-		-
16	642.0	Rental of Equipment	16	-	-	-	-	-		-
17	650.0	Transportation Expense	17	5,054	120	5,174	114	5,288		5,288
18	657.0	Prop& Gen Liab. Insurance	18	(62)	62	-	-	-		-
19	658.0	Worker Compensation	19	108	(13)	95	1	97		97
20	660.0	Advertising	20	-	-	-	-	-		-
21	666.0	Rate Case Expense - Amort	21	-	-	-	-	-		-
22	666.0	Regulatory Commission Expense	22	10,586	(70)	10,516	(70)	10,447	3,631	14,078
23	667.0	Amortization of Tax Reform Liability	22.1							
24	670.0	Bad Debt Expense	23	98	(34)	64	(32)	32	11	43
25	675.0	Fringe Benefit Expense Transfer	24	0	(0)	-	-	-		-
26	675.6	Office Expense and Utilities	25	1,082	956	2,039	(982)	1,057		1,057
27	675.9	Postage and Air Freight Expense	26	-	-	-	-	-		-
28	Various	Other O&M	27	-	-	-	-	-		-
29		Customer Assistance Program	28	-	-	-	-	-		-
30		Adjustments for Acquisitions	29	-	-	-	-	-		-
31		**Total Operation and Maintenance Expenses**		$ 1,150,000	$ (18,657)	$ 1,131,343	$ 23,806	$ 1,155,148	$ 3,643	$ 1,158,791
32										
33		Inflation Rate Calculator	30		2.38%		2.20%			
34										
35		**Taxes Other Than Income**								
36		Real Estate Tax	31	$ -	$ -	$ -	$ -	$ -	$ -	$ -
37		Payroll	32	42	3	45	3	$ 48	-	$ 48
38										
39		**Total Taxes Other Than Income**		$ 42	$ 3	$ 45	$ 3	$ 48	$ -	$ 48
40										
41		**Depreciation Expense**	33	$ 11,905	$ 243,023	$ 254,928	$ 71,902	$ 326,830		$ 326,830
42		**Amortization of Acquisition Adjustment**		-		-	153,034	153,034		153,034
43		**Amortization of Regulatory Liability**								
44										
45		**Income Taxes**	34	$ -	$ 25,270	$ 25,270	$ (69,219)	$ (43,949)	$ 154,849	$ 110,901
46										
47		**Total**		$ 1,161,946	$ 249,639	$ 1,411,586	$ 179,526	$ 1,591,112	$ 158,492	$ 1,749,604

Line No.	Account Number	Utility Operating Expenses	Adjustment No.	12-Months Ending 9/30/2023	Future Test Year Adjustments	Future Test Year 9/30/2024	Fully Projected Future Test Year Adjustments Present Rates	Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Adjustments Proposed Rates	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	601.0	Labor Expense	1	$ 44,741	$ 1,275	$ 46,017	$ 1,265	$ 47,282		$ 47,282
2	604.0	Employee Group Health & Life	2	6,609	157	6,766	149	6,915		6,915
3	604.0	Employee Pension Benefits	3	1,892	45	1,937	43	1,979		1,979
4	604.0	Employee Post Retirement Benefits Other than Pension	4	388	9	397	9	406		406
5	604.0	Other Employee Benefits	5	718	84	802	20	823		823
6	610.0	Purchased Water	6	-	-	-	-	-		-
7	615.0	Purchased Power	7	-	-	-	-	-		-
8	616.0	Fuel for Power Production	8	-	-	-	-	-		-
9	618.0	Chemicals	9	929	205	1,134	25	1,159		1,159
10	620.0	Materials and Supplies	10	107	35	142	3	145		145
11	634.0	Management and Service Fees	11	-	-	-	-	-		-
12	635.0	Lab Testing Fees	12	4,060	(470)	3,590	79	3,669		3,669
13	636.0	Outside Contractors	13	28,292	861	29,154	641	29,795		29,795
14	636.0	Outside Professional Services	14	2,667	(1,139)	1,528	34	1,562		1,562
15	641.0	Rental - Building/Real Property	15	-	-	-	-	-		-
16	642.0	Rental of Equipment	16	-	-	-	-	-		-
17	650.0	Transportation Expense	17	4,653	111	4,763	105	4,868		4,868
18	657.0	Prop& Gen Liab. Insurance	18	(2)	2	-	-	-		-
19	658.0	Worker Compensation	19	100	(5)	95	1	96		96
20	660.0	Advertising	20	-	-	-	-	-		-
21	666.0	Rate Case Expense - Amort	21	-	-	-	-	-		-
22	666.0	Regulatory Commission Expense	22	298	(2)	296	(2)	294	102	396
23	667.0	Amortization of Tax Reform Liability	22.1	-		-		-		-
24	670.0	Bad Debt Expense	23	3	30	32	(32)	1	0	1
25	675.0	Fringe Benefit Expense Transfer	24	-	-	-	-	-		-
26	675.6	Office Expense and Utilities	25	30	1,003	1,034	(1,004)	30		30
27	675.9	Postage and Air Freight Expense	26	-	-	-	-	-		-
28	Various	Other O&M	27	-	-	-	-	-		-
29		Customer Assistance Program	28	-	-	-	-	-		-
30		Adjustments for Acquisitions	29	$ -	$ -	$ -	$ -	$ -		$ -
31		**Total Operation and Maintenance Expenses**		$ 95,486	$ 2,201	$ 97,687	$ 1,337	$ 99,024	$ 102	$ 99,127
32										
33		Inflation Rate Calculator	30		2.38%		2.20%			
34										
35		**Taxes Other Than Income**								
36		Real Estate Tax	31	$ -	$ -	$ -	$ -	$ -	$ -	$ -
37		Payroll	32	38	3	41	3	44	-	$ 44
38										
39		**Total Taxes Other Than Income**		$ 38	$ 3	$ 41	$ 3	$ 44	$ -	$ 44
40										
41		**Depreciation Expense**	33	$ 11,905	$ 3,144	$ 15,049	$ 1,842	$ 16,891		$ 16,891
42		**Amortization of Acquisition Adjustment**		$ -		$ -		$ -		$ -
43		**Amortization of Regulatory Liability**								
44										
45		**Income Taxes**	34	$ -	$ (22,570)	$ (22,570)	$ (2,025)	$ (24,595)	$ 30,013	$ 5,417
46										
47		**Total**		$ 107,429	$ (17,222)	$ 90,208	$ 1,156	$ 91,364	$ 30,115	$ 121,479

Line No.	Account Number	Utility Operating Expenses	Adjustment No.	12-Months Ending 9/30/2023	Future Test Year Adjustments	Future Test Year 9/30/2024	Fully Projected Future Test Year Adjustments Present Rates	Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Adjustments Proposed Rates	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	601.0	Labor Expense	1	$ 3,857	$ 110	$ 3,967	$ 109	$ 4,076		$ 4,076
2	604.0	Employee Group Health & Life	2	570	14	583	13	596		596
3	604.0	Employee Pension Benefits	3	163	4	167	4	171		171
4	604.0	Employee Post Retirement Benefits Other than Pension	4	33	1	34	1	35		35
5	604.0	Other Employee Benefits	5	62	4	65	2	67		67
6	610.0	Purchased Water	6	-	-		-			-
7	615.0	Purchased Power	7	-	-	-	-	-		-
8	616.0	Fuel for Power Production	8	-	-	-	-	-		-
9	618.0	Chemicals	9	-	-	-	-	-		-
10	620.0	Materials and Supplies	10	3,694	1,213	4,907	108	5,015		5,015
11	634.0	Management and Service Fees	11	-	-		-			-
12	635.0	Lab Testing Fees	12	119,905	(13,869)	106,035	2,333	108,368		108,368
13	636.0	Outside Contractors	13	835,662	25,432	861,094	18,944	880,038		880,038
14	636.0	Outside Professional Services	14	78,784	(33,650)	45,134	993	46,127		46,127
15	641.0	Rental - Building/Real Property	15	-	-	-	-	-		-
16	642.0	Rental of Equipment	16	-	-	-	-	-		-
17	650.0	Transportation Expense	17	401	10	411	9	420		420
18	657.0	Prop& Gen Liab. Insurance	18	(60)	60	-	-	-		-
19	658.0	Worker Compensation	19	9	(8)	1	0	1		1
20	660.0	Advertising	20	-	-	-	-	-		-
21	666.0	Rate Case Expense - Amort	21	-	-	-	-	-		-
22	666.0	Regulatory Commission Expense	22	10,288	(68)	10,221	(68)	10,153	3,529	13,682
23	667.0	Amortization of Tax Reform Liability	22.1	-		-		-		-
24	670.0	Bad Debt Expense	23	95	(63)	32	(0)	31	11	42
25	675.0	Fringe Benefit Expense Transfer	24	0	(0)	-	-	-		-
26	675.6	Office Expense and Utilities	25	1,052	(47)	1,005	22	1,027		1,027
27	675.9	Postage and Air Freight Expense	26	-	-	-	-	-		-
28	Various	Other O&M	27	-	-	-	-	-		-
29		Customer Assistance Program	28	-	-	-	-	-		-
30		Adjustments for Acquisitions	29	-	-	-	-	-		-
31		**Total Operation and Maintenance Expenses**		$ 1,054,514	$ (20,859)	$ 1,033,655	$ 22,469	$ 1,056,124	$ 3,540	$ 1,059,665
32										
33		Inflation Rate Calculator	30		2.38%		2.20%			
34										
35		**Taxes Other Than Income**								
36		Real Estate Tax	31	$ -	$ -	$ -	$ -	$ -	$ -	$ -
37		Payroll	32	3	0	4	0	4	-	$ 4
38										
39		**Total Taxes Other Than Income**		$ 3	$ 0	$ 4	$ 0	$ 4	$ -	$ 4
40										
41		**Depreciation Expense**	33	$ -	$ 239,879	$ 239,879	70,060	$ 309,939		$ 309,939
42		**Amortization of Acquisition Adjustment**		$ -		$ -	$ 153,034	$ 153,034		$ 153,034
43		**Amortization of Regulatory Liability**								
44										
45		**Income Taxes**	34	$ -	$ 47,840	$ 47,840	$ (67,194)	$ (19,353)	$ 124,837	$ 105,483
46										
47		**Total**		$ 1,054,517	$ 266,861	$ 1,321,378	$ 178,370	$ 1,499,748	$ 128,377	$ 1,628,125

Line No.	Description	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VWW Pennsylvania	$ 44,741	$ 46,017 **(a)**	$ 47,282 **(b)**
2	Mahoning Township	3,857	3,967 **(a)**	4,076 **(b)**
3				
4	**Total Labor Expense**	$ 48,598	$ 49,983	$ 51,358
5				
6	Adjustment		$ 1,385	$ 1,375
7				
8	Projected Labor Increase			
9	2024	2.85%		
10	2025	2.75%		
11				
12	**Reference Notes:**			
13	**(a)** Based on projected wage increase for 2024.			
14	**(b)** Based on projected wage increase for 2025.			

Line No.	Description	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VWW Pennsylvania	$ 6,609	$ 6,766	$ 6,915
2	Mahoning Township	570	583	596
3				
4	**Total Employee Group Health and Life Insurance**	$ 7,179	$ 7,350	$ 7,511
5				
6	Adjustment		$ 171	$ 162
7				
8	**Inflation Rate:**			
9	Future Test Year	2.375%		
10	Fully Projected Future Test Year	2.200%		
11				
12	**Reference Notes:**			
13	**(a)** Based upon historic test year cost with Future Test Year inflation rate.			
14	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.			

Line No.	Description	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VWW Pennsylvania	$ 1,892	$ 1,937 **(a)**	$ 1,979 **(b)**
2	Mahoning Township	163	167 **(a)**	171 **(b)**
3				
4	**Total Employee Pension Benefits**	$ 2,055	$ 2,104	$ 2,150
5				
6	Adjustment		$ 49	$ 46
7				
8	**Inflation Rate:**			
9	Future Test Year	2.375%		
10	Fully Projected Future Test Year	2.200%		
11				
12	**Reference Notes:**			
13	**(a)** Based upon Historic Test Year cost with Future Test Year inflation rate.			
14	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.			

Line No.	Description	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VWW Pennsylvania	$ 388	$ 397	$ 406
2	Mahoning Township	33	34	35
3				
4	**Total Employee PEBOP Expense**	$ 422	$ 432	$ 441
5				
6	Adjustment		$ 10	$ 9
7				
8	**Inflation Rate:**			
9	Future Test Year	2.375%		
10	Fully Projected Future Test Year	2.200%		
11				
12	**Reference Notes:**			
13	**(a)** Based upon Historic Test Year cost with Future Test Year inflation rate.			
14	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.			

Line No.	Description	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	401K Matching			
2	VWW Pennsylvania	$ 780	$ 802 **(a)**	$ 823 **(b)**
3	Mahoning Township	62	65 **(a)**	$ 67 **(b)**
4				
5	**Total 401K Matching and Other Benefits**	$ 842	$ 868	$ 890
6				
7	Adjustment		$ 26	$ 22
8				

Year	Gross Salary	401K Contribution (%)
2024	49,983	1.73%
2025	51,358	1.73%

Reference Notes:

(a) 401K Matching adjustment takes the Future Test Year's Gross Salary, multiplied by the Historic Test Year's 401K contribution percentage.

(b) 401K Matching adjustment takes the Fully Projected Future Test Year's Gross Salary, multiplied by the Historic Test Year's 401K contribution percentage.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 929	$ 1,134 **(a)**	$ 1,159 **(b)**
2	Mahoning Township	-	- **(a)**	- **(b)**
3				
4	**Total Chemical Expense**	$ 929	$ 1,134	$ 1,159
5				
6	Adjustment		$ 205	$ 25

Year	Chemical Expense
2021	$ 1,235
2022	1,160
2023	929
3 Year Average	$ 1,108

Inflation Rate:

Future Test Year	2.375%
Fully Projected Future Test Year	2.200%

Reference Notes:

(a) Based upon three year average with Future Test Year inflation rate.

(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 107	$ 142 **(a)**	$ 145 **(b)**
2	Mahoning Township	3,694	4,907 **(a)**	5,015 **(b)**
3				
4	**Total Materials and Supplies**	$ 3,801	$ 5,049	$ 5,160
5				
6	Adjustment		$ 1,248	$ 111

Year	Materials and Supplies Expense
2021	$ 3,892
2022	7,104
2023	3,801
3 Year Average	$ 4,932

Inflation Rate:

Future Test Year	2.375%
Fully Projected Future Test Year	2.200%

Reference Notes:

(a) Based upon three year average with Future Test Year inflation rate.

(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 4,060	$ 3,590	$ 3,669
2	Mahoning Township	119,905	106,035	108,368
3				
4	**Total Lab Testing Fees**	$ 123,964	$ 109,625	$ 112,037
5				
6	Adjustment		$ (14,339)	$ 2,412
7				

	Year	Lab Testing Fees
10	2022	90,200
11	2023	123,964
12		
13	2022 and 2023 Average	107,082
14		
15	**Inflation Rate:**	
16	Future Test Year	2.375%
17	Fully Projected Future Test Year	2.200%
18		
19	**Reference Notes:**	
20	**(a)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.	

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 28,292	$ 29,154	$ 29,795
2	Mahoning Township	835,662	861,094	880,038
3				
4	**Total Outside Contractors**	$ 863,955	$ 890,248	$ 909,833
5				
6	Adjustment		$ 26,293	$ 19,585
7				

	Year	Outside Contractor's Expense
8	2022	875,235
9	2023	863,955
10		
11	Two Year Average	$ 869,595

12	**Inflation Rate:**	
13	Future Test Year	2.375%
14	Fully Projected Future Test Year	2.200%

Reference Notes:

(a) Based upon two year average with Future Test Year inflation rate.

(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 2,667	$ 1,528 **(a)**	$ 1,561.680 **(b)**
2	Mahoning Township	78,784	45,134 **(a)**	46,127 **(b)**
3				
4	**Total Outside Professional Services**	$ 81,451	$ 46,662	$ 47,688
5				
6	Adjustment		$ (34,789)	$ 1,027

Year	Outside Professional Services Expense
2021	$ 40,457
2022	14,830
2023	81,451
3 Year Average	$ 45,579

Inflation Rate:

Future Test Year	2.375%
Fully Projected Future Test Year	2.200%

Reference Notes:

(a) Based upon three year average with Future Test Year inflation rate.
(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VWW Pennsylvania	$ 4,653	$ 4,763 **(a)**	$ 4,868 **(a)**
2	Mahoning Township	401	411 **(b)**	420 **(c)**
3				
4	Total Costs	$ 5,054	$ 5,174	$ 5,288
5				
6	**Total Transportation Expense**	$ 5,054	$ 5,174	$ 5,288
7				
8	Adjustment		$ 120	$ 114
9				
10	**Inflation Rate:**			
11	Future Test Year	2.38%		
12	Fully Projected Future Test Year	2.20%		
13				
14	**Reference:**			
15	**(a)** Based on projected 2024 costs for Future Test Year and 2025 costs for Fully Projected Future Test Year.			
16	**(b)** Based upon three year average with Future Test Year inflation rate.			
17	**(c)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.			

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ (2)	$ - **(a)**	$ - **(a)**
2	Mahoning Township	(60)	- **(a)**	- **(a)**
3				
4	**Total Property and General Corporate Liability Insurance**	$ (62)	$ -	$ -
5				
6	Adjustment		$ 62	$ -
7				
8	**Reference Notes:**			
9	**(a)** General liability insurance expense is included in management and services fees expense account.			

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 100	94 **(a)**	96 **(b)**
2	Mahoning Township	9	1 **(a)**	1 **(b)**
3				
4	**Total Worker Compensation**	$ 108	$ 95	$ 97
5				
6	Adjustment		$ (14)	$ 2
7				
8	**Inflation Rate:**			
9	Future Test Year	2.38%		
10	Fully Projected Future Test Year	2.20%		
11				
12	**Reference Notes:**			
13	**(a)** Based upon historic test year cost with Future Test Year inflation rate.			
14	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.			

Veolia Water Pennsylvania
Docket No. R-2024-3045193
Regulatory Commission Expense
Account Number 91900 & 92000

Exhibit No. GRH-5
Schedule-15
Adjustment No. 22
Page 1 of 1

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	**Regulatory Commission Expense:**				
2	VW Pennsylvania	$ 298	$ 296	$ 294	$ 396
3	Mahoning Township	10,288	10,221	10,153	13,682
4					
5	**Total Regulatory Commission Expense**	$ 10,586	$ 10,516	$ 10,447	$ 14,078
6					
7	Adjustment		$ (70)	$ (70)	$ 3,631
8					
9					

Line No.	Regulatory Commission Expense:	Per 2023 PAPUC Assesment	Future Test Year	Fully Projected Future Test Year	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
10					
11					
12					
13					
14					
15					
16	Taxable Revenue	$ 1,657,858	$ 1,646,954	$ 1,636,050	$ 2,204,769
17	Amount Assessed	10,586	10,516	10,447	14,078
18					
19					

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	VW Pennsylvania	$ 3	$ 1	$ 1	$ 1
2	Mahoning Township	95	32	31	42
3					
4	**Total Bad Debt Expense**	$ 98	$ 32	$ 32	$ 43
5					
6	Adjustment		$ (65)	$ (0)	$ 11
7					
8					

9		2023	2022	2021
10				
11	Historic Uncollectable Expense	$ 98	$ -	$ 0
12				
13	Historic Test Year Revenues	1,657,650	1,643,436	1,611,663
14				
15	Effective Uncollectable Rate	0.006%	0.000%	0.000%
16				
17	Average 3 Year Uncollectable Rate	0.002%		

18				
19				
20				
21				
22				
23				
24		Future Test Year	Fully Projected Future Test Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
25				
26				
27	Revenues	$ 1,646,954	$ 1,636,050	$ 2,204,769
28				
29	Uncollectable Expense	$ 32	$ 32	$ 43
30				

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 30	$ 29.08	$ 29.72
2	Mahoning Township	1,052	1,005 **(a)**	1,027 **(b)**
3				
4	**Total Office Expense and Utilities**	$ 1,082	$ 1,034	$ 1,057
5				
6	Adjustment		$ (48)	$ 23

	Year	Office Expense and Utilities
2021		$ 807
2022		1,141
2023		1,082
	3 Year Average	$ 1,010

Inflation Rate:

Future Test Year	2.375%
Fully Projected Future Test Year	2.200%

Reference Notes:

(a) Based upon three year average with Future Test Year inflation rate.
(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description				
1	Source: Blue Chip Financial Forecasts September 1, 2023				
2					
3	Consumer Price Index				
4					
5	**Future Test Year:**				
6		Annual		Quarter	
7	1Q2024	2.40%		0.60%	
8	2Q2024	2.30%		0.58%	
9	3Q2024	2.50%		0.63%	
10	4Q2024	2.30%		0.58%	
11					
12	**Inflation Adjustment:**			2.38%	
13					
14	**Fully Projected Future Test Year:**				
15		Annual		Quarter	
16	1Q2025	2.20%		0.55%	
17	2Q2025	2.20%	**(a)**	0.55%	
18	3Q2025	2.20%	**(a)**	0.55%	
19	4Q2025	2.20%	**(a)**	0.55%	
20					
21	**Inflation Adjustment:**			2.20%	
22					
23	**Reference Notes:**				
24	**(a)** Index not available, used 1Q of 2025 index.				

Historical:

	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
VW Pennsylvania	$ 38	$ 41	$ 44
Mahoning Township	3	4	4
Total Payroll Taxes	42	45	48
Adjustment		$ 3	$ 3

Inflation Rate:

Future Test Year	7.65%
Fully Projected Future Test Year	7.65%

Reference Notes:

(a) Based upon historic test year (less refund), with Future Test Year inflation rate.

(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Historical:

	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
VW Pennsylvania	$ 11,905	15,049	16,891
Mahoning Township	-	239,879	309,939
	$ 11,905	$ 254,928	$ 326,830
Adjustment		$ 243,023	$ 71,902
Amortization of Mahoning Acquisition Adjustment			$ 153,034

Reference Notes:
(a) Data provided by Company.

Line No.	Description	Sep-23 Federal Income Tax Current Rates	Sep-23 State Income Tax Current Rates	Sep-24 Federal Income Tax Current Rates	Sep-24 State Income Tax Current Rates	Sep-24 Total Income Taxes	Oct-25 Federal Income Tax Current Rates	Oct-25 State Income Tax Current Rates	Oct-25 Total Income Taxes	Oct-25 Federal Income Tax Proposed Rates	Oct-25 State Income Tax Proposed Rates	Oct-25 Total Income Taxes Proposed Rates
1	Operating Income Before Income Taxes	$ 495,911	$ 495,911	$ 260,638	$ 260,638		$ 985	$ 985		$ 566,061	$ 566,061	
2	Interest Expense (1)	91,617	91,617	131,627	131,627		122,020	122,020		122,020	122,020	
3	State Income Tax	36,603		(2,306)			(23,457)			22,344		
4	Repair Adjustment on 2024 Additions		3,411	55,615	55,615							
5	Repair Adjustment on 2025 Additions						57,661	57,661		57,661	57,661	
9	Excess Of Tax Depreciation Over Book	4,445	4,752	94,078	100,168		103,512	110,707		103,512	110,707	
10	Taxable Income	$ 363,247	$ 396,132	$ (18,376)	$ (26,773)		$ (258,751)	$ (289,403)		$ 260,524	$ 275,673	
11	Income Tax Rate	21.00%	9.24%	21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
12	Pro Forma Income Tax : Current	76,282	36,603	(3,859)	(2,306)		(54,338)	(23,457)		54,710	22,344	
13	CTA Adjustment											
14	Amortization of Flow through Taxes											
15	Amortization of Income Tax Credit						-			-		
16	Total - Current Income Taxes	$ 76,282	$ 36,603	$ (3,859)	$ (2,306)		$ (54,338)	$ (23,457)		$ 54,710	$ 22,344	
	Deferred Income Tax:											
17	Repair Adjustment			$ 55,615			57,661			57,661		
18	Less: State Deduction (Fr. Sch.6-6)											
19	Income Tax Rate			21.00%			21.00%			21.00%		
20	Deferred Income Tax - Repair Adjustment			11,679			12,109			12,109		
21	Excess Of Tax Depreciation Over Book			$ 94,078			$ 103,512			$ 103,512	$ -	
22	Less: State Deferred Income Tax			-			-			-		
23	Income Tax Rate			21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
24	Deferred Income Tax - Tax/Book Deprec.			19,756	-		21,738	-		21,738	-	
25	Total Deferred Income Tax (L20+L24)			31,436	-		33,846	-		33,846	-	
26	Total Income Taxes (L16+L25)	$ 76,282	$ 36,603	$ 27,577	$ (2,306)	$ 25,270	$ (20,491)	$ (23,457)	$ (43,949)	$ 88,556	$ 22,344	$ 110,901
	Adjustment											
27	Rate Base	$ 4,299,992	$ 4,299,992	$ 6,177,867	$ 6,177,867		$ 5,726,939	$ 5,726,939		$ 5,726,939	$ 5,726,939	
28	Weighted Cost Of Debt	2.13%	2.13%	2.13%	2.13%		2.13%	2.13%		2.13%	2.13%	
29	Interest Expense (1)	$ 91,617	$ 91,617	$ 131,627	$ 131,627		$ 122,020	$ 122,020		$ 122,020	$ 122,020	

Line No.	Description	Sep-23 Federal Income Tax Current Rates	Sep-23 State Income Tax Current Rates	Sep-24 Federal Income Tax Current Rates	Sep-24 State Income Tax Current Rates	Sep-24 Total Income Taxes	Oct-25 Federal Income Tax Current Rates	Oct-25 State Income Tax Current Rates	Oct-25 Total Income Taxes	Oct-25 Federal Income Tax Proposed Rates	Oct-25 State Income Tax Proposed Rates	Oct-25 Total Income Taxes Proposed Rates
1	Operating Income Before Income Taxes	$ 556,711	$ 556,711	$ 326,787	$ 326,787		$ 70,319	$ 70,319		$ 525,873	$ 525,873	
2	Interest Expense (1)	81,589	81,589	121,918	121,918		112,699	112,699		112,699	112,699	
3	State Income Tax	43,901		6,099			(13,232)			23,692		
4	Repair Adjustment on 2024 Additions			47,866	47,866							
5	Repair Adjustment on 2025 Additions						41,395	41,395		41,395	41,395	
9	Excess Of Tax Depreciation Over Book	-	-	80,971	86,212		74,311	79,477		74,311	79,477	
10	Taxable Income	$ 431,221	$ 475,122	$ 69,934	$ 70,791		$ (144,853)	$ (163,251)		$ 273,776	$ 292,303	
11	Income Tax Rate	21.00%	9.24%	21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
12	Pro Forma Income Tax : Current	90,556	43,901	14,686	6,099		(30,419)	(13,232)		57,493	23,692	
13	CTA Adjustment											
14	Amortization of Flow through Taxes											
15	Amortization of Income Tax Credit						-			-		
16	Total - Current Income Taxes	$ 90,556	$ 43,901	$ 14,686	$ 6,099		$ (30,419)	$ (13,232)		$ 57,493	$ 23,692	
	Deferred Income Tax:											
17	Repair Adjustment			$ 47,866			41,395			41,395		
18	Less: State Deduction (Fr. Sch.6-6)											
19	Income Tax Rate			21.00%			21.00%			21.00%		
20	Deferred Income Tax - Repair Adjustment			10,052			8,693			8,693		
21	Excess Of Tax Depreciation Over Book			$ 80,971			$ 74,311			$ 74,311	$ -	
22	Less: State Deferred Income Tax			-			-			-		
23	Income Tax Rate			21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
24	Deferred Income Tax - Tax/Book Deprec.			17,004	-		15,605	-		15,605	-	
25	Total Deferred Income Tax (L20+L24)			27,056	-		24,298	-		24,298	-	
26	Total Income Taxes (L16+L25)	$ 90,556	$ 43,901	$ 41,742	$ 6,099	$ 47,840	$ (6,121)	$ (13,232)	$ (19,353)	$ 81,791	$ 23,692	$ 105,483
	Adjustment											
27	Rate Base	$ 3,829,347	$ 3,829,347	$ 5,722,137	$ 5,722,137		$ 5,289,456	$ 5,289,456		$ 5,289,456	$ 5,289,456	
28	Weighted Cost Of Debt	2.13%	2.13%	2.13%	2.13%		2.13%	2.13%		2.13%	2.13%	
29	Interest Expense (1)	$ 81,589	$ 81,589	$ 121,918	$ 121,918		$ 112,699	$ 112,699		$ 112,699	$ 112,699	

Line No.	Description	Sep-23 Federal Income Tax Current Rates	Sep-23 State Income Tax Current Rates	Sep-24 Federal Income Tax Current Rates	Sep-24 State Income Tax Current Rates	Sep-24 Total Income Taxes	Oct-25 Federal Income Tax Current Rates	Oct-25 State Income Tax Current Rates	Oct-25 Total Income Taxes	Oct-25 Federal Income Tax Proposed Rates	Oct-25 State Income Tax Proposed Rates	Oct-25 Total Income Taxes Proposed Rates
1	Operating Income Before Income Taxes	$ (60,800)	$ (60,800)	$ (66,149)	$ (66,149)		$ (69,334)	$ (69,334)		$ 40,189	$ 40,189	
2	Interest Expense (1)	10,028	10,028	9,710	9,710		9,321	9,321		9,321	9,321	
3	State Income Tax	(6,984)		(8,405)			(10,225)			(1,348)		
4	Repair Adjustment on 2024 Additions			7,749	7,749							
5	Repair Adjustment on 2025 Additions						16,266	16,266		16,266	16,266	
9	Excess Of Tax Depreciation Over Book	7,673	4,752	13,108	13,956		29,201	31,231		29,201	31,231	
10	Taxable Income	$ (71,517)	$ (75,580)	$ (88,310)	$ (97,564)		$ (113,897)	$ (126,152)		$ (13,252)	$ (16,629)	
11	Income Tax Rate	21.00%	9.24%	21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
12	Pro Forma Income Tax : Current	(15,019)	(6,984)	(18,545)	(8,405)		(23,918)	(10,225)		(2,783)	(1,348)	
13	CTA Adjustment											
14	Amortization of Flow through Taxes											
15	Amortization of Income Tax Credit						-			-		
16	Total - Current Income Taxes	$ (15,019)	$ (6,984)	$ (18,545)	$ (8,405)		$ (23,918)	$ (10,225)		$ (2,783)	$ (1,348)	
	Deferred Income Tax:											
17	Repair Adjustment			$ 7,749			16,266			16,266		
18	Less: State Deduction (Fr. Sch.6-6)											
19	Income Tax Rate			21.00%			21.00%			21.00%		
20	Deferred Income Tax - Repair Adjustment			1,627			3,416			3,416		
21	Excess Of Tax Depreciation Over Book			$ 13,108			$ 29,201			$ 29,201	$ -	
22	Less: State Deferred Income Tax			-			-			-		
23	Income Tax Rate			21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
24	Deferred Income Tax - Tax/Book Deprec.			2,753	-		6,132	-		6,132	-	
25	Total Deferred Income Tax (L20+L24)			4,380	-		9,548	-		9,548	-	
26	Total Income Taxes (L16+L25)	$ (15,019)	$ (6,984)	$ (14,165)	$ (8,405)	$ (22,570)	$ (14,370)	$ (10,225)	$ (24,595)	$ 6,765	$ (1,348)	$ 5,417
	Adjustment											
27	Rate Base	$ 470,645	$ 470,645	$ 455,730	$ 455,730		$ 437,484	$ 437,484		$ 437,484	$ 437,484	
28	Weighted Cost Of Debt	2.13%	2.13%	2.13%	2.13%		2.13%	2.13%		2.13%	2.13%	
29	Interest Expense (1)	$ 10,028	$ 10,028	$ 9,710	$ 9,710		$ 9,321	$ 9,321		$ 9,321	$ 9,321	

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NOS. R-2024-3045192-Water R-2024-3045193 WW

REBUTTAL TESTIMONY

OF

GREGORY R. HERBERT, ASSISTANT PROJECT MANAGER

GANNETT FLEMING

VALUATION AND RATE CONSULTANTS, LLC

REGARDING INCOME STATEMENT, OPERATING REVENUE AND EXPENSE ADJUSTMENTS

June 7, 2024

Introduction

Q. What is your name and business address?

A. Gregory R. Herbert. My business address is 207 Senate Ave. Camp Hill, PA 17011.

Q. Are you the same Gregory R. Herbert that prefiled direct testimony in this docket?

A. Yes, I submitted direct testimony and sponsored Exhibits GRH-1, GRH-2, GRH-3, GRH-4, and GRH-5.

Q. What is the purpose of your rebuttal testimony in this proceeding?

A. The purpose of my rebuttal testimony is to provide a summary of corrections made to the Company's Income Statement, Operating Revenue and Expense Adjustments in light of the Company's responses to discovery data requests. These corrections only impact the Company's water revenue requirement. Additionally, I will address the concerns reflected in the testimony of OCA witness Morgan, OCA witness Mierzwa, I&E witness Okum, I&E witness Sakaya, and OSBA witness Townsend.

Q. How is your rebuttal testimony organized?

A. First, I will discuss the corrections made by the Company from responses to discovery data requests. I will then discuss the water operations revenue and expense adjustments and rate design adjustments recommended by the OCA and I&E. I will then discuss the wastewater expense adjustments and rate design adjustments recommended by the OCA, I&E and OSBA. I will also address water and wastewater rate base issues that are reflected in my rebuttal exhibits that are further discussed in various Company witnesses' rebuttal testimonies.

Q. Are you submitting Exhibits to supplement your rebuttal testimony?

A. Yes. Exhibit GRH-1-R will include supporting data and responses to data requests that are referenced in my rebuttal testimony. Exhibit GRH-2-R reflects the corrected Water revenue requirement, income statement and rate base, and Exhibit GRH-3-R reflects the corrected expense adjustment claims based on corrections the Company agreed to make in response to discovery data requests.

Water Operations – Summary of Corrections for Rebuttal Testimony

Q. Please describe the corrections made to the Company's Income Statement, Operating Revenue, Expense Adjustments, and Rate Base.

A. During discovery, the Company responded to data requests regarding the FTY and FPFTY labor expense estimates and number of employees. The Company stated that the labor expense projections would be prorated to reflect the current number of new employees hired in the FTY and the additional new employees planned to be hired in the FPFTY. Currently the Company has four out of the eleven projected positions filled and five vacancies. The remaining seven additional employees and five vacancies are expected to be filled by the Company in the FPFTY. The updated labor expense projections reduce the as-filed labor expense claim by $134,009 in the FPFTY. The rebuttal labor expense claim is shown on Schedule-2, Exhibit GRH-3-R. As a result of the updated labor expense projections, the Employee Group Health and Life Insurance as-filed claim is reduced by $94,067 for the Main Division, Bethel, Mahoning, Overbrook and Kensington water service areas (also referred to as “combined water operations” in my rebuttal testimony). The as-filed 401K Matching and Other Benefits Expense claim is reduced by $8,045, resulting from the updated labor expense rebuttal claim for the combined water operations. Additionally, the as-filed Fringe Benefit Expense Transfer Expense and Payroll Tax Expense claims are reduced by $119,208 and $19,539, respectively in the FPFTY for the updated labor expense projections.

The Employee Pension Benefits Expense claim was corrected in response to data request I&E-RE-11-D, which is provided in Exhibit GRH-1-R. The Company corrected the FTY expense claim based on the ASC 715-30 Net Periodic Pension Cost actuarial report, which also impacted the FPFTY expense. The as-filed

Employee Pension Benefits Expense is increased by $439,460 for the combined water operations in the FPFTY.

The Office Expense and Utilities Expense was corrected to remove $1,625 in PA PUC fines booked to this account in the HTY, which are considered non-recoverable expenses. Additionally, in the Company's response to data request I&E-RE-29, the Company stated a two-year average of historical expenses of the HTY and year ended 09/30/2022 is more indicative of the projected expenses in the FTY for this account instead of a three-year average. These two adjustments increase the as-filed expense claim by $274.

The Company also uncovered during discovery that the (Water) Other Operating Revenues of $332,102 were understated by $3,714. Exhibit GRH-2-R, Schedule 2 and Schedule 4 reflect the corrected Other Water Revenues under present rates of $335,816. The Other Operating Revenues were also increased by $48,187 for the FPFTY, for a total of $384,003, to reflect the increase to late payment fees under proposed rates, which I will further discuss when addressing I&E witness Sakaya's recommendations.

The Company acknowledged that Plant Held for Future Use should not be included in rate base. I reflected this correction which reduces the Original Cost Utility Plant In Service by $52,964 and is reflected on Schedule 1.1-R, Exhibit GRH-2-R. Additionally, in data requests OCA-16-2 and OCA-16-7, the Company indicated that Kensington and Overbrook Land values of $50,700 and $40,000,

respectively, were inadvertently omitted from the FTY and FPFTY Utility Plant In Service. These corrections are reflected on Schedule 1.1-R, Exhibit GRH-2-R.

Lastly, I made necessary updates to the proposed rates to reflect these corrections made to the water operations revenue requirements and for the rate design recommendation regarding public fire rates from OCA witness Mierzwa that I will discuss later in my rebuttal testimony. As a result of updating the proposed rates, the Regulatory Commission Expense and Bad Debt Expense that utilize the revenues under present and proposed rates to calculate the FPFTY expense claims were adjusted upwards by $369 and $352, respectively.

Response to OCA and I&E Recommended Adjustments to Water Operations Revenue and Expense, Taxes Other Than Income, and Other Revenue Requirement Adjustments

Inflation Escalation

Q. Mr. Morgan recommends removing the inflationary factors used to calculate the projected FTY and FPFTY Operation and Maintenance (O&M) Expense Claims for eighteen different expense accounts. Do you agree?

A. No, I do not. Mr. Morgan lists the eighteen O&M expenses where I used inflation escalation factors based on the most recent Blue Chip forecasts available to me at the time to calculate the FTY and FPFTY claims for both water and wastewater on page 17 of his testimony, as follows.

- Group Health and Life Insurance
- Pension
- Post-Retirement Benefits Other Than Pensions
- 401K
- Materials and Supplies
- Lab Testing Fees
- Purchased Water
- Chemicals Expense
- Fuel for Power Production
- Outside Contractors
- Outside Professional Services
- Transportation
- Workers Compensation (Note: The Company did not use the inflationary factors shown on Schedule-31, Exhibit GRH-3-R. These projections were provided by the Company's vendor.)
- Office Expense
- Rental of Equipment
- Fringe Benefits Transferred
- Other O&M Expense
- Real Estate Taxes

He states using inflationary adjustments are not known and measurable, and in his opinion, not what was envisioned by Act 11. I disagree. In my opinion, the U.S. economy is experiencing high inflation in recent years on all goods and services including the goods and services water and wastewater utilities need to purchase to provide safe and reliable water and wastewater services to their customers. The current high inflationary period is known and measurable. In fact, the Federal Reserve has recently delayed anticipated rate cuts, and Exhibit GRH-1-R includes an article from the Associated Press that states "a key reason for the delay in rate cuts is that the inflation pressures that are bedeviling the economy are being driven largely by lingering forces from the pandemic…" In Exhibit GRH-1-R, I have also included updated Blue Chip forecasts for 2023 and 2024, which shows the FTY inflation factor could be increased from 2.38% to 2.7% and the

FPFTY inflation factor could be increased from 2.20% to 2.4%. The Company chose not to update these inflationary factors, but it proves the inflationary escalations used by the Company to project FTY and FPFTY expense claims is a conservative approach. Lastly, MFR I-01 Attachment shows that most of the expense accounts that Mr. Morgan rejects using inflationary escalations for the FTY and FPFTY claims were increasing greater than 2.38% or 2.20% from the year ended September 30, 2022 as compared to the HTY expenses, which further proves the inflation escalation factors used by the Company were conservative. Additionally, I&E witness Okum does not oppose using inflationary escalations for the FTY and FPFTY expense projections and utilized these inflation rates to calculate her recommendations and adjustments to O&M expense claims in the FTY and FPFTY. Therefore, I reject Mr. Morgan's recommended adjustments to remove inflation escalations from the expense claims in the list above.

Rate Case Expense

Q. In their direct testimonies, OCA witness Morgan normalizes Rate Case Expense over five years and I&E witness Okum normalizes the expense over 51 months while the Company normalizes rate case expense over three years. Do you maintain that rate case expense should be normalized over three years?

A. Yes, I do. OCA witness Morgan and I&E witness Okum make similar Rate Case Expense adjustments, which are based upon the time between the Company's prior rate case filings. Mr. Morgan uses the duration between the current rate case and the prior rate case, and Ms. Okum calculates the average duration between the Company's prior three rate cases. Mr. Morgan determines the Rate Case Expense should be reduced by $94,584 and Ms. Okum determines the expense to be reduced by $69,547.

The normalization of rate case expense over several years is appropriate as the expense for a rate case is only incurred during the period of the actual rate case but the benefits of increased rates last more than one year. A three-year normalization period is reasonable as it acknowledges that rate case expense should be spread over a period of years, but it also does not penalize the Company for delaying a subsequent rate case whether due to costs, requirements from the previous case, limited resources, or any other number of reasons that could cause the Company to file a rate case over a period longer than planned. Specifically, the Company was formerly known as SUEZ Water Pennsylvania Inc. and was acquired by Veolia in between the prior case and this rate case, which influenced the Company to stay out longer than anticipated due to the acquisition. Therefore, the Company maintains that the Rate Case Expense should be normalized over a three-year period, instead of the significantly longer normalization periods proposed by I&E and OCA.

General Comments

Q. In their direct testimony, opposing witnesses often adjust costs based on a three-year average of expense items rather than the two-year average recommended by the Company. Please respond.

A. Using a 3-year average of expenses in this inflationary era is not appropriate. For example, suppose the Company has a $1,000 expense item in year 1. After an increase in year 2 due to 2.2% inflation, this expense is $1,022.00. Finally, after an increase in year 3 due to 2.2% inflation, this expense is $1,044.48. If a three year average is used, the allowable expense is calculated to be $1,022.16, almost equal to Year 2 expense ($1,000+$1,022+1,044.48 divided by 3). Using a three year average, the Company will have difficulty in capturing this expense going forward. However, if a two year average is used, the result is $1,033.24 and the Company would be closer to capturing this true expense in the future ($1,022+$1,044.48 divided by 2). I would agree that in a non-inflationary environment a 3-year average may make more sense due to the natural fluctuations in costs. However, in an inflationary environment, a 2 year average is more indicative of the Company's true expense, though still a bit lower.

Payroll Expense

Q. Mr. Morgan and Ms. Okum adjust payroll expenses. Do you agree with these adjustments?

A. Yes and no. The Company acknowledged during discovery that hiring efforts in the FTY have posed a challenge. The Company supplied me with updated FTY and FPFTY labor expense projections for my rebuttal testimony to reflect the actual costs of the four new employees hired in the FTY and for five vacancies that the Company currently is experiencing as these projections are based on more up-to-date staffing information from the Company. Mr. Morgan adjusts the labor expense downward for a total adjustment of $821,808 for the vacant positions and four new positions that he states are not known and certain. Ms. Okum adjusts labor expense downward by $317,513 to remove the vacant positions based on a 4.28% vacancy rate that she calculates. As stated previously in my rebuttal testimony, the Company agrees to adjust the labor expense downward by $134,009 to reflect the updated labor projections provided by the Company. However, I disagree with removing the Company's vacant positions and any of the new hires projected in the FPFTY. The Company fully expects to fill these positions by the FPFTY and expects these employees will be working for the Company after the FPFTY and the Company will be paying their salaries and benefits. It would be unreasonable rate making policy to wait until the next rate case for the Company to fully recover these salaries, which would occur if the Commission decides to exclude these

labor costs. Therefore, the full amount of the updated labor cost projections should be included for the FPFTY.

Employee Group Health and Life Insurance Expense

Q. Ms. Okum adjusts the Employee Group Health and Life Insurance Expense because of her recommended adjustment to Payroll Expense for the vacant positions. Mr. Morgan adjusts this expense for the inflationary factors used to estimate the FTY and FPFTY expense claims. Do you agree with these adjustments?

A. Ms. Okum adjusts the expense downward by $557,388 for the combined water operations using the vacancy rate calculated for the payroll expense adjustment. I do not agree with the adjustment made by Ms. Okum for payroll expense and therefore, I do not agree with her recommended adjustment for Employee Group Health and Life Insurance Expense. However, the Company acknowledges the expense should be adjusted downward to reflect the four new employees added in the FTY instead of eleven employees and adjust downward the FPFTY expense claim for the remaining seven employees expected to be hired by the FPFTY. Therefore, I recommend the expense claim be adjusted downward by $94,067 for the combined water operations FPFTY claim.

Mr. Morgan removed the inflationary factors used to calculate the FTY and FPFTY Employee Group Health and Life Insurance expense claims. As I previously discussed my disagreement with Mr. Morgan's removal of inflationary

adjustments for various O&M expenses in the FTY and FPFTY, I therefore reject his recommendation to reduce this expense.

401k Matching and Other Benefits

Q. Ms. Okum adjusts the 401k Matching and Other Benefits Expense because of her recommended adjustment to Payroll Expense for the vacant positions. Do you agree with her recommendation?

A. Ms. Okum adjusts the 401k Matching and Other Benefits Expense downward by $19,039 by the I&E calculated vacancy rate. For the reasons I disagree with Ms. Okum's adjustments to Payroll Expense and Employee Group Health and Life Insurance Expense, I also disagree with her recommended adjustment to 401k Matching and Other Benefits Expense. However, the Company acknowledges the expense should be adjusted downward to reflect the updated FTY and FPFTY labor cost projections I support in my rebuttal testimony. Therefore, I recommend and adjusted the 401k Matching and Other Benefits Expense claim downward from the as-filed claim by $8,045 for the combined water operations in the FPFTY.

Chemical Expense

Q. Please discuss the recommended adjustment OCA witness Morgan makes to Chemicals Expense.

A. Mr. Morgan makes two adjustments to reduce the Chemicals Expense by $368,507. First, he has concerns about the reasonableness of the Company's

FTY chemicals claim as the schedules of chemical costs for the years 2021, 2022 and 2023 provided in the response to I&E-RE-16-D do not equal the amounts reflected on Exhibit GRH-3, Schedule 10. The data request response also included the projected cost of chemicals for the year 2024. Because of the mismatch of historical costs between the data request and the historical amounts shown in Exhibit GRH-3, Mr. Morgan rejects the FTY claim of $1,325,574. The second adjustment Mr. Morgan makes is for the FPFTY claim, as he rejects using an inflation escalation to project the level of costs in the FPFTY. Therefore, Mr. Morgan ultimately sets the FPFTY Chemicals Expense claim to equal the HTY costs.

Q. Do you agree with Mr. Morgan's adjustment to Chemicals Expense?

A. No, I do not. The amounts shown in the data request response to I&E-RE-16-D for the historical years 2021, 2022 and 2023 came from the Company's Supply Chain Management department. These schedules are used for budgeting which takes the estimated annual volumes multiplied by the average price of chemicals for each year. Additionally, the amounts shown on Schedule-10, Exhibit GRH-3 reflect the costs booked for the twelve months ended as of September 30th for each historical year and the amounts shown in response to data request I&E-RE-16-D are for the calendar year. The FTY Chemicals Expense claim of $1,354,474 is the best estimate for the Company to utilize for the FTY, as the Supply Chain Management department keeps track of the purchase orders for the Company and

negotiates the contract prices of chemicals. Currently, the Company stated it is about $87,000 over budget in chemical costs in 2024 for the months of January through April, and the costs are only expected to increase as water usage will increase in the summer months of 2024. Therefore, I reject Mr. Morgan's recommendation to reduce the FTY expense by $339,344.

Secondly, Mr. Morgan rejects using the escalation factor for the FPFTY expense claim, and adjusts the expense downward by $29,163. I have stated in the 'Inflationary Escalation' section my reasons why I disagree with his recommended adjustment. Additionally, the historic chemical costs from 2021 to 2022 increased by 67% and from 2022 to 2023 the costs increased by 8%. A 2.2% inflationary escalation for the FPFTY is very conservative and thus, I reject both of Mr. Morgan's adjustments to the Chemicals Expense in the FTY and FPFTY.

Purchased Power Expense

Q. OCA witness Morgan reverses the Company's adjustments made for the FTY and FPFTY Power Expense, which reduces the FPFTY expense by $743,710. Do you agree?

A. No, I do not. Mr. Morgan reverses the Company's adjustments because he states the Company should have more reasonable means of determining its power supply besides cost trending because of its relationship with its power supply provider and the delivery component of power costs is not likely to change annually as it is regulated, and rates are fixed until changed by the Commission.

I agree with Mr. Morgan that the distribution service of purchased power is regulated and the Company has more control of determining these costs annually, but I disagree with Mr. Morgan that the Company has some control of the costs associated with the power supply service component of purchased power. Schedule-8, Exhibit GRH-3 clearly shows that costs per kWh have been increasing each year from 2021 to 2022 and 2022 to 2023. Therefore, trending the costs per kWh for the FTY and FPFTY expense is reasonable. Additionally, Mr. Morgan does not agree with maintaining the annual kWh of the HTY to calculate the FTY and FPFTY costs. The Company expects that any fluctuation in annual kWh in the future would only increase from the HTY's kWh and not decrease. For these reasons, I reject Mr. Morgan's recommendation to reverse the adjustments made by the Company for its FTY and FPFTY Purchased Power Expense.

Transportation Expense

Q. Mr. Morgan reverses the inflation escalation for the FPFTY Transportation Expense. Do you agree?

A. No I do not. For the reasons I stated in the Inflation Escalation section of my rebuttal testimony, I reject Mr. Morgan's recommendation to reverse the inflationary escalation adjustment in the FPFTY.

Lab Testing Fees

Q. OCA witness Morgan and I&E witness Okum make an adjustment to the Company's Lab Testing Fees by using a three-year average of historical costs instead of a two-year average used by the Company to project the FTY and FPFTY costs. Do you agree?

A. No, I do not. The Company maintains the two-year average with the FTY inflation rate that results in a $207,763 FTY expense claim, and the FTY costs increased by the FPFTY inflation rate that calculates a $212,334 FPFTY expense claim for Lab Testing Fees is a more accurate projection of future costs than using a three-year average. The Company has already decreased the FPFTY claim by $34,969 from the HTY costs, which acknowledges the HTY were a bit of an outlier compared to the 2021 and 2022 amounts. For these reasons, I reject Mr. Morgan's and Ms. Okum's use of a three-year average for the FPFTY Lab Testing Fees.

Additionally, Mr. Morgan has rejected many other O&M FPFTY expenses and recommends reversing the projected adjustments back to the HTY amounts. It is unreasonable and inconsistent to reject a two-year average adjustment made by the Company for a three year average to further reduce the FPFTY Lab Testing Fees instead of simply reversing the adjustment back to the HTY amount of $247,303. Rather than being consistent, Mr. Morgan appears to be choosing his adjustment methods purely based on the dollar affect to the Company.

Outside Contractors Expense

Q. Mr. Morgan and Ms. Okum reduce the Outside Contractors Expense. Please discuss.

A. Mr. Morgan uses a two-year historical average of the Outside Contractors Expense, similar to the Company's approach, but reverses the Company's FPFTY inflationary escalation adjustment to reduce the expense by $75,688. For the reasons I state in the Inflationary Escalation section of my rebuttal testimony, I reject Mr. Morgan's recommended adjustment to Outside Contractors Expense.

Ms. Okum reduces the FPFTY expense by $93,986 due to the use of a three-year historical average calculation with the inflation rate. I disagree with her adjustment as the Company maintains a two-year average with inflation is more indicative of future costs for the Outside Contractors Expense.

Management and Services Fees

Q. I&E witness Okum reduces the FPFTY Management and Services Fees by $415,384 for the combined water operations. Do you agree?

A. No. I reject Ms. Okum's adjustment based on the reasoning outlined in Company witness Jacob's rebuttal testimony.

Customer Assistance Program Expense

Q. OCA witness Morgan and I&E witness Okum reduce the FPFTY Customer Assistance Program Expense by $203,917 and $300,000, respectively. Do you agree?

A. No. I reject Mr. Morgan's and Ms. Okum's adjustments to the Customer Assistance Program based on the reasoning outlined in Company witness Cagle's rebuttal testimony.

Other O&M Expense

Q. Ms. Okum reduces the Other O&M Expense by $4,584. Please discuss.

A. Ms. Okum reduces the FPFTY expense by $4,584 for the combined water operations due to the use of a three-year historical average calculation with the inflation rate instead of the Company using a two-year average increased by the inflation rate. I disagree with her adjustment as the Company maintains a two-year average with inflation is more indicative of future costs for the Other O&M Expense.

Acquisition Transaction Amortization

Q. Mr. Morgan recommended amortizing the transaction costs related to the Company's acquisitions over a period of ten years instead of a five year period. Do you agree?

A. No I do not. The Company maintains that a five-year amortization period is reasonable based on its reasoning provided in the response to data request OCA-7-42 which is included in Exhibit GRH-1-R.

Payroll Taxes

Q. Ms. Okum reduces Payroll Taxes by $39,300 by the I&E calculated vacancy rate utilized for her recommended adjustments related to labor expense. Do you agree with her adjustment?

A. Yes and no. I agree that Payroll Taxes should be adjusted for any adjustments made to Labor Expense. However, I maintain the corrections I made for the Company's Labor Expense outlined earlier in my rebuttal testimony are reasonable. As a result of the corrections made in Exhibit GRH-3-R, the as-filed Payroll Taxes were reduced by $19,539 which I support instead of Ms. Okum's recommended adjustment to reduce Payroll Taxes by $39,300.

Depreciation Expense

Q. Please discuss the adjustment made by OCA witness Morgan to Depreciation Expense.

A. Mr. Morgan reduces Depreciation Expense for the FPFTY by $2,144,164 based on OCA witness Garrett's recommended adjustment outlined in his direct testimony. My rebuttal exhibits reflect the position stated in Company witness

Watson's rebuttal testimony, which reflects no adjustments to the as-filed Depreciation Expense.

Additionally, Mr. Morgan's $2,144,164 adjustment to water Depreciation Expense includes $30,000 of wastewater Depreciation Expense adjustments. If the Commission were to accept OCA witness Garrett's Depreciation Expense adjustments for water and wastewater, I recommend the water Depreciation Expense adjustment be reduced by $30,000 and be applied to the wastewater operations revenue requirement.

Amortization of Acquisition Adjustments

Q. I&E witness Sakaya recommends removing the total $122,766 acquisition adjustment for Mahoning Township. What is the Company's position?

A. The Company reviewed and had informal discussions with OCA regarding the acquisition adjustment for Mahoning Township. The Company proposes to remove the $122,766 amortization amount, and in lieu of this adjustment, increased depreciation expense by $33,336 in the FTY and FPFTY. My rebuttal exhibit reflects these adjustments to the as-filed Amortization of Acquisition Adjustments claims and depreciation expense.

Rate Base and Cash Working Capital

Q. I&E witness Sakaya recommends reducing rate base by $1,104,893 for Mahoning Township water acquisition adjustment. What is the Company's position?

A. The Company rejects I&E witness Sakaya's adjustment to completely remove the acquisition adjustment from rate base based on the reasoning provided in Company witness Jacob's rebuttal testimony. However, after informal discussions with OCA, the Company has agreed to reclassify this amount to Original Cost Utility Plant in Service. My rebuttal exhibit reflects removing the acquisition adjustment line item on Schedule 1.1-R, Exhibit GRH-2-R and reclassifying the amounts into the Utility Plant In Service line item.

Q. OCA witness Morgan and I&E witness Okum make corresponding adjustments to cash working capital (CWC) for adjustments to O&M Expense. Do you agree?

A. Mr. Morgan makes a $59,362 adjustment to reduce the Company's CWC, and Ms. Okum makes a $74,117 adjustment to reduce the Company's CWC for his and her respective O&M Expense adjustments. I would agree that the O&M expenses included in the calculation of CWC should reflect any changes to those expenses ultimately allowed in this case. In as much as I disagree with most of Mr. Morgan's and Ms. Okum's O&M Expense adjustments, I disagree with each of the CWC adjustments.

Additionally, I made changes to the CWC claims that are reflected in Exhibit GRH-2-R, Schedule 1.1-R. These correspond with the Operating Revenue and O&M Expense corrections I made in my rebuttal testimony that I discussed earlier. The as-filed water CWC of $800,305 decreased by $3,910 for an updated total CWC of $796,395.

Other Operating Revenue

Q. I&E witness Sakaya recommends increasing the Other Operating Revenue by $81,922 (Main Division) and $9,1792 (Mahoning Water) to adjust the late payment fee revenues under proposed rates by the overall increase of 25.191%. Do you agree?

A. Yes and no. I agree that an adjustment should be made to the late payment fees, as the revenue will increase when a utility's base rates are increased. However, I&E witness Sakaya's adjustment increases the total $325,208 of Other Operating Revenue and only $180,038 is related to Main Division late payment fees and $1,985 is related to Mahoning Water late payment fees. Therefore, I increased the Other Operating Revenue by $46,225 to increase the Main Division late payment fees by 26%, and I increased the Mahoning Water late payment fees by $1,920 or 97% to reflect the level of late payment fees under proposed rates.

Response to OCA and I&E Recommended Adjustments to Water Rate Design

Response to OCA Water Rate Design

Q. OCA witness Mierzwa recommends the Public Fire service rates should be adjusted to fully recover 25% of the cost of service, limited to a maximum increase of 2.0 times the system average increase. Do you agree?

A. Yes, I do. In Exhibit GRH-2-R, the public fire rates are adjusted to fully recover 25% of the cost of service.

Q. Mr. Mierzwa recalculated and adjusted the calculated monthly customer charge presented in Exhibit CEH-1 from $19.80 to $17.96. Please respond.

A. For the reasons stated in the rebuttal testimony of Company witness Heppenstall, I reject Mr. Mierzwa's recommendation to adjust the calculated monthly customer charge from $19.80 to $17.96. My rate design for proposed rates maintains the $19.80 customer charge.

Q. Mr. Mierzwa recommends an adjustment to the Mahoning service area usage rates. Please discuss.

A. Mr. Mierzwa recommends adopting a residential usage charge of $7.00 per 1,000 gallons that is proportionately scaled back to reflect the revenue requirement authorized by the Commission at the end of this proceeding. The recommended

proposed usage charge would limit the increase to 2.0 times the system average increase.

I do not agree with the recommendation, as the Company maintains its goal is rate equalization in this case where it was achievable. Rate equalization aids in long-term rate stability, which results from a consolidated tariff, the similar operating characteristics of the tariff groups, the equivalence of services offered, and the cost of service on a district specific basis.

Q. Please explain how uniform rates will provide long-term rate stability for the several areas.

A. Utility customers are dependent on the total expenses and rate base of the utility and the amount of the commodity which the utility sells. Changes in rate base, particularly as the result of the Safe Drinking Water Act, have a significant potential for adversely impacting the rates for certain areas within a utility. The ability to absorb the cost of such projects over a larger customer base is a compelling argument in support of rate consolidation. Capital programs will never be uniform in the several operating areas, even over periods of five to ten years. The cost of specific programs should be shared by all customers rather than burdening those of the affected areas. Rate increases will be more stable and major increases in specific tariff groups will be avoided.

Q. In what manner do the operating characteristics of the several water divisions support uniform rates?

A. There are many similarities in the way the Company's several water divisions are operated. The Company pumps treated water through transmission lines to distribution areas that include mains, booster pump stations and storage facilities. The areas also provide water to individual customers through a service line and meter. The areas rely on a centralized work force for billing, accounting, project management and administrative matters and all the areas rely on a common source of funds for financing working capital and plant construction. In as much as the costs of operation are related to functions in which the operating characteristics are the same, the use of consolidated rates is supported.

Q. Why do the equivalence of services offered support rate consolidation?

A. The use of the same rates in a utility with noncontiguous service areas is supported by the equivalent service rendered in each area. Although there would be considerable debate with respect to the equivalency of the service rendered to different customer classifications, there is no question that the service rendered by a utility to a residence in one area is the same as the service rendered by that utility to a residence in another area. Residential customers are relatively consistent in their uses of water: cooking, bathing, cleaning and other sanitary purposes, and lawn sprinkling. If customers use water for the same purposes, the

service offering is the same and should be priced accordingly. Thus, from this perspective, there is no basis for charging different prices to customers in different areas.

Q. Do variances between allocated costs of the divisions warrant the use of separate rate schedules?

A. No, they do not. Charging one group of customers higher rates because they may be served by a newer plant whose original cost exceeds that of other plants (due to inflation) is not logical. The concepts previously discussed outweigh this consideration and justify the goal of moving toward a consolidated tariff. The electric industry reflects such concepts when an electric distribution company serves customers in geographically dispersed areas. A kilowatt-hour delivered in one area has the same price as a kilowatt-hour delivered in another area even though cost of service studies could be performed to identify differences in the cost of providing service to customer classes in different regions.

Q. Mr. Mierzwa recommends an adjustment to the Bethel service area rates. Please discuss.

A. Mr. Mierzwa recommends the Bethel monthly customer charges to be adjusted to reflect movement of 75% toward the customer charges adopted for the other water service areas to keep average Residential monthly bills under 2.0 times the system

average increase. I disagree with this proposal as the Company's goal is rate equalization, and it is unreasonable for the Company to wait for another rate case to try to equalize the customer charges, as the Main Division customer charges will be increased in the next rate case as well. The average residential bill is 2.4 times the system average increase, slightly over the 2.0 times the system average increase, which amounts to a difference of $2.60 per month for the customer charge, which is reasonable. Additionally, the Company recognizes Bethel's volumetric rates are much lower than the Main Division and applied gradual increases to the proposed volumetric rates, which places more control in the hands of the customers residing in the Bethel service area to conserve water and mitigate their monthly bills.

Q. OCA witness Mierzwa makes adjustments to the Kensington and Overbrook service area rates so that the increases are limited to 2.0 times the system average increase. Do you agree?

A. Yes and no. I agree with Mr. Mierzwa that the Kensington usage allowance should be eliminated as the Company proposes. However, I do not agree with his proposal to reduce the allowance if the authorized increase is greater than 2.0 times the system average increase, and I disagree that the current volumetric rate should be maintained. Maintaining allowances have been rejected in recent cases,

(see Final Order of Aqua PA, Docket No. R-2021-3027386, reference pg. 251 - Rate Zone 11 wastewater rate design), and therefore I reject his proposal.

For the Overbrook service area, Mr. Mierzwa agrees to the implementation of volumetric rates under proposed rates, but he reduces the Company's proposed volumetric rates to limit the increase to 2.0 times the average system increase.

The Company acquired these two systems and recognize significant capital improvements are underway to enhance the reliability of the systems and provide customers safe drinking water. Therefore, the Company maintains that these rates should be consolidated to the Main Division proposed rates to recover the costs that will be spent to improve these two systems. Lastly, rate equalization aids in long-term rate stability, which results from a consolidated tariff, the similar operating characteristics of the tariff groups, the equivalence of services offered, and the cost of service on a district specific basis.

Response to I&E Water Rate Design

Q. I&E Witness Sakaya reverses the revenue shift of $237,000 from the Main Division to Mahoning Division. Do you agree?

A. No, I do not. The Company desires to consolidate the Mahoning Division rates to the Main Division rates in this case for the multiple reasons I've stated above (see section – Response to OCA Water Rate Design) and the shift in revenue allows for the rate consolidation. Additionally, in the next rate case, the Mahoning costs of

services will be incorporated into the Main Division costs, as the Company is only required to submit a separate cost of service study for Mahoning Water in this case. Therefore, there is technically not a true subsidy, as the Company won't be required to track the costs of service separately for Mahoning in the next rate case and revenues of both water divisions (Main and Mahoning) contribute to recover the costs to serve water to all customers no matter their location in the system. As I previously discussed in detail, rate equalization aids in long-term rate stability, which results from a consolidated tariff, the similar operating characteristics of the tariff groups, the equivalence of services offered, and the cost of service on a district specific basis. However, based on the corrections and updates I made in rebuttal testimony to the water revenue requirement, the revenue shift decreases $95,550 from the $237,000 and results in a total revenue shift of $141,450.

Q. I&E witness Sakaya removes the $4,680 increase to Public Fire Service for the Mahoning Division. Do you agree?

A. No, I do not. I&E witness Sakaya claims the proposed rates recover over the 25% of costs to provide Public Fire Service, which he calculates to be $17,060. However, the $68,238 shown in column 2 of Schedule A, Exhibit CEH-2 is the 25% calculated costs, and the remaining 75% of costs are reallocated to the other customer classes. This reallocation of Public Fire costs are shown on Schedule B,

page 5 of 5, Exhibit CEH-2. Therefore, I maintain the proposed Public Fire rates are reasonable.

Q. I&E witness Sakaya makes various scale back and no-scale back recommendations if the Commission grants less than a full increase. Please respond.

A. I agree to scale back the rates if the Commission grants less than a full increase proportionately to the costs allocations provided in Exhibit CEH-1 and CEH-2 for the Residential, Commercial, Industrial and Public classes. I also agree that the Bethel usage rates, Large Industrial, Sales for Resale, and Private Fire rates should not be scaled back as Mr. Sakaya recommends. For Public Fire Rates, I will move proposed revenues up to the costs of service levels once the final increase is granted by the Commission, as suggested by OCA witness Mierzwa.

Response to OCA and I&E Recommended Adjustments to Wastewater Operations Revenue and Expense, and Other Revenue Requirement Adjustments

Inflation Escalation

Q. Mr. Morgan recommends removing the inflationary factors used to calculate the projected FTY and FPFTY O&M Expense for wastewater operations,

similar to his adjustments to the water operations O&M Expense. Do you agree?

A. No, I do not. Mr. Morgan reverses the inflationary escalation adjustments for the FTY and FPFTY wastewater Materials and Supplies, Lab Testing Fees, Outside Contractors, Outside Professional Services, Office Expense, Group Health and Life Insurance, Pension, PBOP, Chemicals, and Transportation O&M Expenses. For the same reasons stated in the water related Inflation Escalation section of my rebuttal testimony, I reject the similar adjustment he makes to the wastewater O&M Expenses for inflation escalation.

Lab Testing Fees

Q. I&E witness Okum makes an adjustment to the Company's Lab Testing Fees by using a three-year average of historical costs instead of a two-year average used by the Company to project the FTY and FPFTY costs. Do you agree?

A. No I do not. The Company maintains the two-year average with the FTY inflation rate that results in a $109,625 FTY expense claim, and the FTY costs increased by the FPFTY inflation rate that calculates a $112,037 FPFTY expense claim for Lab Testing Fees is a more accurate projection of future costs than using a three-year average. The Company has already decreased the FPFTY claim by $11,927 from the HTY costs, which acknowledges the HTY were a bit of an outlier

compared to the 2021 and 2022 amounts. For these reasons, I reject Mr. Morgan's and Ms. Okum's use of a three-year average for the FPFTY Lab Testing Fees.

Outside Contractors Expense

Q. Ms. Okum reduces the Outside Contractors Expense. Please discuss.

A. Ms. Okum reduces the FPFTY expense by $13,908 by using a three-year historical average calculation with the inflation rate. I disagree with her adjustment as the Company maintains a two-year average with inflation is more indicative of future costs for the Outside Contractors Expense.

Amortization of Acquisition Adjustments

Q. I&E witness Sakaya recommends removing the total $153,034 wastewater acquisition adjustment for Mahoning Township. What is the Company's position?

A. The Company reviewed and had informal discussions with OCA regarding the acquisition adjustment for Mahoning Township.. The Company has agreed to remove the $153,034 amortization amount, and in lieu of this adjustment, increased depreciation expense by $72,627 in the FTY and FPFTY. My rebuttal exhibit, Exhibit GRH-5-R reflects these adjustments to the as-filed Amortization of Acquisition Adjustments claims.

Rate Base and Cash Working Capital

Q. I&E witness Sakaya recommends reducing rate base by $1,377,307 for Mahoning Township wastewater acquisition adjustment. What is the Company's position?

A. The Company rejects I&E witness Sakaya's adjustment to completely remove the acquisition adjustment from rate base based on the reasoning provided in Company witness Jacob's rebuttal testimony. However, after informal discussions with OCA, the Company has agreed to reclassify this amount to Original Cost Utility Plant in Service. My rebuttal exhibit reflects removing the acquisition adjustment line item on Schedule 1.1-R, Exhibit GRH-4-R and reclassifying the amount into the Utility Plant in Service line item.

Q. OCA witness Morgan and I&E witness Okum make corresponding adjustments to cash working capital (CWC) for adjustments to O&M Expense. Do you agree?

A. Mr. Morgan makes a $471 adjustment to reduce the Company's CWC, and Ms. Okum makes a $185 adjustment to reduce the Company's CWC for his and her respective O&M Expense adjustments. I would agree that the O&M expenses included in the calculation of CWC should reflect any changes to those expenses ultimately allowed in this case. In as much as I disagree with most of Mr. Morgan's and Ms. Okum's O&M Expense adjustments, I disagree with each of the CWC adjustments.

The Company did not make any corrections to its as-filed wastewater revenue requirements, thus it was not necessary to make any adjustments to the as-filed wastewater CWC in my rebuttal testimony.

Response to OCA and I&E Recommended Adjustments to Wastewater Rate Design

Response to I&E Wastewater Rate Design

Q. I&E Witness Sakaya recommends the customer charges and usage rates should be proportionally scaled back if the Commission grants less than the full wastewater increase. Please respond.

A. I agree to scale back the customer charges and usage rates proportionally to the costs of service study as suggested by I&E witness Sakaya if the Commission grants less than the full wastewater increase. Additionally, I have scaled back the Mahoning Township rates to reflect the changes I discussed earlier to rate base, O&M Expense and depreciation expense for the Mahoning Township Amortization of Acquisition Adjustment.

Q. OCA witness Mierzwa generally agrees with the Company's wastewater rate design. However, he suggests the Company propose a rate design that adopts volumetric usages for the Mahoning Residential wastewater customers. Does the Company agree?

A. The Company does not agree to change the wastewater Residential flat rates to a volumetric rate and customer charge rate structure in the next rate case. Not all of the Company's Mahoning wastewater customers are VWPA water customers. Thus, metering these customers or obtaining surrounding townships' water usage for these customers to propose volumetric rates would become a labor intensive and cost burden for the Company, which would ultimately be passed on to the customers to be recovered through customers' rates.

Q. OSBA witness Townsend generally agrees with the Company's wastewater rate design. However, he suggests the Company propose a rate design that gives no increase for the Mahoning Non-residential wastewater customers. Does the Company agree?

A. No, it does not. The Company's proposed rate design gradually moves revenues towards cost of service under proposed rates for the residential and non-residential customers, and gradualism is a reasonable policy to follow for rate making purposes when analyzing Mahoning Township's cost allocations by customer class. The Company has to consider rate shock for the Mahoning residential customers, as the total system's overall increase was 28.9% and the proposed residential rate would have to increase from $77.00 per month to $84.30 per month if there was not increase to the non-residential rates. Therefore, the Company maintains it was reasonable to apply an increase to the residential class that was

2.19 times greater than the non-residential class, and the Company will continue to make further gradual adjustment towards cost of service by customer class in future rate proceedings.

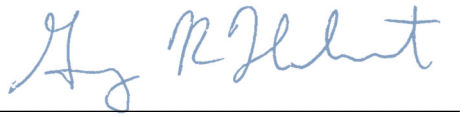
Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

VERIFICATION

I, Gregory R. Herbert, hereby state that the facts set forth above are true and correct to the best of my knowledge, information and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: June, 26 2024



BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

EXHIBITS TO ACCOMPANY REBUTTAL TESTIMONY

OF

GREGORY R. HERBERT, ASSISTANT PROJECT MANAGER

GANNETT FLEMING

VALUATION AND RATE CONSULTANTS, LLC

REGARDING INCOME STATEMENT, OPERATING REVENUE AND EXPENSE ADJUSTMENTS

VEOLIA WATER PENNSYLVANIA, INC.

June 2024

Exhibit No. GRH-1-R

VEOLIA WATER PENNSYLVANIA INC.

HARRISBURG, PENNSYLVANIA

REBUTTAL
SUPPORTING DATA
AND
INTERROGATORIES

GANNETT FLEMING

Excellence Delivered As Promised

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

VEOLIA WATER PENNSYLVANIA INC.

Docket Nos. R-2024-3045192 and R-2024-3045193

I&E-RE-11-D Reference VWPA Exhibit No. GRH-3, Schedule-4 and VWPA Exhibit No. GRH-5, Schedule-4, and VWPA Exhibit D III-15, concerning employee pension benefits:

A. Reconcile the data between these exhibits in Excel format for the HTY, FTY, and FPFTY, clearly indicating the capitalized portion versus the portion charged to O&M.

B. Provide historic pension expense by the four operating units for the years ended 9/30/2021 and 9/30/2022.

C. Provide the projected cash contributions to the pension plan for each year for the FTY and the FPFTY.

D. Provide a copy of the Company's pension funding policy.

Answer:

A. The $308,851 portion charged to O&M in Exhibit D III-15 is incorrect. Additionally, the amount on Exhibit GRH-3, Schedule-4 is incorrect and should reflect the gross pension amount in the FTY in I&E-RE-11-D Attachment 1. See the amounts marked in red boxes in Veolia Water Pennsylvania's Bargaining and Non-Bargaining expense from the 2023 actuary report in I&E-RE-11-D Attachment 1. The FTY and FPFTY amounts are reduced by 37.54% that is capitalized. See Exhibit No. GRH-3, Schedule-25. Please also see I&E-RE-11-D Attachment 2 for the as-filed and corrected capitalized portion and portion charged to O&M.

B. Please see the response to I&E-RE-4-D and I&E-RE-5-D.

C. The Company does not formally project pension cash contributions on a forward looking basis. The final contributions are determined after a review by the actuaries of the plan performance at year end and a final recommend contribution amount is provided. The recommendation takes into account many factors including asset performance, discount rates and funding status.

D. The Company's pension funding practice is to target to maintain an 80% funded status.

Answer provided by: Greg Herbert

Title: Assistant Project Manager, Rate Studies

Address: 207 Senate Ave. Camp Hill, PA 17011

Date: March 24, 2024

SUEZ Water Resources Inc. Retirement Plan

Exhibit I: Summary of 2023 ASC 715-30 Net Periodic Pension Cost/(Income)

Non-Bargaining Plans		**Service Cost**	**Interest Cost**	**Expected Return on Assets**	**Prior Service Cost Amortization**	**(Gain)/Loss Amortization**	**2023 Expense**
VW New Jersey Non-Bargaining Plans	Regulated	358,416	2,264,739	(2,283,820)	7	1,167,665	1,507,007
Toms River Non-Bargaining Plans	Regulated	139,411	361,206	(307,615)	0	196,648	389,650
VW New York Non-Bargaining Plans	Regulated	171,013	653,191	(675,511)	1	244,098	392,792
Jersey City Non-Bargaining Plans	Non-regulated	188,117	498,745	(455,440)	2	220,803	452,227
VW M&S Non-Bargaining Plans	Non-regulated	1,179,680	4,903,526	(4,611,891)	(981)	2,663,326	4,133,660
Veolia Utility Resources LLC Non-Bargaining Plans	Non-regulated	0	693,922	(876,711)	(709)	499,945	316,447
United Properties Group Non-Bargaining Plans	Non-regulated	0	4,597	(4,839)	0	0	(242)
Rahway Non-Bargaining Plans	Non-regulated	95,388	245,075	(213,818)	0	102,268	228,913
Florida Non-Bargaining Plans	Non-regulated	0	180,516	(178,860)	0	109,227	110,883
SWW Non Bargaining							
Idaho Non-Bargaining Plans	Regulated	134,911	723,233	(640,357)	(2)	578,292	796,077
New Rochelle Non-Bargaining Plans	Regulated	78,031	166,609	(293,803)	0	78,478	29,315
Owego Non-Bargaining Plans	Regulated	23,733	59,027	(49,573)	0	43,746	76,933
Pennsylvania Non-Bargaining Plans	Regulated	96,341	617,102	(629,304)	(2)	485,892	570,029
Rhode Island Non-Bargaining Plans	Regulated	3,400	133,332	(130,616)	0	188,048	194,164
Delaware Non-Bargaining Plans	Regulated	39,447	367,900	(375,934)	1	377,784	409,198
SUB-TOTAL SWW Non Bargaining		375,863	2,067,203	(2,119,587)	(3)	1,752,240	2,075,716
TOTAL Non Bargaining		**2,507,888**	**11,872,720**	**(11,728,092)**	**(1,683)**	**6,956,220**	**9,607,053**
Bargaining Plans							
VW New Jersey Bargaining Plans	Regulated	1,643,586	4,927,734	(4,743,398)	0	2,272,089	4,100,011
Toms River Bargaining Plans	Regulated	174,728	430,945	(378,956)	0	88,971	315,688
VW New York Bargaining Plans	Regulated	549,740	1,271,764	(1,087,437)	0	500,339	1,234,406
SWW Bargaining							
Idaho Bargaining Plans	Regulated	154,833	614,261	(609,310)	0	28,327	188,111
New Rochelle Bargaining Plans	Regulated	260,217	828,229	(757,544)	0	345,877	676,779
Pennsylvania Bargaining Plans	Regulated	221,984	731,221	(663,479)	0	189,333	479,059
Delaware Bargaining Plans	Regulated	102,021	410,592	(380,096)	0	64,590	197,107
Veolia Water Discontinued Operations Bargaining Plans	Non-regulated	0	4,095	(38,481)	0	12,076	(22,310)
SUB-TOTAL SWW Bargaining		739,055	2,588,398	(2,448,910)	0	640,203	1,518,746
TOTAL Bargaining		**3,107,109**	**9,218,841**	**(8,658,701)**	**0**	**3,501,602**	**7,168,851**
Total Regulated Companies		$ 4,151,812	$ 14,561,085	$ (14,006,753)	$ 5	$ 6,850,177	$ 11,556,326
Total Non-Regulated Companies		1,463,185	6,530,476	(6,380,040)	(1,688)	3,607,645	5,219,578
Grand Total ASC 715-30		**$ 5,614,997**	**$ 21,091,561**	**$ (20,386,793)**	**$ (1,683)**	**$ 10,457,822**	**$ 16,775,904**

Assumptions

Discount Rate:	5.71%
Long Term Rate:	6.25%
Salary Scale (Non-Bargained / Bargained):	3.75% / 4.00%

Veolia Water Pennsylvania
Docket No. R-2024-3045192 and R-2024-3045193

I&E-RE-11-D Attachment 2
Page 1 of 1

Line No.	Description	12-Months Ending 9/30/2023	*As Filed* FTY	*Corrected* FTY	*As Filed* FPFTY	*Corrected* FPFTY
1	VW Pennsylvania	$ 367,110	618,677	1,048,391	$ 632,288	$ 1,071,456
2	Bethel Water	-	-	-	-	-
3	Mahoning Township	244	411	697	420	712
4						
5	**Total Employee Pension Benefits**	$ 367,354	$ 619,088	$ 1,049,088	$ 632,708	$ 1,072,168
	Capitalized Portion	(128,423)	(232,406)	(393,828)	(237,519)	(402,492)
	Transferred In/Out %	-34.96%	-37.54%	-37.54%	-37.54%	-37.54%
	Poriton Charged to O&M	$ 238,931	$ 386,682	$ 655,260	$ 395,189	$ 669,676
	Inflation Rate:					
	Fully Projected Future Test Year	2.200%				

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

VEOLIA WATER PENNSYLVANIA INC.

Docket Nos. R-2024-3045192 and R-2024-3045193

I&E-RE-16-D Reference VWPA Exhibit No. GRH-3, Schedule-10 and VWPA Exhibit No. GRH-5, Schedule-7, concerning chemical expense:

A. Provide supporting documentation for the FTY estimated expense.

B. Provide chemical expense amounts by the four operating units for the years ended 9/30/2021 and 9/30/2022.

C. List each individual chemical used in operations that is accounted for as chemical expense. For each listed chemical, provide the annual volume and the cost per unit used in the years ended 9/30/2021, 9/30/2022, and 9/30/2023, as well as projected volume and cost for the FTY and FPFTY.

Answer:

A. Please see attached I&E-RE-16-D Attachment 1 for the VWPA – Water Operations FTY estimated expense details. The chemical costs for the VWPA – Wastewater operations are minimal, as the Company only uses Trichlor tablets at the Columbia County service area (See costs below). Therefore, the FTY expense was based on the historic three year average of annual chemicals costs and increased by the inflation rate of 2.375%.

Chemicals For Wastewater Operations: Trichlor Tablets
2021: $1,235 – 300 lbs. (For Year ended 12/31/2021)
2022: $1,160 – 140 lbs. (For Year ended 12/31/2022)
2023: $929 – 220 lbs.

B. Please see I&E-RE-16-D Attachment 1 for the chemicals expense amounts in the years ended 12/31/2021 and 12/31/2022, as the Company typically tracks this information on the calendar year. The Company does not track the chemical costs by the four operating units. The data in the attachment is for VWPA – Water Operations.

C. Please see response to part A and B. The Water Operations and Wastewater Operations FPFTY costs are calculated by taking the estimated FTY chemicals costs, increased by the FPFTY inflation rate of 2.20%.

Answer provided by: Greg Herbert

Title: Assistant Project Manager, Rate Studies

Address: 207 Senate Ave. Camp Hill, PA 17011

Date: March 19, 2024

Line Item Key	Line of Business	Region	State	Location	Supplier	Chemical Description	UOM	Packaging	Chemical Category 6	~ Annual Volume	AUGUST Version Est 2024 Avg Unit $	AUGUST Version 2024 Est Spend (Annualized)
1296	MWUD	Utility	PA	Bloomsburg CCIP & Nuremberg	MAIN POOL & CHEMICAL CO INC	9991 - Sodium Hypochlorite - 15% Cube	GAL	cubes (5 gallons)	Sodium Hypochlorite	500	$5.94	$2,967.70
1297	MWUD	Utility	PA	Bloomsburg New Membrane Plant	SHANNON CHEMICAL CORP	9991 - Zinc Phosphate Solution	GAL	275 GAL Tote	Phosphate	2,275	$18.40	$41,856.02
1298	MWUD	Utility	PA	Bloomsburg New Membrane Plant	UNIVAR USA INC	9991 - Bloom - Caustic Soda - 25%	GAL	Bulk	Caustic Soda	18,000	$1.73	$31,132.80
1299	MWUD	Utility	PA	Bloomsburg New Membrane Plant	UNIVAR USA INC	9991 - Bloom - Sodium Bisulfite - 38%	GAL	275 GAL Tote	Sodium Bisulfite	2,200	$3.73	$8,208.55
1300	MWUD	Utility	PA	Bloomsburg New Membrane Plant	UNIVAR USA INC	9991 - Bloom - Sodium Hypochlorite - 12.5%	GAL	Bulk	Sodium Hypochlorite	24,000	$2.67	$63,981.60
1301	MWUD	Utility	PA	Bloomsburg New Membrane Plant	GEORGE S COYNE CHEMICAL CO INC	9991 - Carbon - Wood Based - DARCO KBM	LB	772 lb sack	Activated Carbon	4,632	$3.76	$17,430.22
1302	MWUD	Utility	PA	Bloomsburg New Membrane Plant	UNIVAR USA INC	9991- Bloom - Sulfuric Acid	GAL	50 Gal Drum	Sulphuric acid	660	$7.41	$4,892.63
1303	MWUD	Utility	PA	Bloomsburg New Membrane Plant	Brenntag Northeast	9991 - BLOOM CITRIC ACID FOOD GRADE - 50%	GAL	275 GAL Tote	Citric acid	5,540	$13.01	$72,097.56
1342	MWUD	Utility	PA	Bloomsburg New Membrane Plant	USALCO LLC	9991 - PACL (POLYALUMINUM CHLORIDE) - 2020	LB	LTL	PACL (Polyaluminum chloride)	264,850	$0.21	$54,370.10
1304	MWUD	Utility	PA	Dallas	SHANNON CHEMICAL CORP	9991 - Sodium Phosphate (AquaMag)	GAL	gallons	Phosphate	1,000	$20.66	$20,660.25
1305	MWUD	Utility	PA	Dallas	Klenzoid	9991 - Zinc Orthophosphate - Dallas	LB	342 LB Drum	Phosphate	5,472	$1.41	$7,736.04
1306	MWUD	Utility	PA	Dallas	MAIN POOL & CHEMICAL CO INC	9991 - Caustic Soda - 25% (Cube)	GAL	cubes	Caustic Soda	2,000	$4.68	$9,362.40
1307	MWUD	Utility	PA	Dallas	MAIN POOL & CHEMICAL CO INC	9991 - Caustic Soda - 25% (Tote)	GAL	Tote	Caustic Soda	2,000	$2.99	$5,978.40
1308	MWUD	Utility	PA	Dallas	MAIN POOL & CHEMICAL CO INC	9991 - Dallas - Sodium Hypochlorite - 15%	GAL	cubes (5 gallons)	Sodium Hypochlorite	6,000	$5.03	$30,180.00
1309	MWUD	Utility	PA	Harrisburg-6th Street	SHANNON CHEMICAL CORP	9991 - Zinc Orthophosphate (corrosion inhibitor)	LB	Bulk	Phosphate	105,000	$1.28	$134,111.25
1310	MWUD	Utility	PA	Harrisburg-6th Street	UNIVAR USA INC	9991 - Harrisburg - Caustic Soda - 25%	LB	Bulk	Caustic Soda	60,000	$0.14	$8,460.00
1311	MWUD	Utility	PA	Harrisburg-6th Street	Nalco Co	9991 - Polymer - Optimer 7128	LB	1,671 lb. tote	Polymer	6,684	$2.41	$16,108.44
1312	MWUD	Utility	PA	Harrisburg-6th Street	EASTERN SALT	9991 - Salt	TON	Bulk	Salt	200	$146.97	$29,394.40
1343	MWUD	Utility	PA	Harrisburg-6th Street	USALCO LLC	9991 - HARRISBURG - ALUMINUM SULFATE	TON	FTL	Aluminum Sulfate	619	$213.59	$132,233.89
1313	MWUD	Utility	PA	Harrisburg-Rockville Intake	GEORGE S COYNE CHEMICAL CO INC	9991 - Harrisburg - Potassium Permanganate (FREE FLOWING)	LB	330 LB DRUM	Potassium Permanganate	17,200	$2.72	$46,703.64
1314	MWUD	Utility	PA	Harrisburg-Rockville Intake	GEORGE S COYNE CHEMICAL CO INC	9991 - Accu-Tab SICalcium Hypochlorite 3 inch tablets	LB	55 LB DRUM	Calcium hypochlorite	1,650	$3.48	$5,736.83
1315	MWUD	Utility	PA	Harrisburg-Rockville Intake	MAIN POOL & CHEMICAL CO INC	9991 - Sodium Bicarbonate (NSF 61 Approved on Bags)	LB	50 lb. bag	Sodium Bicarbonate	44,000	$0.45	$19,940.80
1316	MWUD	Utility	PA	Hummelstown	GEORGE S COYNE CHEMICAL CO INC	9991 - H-Town - Potassium Permanganate	LB	330 LB DRUM	Potassium Permanganate	4,000	$2.72	$10,861.31
1317	MWUD	Utility	PA	Hummelstown	UNIVAR USA INC	9991 - H-Town - Caustic Soda - 25%	LB	Bulk	Caustic Soda	214,000	$0.14	$30,174.00
1318	MWUD	Utility	PA	Hummelstown	JCI JONES CHEMICALS INC	9991 - H-Town - Sodium Hypochlorite - 12.5%	GAL	Bulk	Sodium Hypochlorite	52,565	$2.41	$126,912.94
1319	MWUD	Utility	PA	Hummelstown	SHANNON CHEMICAL CORP	9991 - Zinc Orthophosphate - H-Town	LB	Bulk	Phosphate	52,800	$1.28	$67,438.80
1320	MWUD	Utility	PA	Hummelstown	GEORGE S COYNE CHEMICAL CO INC	9991 - CITRIC ACID - FOOD GRADE 50%	GAL	275 GAL Tote	Citric acid	4,440	$13.74	$60,992.28
1321	MWUD	Utility	PA	Hummelstown	MAIN POOL & CHEMICAL CO INC	9991 - H-Town - Sodium Bisulfite - 38%	LB	220 gal. tote	Sodium Bisulfite	12,100	$0.32	$3,883.62
1322	MWUD	Utility	PA	Hummelstown	UNIVAR USA INC	9991 - Sulfuric Acid - 93%	GAL	Mini Bulk	Sulphuric acid	5,300	$3.10	$16,412.90
1344	MWUD	Utility	PA	Hummelstown	USALCO LLC	9991 - ALUMINUM CHLOROHYDRATE	LB	FTL	Aluminium chlorohydrate	132,560	$0.33	$43,722.53
1345	MWUD	Utility	PA	Mechanicsburg - New Cumberland	USALCO LLC	9991 - CUMBERLAND - ALUMINUM SULFATE	TON	LTL	Aluminum Sulfate	241	$229.28	$55,163.44
1323	MWUD	Utility	PA	Mechanicsburg - Market Street	GEORGE S COYNE CHEMICAL CO INC	9991 - Blended Polyphosphate CP 723L	LB	Bulk	Phosphate	12,460	$1.30	$16,209.74
1324	MWUD	Utility	PA	Mechanicsburg - Market Street, Grantham, Center Square	CHEM2O LLC	9991 - Market - Sodium Hypochlorite - 12.5%	GAL	Bulk	Sodium Hypochlorite	5,000	$2.97	$14,838.50
1325	MWUD	Utility	PA	Mechanicsburg - New Cumberland	UNIVAR USA INC	9991 - Cumberland - Sodium Hypochlorite 12.5%	GAL	Bulk	Sodium Hypochlorite	25,000	$2.26	$56,587.50
1326	MWUD	Utility	PA	Mechanicsburg - New Cumberland	SHANNON CHEMICAL CORP	9991 - Zinc Orthophosphate - Mechanicsburg	LB	Bulk	Phosphate	22,860	$1.28	$29,197.94
1327	MWUD	Utility	PA	Mechanicsburg - New Cumberland	UNIVAR USA INC	9991 - CUMBERLAND - POLYMER - Superfloc 1986N	LB	465 lb. drum	Polymer	3,720	$2.08	$7,737.60
1328	MWUD	Utility	PA	Mechanisburg - Market Street	Nalco Co	9991 - Market - Polymer - Nalco 8187	LB	600 lb. drum	Polymer	1,200	$1.84	$2,208.00
1329	MWUD	Utility	PA	Newberry - (6 Delivery locations)	CHEM2O LLC	9991 - Conley - Sodium Hypochlorite - 12.5%	GAL	Mini Bulk	Sodium Hypochlorite	2,200	$2.97	$6,528.94
1330	MWUD	Utility	PA	Newberry - (Susquehanna Village & Reesers Sites)	MAIN POOL & CHEMICAL CO INC	9991 - Conley - Caustic Soda - 25%	GAL	Mini Bulk	Caustic Soda	4,000	$3.29	$13,160.00
									Total	**1,128,928**		**1,325,574**

2021 was the last year that all pricing was for the entire year. Quarterly & bi-annual pricing started in 2022

Line Item Key	Line of Business	Region	State	Location	Supplier	2023 Supplier	Chemical Description	UOM	Packaging	Chemical Category 6	^ Annual Volume	Unit $ - Q1	Unit $ - Q2	Unit $ - Q3	Unit $ - Q4	Avg Unit $	Estimated Spend 2023
1296	MWUD	Utility	PA	Bloomsburg CCIP & Nuremberg	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - Sodium Hypochlorite - 15% Cube	GAL	cubes (5 gallons)	Sodium Hypochlorite	500	$5.50	$5.90	$5.90	$5.90	$5.80	$2,950.00
1297	MWUD	Utility	PA	Bloomsburg New Membrane Plant	SHANNON CHEMICAL CORP	SHANNON CHEMICAL CORP	9991 - Zinc Phosphate Solution	GAL	275 GAL Tote	Phosphate	2,275	$18.87	$18.87	$18.87	$18.87	$18.87	$42,929.25
1298	MWUD	Utility	PA	Bloomsburg New Membrane Plant	UNIVAR USA INC	UNIVAR USA INC	9991 - Bloom - Caustic Soda - 25%	GAL	Bulk	Caustic Soda	18,000	$1.89	$1.84	$1.74	$1.74	$1.80	$31,320.00
1299	MWUD	Utility	PA	Bloomsburg New Membrane Plant	UNIVAR USA INC	UNIVAR USA INC	9991 - Bloom - Sodium Bisulfite - 38%	GAL	275 GAL Tote	Sodium Bisulfite	2,200	$3.72	$3.72	$3.72	$3.72	$3.72	$8,184.00
1300	MWUD	Utility	PA	Bloomsburg New Membrane Plant	UNIVAR USA INC	UNIVAR USA INC	9991 - Bloom - Sodium Hypochlorite - 12.5%	GAL	Bulk	Sodium Hypochlorite	24,000	$2.65	$2.65	$2.65	$2.65	$2.65	$63,600.00
1301	MWUD	Utility	PA	Bloomsburg New Membrane Plant	GEORGE S COYNE CHEMICAL CO INC	GEORGE S COYNE CHEMICAL CO INC	9991 - Carbon - Wood Based - DARCO KBM	LB	772 lb sack	Activated Carbon	4,612	$3.55	$3.55	$3.55	$3.55	$3.55	$16,443.60
1302	MWUD	Utility	PA	Bloomsburg New Membrane Plant	UNIVAR USA INC	UNIVAR USA INC	9991- Bloom - Sulfuric Acid	GAL	50 Gal Drum	Sulphuric acid	660	$7.73	$7.73	$7.73	$7.73	$7.73	$5,101.80
1303	MWUD	Utility	PA	Bloomsburg New Membrane Plant	Brenntag Northeast	Brenntag Northeast	9991 - BLOOM CITRIC ACID FOOD GRADE - 50%	GAL	275 GAL Tote	Citric acid	5,540	$13.50	$13.50	$13.50	$12.90	$13.35	$74,790.00
1342	MWUD	Utility	PA	Bloomsburg New Membrane Plant	USALCO LLC	USALCO LLC	9991 - PACL (POLYALUMINUM CHLORIDE) - 2020	LB	LTL	PACL (Polyaluminum chloride)	264,850	$0.17	$0.17	$0.18	$0.18	$0.18	$48,944.28
1304	MWUD	Utility	PA	Dallas	SHANNON CHEMICAL CORP	SHANNON CHEMICAL CORP	9991 - Sodium Phosphate (AquaMag)	GAL	gallons	Phosphate	1,000	$21.19	$21.19	$21.19	$21.19	$21.19	$21,190.00
1305	MWUD	Utility	PA	Dallas	Kenzoid	Kenzoid	9991 - Zinc Orthophosphate - Dallas	LB	342 LB Drum	Phosphate	5,472	$1.45	$1.45	$1.45	$1.45	$1.45	$7,934.40
1306	MWUD	Utility	PA	Dallas	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - Caustic Soda - 25% (Cube)	GAL	cubes	Caustic Soda	2,000	$4.98	$4.98	$4.98	$4.98	$4.98	$9,960.00
1307	MWUD	Utility	PA	Dallas	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - Caustic Soda - 25% (Tote)	GAL	Tote	Caustic Soda	2,000	$3.18	$3.18	$3.18	$3.18	$3.18	$6,360.00
1308	MWUD	Utility	PA	Dallas	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - Dallas - Sodium Hypochlorite - 15%	GAL	cubes (5 gallons)	Sodium Hypochlorite	6,000	$4.60	$5.00	$5.00	$5.00	$4.90	$30,000.00
1309	MWUD	Utility	PA	Harrisburg-6th Street	SHANNON CHEMICAL CORP	SHANNON CHEMICAL CORP	9991 - Zinc Orthophosphate (corrosion inhibitor)	LB	Bulk	Phosphate	105,000	$1.31	$1.31	$1.31	$1.31	$1.31	$137,550.00
1310	MWUD	Utility	PA	Harrisburg-6th Street	UNIVAR USA INC	UNIVAR USA INC	9991 - Harrisburg - Caustic Soda - 25%	LB	Bulk	Caustic Soda	60,000	$0.16	$0.15	$0.14	$0.14	$0.15	$8,400.00
1311	MWUD	Utility	PA	Harrisburg-6th Street	Nalco Co	Nalco Co	9991 - Polymer - Optimer 7128	LB	1,671 lb. tote	Polymer	6,684	$2.41	$2.41	$2.41	$2.41	$2.41	$16,108.44
1312	MWUD	Utility	PA	Harrisburg-6th Street	EASTERN SALT	EASTERN SALT	9991 - Salt	TON	Bulk	Salt	200	$144.80	$144.80	$144.80	$144.80	$144.80	$28,960.00
1343	MWUD	Utility	PA	Harrisburg-6th Street	USALCO LLC	USALCO LLC	9991 - HARRISBURG - ALUMINUM SULFATE	TON	FTL	Aluminum Sulfate	619	$194.17	$194.17	$209.71	$209.71	$201.94	$129,829.67
1313	MWUD	Utility	PA	Harrisburg-Rockville Intake	GEORGE S COYNE CHEMICAL CO INC	GEORGE S COYNE CHEMICAL CO INC	9991 - Harrisburg - Potassium Permanganate (FREE FLOWING)	LB	330 LB DRUM	Potassium Permanganate	17,200	$2.68	$2.68	$2.68	$2.68	$2.68	$46,013.44
1314	MWUD	Utility	PA	Harrisburg-Rockville Intake	GEORGE S COYNE CHEMICAL CO INC	GEORGE S COYNE CHEMICAL CO INC	9991 - Accu-Tab SICalcium Hypochlorite 3 inch tablets	LB	55 LB DRUM	Calcium hypochlorite	1,650	$3.38	$3.38	$3.38	$3.38	$3.38	$5,569.74
1315	MWUD	Utility	PA	Harrisburg-Rockville Intake	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - Sodium Bicarbonate (NSF 61 Approved on Bags)	LB	50 lb. bag	Sodium Bicarbonate	44,000	$0.42	$0.44	$0.44	$0.44	$0.44	$19,360.00
1316	MWUD	Utility	PA	Hummelstown	GEORGE S COYNE CHEMICAL CO INC	GEORGE S COYNE CHEMICAL CO INC	9991 - H-Town - Potassium Permanganate	LB	330 LB DRUM	Potassium Permanganate	4,000	$2.68	$2.68	$2.68	$2.68	$2.68	$10,700.80
1317	MWUD	Utility	PA	Hummelstown	UNIVAR USA INC	UNIVAR USA INC	9991 - H-Town - Caustic Soda - 25%	LB	Bulk	Caustic Soda	214,000	$0.16	$0.15	$0.14	$0.14	$0.15	$29,960.00
1318	MWUD	Utility	PA	Hummelstown	JCI JONES CHEMICALS INC	JCI JONES CHEMICALS INC	9991 - H-Town - Sodium Hypochlorite - 12.5%	GAL	Bulk	Sodium Hypochlorite	52,565	$2.40	$2.40	$2.43	$2.43	$2.42	$127,964.24
1319	MWUD	Utility	PA	Hummelstown	SHANNON CHEMICAL CORP	SHANNON CHEMICAL CORP	9991 - Zinc Orthophosphate - H-Town	LB	Bulk	Phosphate	52,800	$1.31	$1.31	$1.31	$1.31	$1.31	$69,168.00
1320	MWUD	Utility	PA	Hummelstown	GEORGE S COYNE CHEMICAL CO INC	GEORGE S COYNE CHEMICAL CO INC	9991 - CITRIC ACID - FOOD GRADE 50%	GAL	275 GAL Tote	Citric acid	4,440	$14.25	$14.25	$14.25	$14.25	$14.25	$63,270.00
1321	MWUD	Utility	PA	Hummelstown	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - H-Town - Sodium Bisulfite - 38%	LB	220 gal. tote	Sodium Bisulfite	12,100	$0.28	$0.32	$0.32	$0.32	$0.31	$3,872.00
1322	MWUD	Utility	PA	Hummelstown	UNIVAR USA INC	UNIVAR USA INC	9991 - Sulfuric Acid - 93%	GAL	Mini Bulk	Sulphuric acid	5,300	$3.23	$3.23	$3.23	$3.23	$3.23	$17,119.00
1344	MWUD	Utility	PA	Hummelstown	USALCO LLC	USALCO LLC	9991 - ALUMINUM CHLOROHYDRATE	LB	FTL	Aluminium chlorohydrate	132,560	$0.27	$0.27	$0.30	$0.30	$0.29	$39,357.06
1345	MWUD	Utility	PA	Mechanicsburg - New Cumberland	USALCO LLC	USALCO LLC	9991 - CUMBERLAND - ALUMINUM SULFATE	TON	LTL	Aluminum Sulfate	241	$208.44	$208.44	$225.11	$225.11	$216.78	$54,159.31
1323	MWUD	Utility	PA	Mechanicsburg - Market Street	GEORGE S COYNE CHEMICAL CO INC	GEORGE S COYNE CHEMICAL CO INC	9991 - Blended Polyphosphate CP 723L	LB	Bulk	Phosphate	12,460	$1.33	$1.33	$1.33	$1.33	$1.33	$16,571.80
1324	MWUD	Utility	PA	Mechanicsburg - Market Street, Grantham, Center Square	CHEMH2O LLC	CHEMH2O LLC	9991 - Market - Sodium Hypochlorite - 12.5%	GAL	Bulk	Sodium Hypochlorite	5,000	$2.95	$2.95	$0.00	$0.00	$1.48	$0.00
1325	MWUD	Utility	PA	Mechanicsburg - New Cumberland	UNIVAR USA INC	UNIVAR USA INC	9991 - Cumberland - Sodium Hypochlorite 12.5%	GAL	Bulk	Sodium Hypochlorite	25,000	$2.25	$2.25	$2.16	$2.05	$2.18	$54,000.00
1326	MWUD	Utility	PA	Mechanicsburg - New Cumberland	SHANNON CHEMICAL CORP	SHANNON CHEMICAL CORP	9991 - Zinc Orthophosphate - Mechanicsburg	LB	Bulk	Phosphate	22,860	$1.31	$1.31	$1.31	$1.31	$1.31	$29,946.60
1327	MWUD	Utility	PA	Mechanicsburg - New Cumberland	UNIVAR USA INC	UNIVAR USA INC	9991 - CUMBERLAND - POLYMER - Superfloc 1986N	LB	465 lb. drum	Polymer	3,720	$2.08	$2.08	$2.08	$2.08	$2.08	$7,737.60
1328	MWUD	Utility	PA	Mechanisburg - Market Street	Nalco Co	Nalco Co	9991 - Market - Polymer - Nalco 8187	LB	600 lb. drum	Polymer	1,200	$1.84	$1.84	$1.84	$1.84	$1.84	$2,208.00
1329	MWUD	Utility	PA	Newberry - (6 Delivery locations)	CHEMH2O LLC	CHEMH2O LLC	9991 - Conley - Sodium Hypochlorite - 12.5%	GAL	Mini Bulk	Sodium Hypochlorite	2,200	$2.95	$2.95	$0.00	$0.00	$1.48	$0.00
1330	MWUD	Utility	PA	Newberry - (Susquehanna Village & Reesers Sites)	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - Conley - Caustic Soda - 25%	GAL	Mini Bulk	Caustic Soda	4,000	$3.50	$3.50	$3.50	$3.50	$3.50	$14,000.00
																	$1,301,533

2021 was the last year that all pricing was for the entire year. Quarterly & bi-annual pricing started in 2022

Line Item Key	Line of Business	Region	State	Location	Supplier	2022 Supplier	Chemical Description	UOM	Packaging	Chemical Category 6	~ Annual Volume	Unit $ - Q1	Unit $ - Q2	Unit $ - Q3	Unit $ - Q4	Avg Unit $	Estimated Spend 2022
1296	MWUD	Utility	PA	Bloomsburg CCIP & Nuremberg	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - Sodium Hypochlorite - 15% Cube	GAL	cubes (5 gallons)	Sodium Hypochlorite	500	$4.95	$4.95	$4.95	$4.95	$4.95	$2,475.00
1297	MWUD	Utility	PA	Bloomsburg New Membrane Plant	SHANNON CHEMICAL CORP	SHANNON CHEMICAL CORP	9991 - Zinc Phosphate Solution	GAL	275 GAL Tote	Phosphate	2,275	$13.47	$13.47	$13.47	$13.47	$13.47	$30,644.25
1298	MWUD	Utility	PA	Bloomsburg New Membrane Plant	UNIVAR USA INC	UNIVAR USA INC	9991 - Bloom - Caustic Soda - 25%	GAL	Bulk	Caustic Soda	18,000	$1.40	$1.40	$1.69	$1.69	$1.54	$30,375.00
1299	MWUD	Utility	PA	Bloomsburg New Membrane Plant	UNIVAR USA INC	UNIVAR USA INC	9991 - Bloom - Sodium Bisulfite - 38%	GAL	275 GAL Tote	Sodium Bisulfite	2,200	$2.88	$2.88	$3.00	$3.00	$2.94	$6,600.00
1300	MWUD	Utility	PA	Bloomsburg New Membrane Plant	UNIVAR USA INC	JCI JONES CHEMICALS INC	9991 - Bloom - Sodium Hypochlorite - 12.5%	GAL	Bulk	Sodium Hypochlorite	24,000	$1.90	$1.90	$2.22	$2.22	$2.06	$53,280.00
1301	MWUD	Utility	PA	Bloomsburg New Membrane Plant	GEORGE S COYNE CHEMICAL CO INC	GEORGE S COYNE CHEMICAL CO INC	9991 - Carbon - Wood Based - DARCO KBM	LB	772 lb sack	Activated Carbon	4,632	$3.39	$3.39	$3.39	$3.39	$3.39	$15,702.48
1302	MWUD	Utility	PA	Bloomsburg New Membrane Plant	UNIVAR USA INC	UNIVAR USA INC	9991 - Bloom - Sulfuric Acid	GAL	50 Gal Drum	Sulphuric acid	660	$7.21	$7.21	$8.87	$8.87	$8.04	$5,856.84
1303	MWUD	Utility	PA	Bloomsburg New Membrane Plant	Brenntag Northeast	GEORGE S COYNE CHEMICAL CO INC	9991 - BLOOM CITRIC ACID FOOD GRADE - 50%	GAL	275 GAL Tote	Citric acid	5,540	$10.54	$10.54	$10.54	$10.54	$10.54	$58,391.60
1342	MWUD	Utility	PA	Bloomsburg New Membrane Plant	USALCO LLC	USALCO LLC	9991 - PACL (POLYALUMINUM CHLORIDE) - 2020	LB	LTL	PACL (Polyaluminum chloride)	264,850	$0.15	$0.14	$0.16	$0.16	$0.15	$41,952.24
1304	MWUD	Utility	PA	Dallas	SHANNON CHEMICAL CORP	SHANNON CHEMICAL CORP	9991 - Sodium Phosphate (AquaMag)	GAL	gallons	Phosphate	1,000	$12.77	$12.77	$12.77	$12.77	$12.77	$12,770.00
1305	MWUD	Utility	PA	Dallas	Klenzoid	KLENZOID	9991 - Zinc Orthophosphate - Dallas	LB	342 LB Drum	Phosphate	5,472	$0.67	$0.67	$0.67	$0.67	$0.67	$3,666.24
1306	MWUD	Utility	PA	Dallas	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - Caustic Soda - 25% (Cube)	GAL	cubes	Caustic Soda	2,000	$3.80	$3.80	$3.80	$3.80	$3.80	$7,600.00
1307	MWUD	Utility	PA	Dallas	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - Caustic Soda - 25% (Tote)	GAL	Tote	Caustic Soda	2,000	$2.30	$2.30	$2.30	$2.30	$2.30	$4,600.00
1308	MWUD	Utility	PA	Dallas	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - Dallas - Sodium Hypochlorite - 15%	GAL	cubes (5 gallons)	Sodium Hypochlorite	6,000	$3.75	$3.75	$3.75	$3.75	$3.75	$22,500.00
1309	MWUD	Utility	PA	Harrisburg-6th Street	SHANNON CHEMICAL CORP	SHANNON CHEMICAL CORP	9991 - Zinc Orthophosphate (corrosion inhibitor)	LB	Bulk	Phosphate	105,000	$0.74	$0.74	$0.74	$0.74	$0.74	$77,700.00
1310	MWUD	Utility	PA	Harrisburg-6th Street	UNIVAR USA INC	UNIVAR USA INC	9991 - Harrisburg - Caustic Soda - 25%	LB	Bulk	Caustic Soda	60,000	$0.11	$0.11	$0.15	$0.15	$0.13	$9,090.00
1311	MWUD	Utility	PA	Harrisburg-6th Street	Nalco Co	Nalco Co	9991 - Polymer - Optimer 7128	LB	1,671 lb. tote	Polymer	6,684	$2.12	$2.12	$2.29	$2.29	$2.21	$15,306.36
1312	MWUD	Utility	PA	Harrisburg-6th Street	EASTERN SALT	MORTON SALT	9991 - Salt	TON	Bulk	Salt	200	$96.00	$96.00	$96.00	$96.00	$96.00	$19,200.00
1343	MWUD	Utility	PA	Harrisburg-6th Street	USALCO LLC	USALCO LLC	9991 - HARRISBURG - ALUMINUM SULFATE	TON	FTL	Aluminum Sulfate	619	$168.03	$160.39	$179.79	$179.79	$172.00	$111,307.99
1313	MWUD	Utility	PA	Harrisburg-Rockville Intake	GEORGE S COYNE CHEMICAL CO INC	GEORGE S COYNE CHEMICAL CO INC	9991 - Harrisburg - Potassium Permanganate (FREE FLOWING)	LB	330 LB DRUM	Potassium Permanganate	17,200	$2.01	$2.01	$2.01	$2.01	$2.01	$34,628.76
1314	MWUD	Utility	PA	Harrisburg-Rockville Intake	GEORGE S COYNE CHEMICAL CO INC	GEORGE S COYNE CHEMICAL CO INC	9991 - Accu-Tab SICalcium Hypochlorite 3 inch tablets	LB	55 LB DRUM	Calcium hypochlorite	1,650	$2.88	$2.88	$2.88	$2.88	$2.88	$4,755.63
1315	MWUD	Utility	PA	Harrisburg-Rockville Intake	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - Sodium Bicarbonate (NSF 61 Approved on Bags)	LB	50 lb. bag	Sodium Bicarbonate	44,000	$0.34	$0.34	$0.34	$0.34	$0.34	$14,960.00
1316	MWUD	Utility	PA	Hummelstown	GEORGE S COYNE CHEMICAL CO INC	GEORGE S COYNE CHEMICAL CO INC	9991 - H-Town - Potassium Permanganate	LB	330 LB DRUM	Potassium Permanganate	4,000	$2.03	$2.03	$2.03	$2.03	$2.03	$8,129.60
1317	MWUD	Utility	PA	Hummelstown	UNIVAR USA INC	UNIVAR USA INC	9991 - H-Town - Caustic Soda - 25%	LB	Bulk	Caustic Soda	214,000	$0.10	$0.10	$0.14	$0.14	$0.12	$30,045.60
1318	MWUD	Utility	PA	Hummelstown	JCI JONES CHEMICALS INC	JCI JONES CHEMICALS INC	9991 - H-Town - Sodium Hypochlorite - 12.5%	GAL	Bulk	Sodium Hypochlorite	52,565	$1.75	$1.75	$2.07	$2.07	$1.91	$108,809.55
1319	MWUD	Utility	PA	Hummelstown	SHANNON CHEMICAL CORP	SHANNON CHEMICAL CORP	9991 - Zinc Orthophosphate - H-Town	LB	Bulk	Phosphate	52,800	$0.79	$0.79	$0.79	$0.79	$0.79	$41,712.00
1320	MWUD	Utility	PA	Hummelstown	GEORGE S COYNE CHEMICAL CO INC	GEORGE S COYNE CHEMICAL CO INC	9991 - CITRIC ACID - FOOD GRADE 50%	GAL	275 GAL Tote	Citric acid	4,440	$11.21	$11.21	$11.21	$11.21	$11.21	$49,790.16
1321	MWUD	Utility	PA	Hummelstown	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - H-Town - Sodium Bisulfite - 38%	LB	220 gal. tote	Sodium Bisulfite	12,100	$0.23	$0.23	$0.23	$0.23	$0.23	$2,783.00
1322	MWUD	Utility	PA	Hummelstown	UNIVAR USA INC	UNIVAR USA INC	9991 - Sulfuric Acid - 93%	GAL	Mini Bulk	Sulphuric acid	5,300	$2.68	$2.68	$3.00	$3.00	$2.84	$15,900.00
1344	MWUD	Utility	PA	Hummelstown	USALCO LLC	USALCO LLC	9991 - ALUMINUM CHLOROHYDRATE	LB	FTL	Aluminium chlorohydrate	132,560	$0.24	$0.23	$0.25	$0.25	$0.24	$33,736.52
1345	MWUD	Utility	PA	Mechanicsburg - New Cumberland	USALCO LLC	USALCO LLC	9991 - CUMBERLAND - ALUMINUM SULFATE	TON	LTL	Aluminum Sulfate	241	$180.37	$172.17	$193.00	$193.00	$184.64	$46,433.87
1323	MWUD	Utility	PA	Mechanicsburg - Market Street	GEORGE S COYNE CHEMICAL CO INC	SHANNON CHEMICAL CORP	9991 - Blended Polyphosphate CP 723L	LB	Bulk	Phosphate	12,460	$1.07	$1.07	$1.25	$1.25	$1.16	$15,515.19
1324	MWUD	Utility	PA	Mechanicsburg - Market Street, Grantham, Center Square	OHM2O LLC	OHM2O LLC	9991 - Market - Sodium Hypochlorite - 12.5%	GAL	Bulk	Sodium Hypochlorite	5,000	$1.75	$1.75	$1.75	$2.95	$2.05	$8,750.00
1325	MWUD	Utility	PA	Mechanicsburg - New Cumberland	UNIVAR USA INC	JCI JONES CHEMICALS INC	9991 - Cumberland - Sodium Hypochlorite 12.5%	GAL	Bulk	Sodium Hypochlorite	25,000	$1.65	$1.65	$1.97	$1.97	$1.81	$49,250.00
1326	MWUD	Utility	PA	Mechanicsburg - New Cumberland	SHANNON CHEMICAL CORP	SHANNON CHEMICAL CORP	9991 - Zinc Orthophosphate - Mechanicsburg	LB	Bulk	Phosphate	22,860	$0.81	$0.81	$0.81	$0.81	$0.81	$18,516.60
1327	MWUD	Utility	PA	Mechanicsburg - New Cumberland	UNIVAR USA INC	UNIVAR USA INC	9991 - CUMBERLAND - POLYMER - Superfloc 1986N	LB	465 lb. drum	Polymer	3,720	$2.03	$2.03	$2.03	$2.03	$2.03	$7,551.60
1328	MWUD	Utility	PA	Mechanisburg - Market Street	Nalco Co	Nalco Co	9991 - Market - Polymer - Nalco 8187	LB	600 lb. drum	Polymer	1,200	$0.96	$0.96	$0.96	$0.96	$0.96	$1,152.00
1329	MWUD	Utility	PA	Newberry - (6 Delivery locations)	OHM2O LLC	OHM2O LLC	9991 - Conley - Sodium Hypochlorite - 12.5%	GAL	Mini Bulk	Sodium Hypochlorite	2,200	$1.75	$1.75	$1.75	$2.95	$2.05	$3,850.00
1330	MWUD	Utility	PA	Newberry - (Susquehanna Village & Reesers Sites)	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - Conley - Caustic Soda - 25%	GAL	Mini Bulk	Caustic Soda	4,000	$2.44	$2.44	$2.44	$2.44	$2.44	$9,760.00
																	$1,035,048

2021 was the last year that all pricing was for the entire year. Quarterly & bi-annual pricing started in 2022

Line Item Key	Line of Business	Region	State	Location	Supplier	2021 Supplier	Chemical Description	UOM	Packaging	Chemical Category 6	~ Annual Volume	Unit $ - Q1	Unit $ - Q2	Unit $ - Q3	Unit $ - Q4	Avg Unit $	Estimated Spend 2021
1296	MWUD	Utility	PA	Bloomsburg CCIP & Nuremberg	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - Sodium Hypochlorite - 15% Cube	GAL	cubes (5 gallons)	Sodium Hypochlorite	500	$3.50	$3.50	$3.50	$3.50	$3.50	$1,750.00
1297	MWUD	Utility	PA	Bloomsburg New Membrane Plant	SHANNON CHEMICAL CORP	SHANNON CHEMICAL CORP	9991 - Zinc Phosphate Solution	GAL	275 GAL Tote	Phosphate	2,275	$8.77	$8.77	$8.77	$8.77	$8.77	$19,951.75
1298	MWUD	Utility	PA	Bloomsburg New Membrane Plant	UNIVAR USA INC	JCI JONES CHEMICALS INC	9991 - Bloom - Caustic Soda - 25%	GAL	Bulk	Caustic Soda	18,000	$1.10	$1.10	$1.10	$1.10	$1.10	$19,800.00
1299	MWUD	Utility	PA	Bloomsburg New Membrane Plant	UNIVAR USA INC	GEORGE S COYNE CHEMICAL CO INC	9991 - Bloom - Sodium Bisulfite - 38%	GAL	275 GAL Tote	Sodium Bisulfite	2,200	$3.15	$3.15	$3.15	$3.15	$3.15	$6,930.00
1300	MWUD	Utility	PA	Bloomsburg New Membrane Plant	UNIVAR USA INC	PVS MINERALS	9991 - Bloom - Sodium Hypochlorite - 12.5%	GAL	Bulk	Sodium Hypochlorite	24,000	$1.03	$1.03	$1.03	$1.03	$1.03	$24,720.00
1301	MWUD	Utility	PA	Bloomsburg New Membrane Plant	GEORGE S COYNE CHEMICAL CO INC	GEORGE S COYNE CHEMICAL CO INC	9991 - Carbon - Wood Based - DARCO KBM	LB	772 lb sack	Activated Carbon	4,632	$2.51	$2.51	$2.51	$2.51	$2.51	$11,626.32
1302	MWUD	Utility	PA	Bloomsburg New Membrane Plant	UNIVAR USA INC	UNIVAR USA INC	9991- Bloom - Sulfuric Acid	GAL	50 Gal Drum	Sulphuric acid	660	$4.99	$4.99	$4.99	$4.99	$4.99	$3,293.40
1303	MWUD	Utility	PA	Bloomsburg New Membrane Plant	Brenntag Northeast	GEORGE S COYNE CHEMICAL CO INC	9991 - BLOOM CITRIC ACID FOOD GRADE - 50%	GAL	275 GAL Tote	Citric acid	5,540	$5.06	$5.06	$5.06	$5.06	$5.06	$28,032.40
1342	MWUD	Utility	PA	Bloomsburg New Membrane Plant	USALCO LLC	USALCO LLC	9991 - PACL (POLYALUMINUM CHLORIDE) - 2020	LB	LTL	PACL (Polyaluminum chloride)	264,850	$0.13	$0.13	$0.13	$0.13	$0.13	$34,112.68
1304	MWUD	Utility	PA	Dallas	SHANNON CHEMICAL CORP	SHANNON CHEMICAL CORP	9991 - Sodium Phosphate (AquaMag)	GAL	gallons	Phosphate	1,000	$6.77	$6.77	$6.77	$6.77	$6.77	$6,770.00
1305	MWUD	Utility	PA	Dallas	Kleinosid	KLEINZOID	9991 - Zinc Orthophosphate - Dallas	LB	342 LB Drum	Phosphate	5,472	$0.67	$0.67	$0.67	$0.67	$0.67	$3,666.24
1306	MWUD	Utility	PA	Dallas	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - Caustic Soda - 25% (Cube)	GAL	cubes	Caustic Soda	2,000	$3.20	$3.20	$3.20	$3.20	$3.20	$6,400.00
1307	MWUD	Utility	PA	Dallas	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - Caustic Soda - 25% (Tote)	GAL	Tote	Caustic Soda	2,000	$1.80	$1.80	$1.80	$1.80	$1.80	$3,600.00
1308	MWUD	Utility	PA	Dallas	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - Dallas - Sodium Hypochlorite - 15%	GAL	cubes (5 gallons)	Sodium Hypochlorite	6,000	$3.20	$3.20	$3.20	$3.20	$3.20	$19,200.00
1309	MWUD	Utility	PA	Harrisburg-6th Street	SHANNON CHEMICAL CORP	SHANNON CHEMICAL CORP	9991 - Zinc Orthophosphate (corrosion inhibitor)	LB	Bulk	Phosphate	105,000	$0.41	$0.41	$0.41	$0.41	$0.41	$43,050.00
1310	MWUD	Utility	PA	Harrisburg-6th Street	UNIVAR USA INC	UNIVAR USA INC	9991 - Harrisburg - Caustic Soda - 25%	LB	Bulk	Caustic Soda	60,000	$0.08	$0.08	$0.08	$0.08	$0.08	$4,572.00
1311	MWUD	Utility	PA	Harrisburg-6th Street	Nalco Co	Nalco Water Pretreatment Solutions LLC	9991 - Polymer - Optimer 7128	LB	1,671 lb. tote	Polymer	6,684	$1.49	$1.49	$1.49	$1.49	$1.49	$9,959.16
1312	MWUD	Utility	PA	Harrisburg-6th Street	EASTERN SALT	EASTERN SALT	9991 - Salt	TON	Bulk	Salt	200	$96.00	$96.00	$96.00	$96.00	$96.00	$19,200.00
1343	MWUD	Utility	PA	Harrisburg-6th Street	USALCO LLC	USALCO LLC	9991 - HARRISBURG - ALUMINUM SULFATE	TON	FTL	Aluminum Sulfate	619	$153.21	$153.21	$153.21	$153.21	$153.21	$94,852.31
1313	MWUD	Utility	PA	Harrisburg-Rockville Intake	GEORGE S COYNE CHEMICAL CO INC	SHANNON CHEMICAL CORP	9991 - Harrisburg - Potassium Permanganate (FREE FLOWING)	LB	330 LB DRUM	Potassium Permanganate	17,200	$1.55	$1.55	$1.55	$1.55	$1.55	$26,660.00
1314	MWUD	Utility	PA	Harrisburg-Rockville Intake	GEORGE S COYNE CHEMICAL CO INC	GEORGE S COYNE CHEMICAL CO INC	9991 - Accu-Tab 5ICalcium Hypochlorite 3 inch tablets	LB	55 LB DRUM	Calcium hypochlorite	1,650	$2.74	$2.74	$2.74	$2.74	$2.74	$4,521.00
1315	MWUD	Utility	PA	Harrisburg-Rockville Intake	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - Sodium Bicarbonate (NSF 61 Approved on Bags)	LB	50 lb. bag	Sodium Bicarbonate	44,000	$0.28	$0.28	$0.28	$0.28	$0.28	$12,320.00
1316	MWUD	Utility	PA	Hummelstown	GEORGE S COYNE CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - H-Town - Potassium Permanganate	LB	330 LB DRUM	Potassium Permanganate	4,000	$1.60	$1.60	$1.60	$1.60	$1.60	$6,400.00
1317	MWUD	Utility	PA	Hummelstown	UNIVAR USA INC	UNIVAR USA INC	9991 - H-Town - Caustic Soda - 25%	LB	Bulk	Caustic Soda	214,000	$0.07	$0.07	$0.07	$0.07	$0.07	$14,980.00
1318	MWUD	Utility	PA	Hummelstown	JCI JONES CHEMICALS INC	JCI JONES CHEMICALS INC	9991 - H-Town - Sodium Hypochlorite - 12.5%	GAL	Bulk	Sodium Hypochlorite	52,565	$0.98	$0.98	$0.98	$0.98	$0.98	$51,513.70
1319	MWUD	Utility	PA	Hummelstown	SHANNON CHEMICAL CORP	SHANNON CHEMICAL CORP	9991 - Zinc Orthophosphate - H-Town	LB	Bulk	Phosphate	52,800	$0.43	$0.43	$0.43	$0.43	$0.43	$22,704.00
1320	MWUD	Utility	PA	Hummelstown	GEORGE S COYNE CHEMICAL CO INC	GEORGE S COYNE CHEMICAL CO INC	9991 - CITRIC ACID - FOOD GRADE 50%	GAL	275 GAL Tote	Citric acid	4,440	$5.06	$5.06	$5.06	$5.06	$5.06	$22,466.40
1321	MWUD	Utility	PA	Hummelstown	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - H-Town - Sodium Bisulfite - 38%	LB	220 gal. tote	Sodium Bisulfite	12,100	$0.19	$0.19	$0.19	$0.19	$0.19	$2,299.00
1322	MWUD	Utility	PA	Hummelstown	UNIVAR USA INC	UNIVAR USA INC	9991 - Sulfuric Acid - 93%	GAL	Mini Bulk	Sulphuric acid	5,300	$2.75	$2.75	$2.75	$2.75	$2.75	$14,575.00
1344	MWUD	Utility	PA	Hummelstown	USALCO LLC	USALCO LLC	9991 - ALUMINUM CHLOROHYDRATE	LB	FTL	Aluminium chlorohydrate	132,560	$0.21	$0.21	$0.21	$0.21	$0.21	$27,294.10
1345	MWUD	Utility	PA	Mechanicsburg - New Cumberland	USALCO LLC	USALCO LLC	9991 - CUMBERLAND - ALUMINUM SULFATE	TON	LTL	Aluminum Sulfate	241	$165.37	$165.37	$165.37	$165.37	$165.37	$39,786.37
1323	MWUD	Utility	PA	Mechanicsburg - Market Street	GEORGE S COYNE CHEMICAL CO INC	GEORGE S COYNE CHEMICAL CO INC	9991 - Blended Polyphosphate CP 723L	LB	Bulk	Phosphate	12,460	$0.64	$0.64	$0.64	$0.64	$0.64	$7,974.40
1324	MWUD	Utility	PA	Mechanicsburg - Market Street, Grantham, Center Square	CHEMX20 LLC	CHEMX20 LLC	9991 - Market - Sodium Hypochlorite - 12.5%	GAL	Bulk	Sodium Hypochlorite	5,000	$1.39	$1.39	$1.39	$1.39	$1.39	$6,950.00
1325	MWUD	Utility	PA	Mechanicsburg - New Cumberland	UNIVAR USA INC	UNIVAR USA INC	9991 - Cumberland - Sodium Hypochlorite 12.5%	GAL	Bulk	Sodium Hypochlorite	25,000	$0.95	$0.95	$0.95	$0.95	$0.95	$23,750.00
1326	MWUD	Utility	PA	Mechanicsburg - New Cumberland	SHANNON CHEMICAL CORP	SHANNON CHEMICAL CORP	9991 - Zinc Orthophosphate - Mechanicsburg	LB	Bulk	Phosphate	22,860	$0.45	$0.45	$0.45	$0.45	$0.45	$10,287.00
1327	MWUD	Utility	PA	Mechanicsburg - New Cumberland	UNIVAR USA INC	UNIVAR USA INC	9991 - CUMBERLAND - POLYMER - Superfloc 1986N	LB	465 lb. drum	Polymer	3,720	$1.76	$1.76	$1.76	$1.76	$1.76	$6,556.50
1328	MWUD	Utility	PA	Mechanisburg - Market Street	Nalco Co	Nalco Water Pretreatment Solutions LLC	9991 - Market - Polymer - Nalco 8187	LB	600 lb. drum	Polymer	1,200	$0.81	$0.81	$0.81	$0.81	$0.81	$972.00
1329	MWUD	Utility	PA	Newberry - (6 Delivery locations)	CHEMX20 LLC	CHEMX20 LLC	9991 - Conley - Sodium Hypochlorite - 12.5%	GAL	Mini Bulk	Sodium Hypochlorite	2,200	$1.39	$1.39	$1.39	$1.39	$1.39	$3,058.00
1330	MWUD	Utility	PA	Newberry - (Susquehanna Village & Reesers Sites)	MAIN POOL & CHEMICAL CO INC	MAIN POOL & CHEMICAL CO INC	9991 - Conley - Caustic Soda - 25%	GAL	Mini Bulk	Caustic Soda	4,000	$1.85	$1.85	$1.85	$1.85	$1.85	$7,400.00
																	$673,954

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

VEOLIA WATER PENNSYLVANIA INC.

Docket Nos. R-2024-3045192 and R-2024-3045193

I&E-RE-29-D Reference VWPA Exhibit No. GRH-3, Schedule-26 and VWPA Exhibit No. GRH-5, Schedule-17, concerning office expense and utilities;

A. Provide a detailed breakdown of office expense and utilities by the four operating units and further broken down by category for the years ended 9/30/2021, 9/30/2022, 9/30/2023, as well as the FTY and FPFTY.

B. Explain why a three-year average is appropriate for office expense and utilities in the FTY.

Answer:

A. Please see I&E-RE-29-D Attachment which shows the breakdown of office expense and utilities by each year. The Company did not track the O&M expenses by the four operating units for the historic years ending 09/30/2021 and 09/30/2022 and tracks them by the VWPA Water Operations, Bethel Water, and VWPA Wastewater Operations . However, the breakdown by the four operating units is provided for the HTY. The FTY and FPFTY claims are based on the 3-year average of the total of these costs with inflation.
B. The 2021 expense amount shown on Schedule-26, line no. 11 had a linkage error to the Company's historic data and the expense should reflect $725,540. A three-year average was used as the expenses varied from year to year over the past three years. However, with the correction to the 2021 expense, the costs have been increasing over the past three years. It would be more accurate to base the FTY adjustment on a two-year average (09/30/2022 and 09/30/2023) or on the HTY with inflation than the corrected three-year average. The corrected adjustment will be made in rebuttal testimony and is included in I&E-RE-29-D Attachment.

Answer provided by: Greg Herbert

Title: Assistant Project Manager, Rate Studies

Address: 207 Senate Ave. Camp Hill, PA 17011

Date: March 21, 2024

Veolia Water Pennsylvania **I&E-RE-29 Attachment**
Docket Nos. R-2024-3045192 and R-2024-3045193

HTY - 09/30/2023

	Account Description	Columbia Wastewater*	Mahoning Wastewater	VWPA Water**	Mahoning Water	Bethel Water	Total Operations
50650600	Office Exp-SOS Ops Sup & Eng	$ -	$ -	$ 15,962.15	$ 242.49	$ -	$ 16,204.64
50650601	Office Exp-SOS Ops Lbr & Exp	-	-	119,787.18	1,819.78	10,065.00	131,671.96
50650632	Office Exp-Pump Maint Pwr Prd	-	-	297.86	4.53	-	302.39
50650633	Office Exp-Pump Maint Eq	-	-	890.25	13.52	-	903.77
50650640	Office Exp-Wtr Tmt Ops Sup&Eng	-	-	10,589.13	160.87	-	10,750.00
50650642	Office Exp-Wtr Tmt Ops Lbr&Exp	-	-	1,748.44	26.56	-	1,775.00
50650643	Office Exp-Wtr Tmt Ops Misc	-	-	20,122.79	305.70	-	20,428.49
50650662	Office Exp-T&D Ops Line Ex	-	-	-	-	-	-
50650665	Office Exp-T&D Ops Misc Ex	-	-	1,210.31	18.39	-	1,228.70
50650673	Office Exp-T&D Maint - Main	-	-	145.00	2.20	-	147.20
50650675	Office Exp-T&D Maint-Services	-	-	62.63	0.95	-	63.58
50650678	Office Exp-T&D Maint-Misc Plnt	-	-	-	-	-	-
50650744	Office Exp-T & D WW Ops	30.44	1,051.77	-	-	-	1,082.21
50650901	Office Exp-Cust Acct Suprvsn	-	-	684.60	10.40	-	695.00
50650905	Office Exp-Cust Acct Misc Exp	-	-	7,091.07	107.73	-	7,198.80
50650921	Office Exp-A&G Ops Off Suppl	-	-	244,919.77	3,720.77	3,801.96	252,442.50
50650923	Office Exp-A&G Accntng & Audtn	-	-	67,601.49	1,026.99	-	68,628.48
50650930	Office Exp-A&G Ops Misc Gen	-	-	308,471.74	4,686.24	371.21	313,529.19
92050651	Amort Dfrd-Wtr Tmt Maint Strct	-	-	7,548.00	-	-	7,548.00
92500930	Claims&Sttlmnt-A&G Ops Misc	-	-	11,785.48	179.04	-	11,964.52
	675.6-Offce Exp and Utilities	**$ 30.44**	**$ 1,051.77**	**$ 818,917.88**	**$ 12,326.17**	**$ 14,238.17**	**$ 846,564.43**

Twelve Months Ended - 09/30/2022

	Account Description	VWPA Wastewater*	VWPA Water**	Bethel Water	Total Operations
50650600	Office Exp-SOS Ops Sup & Eng	$ -	$ 4,555.47	$ -	$ 4,555.47
50650601	Office Exp-SOS Ops Lbr & Exp	-	121,705	10,100	131,805
50650632	Office Exp-Pump Maint Pwr Prd	-	-	-	-
50650633	Office Exp-Pump Maint Eq	-	-	-	-
50650640	Office Exp-Wtr Tmt Ops Sup&Eng	-	10,750	-	10,750
50650642	Office Exp-Wtr Tmt Ops Lbr&Exp	-	1,775	-	1,775
50650643	Office Exp-Wtr Tmt Ops Misc	-	35,134	-	35,134
50650662	Office Exp-T&D Ops Line Ex	-	36	462	498
50650665	Office Exp-T&D Ops Misc Ex	-	31,575	-	31,575
50650673	Office Exp-T&D Maint - Main	-	-	-	-
50650675	Office Exp-T&D Maint-Services	-	-	-	-
50650678	Office Exp-T&D Maint-Misc Plnt	-	16	-	16
50650744	Office Exp-T & D WW Ops	1,141	-	-	1,141
50650901	Office Exp-Cust Acct Suprvsn	-	-	-	-
50650905	Office Exp-Cust Acct Misc Exp	-	5,375	-	5,375
50650921	Office Exp-A&G Ops Off Suppl	-	240,905	3,559	244,464
50650923	Office Exp-A&G Accntng & Audtn	-	51,561	-	51,561
50650930	Office Exp-A&G Ops Misc Gen	-	278,445	308	278,753
92050651	Amort Dfrd-Wtr Tmt Maint Strct	-	30,192	-	30,192
92500930	Claims&Sttlmnt-A&G Ops Misc	-	1,765	-	1,765
	675.6-Offce Exp and Utilities	**$ 1,140.58**	**$ 813,789.82**	**$ 14,429.00**	**$ 829,359.40**

*Includes Columbia County WW and Mahoning Township
**Includes, VWPA, Overbrook, Kensington, and Mahoning Township

Twelve Months Ended - 09/30/2021

	Account Description	VWPA Wastewater*	VWPA Water**	Bethel Water	Total Operations
50650633	Office Exp-SOS Ops Sup & Eng	-	8,895.27	-	8,895.27
50650601	Office Exp-SOS Ops Lbr & Exp	-	129,296.00	10,000.00	139,296.00
50650633	Office Exp-SOS Ops Prchsd Wtr	-	-	-	-
	Office Exp-SOS Maint Strctrs	-	53.85	-	53.85
	Office Exp-Pump Ops PwrPrd Lbr	-	-	-	-
	Office Exp-Pump Ops Misc Exp	-	-	-	-
92500930	Office Exp-Wtr Tmt Ops Sup&Eng	-	6,050.00	-	6,050.00
92500930	Office Exp-Wtr Tmt Ops Lbr&Exp	-	2,138.72	-	2,138.72
92500930	Office Exp-Wtr Tmt Ops Misc	-	28,839.21	-	28,839.21
92500930	Office Exp-T&D Ops Line Ex	-	-	-	-
92500930	Office Exp-T&D Ops Misc Ex	-	28,310.66	-	28,310.66
50650673	Office Exp-T&D Maint - Main	-	724.56	-	724.56
92500930	Office Exp-T&D Maint- Hydrants	-	143.10	-	143.10
50650633	Office Exp-T & D WW Ops	796.31	-	-	796.31
	Office Exp-Cust Acct Suprvsn	-	150.00	-	150.00
	Office Exp-Cust Acct Rcrds&Col	-	-	-	-
	Office Exp-Cust Acct Misc Exp	-	4,757.98	-	4,757.98
	Office Exp-A&G Ops Salaries	-	1,835.96	-	1,835.96
	Office Exp-A&G Ops Off Suppl	-	179,788.14	3,633.00	183,421.14
	Office Exp-A&G Accntng & Audtn	-	43,222.06	-	43,222.06
	Office Exp-A&G Ops Misc Gen	-	237,430.29	462.00	237,892.29
	Amort Dfrd-Wtr Tmt Maint Strct	-	30,192.00	-	30,192.00
	Claims&Sttlmnt-A&G Ops Misc	-	8,820.37	-	8,820.37
	675.6-Offce Exp and Utilities	**$796.31**	**$710,648.17**	**$14,095.00**	**$725,539.48**

*Includes Columbia County WW and Mahoning Township
**Includes, VWPA, Overbrook, Kensington, and Mahoning Township

Veolia Water Pennsylvania
Docket No. R-2024-3045192
Office Expense and Utilities
Various Accounts

Exhibit No. GRH-3
Schedule-26
Adjustment No. 25
Page 1 of 1

Line No.	Description	12 Months Ended 12/31/2017	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 818,918	$ 838,367 **(a)**	$ 856,811 **(b)**
3	Bethel Water	14,238	14,576 **(a)**	14,897 **(b)**
2	Mahoning Township	12,326	12,619 **(a)**	12,897 **(b)**
4				
5	**Total Office Expense and Utilities**	$ 845,482	$ 865,562	$ 884,605
6				
7	Adjustment		$ 20,080	$ 19,042

	Year	Office Expense and Utilities
11	2021	$ 724,743
12	2022	828,219
13	2023	845,482
14		
15	3 Year Average	$ 799,481

17	**Inflation Rate:**	
18	Future Test Year	2.375%
19	Fully Projected Future Test Year	2.200%

Reference Notes:
(a) Based upon historic test year with Future Test Year inflation rate
(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate

Pa. P.U.C. v. Veolia Water Pennsylvania, Inc.
Docket Nos. R-2024-3045192
(Water) R-2024-3045193
(Wastewater)
Interrogatories of the Office of Consumer Advocate
Set 7 to Veolia

Wastewater Operations

OCA-7-42 Refer to Exhibit No. GRH-3, Schedule-30, Adjustment No. 29.

a. Please provide a breakdown of the components of the Kensington, Mahoning, and Overbrook Acquisition Transaction Costs.

b. Please provide the basis of the 5-year amortization period..

Answer:

a. Please see the OCA-7-42 Attachment for the details on the Acquisition Transaction Costs.
b. The Company views the 5-year amortization period is reasonable, as it acknowledges the expense should be spread over a period of years to mitigate the burden of recovering these costs from revenues of customers' rates.

Answer provided by: Gregory Herbert
Title: Assistant Project Manager, Rate Studies
Address: 207 Senate Ave. Camp Hill, PA 17011
Date: March 19, 2024

Breakdown by Project & Period

Project No	Project Description	Amount	Kensington	Mahoning	Overbrook	Scott Water	Total
(None)	(None)	(9,500,000.00)		(9,500,000.00)			(9,500,000.00)
ACQ_KNSGTN	ACQ_KNSGTN	293,239.74	293,239.74				293,239.74
ACQ_MAHON	Acquisition Mahoning Township	10,043,227.33		10,043,227.33			10,043,227.33
ACQ_OVRBK02	Overbrook Water Co Purchase	341,380.50			341,380.50		341,380.50
ACQ_SCOTT02	Scott Water Co Purchase	(350.00)				(350.00)	(350.00)
	Total	1,177,497.57	293,239.74	543,227.33	341,380.50	(350.00)	1,177,497.57
	Acquistion Adjustment Amount Recognized in Order to include in rate base as part of UPAA		265,000.00		325,000.00		
	Transaction Costs		28,239.74	543,227.33	16,380.50		587,847.57
	Propose to amortize over 5 years						5.00
	Annual Amortization						$ 117,569.51

OCA-16-2 In the Commission's Order in Docket No. A-2019-3014990 and A-2019-3014991, starting at page 6, the Commission states: "It is stated in the Joint Application that the assets being transferred are fully depreciated and Overbrook's Balance Sheet, included as the Joint Application's Exhibit J, indicates that as of December 31, 2018, the book value of Overbrook's property and equipment equaled the value of accumulated depreciation. However, as noted in Section III of this Order, Overbrook's treatment and storage building was rebuilt sometime around 2010 and it appears that SWPA will acquire certain non-depreciable Overbrook assets (i.e., land and land rights)."

a. Please identify the amount included in rate base for Overbrook's treatment and storage building. In your response please show:

   i. The original cost of the treatment and storage building;

   ii. The amount recorded on VWPA's books for treatment and storage building after completion of the acquisition:

   iii. The related Accumulated Depreciation; and

   iv. The related Accumulated Deferred Income Taxes.

b. Please show the amount included in rate base for Overbrook's land and land rights.

   i. Provide the original cost for land and land rights.

   ii. Provide the amount recorded on VWPA's books for land and land rights after the acquisition.

Answer:

a. (i-iv) As noted above in the Commission's Order Docket No. A-2019-3014990 and A-2019-3014991, Overbrook's Balance Sheet as of December 31, 2018 indicated the book value of Overbrook's property and equipment equaled the value of accumulated depreciation. In addition, Section III of the Order noted that Overbrook did not have records supporting a detailed breakdown, by major plant account of utility plant in service. Thus, the Company included the treatment and storage building as fully depreciated with a zero rate base value.

b. The Company inadvertently omitted to include the amount related to land and land rights in Rate Base for a total amount of $50,700. The Company will make an update for this amount in its rebuttal.

i. As noted in Section III of the Order, Overbrook does not have records supporting a detailed breakdown, by major plant account of utility plant in service. Thus, the Company relied on the County Assessed values for the two parcels of land acquired in lieu of the original cost of land and land rights. Parcel No. 10-E8S3-007-010-000 has an assessed value of $8,700 and Parcel No. 10-E8S3-006-017-000 has an assessed value of $ 42,000 totaling $50,700. Please see the attachment for the real estate tax bills from Dallas Township.

ii. VWPA has recorded an amount of $50,700 for land and land rights after the acquisition.

Answer provided by: James Cagle

Title: Vice President Rates and Regulatory Affairs

Address: 461 From Road, Paramus, NJ 07652

Date: 05-07-2024

Veolia Water Pennsylvania, Inc.
Docket No. R-2024 3045192/3045193

OCA-16-2 Attachment
1 of 2

2022 COUNTY & MUNICIPAL REAL ESTATE TAX BILL
Dallas Township – Luzerne County
Parcel Number: 10-E8S3 -007-010-000

Control No: 10022-1
TAX COLLECTOR COPY
Tax Bill No: 3867

Tax Description	Assessment	Rate	Discount (-$1.42)	Face	Penalty (+$7.12)
County R/E	8700	6.16960	$ 52.61	$ 53.68	$ 59.05
Municipal R/E		1.65000	$ 14.07	$ 14.36	$ 15.80
Fire Protection		0.35000	$ 2.99	$ 3.05	$ 3.36

Payment requested from:
SUEZ WATER PENNSYLVANIA INC
6310 ALLENTOWN BLVD
HARRISBURG, PA 17112-2739

If paying after December 15th: **Only** official bank checks or certified checks will be accepted.

PAY THIS AMOUNT →

IF PAID BY 04/27/2022	IF PAID BY 06/27/2022	IF PAID AFTER 06/27/2022
$ 69.67	$ 71.09	$ 78.21

Liens Will Be Filed After: 12/31/2022
For a receipt, please return entire bill with payment and a self-addressed stamped envelope.

Payable to: **Holly Daubert, Tax Collector**
105 Lt Michael Cleary Drive, Dallas, PA 18612

REV-183

BUREAU OF INDIVIDUAL TAXES
PO BOX 280603
HARRISBURG, PA 17128-0603

REALTY TRANSFER TAX STATEMENT OF VALUE
COMPLETE EACH SECTION

Book: | Page:
Instrument Number:
Date Recorded:

SECTION I TRANSFER DATA

Date of Acceptance of Document: 12/28/2020

Grantor(s)/Lessor(s)	Telephone Number	Grantee(s)/Lessee(s)	Telephone Number
Overbrook Water Company	570	SUEZ Water Pennsylvania Inc.	
Mailing Address: R 185 Overbrook Road		Mailing Address: 6310 Allentown Blvd., Suite 104	
City: Dallas	State: PA / ZIP Code: 18612	City: Harrisburg	State: PA / ZIP Code: 17112

SECTION II REAL ESTATE LOCATION

Street Address	City, Township, Borough	
Rear Yeager Road	Dallas Township	
County: Luzerne	School District: Dallas	Tax Parcel Number: 10-E8S3-006-017-000

SECTION III VALUATION DATA

Was transaction part of an assignment or relocation? (●) YES ( ) NO

1. Actual Cash Consideration	2. Other Consideration	3. Total Consideration
0.00	+ 0	= 0.00
4. County Assessed Value	5. Common Level Ratio Factor	6. Computed Value
42000	x 1.05	= 44,100

OCA-16-7 Refer to the response to OCA 7-22 Attachment. Please explain the journal entries related to the Kensington Transaction.

a. Why is the entry to record the sales price and transaction legal costs charged to Account 18698-Regulatory Asset instead of plant in service?

b. Please explain whether the proposed journal entry for $40,000 was actually recorded on the Company's books and specifically what the entry was recording.

Please explain why the $40,000 is subtracted to arrive at the $225,000.

Answer:

a. (a-b) Similar to the acquisition of Overbrook as described further in the responses to OCA-16-2, and OCA-16-2, in order to properly account for the costs related to the Kensington Acquisition, the Company temporarily recorded all transaction costs to a Regulatory Asset Account 18698 for a total of $293,240, $265,000 related to Utility Plant in Service and the balance of $28,240 being transaction costs. The Company has not yet recorded the assets acquired in its fixed asset accounting system which are fully depreciated.

In this Case, $265,000 was then debited to the Pro Forma UPIS (Acquisition Adjustment) for Kensington and credited to the Regulatory Asset Account 18698. However, subsequent to the acquisition, the Company became aware of a parcel of land acquired as part of the Kensington transaction. VWPA then recorded the land value in Utility Plant In Service (UPIS) based on Kensington Supplemental Information for Balance Sheet, Schedule B as presented in Kensington Water Company Rate Increase Docket No. R-2011-2234934 in the amount of $40,000 and reduced this amount from the Pro Forma UPIS of $265,000. The land value has been recorded in UPS in the Company's books and records.
Thus, as indicated in Exhibit No. GRH-2, Schedule 1.1, page 1 of 1, the Company has included the net amount of $ 225,000 as Pro Forma UPIS for Kensington and is requesting for a 10-year amortization of this amount and the balance of $40,000 is booked to UPIS for a total of $ 265,000.
The transaction costs balance of $28,240 in the Regulatory Asset Account, the Company is requesting for a 5-year amortization of this amount.
The Company inadvertently omitted to include the amount related to land in Rate Base for a total amount of $40,000. The Company will make an update for this amount in its rebuttal.

Answer provided by:	James Cagle
Title:	Vice President Rates & Regulatory Affairs
Address:	461 From Road, Paramus, NJ
Date:	05-08-2024

Updated Blue Chip Forecast

	Consensus Forecasts-Quarterly Avg.					
	2Q	3Q	4Q	1Q	2Q	3Q
Interest Rates	**2024**	**2024**	**2024**	**2025**	**2025**	**2025**
Federal Funds Rate	**5.4**	**5.2**	**4.9**	**4.6**	**4.3**	**4.0**
Prime Rate	**8.5**	**8.4**	**8.1**	**7.8**	**7.4**	**7.1**
SOFR	**5.3**	**5.2**	**4.9**	**4.6**	**4.3**	**4.0**
Commercial Paper, 1-mo.	**5.3**	**5.2**	**4.9**	**4.6**	**4.2**	**3.9**
Treasury bill, 3-mo.	**5.4**	**5.2**	**4.9**	**4.5**	**4.2**	**3.9**
Treasury bill, 6-mo.	**5.3**	**5.1**	**4.8**	**4.5**	**4.2**	**3.9**
Treasury bill, 1 yr.	**5.1**	**4.9**	**4.6**	**4.4**	**4.1**	**3.8**
Treasury note, 2 yr.	**4.8**	**4.6**	**4.3**	**4.1**	**3.9**	**3.7**
Treasury note, 5 yr.	**4.5**	**4.3**	**4.1**	**4.0**	**3.9**	**3.8**
Treasury note, 10 yr.	**4.5**	**4.3**	**4.2**	**4.1**	**4.0**	**3.9**
Treasury bond, 30 yr.	**4.6**	**4.5**	**4.4**	**4.3**	**4.2**	**4.2**
Corporate Aaa bond	**5.3**	**5.2**	**5.1**	**5.0**	**5.0**	**4.9**
Corporate Baa bond	**6.1**	**6.1**	**6.0**	**5.9**	**5.9**	**5.8**
State & Local bonds	**4.4**	**4.4**	**4.2**	**4.2**	**4.2**	**4.1**
Home mortgage rate	**7.0**	**6.8**	**6.6**	**6.5**	**6.3**	**6.2**
	Consensus Forecasts-Quarterly					
	2Q	3Q	4Q	1Q	2Q	3Q
Key Assumptions	**2024**	**2024**	**2024**	**2025**	**2025**	**2025**
Fed's AFE Index	**117.2**	**117.5**	**116.6**	**115.8**	**115.0**	**114.8**
Real GDP	**2.0**	**1.7**	**1.6**	**1.8**	**1.9**	**2.0**
GDP Price Index	**2.7**	**2.4**	**2.3**	**2.334**	**2.217**	**2.174**
Consumer Price Index	**3.4**	**2.6**	**2.4**	**2.4**	**2.4**	**2.4**
PCE Price Index	**2.9**	**2.3**	**2.2**	**2.3**	**2.2**	**2.1**

PBS NEWS HOUR

Inflation pressures lingering from pandemic may keep Feds from lowering interest rates

Economy May 29, 2024 11:46 AM EDT

WASHINGTON (AP) — Hopes for interest rate cuts this year by the Federal Reserve are steadily fading, with a stream of recent remarks by Fed officials underscoring their intention to keep borrowing costs high as long as needed to curb persistently elevated inflation.

A key reason for the delay in rate cuts is that the inflation pressures that are bedeviling the economy are being driven largely by lingering forces from the pandemic — for items ranging from apartment rents to auto insurance to hospital prices. Though Fed officials say they expect inflation in those areas to eventually cool, they've signaled that they're prepared to wait as long as it takes.

READ MORE: U.S. consumer confidence sunnier in May after months of declines

Yet the policymakers' willingness to keep their key rate at a two-decade peak — thereby keeping costs painfully high for mortgages, auto loans and other forms of consumer borrowing — carries its own risks.

The Fed's mandate is to strike a balance between keeping rates high enough to control **inflation** yet not so high as to damage the job market. While most measures show that growth and hiring remain healthy, some gauges of the economy have begun to reveal signs of weakness. The longer the Fed keeps its benchmark rate elevated, the greater the risk of causing a downturn.

At the same time, with polls showing that costlier rents, groceries and gasoline are angering voters as the presidential campaign intensifies, Donald Trump has sought to pin the blame for higher prices squarely on President Joe Biden.

The Fed, led by Chair Jerome Powell, raised its benchmark rate by 5 percentage points from March 2022 through June 2023 — the fastest such increase in four decades — to try to drive inflation back down to its 2 percent target. According to the Fed's preferred measure, inflation has tumbled from 7.1 percent in June 2022 to 2.7 percent in March.

That same gauge showed, though, that prices accelerated in the first three months of 2024, disrupting last year's steady slowdown. On Friday, economists expect the government to report that this measure rose 2.7 percent in April from a year earlier.

A separate inflation indicator that the government reported this month suggested that **prices cooled slightly in April**. But with inflation remaining stubbornly above the Fed's target level, Wall Street traders now expect just one rate cut this year, in November. And even that is hardly a slam-dunk, with investors placing the likelihood of a cut in November at 63 percent, down from 77 percent a week ago.

Last week, economists at Goldman Sachs became the latest analysts to give up on a rate cut in July, pushing back their forecast for the first of two cuts they expect this year to September. Oxford Economics made a similar call last month. Bank of America foresees just one Fed rate cut this year, in December. Just months ago, many economists had forecast the first rate cut for March of this year.

"We will need to accumulate further data over the coming months to have a clearer picture of the inflation outlook," Loretta Mester, president of Federal Reserve Bank of Cleveland, said this month. "I now believe that it will take longer to reach our 2 percent goal than I previously thought." (Mester is among 12 officials who are voting on the Fed's rate policy this year.)

As further data accumulates, so do some signs that the economy is cooling a bit. More Americans, particularly younger adults, are falling behind on their credit card bills, for example, with the share of card debt 90 days or more overdue reaching 10.7 percent in the

first quarter, according to the Fed's New York branch. That's the highest proportion in 14 years.

READ MORE: How inflation-weary shoppers can find summer deals at major retailers

Hiring is also slowing, with businesses posting fewer open jobs, though job advertisements remain high.
And more companies, including Target, McDonalds and Burger King, are highlighting price cuts or cheaper deals to try to attract financially squeezed consumers. Their actions could help lower inflation in the coming months. But they also underscore the struggles that lower-income Americans face.

"There's a lot of signs that consumers are kind of losing some steam and hiring demand is cooling," said Julia Coronado, a former Fed economist who is president of MacroPolicy Perspectives. "You could see more of a slowdown."

But Coronado and other economists also regard the latest trends as a sign that the economy may simply be normalizing after a period of rapid growth. Companies are still hiring, though at a more modest pace than at the start of the year. And data suggests that Americans traveled in record numbers over the Memorial Day weekend, a sign they're confident in their finances.

One reason why inflation remains above the Fed's target is that distortions stemming from the pandemic are still keeping prices elevated in several areas even as much of the rest of the economy has moved past the pandemic.

Housing costs, led by apartment rents, jumped two years ago after many Americans sought additional living space during the pandemic. Rental costs are now slowing: They rose 5.4 percent in April on an annual basis, down from 8.8 percent a year earlier. But they're still rising faster than before the pandemic.

Last month, rent and homeownership, along with hotel prices, accounted for two-thirds of the annual rise in "core" inflation, which excludes volatile food and energy costs. Powell and other Fed officials have acknowledged that they had expected rents to fall more quickly than they have.

The cost of a new lease, though, has tumbled since mid-2022. A gauge of newly leased apartment rents calculated by the government shows that they rose just 0.4 percent in the first three months of 2024 compared with a year earlier. Yet it takes time for newer, lower-priced rents to feed into the government's inflation measure.

"Market rents adjust more quickly to economic conditions than what landlords charge their existing tenants," Philip Jefferson, the Fed's vice chair and a top lieutenant to Powell, said last week. "This lag suggests that the large increase in market rents during the pandemic is still being passed through to existing rents and may keep housing services inflation elevated for a while longer."

The cost of auto insurance has soared nearly 23 percent from a year earlier, a huge jump that reflects the surge in **prices of new and used cars** during the pandemic. Insurance companies now must pay more to replace totaled cars and as a result are charging their customers more.

"This is about stuff that happened in 2021," said Claudia Sahm, chief economist at New Century Advisors and a former Fed economist. "You cannot go back and change that."

By – **Christopher Rugaber, Associated Press**

Exhibit No. GRH-2-R

VEOLIA WATER PENNSYLVANIA INC.

HARRISBURG, PENNSYLVANIA

REBUTTAL
WATER INCOME STATEMENT
AND
PRO FORMA REVENUES
AS OF OCTOBER 31, 2025

GANNETT FLEMING

Excellence Delivered As Promised

VEOLIA WATER PENNSYLVANIA INC.
COMBINED WATER OPERATIONS
STATEMENT OF THE CALCULATION OF THE RATE OF RETURN UNDER PRESENT RATES FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2023, 2024 AND OCTOBER 31, 2025
AND THE ANTICIPATED RATE OF RETURN UNDER PROPOSED RATES FOR THE YEAR ENDING OCTOBER 31, 2025

Line No.	Description	12 Months Ended 30-Sep-23	Pro Forma FTY Adjustments Ref.	Pro Forma FTY Adjustments Amount	Pro Forma Present Rates, 30-Sep-24	Pro Forma FPFTY Adjustments and DSIC Adjustment Ref.	Pro Forma FPFTY Adjustments and DSIC Adjustment Amount	Pro Forma Present Rates, 31-Oct-25	Under Proposed Rates, Supplement No. ___ to Tariff Water Pa-PUC No. 7 Ref.	Increase	Pro Forma 31-Oct-25
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)	(10)
1	Operating Revenues	$ 54,130,134	GRH-2-R Sch 5	$ 379,186	$ 54,509,321	GRH-2-R Sch 4,7	$ 4,258,088	$ 58,767,409	GRH-2-R Sch 2,7	$ 15,464,948	$ 74,232,357
2											
3	Operating Revenue Deductions										
4	Operation and Maintenance										
5	Expenses	$ 20,795,021	GRH-3-R	$ 2,653,554	$ 23,448,576	GRH-3-R	$ 1,968,783	$ 25,417,358	GRH-3-R	$ 178,166	$ 25,595,524
6	Taxes Other than Income	$ 1,152,160	GRH-3-R	$ 67,301	$ 1,219,460	GRH-3-R	$ 29,712	$ 1,249,172	GRH-3-R	$ -	$ 1,249,172
7											
8											
9	Depreciation	8,828,651	GRH-3-R	875,590	9,704,241	GRH-3-R	1,920,219	11,624,460	GRH-3-R	$ -	11,624,460
10	Amortization of Acquisition Adjustment	57,744	GRH-3-R	-	57,744	GRH-3-R	49,830	107,574	GRH-3-R	$ -	107,574
11	Amortization of Regulatory Asset	-	GRH-3-R	-	-	GRH-3-R	-	-	GRH-3-R		-
12											
13	Total Operating										
14	Revenue Deductions	$ 30,833,576	GRH-3-R	$ 3,596,445	$ 34,430,021	GRH-3-R	$ 3,968,544	$ 38,398,564	GRH-3-R	$ 178,166	$ 38,576,731
15											
16	Total Income Before Taxes and Return	$ 23,296,559		$ (3,217,259)	$ 20,079,300		$ 289,545	$ 20,368,845		$ 15,286,782	$ 35,655,627
17											
18	Less Federal and State Taxes	$ 4,495,020	GRH-3-R	$ (1,224,300)	$ 3,270,721	GRH-3-R	$ (114,861)	$ 3,155,859	GRH-3-R	$ 4,189,076	$ 7,344,935
19											
20											
21	Net Operating Income										
22	Available for Return	$ 18,801,539		$ (1,992,959)	$ 16,808,579		$ 404,406	$ 17,212,986		$ 11,097,706	$ 28,310,692
23											
24											
25	Rate Base	$ 289,303,956	Sch-1.1-R	$ 38,000,307	$ 327,304,263	Sch-1.1-R	$ 28,998,016	$ 356,302,279	Sch-1.1-R	$ -	$ 356,302,279
26											
27	Rate of Return	6.50%			5.14%			4.83%			7.95%

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA WATER, BETHEL WATER, KENSINGTON WATER, AND OVERBROOK WATER
STATEMENT OF THE CALCULATION OF THE RATE OF RETURN UNDER PRESENT RATES FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2023, 2024 AND OCTOBER 31, 2025
AND THE ANTICIPATED RATE OF RETURN UNDER PROPOSED RATES FOR THE YEAR ENDING OCTOBER 31, 2025

Line No.	Description	12 Months Ended 30-Sep-23	Pro Forma FTY Adjustments Ref.	Pro Forma FTY Adjustments Amount	Pro Forma Present Rates, 30-Sep-24	Pro Forma FPFTY Adjustments and DSIC Adjustment Ref.	Pro Forma FPFTY Adjustments and DSIC Adjustment Amount	Pro Forma Present Rates, 31-Oct-25	Under Proposed Rates, Supplement No. ___ to Tariff Water Pa-PUC No. 7 Ref.	Increase	Pro Forma 31-Oct-25
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)	(10)
1	Operating Revenues	$ 53,531,851	GRH-2-R	$ 379,186	$ 53,911,038	GRH-2-R	$ 4,217,125	$ 58,128,163	GRH-2-R	$ 14,840,896	$ 72,969,058
2	Revenue to Mahoning Township										(141,450)
3	Operating Revenue Deductions										
4	Operation and Maintenance										
5	Expenses	$ 20,433,736	GRH-3-R	$ 2,628,723	$ 23,062,459	GRH-3-R	$ 1,844,766	$ 24,907,225	GRH-3-R	$ 175,575	$ 25,082,800
6	Taxes Other than Income	$ 1,145,000	GRH-3-R	$ 67,142	$ 1,212,141	GRH-3-R	$ 29,561	$ 1,241,702	GRH-3-R	$ -	$ 1,241,702
7											
8											
9	Depreciation	8,828,651	GRH-3-R	633,724	9,462,375	GRH-3-R	1,910,783	11,373,158	GRH-3-R	$ -	11,373,158
10	Amortization of Acquisition Adjustment	57,744	GRH-3-R	-	57,744	GRH-3-R	49,830	107,574	GRH-3-R	$ -	107,574
11	Amortization of Regulatory Asset	-	GRH-3-R		-	GRH-3-R		-	GRH-3-R		-
12											
13	Total Operating										
14	Revenue Deductions	$ 30,465,130	GRH-3-R	$ 3,329,589	$ 33,794,719	GRH-3-R	$ 3,834,940	$ 37,629,659	GRH-3-R	$ 175,575	$ 37,805,234
15											
16	Total Income Before Taxes and Return	$ 23,066,721		$ (2,950,403)	$ 20,116,318		$ 382,185	$ 20,498,503		$ 14,665,321	$ 35,022,374
17											
18	Less Federal and State Taxes	$ 4,427,686	GRH-3-R	$ (1,099,106)	$ 3,328,580	GRH-3-R	$ (93,525)	$ 3,235,055	GRH-3-R	$ 3,980,013	$ 7,215,069
19											
20											
21	Net Operating Income										
22	Available for Return	$ 18,639,035		$ (1,851,297)	$ 16,787,738		$ 475,710	$ 17,263,448		$ 10,685,307	$ 27,807,305
23											
24											
25	Rate Base	$ 282,415,356	Sch-1.1-R	$ 38,200,383	$ 320,615,738	Sch-1.1-R	$ 29,348,396	$ 349,964,134	Sch-1.1-R	$ -	$ 349,964,134
26											
27	Rate of Return	6.60%			5.24%			4.93%			7.95%

VEOLIA WATER PENNSYLVANIA INC.
MAHONING TOWNSHIP
STATEMENT OF THE CALCULATION OF THE RATE OF RETURN UNDER PRESENT RATES FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2023, 2024 AND OCTOBER 31, 2025
AND THE ANTICIPATED RATE OF RETURN UNDER PROPOSED RATES FOR THE YEAR ENDING OCTOBER 31, 2025

Line No.	Description	12 Months Ended 30-Sep-23	Pro Forma FTY Adjustments Ref.	Pro Forma FTY Adjustments Amount	Pro Forma Present Rates, 30-Sep-24	Pro Forma FPFTY Adjustments and DSIC Adjustment Ref.	Pro Forma FPFTY Adjustments and DSIC Adjustment Amount	Pro Forma Present Rates, 31-Oct-25	Under Proposed Rates, Supplement No. ___ to Tariff Water Pa-PUC No. 7 Ref.	Increase	Pro Forma 31-Oct-25
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)	(10)
1	Operating Revenues	$ 598,283	GRH-2-R	$ -	$ 598,283	GRH-2-R	$ 40,963	$ 639,246	GRH-2-R	$ 624,053	$ 1,263,299
2	Revenue from Main and Bethel										141,450
3	Operating Revenue Deductions										
4	Operation and Maintenance										
5	Expenses	$ 361,286	GRH-3-R	$ 24,831	$ 386,116	GRH-3-R	$ 124,017	$ 510,133	GRH-3-R	$ 2,591	$ 512,724
6	Taxes Other than Income	$ 7,160	GRH-3-R	$ 159	$ 7,319	GRH-3-R	$ 151	$ 7,469	GRH-3-R	$ -	$ 7,469
7											
8											
9	Depreciation	-	GRH-3-R	241,867	241,867	GRH-3-R	9,436	251,303	GRH-3-R	$ -	251,303
10	Amortization of Acquisition Adjustment	-	GRH-3-R	-	-	GRH-3-R	-	-	GRH-3-R	$ -	-
11	Amortization of Regulatory Asset	-	GRH-3-R		-	GRH-3-R		-	GRH-3-R		-
12											
13	Total Operating										
14	Revenue Deductions	$ 368,445	GRH-3-R	$ 266,856	$ 635,302	GRH-3-R	$ 133,603	$ 768,905	GRH-3-R	$ 2,591	$ 771,496
15											
16	Total Income Before Taxes and Return	$ 229,837		$ (266,856)	$ (37,019)		$ (92,640)	$ (129,659)		$ 621,462	$ 633,252
17											
18	Less Federal and State Taxes	$ 67,334	GRH-3-R	$ (125,194)	$ (57,860)	GRH-3-R	$ (21,337)	$ (79,197)	GRH-3-R	$ 209,063	$ 129,866
19											
20											
21	Net Operating Income										
22	Available for Return	$ 162,503		$ (141,662)	$ 20,841		$ (71,303)	$ (50,463)		$ 412,399	$ 503,386
23											
24											
25	Rate Base	$ 6,888,600	Sch-1.1-R	$ (200,076)	$ 6,688,525	Sch-1.1-R	$ (350,380)	$ 6,338,145	Sch-1.1-R	$ -	$ 6,338,145
26											
27	Rate of Return	2.36%			0.31%			-0.80%			7.94%

VEOLIA WATER PENNSYLVANIA INC.
WATER OPERATIONS
ORIGINAL COST MEASURE OF VALUE AS OF SEPTEMBER 30, 2023,
SEPTEMBER 30, 2024 AND OCTOBER 31, 2025

VWPA, Kensington and Overbrook		As of 9/30/2023	As of 9/30/2024	As of 10/31/2025
Original Cost of Utility Plant In Service	(a)	$ 467,658,719	$ 513,052,705	$ 551,045,876
Pro Forma UPIS - Brown Manor		199,162	141,418	83,674
Pro Forma UPIS - Kensington			275,700	253,200
Pro Forma UPIS - Overbrook			313,300	285,970
Plant Held for Future Use		-	-	-
Less: Accumulated Depreciation	(a)	(81,773,213)	(88,797,886)	(96,999,406)
Net Utility Plant		386,084,669	424,985,237	454,669,314
CIAC and Contributions		(84,960,608)	(84,960,608) (b)	(84,960,608) (b)
Add:				
Deferred Taxes		$ (12,518,928)	$ (13,640,529)	$ (14,747,777)
Regulatory Liability - New Fed Rate		(8,866,421)	(8,601,533)	(8,301,533)
Regulatory Liability - 2018 Portion		(1,097,941)	(1,134,760)	(756,507)
Materials and Supplies		1,656,030	1,656,030	1,656,030
Cash Working Capital		601,749	708,793	745,776
Total Original Cost Measure of Value		$ 280,898,549	$ 319,012,629	$ 348,304,695

(a) Source: Data provided by Company.
(b) 2024 and 2025 CIAC and Advances included in total Net Utility Plant.

Bethel Water		As of 9/30/2023	As of 9/30/2024	As of 10/31/2025
Original Cost of Utility Plant In Service	(a)	$ 8,684,578	$ 8,648,177	$ 8,717,347
Less: Accumulated Depreciation	(a)	(675,693)	(551,779)	(604,497)
Net Utility Plant		8,008,886	8,096,398	8,112,850
CIAC and Contributions		(6,237,519)	(6,237,519) (b)	(6,237,519) (b)
Add:				
Deferred Taxes		$ (50,864)	$ (50,864)	$ (50,864)
Regulatory Liability - New Fed Rate		(134,430)	(134,430)	(134,430)
Regulatory Liability - 2018 Portion		(109,783)	(113,982)	(75,988)
Materials and Supplies		-	-	-
Cash Working Capital		40,517	43,505	45,389
Total Original Cost Measure of Value		$ 1,516,807	$ 1,603,109	$ 1,659,439

(a) Source: Data provided by Company.
(b) 2024 and 2025 CIAC and Advances included in total Net Utility Plant.

Mahoning Township		As of 9/30/2023	As of 9/30/2024	As of 10/31/2025
Original Cost of Utility Plant In Service	(a)	$ 9,333,326	$ 9,366,250	$ 9,273,363
~~Mahoning Acquisition Adj~~				
Less: Accumulated Depreciation	(a)	(2,450,066)	(2,658,547)	(2,894,392)
Net Utility Plant		6,883,260	6,707,703	6,378,971
CIAC and Contributions		-	-	-
Add:				
Deferred Taxes		$ -	$ (24,351)	$ (46,056)
Regulatory Liability		-	-	-
Materials and Supplies		-	-	-
Cash Working Capital		5,340	5,172	5,230
Total Original Cost Measure of Value		$ 6,888,600	$ 6,688,525	$ 6,338,145
Total Water Original Cost Measure of Value		$ 289,303,956	$ 327,304,263	$ 356,302,279

VEOLIA WATER PENNSYLVANIA INC.

TYPE OF CAPITAL	RATIOS	COST RATE	WEIGHTED COST RATE
LONG-TERM DEBT	46.00%	4.60%	2.12%
COMMON EQUITY	54.00%	10.80%	5.83%
TOTAL	100.00%		7.95%

Source: Direct testimony of Harold Walker.

VEOLIA WATER PENNSYLVANIA INC.

SUMMARY OF PRO FORMA REVENUES UNDER PROPOSED RATES FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2023 AND OCTOBER 31, 2025
AND THE CALCULATION OF THE REVENUE INCREASE UNDER PROPOSED RATES

Customer Classification	Pro Forma Revenues, Present Rates (Schedule 4)	Bill Analysis Revenues, Proposed Rates (Schedule 3)	Adjustment Factor (Sch. 4, col 4)	Revenues, Proposed Rates	Pro Forma Adjustments Proposed Rates (Schedules 3, 7 and 9)	Total Pro Forma Revenue Proposed Rates	Proposed Increase	Percent Increase
(1)	(2)	(3)	(4)	(5)=(4)X(3)	(6)	(7)=(5)+(6)	(8)=(7)-(2)	(9)
METERED SALES								
Residential	$ 35,662,778	$ 44,247,138	0.99965322	$ 44,231,794	$ 330,993	$ 44,562,788	$ 8,900,010	25.0%
Commercial	15,938,754	19,112,705	1.00183070	19,147,695	550,714	19,698,409	3,759,655	23.6%
Industrial	1,404,833	1,799,943	1.00018857	1,800,283	4,413	1,804,695	399,863	28.5%
Public Authority	1,716,898	2,186,190	1.00001543	2,186,224	12,409	2,198,632	481,734	28.1%
Sales for Resale	721,446	1,297,118	1.00375660	1,301,990		1,301,990	580,545	80.5%
Total Metered Sales	55,444,709	68,643,094		68,667,986	898,529	69,566,514	14,121,806	25.5%
Private Fire	1,854,942	2,715,427	0.99999998	2,715,427	16,040	2,731,467	876,525	47.3%
Public Fire	1,131,942	1,550,681	1.00000000	1,550,681		1,550,681	418,739	37.0%
Other Operating Revenues	335,816	383,721		383,721		383,721	47,904	14.3%
Total	$ 58,767,409	$ 73,292,924		$ 73,317,815	$ 914,568	$ 74,232,383	$ 15,464,974	26.3%

VEOLIA WATER PENNSYLVANIA INC.

SUMMARY OF APPLICATION OF PROPOSED RATES TO CUSTOMER BILL ANALYSIS AND PRO FORMA ADJUSTMENTS
FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023 AND 2024 AND OCTOBER 31, 2025

Rate Zone	Residential	Commercial	Industrial	Large Industrial	Public	Sales for Resale	Metered Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Proposed Rate Application, Schedule 6							
Sales excl. Mahoning and Bethel	$ 42,212,954	$ 18,501,614	$ 1,246,601	$ 553,342	$ 2,185,947		$ 64,700,459
Sales for Bethel Water	1,267,248	189,718			243	1,297,118	2,754,326
Sales for Mahoning Township	766,936	421,373					1,188,309
Total	$ 44,247,138	$ 19,112,705	$ 1,246,601	$ 553,342	$ 2,186,190	$ 1,297,118	$ 68,643,094
Pro Forma Adjustments, Schedule 9 - 2018 and 2019							
Sales excl. Mahoning and Bethel	$ 330,993	$ 550,714	$ 4,413		$ 12,409		$ 898,529
Sales for Bethel Water							-
Sales for Mahoning Township							-
Total	$ 330,993	$ 550,714	$ 4,413	$ -	$ 12,409	$ -	$ 898,529

VEOLIA WATER PENNSYLVANIA INC.

SUMMARY OF REVENUE UNDER PRESENT RATES AND PRO FORMA REVENUES UNDER PRESENT RATES
FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2023 AND OCTOBER 31, 2025

Customer Classification	Adjusted Revenues, Per Books Present Rates 09/30/2023 (a)	Bill Analysis Revenues, Present Rates (Schedule 5)	Ref.	Adjustment Factor	Revenues Under Present Rates	Pro Forma Adjustments Present Rates (Schedule 5, 7 and 9)	Add Back Annualized DSIC Revenue	Total Pro Forma Revenue Present Rates
(1)	(2)	(3)		(4)=(2)/(3)	(5)=(4)X(3)	(6)	(7)	(8)=(5)+(6)+(7)
METERED SALES								
Residential	$ 33,279,746	$ 33,291,291	Sch. 6	0.99965322	$ 33,279,746	$ (105,069)	$ 2,488,101	$ 35,662,778
Commercial	14,058,192	14,032,503	Sch. 6	1.00183070	14,058,192	768,556	1,112,006	15,938,754
Industrial	1,299,967	1,299,722	Sch. 6	1.00018857	1,299,967	6,854	98,012	1,404,833
Public Authority	1,587,630	1,587,606	Sch. 6	1.00001543	1,587,630	9,485	119,784	1,716,898
Sales for Resale	721,446	718,746		1.00375660	721,446			721,446
Total Sales of Water	$ 50,946,981	$ 50,929,867			$ 50,946,981	$ 679,826	$ 3,817,902	$ 55,444,709
Private Fire	$ 1,715,395	$ 1,715,395	Sch. 7	0.99999998	1,715,395	$ 10,133	$ 129,415	1,854,942
Public Fire	1,131,942	1,131,942	Sch 8	1.00000000	1,131,942			1,131,942
Other Operating Revenues	335,816	335,816			335,816			335,816
Total	$ 54,130,134	$ 54,113,020			$ 54,130,134	$ 689,958	$ 3,947,317	$ 58,767,409

(a) Excludes DSIC and Unbilled Revenue.

VEOLIA WATER PENNSYLVANIA INC.

SUMMARY OF APPLICATION OF PRESENT RATES TO CUSTOMER BILL ANALYSIS AND PRO FORMA ADJUSTMENTS
FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023 AND 2024 AND OCTOBER 31, 2025

Rate Zone	Residential	Commercial	Industrial	Large Industrial	Public Authority	Sales for Resale	Metered Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Present Rate Application, Schedule 6							
Sales excl. Mahoning and Bethel	$ 32,155,701	$ 13,717,810	$ 901,545	$ 398,177	$ 1,587,528		$ 48,760,760
Sales for Bethel Water	758,191	148,189	-	-	78	718,746	1,625,204
Sales for Mahoning Township	377,399	166,504					543,903
Total	$ 33,291,291	$ 14,032,503	$ 901,545	$ 398,177	$ 1,587,606	$ 718,746	$ 50,929,867
Pro Forma Adjustments - Schedule 9 - 2024							
Sales excl. Mahoning and Bethel	$ (31,432)	$ 391,384	$ 3,427		$ 15,808		$ 379,186
Sales for Bethel Water				-			-
Sales for Mahoning Township							-
Subtotal	$ (31,432)	$ 391,384	$ 3,427	$ -	$ 15,808	$ -	$ 379,186
Pro Forma Adjustments - Schedule 9 - 2025							
Sales excl. Mahoning and Bethel	$ (73,637)	$ 377,172	$ 3,427		$ (6,323)		$ 300,639
Sales for Bethel Water							-
Sales for Mahoning Township							-
Subtotal	$ (73,637)	$ 377,172	$ 3,427	$ -	$ (6,323)	$ -	$ 300,639
Total Adjustments	$ (105,069)	$ 768,556	$ 6,854	$ -	$ 9,485		$ 679,826

VEOLIA WATER PENNSYLVANIA INC.
MAIN DIVISION

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
				Residential - Monthly				
1	Customer Charge							
2	5/8	671,127		$ 14.50	$ 9,731,341		$ 19.80	$ 13,288,314
3	3/4	18,194		14.50	263,809		19.80	360,236
4	1	5,682		30.05	170,754		41.03	233,146
5	1 1/2	235		60.11	14,152		82.08	19,324
6	2	72		102.96	7,393		140.59	10,094
7	3	1		193.12	162		263.71	222
8	Subtotal	695,311			10,187,611			13,911,336
9								
10	First Block	-	2,418,417	9.0510	21,889,092	2,418,417	11.6300	28,126,190
11	Subtotal	-	2,418,417		21,889,092	2,418,417		28,126,190
12								
13	Total Residential	695,311	2,418,417		$ 32,076,703	2,418,417		$ 42,037,526
14								
15								
16				Commercial - Monthly				
17	Customer Charge							
18	5/8	30,511		$ 14.50	$ 442,405		$ 19.80	$ 604,111
19	3/4	473		14.50	6,862		19.80	9,370
20	1	13,365		30.05	401,616		41.03	548,363
21	1 1/2	6,387		60.11	383,921		82.08	524,242
22	2	6,253		102.96	643,786		140.59	879,078
23	3	327		193.12	63,131		263.71	86,208
24	4	412		321.90	132,513		439.56	180,948
25	6	305		643.80	196,380		879.12	268,161
26	8	28		1,030.16	28,827		1,406.70	39,364
27	Subtotal	58,060			2,299,441			3,139,845
28								
29	First Block (First 25,000)	-	602,309	9.0510	5,451,500	602,309	11.6300	7,004,855
30	Second Block (Over 25,000)	-	906,375	6.5790	5,963,042	906,375	9.2110	8,348,621
31	Subtotal	-	1,508,684		11,414,542	1,508,684		15,353,476
32								
33	Total Commercial	58,060	1,508,684		$ 13,713,983	1,508,684		$ 18,493,321

VEOLIA WATER PENNSYLVANIA INC.
MAIN DIVISION

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
34								
35				Industrial - Monthly				
36	Customer Charge							
37	5/8	120		$ 14.50	$ 1,740		$ 19.80	$ 2,376
38	3/4	12		14.50	174		19.80	238
39	1	120		30.05	3,600		41.03	4,915
40	1 1/2	48		60.11	2,873		82.08	3,923
41	2	93		102.96	9,555		140.59	13,048
42	3	94		193.12	18,178		263.71	24,823
43	4	30		321.90	9,682		439.56	13,221
44	6	36		643.80	23,351		879.12	31,886
45	8	12		1,030.16	12,362		1,406.70	16,880
46	Subtotal	565			81,515			111,310
47								
48	First Block (First 25,000)	-	7,915	9.0510	71,638	7,915	11.6300	92,050
49	Second Block (Over 25,000)	-	100,186	7.4700	748,392	100,186	10.4130	1,043,241
50	Subtotal	-	108,101		820,030	108,101		1,135,291
51								
52	Total Industrial	565	108,101		$ 901,545	108,101		$ 1,246,601
53								
54				Large Industrial - Monthly				
55	Customer Charge							
56	4	12		321.90	3,863		439.56	$ 5,275
57	Subtotal	12			3,863	-		5,275
58								
59	Take or Pay Consumption		84,000	4.0700	$ 341,880	84,000	5.6570	$ 475,188
60	Over Minimum Consumption	-	12,883	4.0700	52,434	12,883	5.6570	72,879
61	Subtotal	-	96,883		394,314	96,883		548,067
62								
63	Total Large Industrial	12	96,883		$ 398,177	96,883		$ 553,342
64								
65	Total Industrial	577	204,984		$ 1,299,722	204,984		$ 1,799,943
66								
67				Public Authority - Monthly				
68								
69	Customer Charge							
70	5/8			$ 14.50	$ -		$ 19.80	$ -
71	3/4	1,183		14.50	17,160		19.80	23,432
72	1	490		30.05	14,731		41.03	20,113
73	1 1/2	354		60.11	21,304		82.08	29,090
74	2	691		102.96	71,184		140.59	97,200
75	3	140		193.12	27,104		263.71	37,012
76	4	66		321.90	21,244		439.56	29,010
77	6	46		643.80	29,486		879.12	40,264
78	8	12		1,030.16	12,362		1,406.70	16,880
79	10	3		1,480.85	4,507		2,022.13	6,154
80	Subtotal	2,987			219,082			299,155
81								
82	First Block (First 25,000)	-	27,943	9.0510	252,914	27,943	11.6300	324,979
83	Second Block (Over 25,000)	-	169,560	6.5790	1,115,532	169,560	9.2110	1,561,813
84	Subtotal	-	197,503		1,368,446	197,503		1,886,792
85								
86	Total Public Authority	2,987	197,503		$ 1,587,528	197,503		$ 2,185,947
87								
88	Total	756,935	4,329,588		$ 48,677,936	4,329,588		$ 64,516,737

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA WATER BETHEL

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
				Residential - Monthly				
1	Customer Charge							
2	5/8	29,657		$ 6.31	$ 187,135		$ 19.80	$ 587,207
3	3/4	12		15.01	183		19.80	242
4	1	85		23.68	2,003		41.03	3,471
5	1 1/2	12		58.40	712		82.08	1,001
6	2	36		75.76	2,730		140.59	5,066
7	3	-		119.21	-		263.71	-
8	Subtotal	29,802			192,764			596,987
9								
10	First Block (First 11,000)/(All Usage Prpsd.)	-	123,170	4.2900	528,400	132,725	5.0500	670,261
11	Second Block (Next 40,000)/(No Block Prpsd.)		9,145	3.8910	35,582		-	-
12	Third Block (Over 51,000)/(No Block Prpsd.)		410	3.5240	1,445		-	-
13	Subtotal	-	132,725		565,427	132,725		670,261
14								
15	Total Residential	29,802	132,725		$ 758,191	132,725		$ 1,267,248
16								
17								
18				Commercial - Monthly				
19	Customer Charge							
20	5/8	464		$ 6.31	$ 2,925		$ 19.80	$ 9,179
21	3/4	-		15.01	-		19.80	-
22	1	108		23.68	2,555		41.03	4,427
23	1 1/2	169		58.40	9,883		82.08	13,891
24	2	191		75.76	14,480		140.59	26,871
25	3	-		119.21	-		263.71	-
26	4	-		252.72	-		439.56	-
27	6	-		336.17	-		879.12	-
28	8	-		527.39	-		1,406.70	-
29	Subtotal	932			29,844			54,368
30								
31	First Block (First 11,000)/(First 25,000)	-	5,821	4.2900	24,972	9,463	5.0500	47,789
32	Second Block (Next 40,000)/(Over 25,000)	-	9,258	3.8910	36,021	21,890	4.0000	87,560
33	Third Block (Over 51,000)/(No Block Prpsd.)		16,275	3.5240	57,352	-	-	-
34	Subtotal	-	31,353		118,345	31,353		135,350
35								
36	Total Class	932	31,353		$ 148,189	31,353		$ 189,718

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA WATER BETHEL

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
37								
38				Public Authority - Monthly				
39								
40	Customer Charge							
41	5/8	12		$ 6.31	$ 77		$ 19.80	$ 242
42	1			15.01	-		19.80	-
43	1 1/2			23.68	-		41.03	-
44	2			58.40	-		82.08	-
45	3			75.76	-		140.59	-
46	4			119.21	-		263.71	-
47	6			252.72	-		439.56	-
48	Subtotal	12			77			242
49								
50	First Block (First 11,000)/(First 25,000)	-	0	4.2900	1	0	5.0500	1
51	Second Block (Next 40,000)/(Over 25,000)	-	-	3.8910	-	-	4.0000	-
52	Third Block (Over 51,000)/(No Block Prpsd.)		-	3.5240	-	-	-	-
53	Subtotal	-	0		1	0		1
54								
55	Total Public Authority	12	0		$ 78	0		$ 243
56								
57				Sales for Resale - Monthly				
58								
59	Customer Charge							
60	6	12		336.17	4,034		879.12	10,549
61	Subtotal	12			4,034			10,549
62								
63	All Usage		219,776	3.2520	714,712	219,776	5.8540	1,286,569
64	Subtotal	-	219,776		714,712	219,776		1,286,569
65								
66	Total Sales for Resale	12	219,776		$ 718,746	219,776		$ 1,297,118
67								
68	Total	30,758	383,855		$ 1,625,204	383,855		$ 2,754,326

VEOLIA WATER PENNSYLVANIA INC.
OVERBROOK WATER OPERATIONS

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Bill and Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
				Residential - Monthly				
1	Customer Charge, Each Family							
2	Domestic Service Charge	1,980		$ 8.56	$ 16,954			
3	Hot and Cold Water Kitchen	1,980		6.90	13,662			
4	First Bath Tub/Water Closet	1,980		2.19	4,341			
5	Additonal Bath Tub/Water Closet	990		1.10	1,084			
6	First Lavatory	1,980		1.10	2,168			
7	Additional Lavatory	1,386		0.55	760			
8	Washer	1,584		3.43	5,425			
9	Dishwaser	1,683		2.06	3,459			
10	Disposal	1,584		0.68	1,084			
11	Inside Spigot	594		2.06	1,221			
12	Outside Spigot	1,980		2.06	4,069			
13	Subtotal	17,721			54,226			
14								
15	Customer Charge							
16	5/8					1,980	$ 19.80	$ 39,204
17	Subtotal							39,204
18								
19	All Usage	-		-	-	7,326	11.6300	85,201
20	Subtotal	-	-		-	7,326		85,201
21								
22	Total Residential	17,721	-		$ 54,226	7,326		$ 124,405
23								
24		Commercial - Monthly						
25	Customer Charge							
26	Domestic Service Charge	132		$ 8.56	1,130			
27	Additional Commercial Charge	132		5.14	678			
28	Hot and Cold Water Kitchen	132		6.90	911			
29	First Bath Tub/Shower	33		1.10	36			
30	First Lavatory	132		1.10	145			
31	Washer	33		3.43	113			
32	Dishwasher	66		2.06	136			
33	Disposal	99		0.68	68			
34	Outside Spigot	132		2.06	271			
35	Sprinlers	33		$ 10.28	339			
36	Subtotal	924			3,827			
37								
38								
39	Customer Charge							
40	5/8					132	$ 19.80	$ 2,614
41	Subtotal							2,614
42								
43	All Usage	-		-	-	488	11.6300	5,680
44	Subtotal	-	-		-	488		5,680
45								
46	Total Class	924	-		3,827	488		$ 8,294
47								
48								
49	Total	18,645	-		$ 58,053	7,814		$ 132,699
50								

51 **Rates are based on the number and types of water fixtures within each premise. Number of fixtures is estimated based on amount of revenue.*

VEOLIA WATER PENNSYLVANIA INC.
KENSINGTON WATER OPERATIONS

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
				Residential - Monthly				
1	Customer Charge							
2	5/8	828		$ 15.00	$ 12,416		$ 19.80	$ 16,389
3	Subtotal	828			12,416			16,389
4								
5	Allowance/All Usage Proposed		1,238	-	-	1,238	11.63	14,396
6	Over Allowance/All Usage Proposed	-	1,740	7.1000	12,355	1,740	11.63	20,239
7	Subtotal	-	2,978		12,355	2,978		34,634
8								
9	Total Residential	828	2,978		$ 24,771	2,978		$ 51,023
10								
11	Total	828	2,978		$ 24,771	2,978		$ 51,023

VEOLIA WATER PENNSYLVANIA INC.
MAHONING TOWNSHIP

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
				Residential - Monthly				
1	Customer Charge							
2	5/8	12,964		$ 21.38	$ 277,162		$ 19.80	$ 256,680
3	3/4	26		26.95	695		19.80	511
4	1	96		32.95	3,174		41.03	3,953
5	1 1/2			44.94	-		82.08	-
6	2			56.95	-		140.59	-
7	4			104.96	-		439.56	-
8	Subtotal	13,086			281,032			261,143
9								
10	Allowance		22,028	-	-	22,028	11.6300	256,183
11	Over Allowance	-	21,463	4.4900	96,367	21,463	11.6300	249,610
12	Subtotal	-	43,490		96,367	43,490		505,793
13								
14	Total Residential	13,086	43,490		$ 377,399	43,490		$ 766,936
15								
16								
17				Commercial - Monthly				
18	Customer Charge							
19	5/8	222		$ 21.38	$ 4,753		$ 19.80	$ 4,402
20	3/4	288		26.95	7,762		19.80	5,702
21	1	150		32.95	4,950		41.03	6,164
22	1 1/2	276		44.94	12,412		82.08	22,670
23	2	120		56.95	6,834		140.59	16,871
24	3	12		56.95	683		263.71	3,165
25	4	36		104.96	3,779		439.56	15,824
26	6	48		152.97	7,345		879.12	42,212
27	Subtotal	1,153			48,518			117,010
28								
29	Allowance	-	5,136	-	-	6,207	11.6300	72,186
30	Over Allowance	-	26,277	4.4900	117,986	25,206	9.2110	232,177
31	Subtotal	-	31,413		117,986	31,413		304,363
32								
33	Total Class	1,153	31,413		$ 166,504	31,413		$ 421,373
34								
35								
36	Total	14,239	74,904		$ 543,903	74,904		$ 1,188,309

VEOLIA WATER PENNSYLVANIA INC.

APPLICATION OF PRESENT AND PROPOSED RATES TO PRIVATE FIRE CONNECTIONS AS OF 09-30-2023

Rate Zone, Connection Size	No. of Bills	Present Rates Rate	Present Rates Revenue	Number	Proposed Rates Rate	Proposed Rates Revenue
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Main						
2" or smaller	867	$ 21.23	$ 18,410	867	$ 33.61	$ 29,145
3"	60	57.26	3,434	60	90.64	5,435
4"	2,339	73.44	171,754	2,339	116.26	271,897
6"	3,972	122.08	484,930	3,972	193.25	767,634
8"	2,868	181.96	521,873	2,868	288.04	826,118
10"	464	260.05	120,594	464	411.66	190,901
12"	120	361.50	43,356	120	572.25	68,632
14"	-	664.08	-	-	1,051.24	-
Hydrants	6,589	47.30	311,651	6,589	74.88	493,370
Bethel						
4" - Monthly	108	57.29	$ 6,206	108	104.28	$ 11,297
6" - Monthly	240	114.59	27,471	240	173.35	41,558
4" - Quarterly	12	171.87	2,062	12	312.84	3,754
6" - Quarterly	4	343.77	1,383	4	520.05	2,092
Mahoning						
Hydrants	48	47.30	2,270	48	74.88	3,594
Total Private Fire	17,691		$ 1,715,395	17,691		$ 2,715,427
HTY, FTY and FPFTY Adjustment						
6"	83	122.08	10,133	83	193.25	16,040

VEOLIA WATER PENNSYLVANIA INC.

APPLICATION OF PRESENT AND PROPOSED RATES TO
THE NUMBER OF PUBLIC FIRE HYDRANTS AS OF SEPTEMBER 30, 2023

Service Area	Pro Forma Number of Bills	Present Monthly Rate	Pro Forma Present Revenue	Proposed Monthly Rate	Pro Forma Proposed Revenue
(1)	(2)	(3)	(4)	(5)	(6)
Bloomsburg/Dallas	4,444	$ 20.00	$ 88,877	$ 34.84	$ 154,824
Harrisburg	27,189	25.83	702,280	35.41	962,826
Mechanicsburg	7,814	25.83	201,839	35.41	276,721
Bethel	336	28.66	$ 9,630	28.66	$ 9,630
Bethel	2,160	38.20	82,512	38.20	82,512
Mahoning	1,812	25.83	46,804	35.41	64,168
Total	43,755		$ 1,131,942		$ 1,550,681

VEOLIA WATER PENNSYLVANIA INC.
MAIN DIVISION

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO PROFORMA ADJUSTMENTS
YEAR ENDED SEPTEMBER 30, 2021, 2022 AND OCTOBER 31, 2024

Rate Block 1000 Gallons	Number Of Bills	Total Consumption	Test Year/Present Rate	Revenue	Proposed Rate	Proposed Revenue
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Residential - Monthly			
Customer Charge						
5/8	8,880	-	$ 14.50	$ 128,760	$ 19.80	$ 175,824
3/4	(96)		15	(1,392)	20	(1,901)
1	(396)		30	(11,900)	41	(16,248)
1 1/2	(96)		60	(5,771)	82	(7,880)
2	(30)		103	(3,089)	141	(4,218)
Subtotal	8,262	-		106,609		145,578
All Usage - Test Year	-	30,614	9.0510	277,085	11.6300	356,038
Misclassified Usage - Blk 1		(21,616)	9.0510	(195,644)	11.6300	(251,391)
Misclassified Usage - Blk 2		(4,737)	6.5790	(31,168)	9.2110	(43,636)
Subtotal	-	4,261		50,273		61,010
Total Residential	8,262	4,261	-	156,882	-	206,588
			Commercial - Monthly			
Customer Charge						
5/8	6,522	-	14.50	94,569	19.80	129,136
3/4	96	-	14.50	1,392	19.80	1,901
1	384	-	30.05	11,539	41.03	15,756
1 1/2	96		60.11	5,771	82.08	7,880
2	30		102.96	3,089	140.59	4,218
Subtotal	7,128	-		116,360		158,889
Test Year First Block (First 25)	-	29,266	9.0510	264,884	11.6300	340,361
Test Year Second Block (Over 25)	-	4,687	6.5790	30,835	9.2110	43,170
Subtotal	-	33,953		295,719		383,531
Total Class	7,128	33,953		412,079		542,420
			Industrial - Monthly			
Customer Charge						
1	12		30.05	361	41.03	492
Subtotal	12	-		361		492
Test Year First Block (First 25)	-	297	9.0510	2,688	11.6300	3,454
Test Year Second Block (Over 25)	-	51	7.4700	378	9.2110	466
Subtotal	-	348		3,066		3,920
Total Class	12	348		3,427		4,413
			Large Industrial - Monthly			
Customer Charge						
4		-	321.90	-	439.56	-
6		-	643.80	-	879.12	-
Subtotal	-	-		-		-
Take or Pay Volume	-		-	-	-	-
Subtotal	-	-		-		-
Total	-	-		-		-
			Public Authority - Monthly			
Customer Charge						
5/8	18	-	14.50	261	19.80	356
Subtotal	18	-		261		356
First Block (First 160)	-	450	6.5790	2,961	11.6300	5,234
Second Block (Over 160)	-	740	-	-	9.2110	6,819
Subtotal	-	1,190		2,961		12,053
Total	18	1,190		3,222		12,409
Total	15,420	39,751		575,610		765,830

ADJUSTMENT 1 - CUSTOMER GROWTH REVENUE ADJUSTMENT UNDER PRESENT RATES
FOR THE TEST YEARS ENDING SEPTEMBER 30, 2023 AND 2024 AND OCTOBER 31, 2025

	Residential	Commercial	Industrial	Public Authority	Private Fire	Total
Historic TY Customer Growth Calculation						
1 Actual Normalized Bills	712,224	60,408	648	2,796	1,018	777,094
2 Actual Annualized Bills	714,084	60,528	648	2,880	1,016	779,156
3 Projected Daily Usage in gallons (a)	113.72	818.90	6,379.09	2,204.31		9,516
4 Monthly Volumes per Normalization (1000 Gallons) Line 3 X30 /1000	3.41	24.57	191.37	66.13		
5 HTY Customer Annualized Growth Bills (Line 2-Line 1) Divided by 2	930	60	-	42	(1)	1,031
6 HTY Customer Annualized Growth Volumes (Line 4 X Line 5 / 2)	3,173	1,474	-	2,777	-	7,425
Priced At First Block	3,173	1,474		1,050		5,697
Priced At Second Block				1,727		1,727
Historic TY Customer Growth Revenue Calculation						
7 Average Service Charge	$ 14.50	$ 14.50		$ 30.05	$ 122.08	
8 Revenue From Service Charge (Line 7 X Line 5)	$ 13,485	$ 870		$ 1,262	$ (122)	
9 Volume Charge - First Block	9.051	9.051		9.051		
Volume Charge - Second Block		6.579		6.579		
10 Revenue from Volumetric Charge (Line 9 X Line 6)						
Priced At First Block	$ 28,720	$ 13,341		$ 9,504		
Priced At Second Block				11,365		
11 Total Historical TY Adjustment (Line 8 + Line 10)	$ 42,205	$ 14,211	$ -	$ 22,131	$ (122)	$ 78,425
Future Test Year Customer Growth Calculation						
12 Forecasted Customer Growth	603.0	30.0		(1.0)	3.5	
13 Annualized Bills (Line 12 X 12)	7,236	360		(12)	42	
14 Average Volumes Per Normalization						
Priced At First Block	3.41	24.57		25.00		
Priced At Second Block				41.13		
15 Normalized Volumes (Line 13 X Line 14)	24,689	8,844				
16 Revenue From Service Charge (Line 7 X Line 13)	$ 104,922	$ 5,220	$ -	$ (361)	$ 5,127	$ 114,909
17 Revenue from Volumetric Charge (Line 9 X Line 15)						
Priced At First Block	$ 223,462	$ 80,048		$ (2,715)		$ 300,795
Priced At Second Block	$ -	$ -		(3,247)		(3,247)
18 Total FTY Adjustment (Line 16 + Line 17)	$ 328,384	$ 85,268	$ -	$ (6,323)	$ 5,127	$ 412,457
Fully Projected Future Test Year Customer Growth Calculation						
19 Forecasted Customer Growth	603.0	30.0	-	(1.0)	3.5	
20 Annualized Bills (Line 12 X 12)	7,236	360		(12)	42	
21 Average Volumes Per Normalization						
Priced At First Block	3.41	24.57	-	25.00	-	
Priced At Second Block	-	-		41.13		
Total	3.41	24.57	-	66.13	-	
22 Normalized Volumes (Line 13 X Line 14)	24,689	8,844		(300)		
23 Revenue From Service Charge (Line 7 X Line 13)	$ 104,922	$ 5,220	$ -	$ (361)	$ 5,127	$ 114,909
24 Revenue from Volumetric Charge (Line 9 X Line 15)						
Priced At First Block	$ 223,462	$ 80,048		$ (2,715)		$ 300,795
Priced At Second Block	$ -	$ -		$ (3,247)		(3,246)
25 Total FTY Adjustment (Line 16 + Line 17)	$ 328,384	$ 85,268	$ -	$ (6,323)	$ 5,127	$ 412,457
Total Adjustment	$ 698,974	$ 184,748	$ -	$ 9,485	$ 10,133	$ 903,339

(a) For residential and commercial, see declining usage workpaper. For Industrial and Public, based on 2017 usage.

Number of Customers	Residential	Commercial	Industrial	Public Authority	Private Fire Protection
26 **Period Ending 09/30/21**	58,301.0	4,984.0	54.0	242.0	1,011.1
27 **Period Ending 09/30/22**	59,115.0	5,028.0	55.0	237.0	1,021.9
28 **Historic Test Year Period Ending 09/30/23**	59,507.0	5,044.0	54.0	240.0	1,018.2
29 **Increase 2021-2022**	814.0	44.0	1.0	(5.0)	10.8
30 **Increase 2022-2023**	392.0	16.0	(1.0)	3.0	(3.8)
31 **Average Growth/(Decline)**	603.0	30.0	-	(1.0)	3.5

ADJUSTMENT 2 - DECLINING USAGE REVENUE ADJUSTMENT - PRESENT RATES
FOR THE TEST YEAR ENDING SEPTEMBER 30, 2024

		Residential		Commercial
1	Actual Normalized Bills	712,224		60,408
2	Actual 2023 Daily Usage (Gallons)	114.24		821.99
3	Projected Daily Usage in gallons - 2024	113.72		818.90
4	Difference in Daily Usage - Line 3 - Line 2	(0.51)		(3.09)
5	Difference in 1000 gallon Monthly Usage - Line 4 X 30 divided by 1000	(0.02)		(0.09)
6	Annual Declining Usage Adjustment - Line 1 X Line 5	(10,969)		(5,608)
7	Priced At First Block	(10,969)		(5,608)
8	First Block Under Present Rates	$ 9.0510	$	9.0510
9	Adjustment Under Present Rates	$ (99,280)	$	(50,755)

DECLINING USAGE REVENUE ADJUSTMENT - PRESENT RATES
FOR THE TEST YEAR ENDING OCTOBER 31, 2025

		Residential		Commercial
10	Actual Normalized Bills	712,224		60,408
11	Actual 2023 Daily Usage (Gallons)	114.24		821.99
12	Projected Daily Usage in gallons - 2025	113.21		815.81
13	Difference in Daily Usage - Line 11 - Line 12	(1.03)		(6.19)
14	Difference in 1000 gallon Monthly Usage - Line 13 X 30 divided by 1000	(0.03)		(0.19)
15	Annual Declining Usage Adjustment - Line 10 X Line 5	(21,938)		(11,215)
16	Priced At First Block	(21,938)		(11,215)
17	First Block Under Present Rates	$ 9.0510	$	9.0510
18	Adjustment Under Present Rates	$ (198,560)	$	(101,509)
19	Incremental Adjustment over 2024	$ (99,280)	$	(50,755)

VEOLIA WATER PENNSYLVANIA INC.
MAIN DIVISION

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
				Residential - Monthly				
1	Customer Charge							
2	5/8	(6,522)		$ 14.50	$ (94,569)		$ 19.80	$ (129,136)
3	3/4	(96)		14.50	(1,392)		19.80	(1,901)
4	1	(396)		30.05	(11,900)		41.03	(16,248)
5	1 1/2	(96)		60.11	(5,771)		82.08	(7,880)
6	2	(30)		102.96	(3,089)		140.59	(4,218)
7	3			193.12	-		263.71	-
8	Subtotal	(7,140)			(116,721)			(159,382)
9								
10	First Block	-	(21,616)	9.0510	(195,644)	(21,616)	11.6300	(251,391)
			(4,737)	6.5790	(31,168)	(4,737)	9.2110	(43,636)
11	Subtotal	-	(26,353)		(226,812)	(26,353)		(295,028)
12								
13	Total Residential	(7,140)	(26,353)		$ (343,533)	(26,353)		$ (454,410)
14								
15								
16				Commercial - Monthly				
17	Customer Charge							
18	5/8	6,522		$ 14.50	$ 94,569		$ 19.80	$ 129,136
19	3/4	96		14.50	1,392		19.80	1,901
20	1	384		30.05	11,539		41.03	15,756
21	1 1/2	96		60.11	5,771		82.08	7,880
22	2	30		102.96	3,089		140.59	4,218
23	3			193.12	-		263.71	-
24	4			321.90	-		439.56	-
25	6			643.80	-		879.12	-
26	8			1,030.16	-		1,406.70	-
27	Subtotal	7,128			116,360			158,889
28								
29	First Block (First 25,000)	-	21,319	9.0510	192,956	21,319	11.6300	247,937
30	Second Block (Over 25,000)	-	4,687	6.5790	30,835	4,687	9.2110	43,170
31	Subtotal	-	26,006		223,791	26,006		291,108
32								
33	Total Commercial	7,128	26,006		$ 340,151	26,006		$ 449,997

VEOLIA WATER PENNSYLVANIA INC.
MAIN DIVISION

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
34								
35				Industrial - Monthly				
36	Customer Charge							
37	5/8			$ 14.50	$ -		$ 19.80	$ -
38	3/4			14.50	-		19.80	-
39	1	12		30.05	361		41.03	492
40	1 1/2			60.11	-		82.08	-
41	2			102.96	-		140.59	-
42	3			193.12	-		263.71	-
43	4			321.90	-		439.56	-
44	6			643.80	-		879.12	-
45	8			1,030.16	-		1,406.70	-
46	Subtotal	12			361			492
47								
48	First Block (First 25,000)	-	297	9.0510	2,688	297	11.6300	3,454
49	Second Block (Over 25,000)	-	51	7.4700	378	51	10.4130	527
50	Subtotal	-	348		3,066	348		3,981
51								
52	Total Industrial	12	348		$ 3,427	348		$ 4,473
53								
54				Large Industrial - Monthly				
55	Customer Charge							
56	4			321.90	-		439.56	$ -
57	Subtotal	-			-	-		-
58								
59	Take or Pay Consumption			4.0700	$ -		5.6570	$ -
60	Over Minimum Consumption	-		4.0700	-		5.6570	-
61	Subtotal	-	-		-	-		-
62								
63	Total Large Industrial	-	-		$ -	-		$ -
64								
65	Total Industrial	12	348		$ 3,427	348		$ 4,473
66								
67				Public Authority - Monthly				
68								
69	Customer Charge							
70	5/8			$ 14.50	$ -		$ 19.80	$ -
71	3/4			14.50	-		19.80	-
72	1			30.05	-		41.03	-
73	1 1/2			60.11	-		82.08	-
74	2			102.96	-		140.59	-
75	3			193.12	-		263.71	-
76	4			321.90	-		439.56	-
77	6			643.80	-		879.12	-
78	8			1,030.16	-		1,406.70	-
79	10			1,480.85	-		2,022.13	-
80	Subtotal	-			-			-
81								
82	First Block (First 25,000)	-		9.0510	-		11.6300	-
83	Second Block (Over 25,000)	-		6.5790	-		9.2110	-
84	Subtotal	-	-		-	-		-
85								
86	Total Public Authority	-	-		$ -	-		$ -
87								
88	Total	-	-		$ 45	-		$ 60

VEOLIA WATER PENNSYLVANIA INC.
OVERBROOK WATER

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
				Residential - Monthly				
1	Customer Charge, Each Family							
2	Domestic Service Charge	(1,980)		$ 8.56	$ (16,954)			
3	Hot and Cold Water Kitchen	(1,980)		6.90	(13,662)			
4	First Bath Tub/Water Closet	(1,980)		2.19	(4,341)			
5	Additonal Bath Tub/Water Closet	(990)		1.10	(1,084)			
6	First Lavatory	(1,980)		1.10	(2,168)			
7	Additional Lavatory	(1,386)		0.55	(760)			
8	Washer	(1,584)		3.43	(5,425)			
9	Dishwaser	(1,683)		2.06	(3,459)			
10	Disposal	(1,584)		0.68	(1,084)			
11	Inside Spigot	(594)		2.06	(1,221)			
12	Outside Spigot	(1,980)		2.06	(4,069)			
13	Subtotal	(17,721)			(54,226)			
14								
15	Customer Charge							
16	5/8	1,980		$ 14.50	$ 28,710		$ 19.80	$ 39,204
17	Subtotal							39,204
18								
19	Over Allowance	-	7,326	9.0510	66,308	7,326	11.63	85,201
20	Subtotal	-	7,326		66,308	7,326		85,201
21								
22	Total Residential	-	7,326		$ 40,792	7,326		$ 124,405
23								
24		Commercial - Monthly						
25	Customer Charge							
26	Domestic Service Charge	(132)		$ 8.56	(1,130)			
27	Additional Commercial Charge	(132)		5.14	(678)			
28	Hot and Cold Water Kitchen	(132)		6.90	(911)			
29	First Bath Tub/Shower	(33)		1.10	(36)			
30	First Lavatory	(132)		1.10	(145)			
31	Washer	(33)		3.43	(113)			
32	Dishwasher	(66)		2.06	(136)			
33	Disposal	(99)		0.68	(68)			
34	Outside Spigot	(132)		2.06	(271)			
35	Sprinlers	(33)		$ 10.28	(339)			
36	Subtotal	(924)			(3,827)			
37								
38								
39	Customer Charge							
40	5/8	132		14.50	$ 1,914		$ 19.80	$ 2,614
41	Subtotal							2,614
42								
43	All Usage	-	488	9.0510	4,421	488	11.6300	5,680
44	Subtotal	-	488		4,421	488		5,680
45								
46	Total Class	-	488		2,508	488		$ 8,294
47								
48								
49	Total	-	7,814		$ 43,299	7,814		$ 132,699
50								

51 **Rates are based on the number and types of water fixtures within each premise. Number of fixtures is estimated based on amount of revenue.*
52
53

VEOLIA WATER PENNSYLVANIA INC.

COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
RESIDENTIAL - MONTHLY
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES*	PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 15.59	$ 19.80	$ 4.21	27.02%
1,000	$ 25.32	$ 31.43	$ 6.11	24.14%
2,000	$ 35.05	$ 43.06	$ 8.01	22.86%
3,000	$ 44.78	$ 54.69	$ 9.91	22.14%
3,500	$ 49.64	$ 60.51	$ 10.86	21.88%
4,000	$ 54.51	$ 66.32	$ 11.81	21.67%
5,000	$ 64.24	$ 77.95	$ 13.71	21.35%
6,000	$ 73.97	$ 89.58	$ 15.61	21.11%
7,000	$ 83.70	$ 101.21	$ 17.51	20.93%
8,000	$ 93.43	$ 112.84	$ 19.41	20.78%
9,000	$ 103.16	$ 124.47	$ 21.31	20.66%
10,000	$ 112.89	$ 136.10	$ 23.21	20.56%
11,000	$ 122.62	$ 147.73	$ 25.11	20.48%
12,000	$ 132.35	$ 159.36	$ 27.01	20.41%
13,000	$ 142.08	$ 170.99	$ 28.91	20.35%
14,000	$ 151.81	$ 182.62	$ 30.81	20.30%
15,000	$ 161.53	$ 194.25	$ 32.72	20.25%
16,000	$ 171.26	$ 205.88	$ 34.62	20.21%
17,000	$ 180.99	$ 217.51	$ 36.52	20.17%
18,000	$ 190.72	$ 229.14	$ 38.42	20.14%
19,000	$ 200.45	$ 240.77	$ 40.32	20.11%
20,000	$ 210.18	$ 252.40	$ 42.22	20.09%
25,000	$ 258.83	$ 310.55	$ 51.72	19.98%
30,000	$ 307.48	$ 368.70	$ 61.22	19.91%
35,000	$ 356.13	$ 426.85	$ 70.72	19.86%
40,000	$ 404.78	$ 485.00	$ 80.22	19.82%
45,000	$ 453.43	$ 543.15	$ 89.72	19.79%
50,000	$ 502.08	$ 601.30	$ 99.22	19.76%
60,000	$ 599.38	$ 717.60	$ 118.22	19.72%
70,000	$ 696.68	$ 833.90	$ 137.22	19.70%
80,000	$ 793.97	$ 950.20	$ 156.23	19.68%
90,000	$ 891.27	$ 1,066.50	$ 175.23	19.66%
100,000	$ 988.57	$ 1,182.80	$ 194.23	19.65%
110,000	$ 1,085.87	$ 1,299.10	$ 213.23	19.64%
120,000	$ 1,183.17	$ 1,415.40	$ 232.23	19.63%
130,000	$ 1,280.46	$ 1,531.70	$ 251.24	19.62%
140,000	$ 1,377.76	$ 1,648.00	$ 270.24	19.61%
150,000	$ 1,475.06	$ 1,764.30	$ 289.24	19.61%
160,000	$ 1,572.36	$ 1,880.60	$ 308.24	19.60%
170,000	$ 1,669.66	$ 1,996.90	$ 327.24	19.60%
180,000	$ 1,766.96	$ 2,113.20	$ 346.24	19.60%

** Present rates include 7.50% DSIC.

VEOLIA WATER PENNSYLVANIA INC.

COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
COMMERCIAL - MONTHLY
2-INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES*	PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 110.68	$ 140.59	$ 29.91	27.02%
1,000	$ 120.41	$ 152.22	$ 31.81	26.42%
5,000	$ 159.33	$ 198.74	$ 39.41	24.73%
10,000	$ 207.98	$ 256.89	$ 48.91	23.52%
11,000	$ 217.71	$ 268.52	$ 50.81	23.34%
12,000	$ 227.44	$ 280.15	$ 52.71	23.18%
13,000	$ 237.17	$ 291.78	$ 54.61	23.03%
14,000	$ 246.90	$ 303.41	$ 56.51	22.89%
15,000	$ 256.63	$ 315.04	$ 58.41	22.76%
16,000	$ 266.36	$ 326.67	$ 60.31	22.64%
17,000	$ 276.09	$ 338.30	$ 62.21	22.53%
18,000	$ 285.82	$ 349.93	$ 64.11	22.43%
19,000	$ 295.55	$ 361.56	$ 66.01	22.34%
20,000	$ 305.28	$ 373.19	$ 67.91	22.25%
25,000	$ 353.93	$ 431.34	$ 77.41	21.87%
30,000	$ 389.29	$ 477.40	$ 88.11	22.63%
35,000	$ 424.65	$ 523.45	$ 98.80	23.27%
40,000	$ 460.01	$ 569.51	$ 109.49	23.80%
45,000	$ 495.38	$ 615.56	$ 120.18	24.26%
50,000	$ 530.74	$ 661.62	$ 130.88	24.66%
60,000	$ 601.46	$ 753.73	$ 152.26	25.32%
75,000	$ 707.55	$ 891.89	$ 184.34	26.05%
85,000	$ 778.27	$ 984.00	$ 205.73	26.43%
95,000	$ 849.00	$ 1,076.11	$ 227.11	26.75%
105,000	$ 919.72	$ 1,168.22	$ 248.50	27.02%
115,000	$ 990.45	$ 1,260.33	$ 269.88	27.25%
125,000	$ 1,061.17	$ 1,352.44	$ 291.27	27.45%
135,000	$ 1,131.89	$ 1,444.55	$ 312.66	27.62%
145,000	$ 1,202.62	$ 1,536.66	$ 334.04	27.78%
155,000	$ 1,273.34	$ 1,628.77	$ 355.43	27.91%
165,000	$ 1,344.07	$ 1,720.88	$ 376.81	28.04%
175,000	$ 1,414.79	$ 1,812.99	$ 398.20	28.15%
185,000	$ 1,485.52	$ 1,905.10	$ 419.58	28.25%

** Present rates include 7.50% DSIC.

VEOLIA WATER PENNSYLVANIA INC.

COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
INDUSTRIAL - MONTHLY
4-INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES*	BILLS UNDER PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 346.04	$ 439.56	$ 93.52	27.02%
1,000	$ 355.77	$ 451.19	$ 95.42	26.82%
5,000	$ 394.69	$ 497.71	$ 103.02	26.10%
10,000	$ 443.34	$ 555.86	$ 112.52	25.38%
15,000	$ 491.99	$ 614.01	$ 122.02	24.80%
20,000	$ 540.64	$ 672.16	$ 131.52	24.33%
25,000	$ 589.29	$ 730.31	$ 141.02	23.93%
30,000	$ 629.44	$ 782.38	$ 152.94	24.30%
35,000	$ 669.59	$ 834.44	$ 164.85	24.62%
40,000	$ 709.74	$ 886.51	$ 176.76	24.91%
45,000	$ 749.89	$ 938.57	$ 188.68	25.16%
50,000	$ 790.04	$ 990.64	$ 200.59	25.39%
100,000	$ 1,191.56	$ 1,511.29	$ 319.73	26.83%
150,000	$ 1,593.07	$ 2,031.94	$ 438.87	27.55%
200,000	$ 1,994.58	$ 2,552.59	$ 558.00	27.98%
225,000	$ 2,195.34	$ 2,812.91	$ 617.57	28.13%
250,000	$ 2,396.09	$ 3,073.24	$ 677.14	28.26%
275,000	$ 2,596.85	$ 3,333.56	$ 736.71	28.37%
300,000	$ 2,797.61	$ 3,593.89	$ 796.28	28.46%
350,000	$ 3,199.12	$ 4,114.54	$ 915.42	28.61%

** Present rates include 7.50% DSIC.

VEOLIA WATER PENNSYLVANIA INC.

COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
LARGE INDUSTRIAL - MONTHLY
6 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES*	BILLS UNDER PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
7,000,000	$ 31,318.84	$ 40,478.12	$ 9,159.29	29.25%
8,000,000	35,694.09	46,135.12	10,441.04	29.25%
9,000,000	40,069.34	51,792.12	11,722.79	29.26%
10,000,000	44,444.59	57,449.12	13,004.54	29.26%
11,000,000	48,819.84	63,106.12	14,286.29	29.26%
12,000,000	53,195.09	68,763.12	15,568.04	29.27%
13,000,000	57,570.34	74,420.12	16,849.79	29.27%
14,000,000	61,946.66	80,077.12	18,130.46	29.27%
15,000,000	66,320.84	85,734.12	19,413.29	29.27%
16,000,000	70,696.09	91,391.12	20,695.04	29.27%

** Present rates include 7.50% DSIC.

VEOLIA WATER PENNSYLVANIA INC.

COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
PUBLIC - MONTHLY
5/8 INCH METERS

CONSUMPTION 100 GALLONS	BILLS UNDER PRESENT RATES*	PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 15.59	$ 19.80	$ 4.21	27.02%
1,000	$ 25.32	$ 31.43	$ 6.11	24.14%
2,000	$ 35.05	$ 43.06	$ 8.01	22.86%
3,000	$ 44.78	$ 54.69	$ 9.91	22.14%
4,000	$ 54.51	$ 66.32	$ 11.81	21.67%
5,000	$ 64.24	$ 77.95	$ 13.71	21.35%
10,000	$ 112.89	$ 136.10	$ 23.21	20.56%
15,000	$ 161.53	$ 194.25	$ 32.72	20.25%
20,000	$ 210.18	$ 252.40	$ 42.22	20.09%
25,000	$ 258.83	$ 310.55	$ 51.72	19.98%
30,000	$ 294.20	$ 356.61	$ 62.41	21.21%
35,000	$ 329.56	$ 402.66	$ 73.10	22.18%
40,000	$ 364.92	$ 448.72	$ 83.80	22.96%
45,000	$ 400.28	$ 494.77	$ 94.49	23.61%
50,000	$ 435.64	$ 540.83	$ 105.18	24.14%
93,000	$ 739.76	$ 936.90	$ 197.14	26.65%
150,000	$ 1,142.89	$ 1,461.93	$ 319.04	27.92%
200,000	$ 1,496.51	$ 1,922.48	$ 425.97	28.46%
225,000	$ 1,673.32	$ 2,152.75	$ 479.43	28.65%
250,000	$ 1,850.13	$ 2,383.03	$ 532.90	28.80%
275,000	$ 2,026.94	$ 2,613.30	$ 586.36	28.93%
300,000	$ 2,203.75	$ 2,843.58	$ 639.83	29.03%
350,000	$ 2,557.37	$ 3,304.13	$ 746.75	29.20%

** Present rates include 7.50% DSIC.

VEOLIA WATER PENNSYLVANIA INC.
BETHEL CUSTOMERS
COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
RESIDENTIAL - MONTHLY
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES*	PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 6.78	$ 19.80	$ 13.02	191.90%
1,000	$ 11.40	$ 24.85	$ 13.46	118.08%
2,000	$ 16.01	$ 29.90	$ 13.89	86.80%
3,000	$ 20.62	$ 34.95	$ 14.33	69.51%
3,500	$ 22.92	$ 37.48	$ 14.55	63.47%
4,000	$ 25.23	$ 40.00	$ 14.77	58.54%
5,000	$ 29.84	$ 45.05	$ 15.21	50.96%
6,000	$ 34.45	$ 50.10	$ 15.65	45.41%
7,000	$ 39.07	$ 55.15	$ 16.08	41.17%
8,000	$ 43.68	$ 60.20	$ 16.52	37.83%
9,000	$ 48.29	$ 65.25	$ 16.96	35.12%
10,000	$ 52.90	$ 70.30	$ 17.40	32.89%
11,000	$ 57.51	$ 75.35	$ 17.84	31.01%
12,000	$ 61.70	$ 80.40	$ 18.70	30.32%
13,000	$ 65.88	$ 85.45	$ 19.57	29.71%
14,000	$ 70.06	$ 90.50	$ 20.44	29.17%
15,000	$ 74.24	$ 95.55	$ 21.31	28.70%
16,000	$ 78.43	$ 100.60	$ 22.17	28.27%
17,000	$ 82.61	$ 105.65	$ 23.04	27.89%
18,000	$ 86.79	$ 110.70	$ 23.91	27.55%
19,000	$ 90.98	$ 115.75	$ 24.77	27.23%
20,000	$ 95.16	$ 120.80	$ 25.64	26.95%
25,000	$ 116.07	$ 146.05	$ 29.98	25.83%
30,000	$ 136.99	$ 171.30	$ 34.31	25.05%
35,000	$ 157.90	$ 196.55	$ 38.65	24.48%
40,000	$ 178.81	$ 221.80	$ 42.99	24.04%
45,000	$ 199.73	$ 247.05	$ 47.32	23.69%
50,000	$ 220.64	$ 272.30	$ 51.66	23.41%
60,000	$ 258.92	$ 322.80	$ 63.88	24.67%
70,000	$ 296.80	$ 373.30	$ 76.50	25.77%
80,000	$ 334.69	$ 423.80	$ 89.11	26.63%
90,000	$ 372.57	$ 474.30	$ 101.73	27.31%
100,000	$ 410.45	$ 524.80	$ 114.35	27.86%
110,000	$ 448.34	$ 575.30	$ 126.96	28.32%
120,000	$ 486.22	$ 625.80	$ 139.58	28.71%
130,000	$ 524.10	$ 676.30	$ 152.20	29.04%
140,000	$ 561.98	$ 726.80	$ 164.82	29.33%
150,000	$ 599.87	$ 777.30	$ 177.43	29.58%
160,000	$ 637.75	$ 827.80	$ 190.05	29.80%
170,000	$ 675.63	$ 878.30	$ 202.67	30.00%
180,000	$ 713.52	$ 928.80	$ 215.28	30.17%

** Present rates include 7.50% DSIC.

VEOLIA WATER PENNSYLVANIA INC.
BETHEL CUSTOMERS
COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
COMMERCIAL - MONTHLY
5/8-INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES*	PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 6.78	$ 19.80	$ 13.02	191.90%
1,000	$ 11.40	$ 24.85	$ 13.46	118.08%
3,500	$ 22.92	$ 37.48	$ 14.55	63.47%
10,000	$ 52.90	$ 70.30	$ 17.40	32.89%
11,000	$ 57.51	$ 75.35	$ 17.84	31.01%
12,000	$ 61.70	$ 80.40	$ 18.70	30.32%
13,000	$ 65.88	$ 85.45	$ 19.57	29.71%
14,000	$ 70.06	$ 90.50	$ 20.44	29.17%
15,000	$ 74.24	$ 95.55	$ 21.31	28.70%
16,000	$ 78.43	$ 100.60	$ 22.17	28.27%
17,000	$ 82.61	$ 105.65	$ 23.04	27.89%
18,000	$ 86.79	$ 110.70	$ 23.91	27.55%
19,000	$ 90.98	$ 115.75	$ 24.77	27.23%
20,000	$ 95.16	$ 120.80	$ 25.64	26.95%
25,000	$ 116.07	$ 146.05	$ 29.98	25.83%
30,000	$ 136.99	$ 166.05	$ 29.06	21.22%
35,000	$ 157.90	$ 186.05	$ 28.15	17.83%
40,000	$ 178.81	$ 206.05	$ 27.24	15.23%
45,000	$ 199.73	$ 226.05	$ 26.32	13.18%
50,000	$ 220.64	$ 246.05	$ 25.41	11.52%
60,000	$ 258.92	$ 286.05	$ 27.13	10.48%
75,000	$ 315.74	$ 346.05	$ 30.31	9.60%
85,000	$ 353.63	$ 386.05	$ 32.42	9.17%
95,000	$ 391.51	$ 426.05	$ 34.54	8.82%
105,000	$ 429.39	$ 466.05	$ 36.66	8.54%
115,000	$ 467.28	$ 506.05	$ 38.77	8.30%
125,000	$ 505.16	$ 546.05	$ 40.89	8.09%
135,000	$ 543.04	$ 586.05	$ 43.01	7.92%
145,000	$ 580.93	$ 626.05	$ 45.12	7.77%
155,000	$ 618.81	$ 666.05	$ 47.24	7.63%
165,000	$ 656.69	$ 706.05	$ 49.36	7.52%
175,000	$ 694.57	$ 746.05	$ 51.48	7.41%
185,000	$ 732.46	$ 786.05	$ 53.59	7.32%

** Present rates include 7.50% DSIC.

VEOLIA WATER PENNSYLVANIA INC.
OVERBROOK CUSTOMERS
COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
RESIDENTIAL - MONTHLY
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES*	PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 27.22	$ 19.80	$ (7.42)	-27.27%
1,000	$ 27.22	$ 31.43	$ 4.21	15.45%
2,000	$ 27.22	$ 43.06	$ 15.84	58.17%
3,000	$ 27.22	$ 54.69	$ 27.47	100.89%
3,500	$ 27.22	$ 60.51	$ 33.28	122.25%
4,000	$ 27.22	$ 66.32	$ 39.10	143.61%
5,000	$ 27.22	$ 77.95	$ 50.73	186.32%
6,000	$ 27.22	$ 89.58	$ 62.36	229.04%
7,000	$ 27.22	$ 101.21	$ 73.99	271.76%
8,000	$ 27.22	$ 112.84	$ 85.62	314.48%
9,000	$ 27.22	$ 124.47	$ 97.25	357.20%
10,000	$ 27.22	$ 136.10	$ 108.88	399.92%
11,000	$ 27.22	$ 147.73	$ 120.51	442.64%
12,000	$ 27.22	$ 159.36	$ 132.14	485.36%
13,000	$ 27.22	$ 170.99	$ 143.77	528.08%
14,000	$ 27.22	$ 182.62	$ 155.40	570.80%
15,000	$ 27.22	$ 194.25	$ 167.03	613.52%
16,000	$ 27.22	$ 205.88	$ 178.66	656.23%
17,000	$ 27.22	$ 217.51	$ 190.29	698.95%
18,000	$ 27.22	$ 229.14	$ 201.92	741.67%
19,000	$ 27.22	$ 240.77	$ 213.55	784.39%
20,000	$ 27.22	$ 252.40	$ 225.18	827.11%
25,000	$ 27.22	$ 310.55	$ 283.33	1040.71%
30,000	$ 27.22	$ 368.70	$ 341.48	1254.30%
35,000	$ 27.22	$ 426.85	$ 399.63	1467.90%
40,000	$ 27.22	$ 485.00	$ 457.78	1681.49%
45,000	$ 27.22	$ 543.15	$ 515.93	1895.09%
50,000	$ 27.22	$ 601.30	$ 574.08	2108.68%
60,000	$ 27.22	$ 717.60	$ 690.38	2535.87%
70,000	$ 27.22	$ 833.90	$ 806.68	2963.06%
80,000	$ 27.22	$ 950.20	$ 922.98	3390.25%
90,000	$ 27.22	$ 1,066.50	$ 1,039.28	3817.45%
100,000	$ 27.22	$ 1,182.80	$ 1,155.58	4244.64%
110,000	$ 27.22	$ 1,299.10	$ 1,271.88	4671.83%
120,000	$ 27.22	$ 1,415.40	$ 1,388.18	5099.02%
130,000	$ 27.22	$ 1,531.70	$ 1,504.48	5526.21%
140,000	$ 27.22	$ 1,648.00	$ 1,620.78	5953.40%
150,000	$ 27.22	$ 1,764.30	$ 1,737.08	6380.59%
160,000	$ 27.22	$ 1,880.60	$ 1,853.38	6807.78%
170,000	$ 27.22	$ 1,996.90	$ 1,969.68	7234.97%
180,000	$ 27.22	$ 2,113.20	$ 2,085.98	7662.16%

* Present rates include 7.50% DSIC. Present monthly rates are estimated.

VEOLIA WATER PENNSYLVANIA INC.
KENSINGTON CUSTOMERS
COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
RESIDENTIAL - MONTHLY
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES*	PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 16.13	$ 19.80	$ 3.68	22.79%
1,000	$ 16.13	$ 31.43	$ 15.31	94.91%
2,000	$ 18.67	$ 43.06	$ 24.39	130.68%
3,000	$ 26.30	$ 54.69	$ 28.39	107.95%
3,500	$ 30.12	$ 60.51	$ 30.39	100.91%
4,000	$ 33.93	$ 66.32	$ 32.39	95.45%
5,000	$ 41.56	$ 77.95	$ 36.39	87.54%
6,000	$ 49.20	$ 89.58	$ 40.38	82.09%
7,000	$ 56.83	$ 101.21	$ 44.38	78.10%
8,000	$ 64.46	$ 112.84	$ 48.38	75.05%
9,000	$ 72.09	$ 124.47	$ 52.38	72.65%
10,000	$ 79.73	$ 136.10	$ 56.37	70.71%
11,000	$ 87.36	$ 147.73	$ 60.37	69.11%
12,000	$ 94.99	$ 159.36	$ 64.37	67.76%
13,000	$ 102.62	$ 170.99	$ 68.37	66.62%
14,000	$ 110.26	$ 182.62	$ 72.36	65.63%
15,000	$ 117.89	$ 194.25	$ 76.36	64.77%
16,000	$ 125.52	$ 205.88	$ 80.36	64.02%
17,000	$ 133.15	$ 217.51	$ 84.36	63.35%
18,000	$ 140.79	$ 229.14	$ 88.35	62.76%
19,000	$ 148.42	$ 240.77	$ 92.35	62.22%
20,000	$ 156.05	$ 252.40	$ 96.35	61.74%
25,000	$ 194.21	$ 310.55	$ 116.34	59.90%
30,000	$ 232.38	$ 368.70	$ 136.32	58.66%
35,000	$ 270.54	$ 426.85	$ 156.31	57.78%
40,000	$ 308.70	$ 485.00	$ 176.30	57.11%
45,000	$ 346.86	$ 543.15	$ 196.29	56.59%
50,000	$ 385.03	$ 601.30	$ 216.27	56.17%
60,000	$ 461.35	$ 717.60	$ 256.25	55.54%
70,000	$ 537.68	$ 833.90	$ 296.22	55.09%
80,000	$ 614.00	$ 950.20	$ 336.20	54.76%
90,000	$ 690.33	$ 1,066.50	$ 376.17	54.49%
100,000	$ 766.65	$ 1,182.80	$ 416.15	54.28%
110,000	$ 842.98	$ 1,299.10	$ 456.12	54.11%
120,000	$ 919.30	$ 1,415.40	$ 496.10	53.96%
130,000	$ 995.63	$ 1,531.70	$ 536.07	53.84%
140,000	$ 1,071.95	$ 1,648.00	$ 576.05	53.74%
150,000	$ 1,148.28	$ 1,764.30	$ 616.02	53.65%
160,000	$ 1,224.60	$ 1,880.60	$ 656.00	53.57%
170,000	$ 1,300.93	$ 1,996.90	$ 695.97	53.50%
180,000	$ 1,377.25	$ 2,113.20	$ 735.95	53.44%

** Present rates include 7.50% DSIC.

VEOLIA WATER PENNSYLVANIA INC.
MAHONING CUSTOMERS
COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
RESIDENTIAL - MONTHLY
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES*	PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 22.98	$ 19.80	$ (3.18)	-13.85%
1,000	$ 22.98	$ 31.43	$ 8.45	36.75%
2,000	$ 22.98	$ 43.06	$ 20.08	87.35%
3,000	$ 27.81	$ 54.69	$ 26.88	96.65%
3,500	$ 30.22	$ 60.51	$ 30.28	100.19%
4,000	$ 32.64	$ 66.32	$ 33.68	103.20%
5,000	$ 37.46	$ 77.95	$ 40.49	108.07%
6,000	$ 42.29	$ 89.58	$ 47.29	111.82%
7,000	$ 47.12	$ 101.21	$ 54.09	114.80%
8,000	$ 51.94	$ 112.84	$ 60.90	117.23%
9,000	$ 56.77	$ 124.47	$ 67.70	119.25%
10,000	$ 61.60	$ 136.10	$ 74.50	120.95%
11,000	$ 66.42	$ 147.73	$ 81.31	122.40%
12,000	$ 71.25	$ 159.36	$ 88.11	123.66%
13,000	$ 76.08	$ 170.99	$ 94.91	124.76%
14,000	$ 80.90	$ 182.62	$ 101.72	125.72%
15,000	$ 85.73	$ 194.25	$ 108.52	126.58%
16,000	$ 90.56	$ 205.88	$ 115.32	127.35%
17,000	$ 95.38	$ 217.51	$ 122.13	128.03%
18,000	$ 100.21	$ 229.14	$ 128.93	128.66%
19,000	$ 105.04	$ 240.77	$ 135.73	129.22%
20,000	$ 109.87	$ 252.40	$ 142.54	129.74%
25,000	$ 134.00	$ 310.55	$ 176.55	131.76%
30,000	$ 158.13	$ 368.70	$ 210.57	133.16%
35,000	$ 182.27	$ 426.85	$ 244.58	134.19%
40,000	$ 206.40	$ 485.00	$ 278.60	134.98%
45,000	$ 230.53	$ 543.15	$ 312.62	135.61%
50,000	$ 254.67	$ 601.30	$ 346.63	136.11%
60,000	$ 302.94	$ 717.60	$ 414.67	136.88%
70,000	$ 351.20	$ 833.90	$ 482.70	137.44%
80,000	$ 399.47	$ 950.20	$ 550.73	137.87%
90,000	$ 447.74	$ 1,066.50	$ 618.76	138.20%
100,000	$ 496.01	$ 1,182.80	$ 686.80	138.47%
110,000	$ 544.27	$ 1,299.10	$ 754.83	138.69%
120,000	$ 592.54	$ 1,415.40	$ 822.86	138.87%
130,000	$ 640.81	$ 1,531.70	$ 890.89	139.03%
140,000	$ 689.08	$ 1,648.00	$ 958.93	139.16%
150,000	$ 737.34	$ 1,764.30	$ 1,026.96	139.28%
160,000	$ 785.61	$ 1,880.60	$ 1,094.99	139.38%
170,000	$ 833.88	$ 1,996.90	$ 1,163.02	139.47%
180,000	$ 882.15	$ 2,113.20	$ 1,231.06	139.55%

** Present rates include 7.50% DSIC.

VEOLIA WATER PENNSYLVANIA INC.
MAHONING CUSTOMERS
COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
COMMERCIAL - MONTHLY
3/4 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES*	PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 28.97	$ 19.80	$ (9.17)	-31.66%
1,000	$ 28.97	$ 31.43	$ 2.46	8.49%
2,000	$ 28.97	$ 43.06	$ 14.09	48.63%
3,000	$ 33.80	$ 54.69	$ 20.89	61.81%
3,500	$ 36.21	$ 60.51	$ 24.29	67.09%
4,000	$ 38.62	$ 66.32	$ 27.70	71.70%
5,000	$ 43.45	$ 77.95	$ 34.50	79.40%
6,000	$ 48.28	$ 89.58	$ 41.30	85.55%
7,000	$ 53.11	$ 101.21	$ 48.11	90.58%
8,000	$ 57.93	$ 112.84	$ 54.91	94.78%
9,000	$ 62.76	$ 124.47	$ 61.71	98.33%
10,000	$ 67.59	$ 136.10	$ 68.51	101.38%
11,000	$ 72.41	$ 147.73	$ 75.32	104.01%
12,000	$ 77.24	$ 159.36	$ 82.12	106.32%
13,000	$ 82.07	$ 170.99	$ 88.92	108.36%
14,000	$ 86.89	$ 182.62	$ 95.73	110.17%
15,000	$ 91.72	$ 194.25	$ 102.53	111.79%
16,000	$ 96.55	$ 205.88	$ 109.33	113.25%
17,000	$ 101.37	$ 217.51	$ 116.14	114.57%
18,000	$ 106.20	$ 229.14	$ 122.94	115.76%
19,000	$ 111.03	$ 240.77	$ 129.74	116.86%
20,000	$ 115.85	$ 252.40	$ 136.55	117.86%
25,000	$ 139.99	$ 310.55	$ 170.56	121.84%
30,000	$ 164.12	$ 356.61	$ 192.48	117.28%
35,000	$ 188.25	$ 402.66	$ 214.41	113.89%
40,000	$ 212.39	$ 448.72	$ 236.33	111.27%
45,000	$ 236.52	$ 494.77	$ 258.25	109.19%
50,000	$ 260.66	$ 540.83	$ 280.17	107.49%
60,000	$ 308.92	$ 632.94	$ 324.01	104.88%
70,000	$ 357.19	$ 725.05	$ 367.85	102.99%
80,000	$ 405.46	$ 817.16	$ 411.70	101.54%
90,000	$ 453.73	$ 909.27	$ 455.54	100.40%
100,000	$ 501.99	$ 1,001.38	$ 499.38	99.48%
110,000	$ 550.26	$ 1,093.49	$ 543.22	98.72%
120,000	$ 598.53	$ 1,185.60	$ 587.07	98.09%
130,000	$ 646.80	$ 1,277.71	$ 630.91	97.54%
140,000	$ 695.06	$ 1,369.82	$ 674.75	97.08%
150,000	$ 743.33	$ 1,461.93	$ 718.59	96.67%
160,000	$ 791.60	$ 1,554.04	$ 762.44	96.32%
170,000	$ 839.87	$ 1,646.15	$ 806.28	96.00%
180,000	$ 888.13	$ 1,738.26	$ 850.12	95.72%

** Present rates include 7.50% DSIC.

VEOLIA WATER PENNSYLVANIA INC.

COMPARISON OF PRESENT AND PROPOSED RATES

Main Division Customers

Residential

MTR SIZE	Present Rate	Proposed Rate	% Increase	
5/8"-3/4"	$ 14.50	$ 19.80	36.55%	5.30
1"	30.05	41.03	36.54%	10.98
1-1/2"	60.11	82.08	36.55%	21.97
2"	102.96	140.59	36.55%	37.63
3"	193.12	263.71	36.55%	70.59
4"	321.90	439.56	36.55%	117.66
6"	643.80	879.12	36.55%	235.32
8"	1,030.16	1,406.70	36.55%	376.54
10"	1,480.85	2,022.13	36.55%	541.28
Consumption Charge				
No Block	$ 9.0510	$ 11.6300	28.49%	
First 25 MGL				
All Over 25 MGL				

Commercial (includes Apt)

	Present Rate	Proposed Rate	% Increase
Service Charge	$ 14.50	$ 19.80	36.55%
	30.05	41.03	36.54%
	60.11	82.08	36.55%
	102.96	140.59	36.55%
	193.12	263.71	36.55%
	321.90	439.56	36.55%
	643.80	879.12	36.55%
	1,030.16	1,406.70	36.55%
	1,480.85	2,022.13	36.55%
Consumption Charge			
	$ 9.0510	$ 11.6300	28.49%
	6.5790	9.2110	40.01%

Industrial

	Present Rate	Proposed Rate	% Increase
Service Charge	$ 14.50	$ 19.80	36.55%
	30.05	41.03	36.54%
	60.11	82.08	36.55%
	102.96	140.59	36.55%
	193.12	263.71	36.55%
	321.90	439.56	36.55%
	643.80	879.12	36.55%
	1,030.16	1,406.70	36.55%
	1,480.85	2,022.13	36.55%
Consumption Charge			
	$ 9.0510	$ 11.6300	28.49%
	7.4700	10.4130	39.40%

Main Division Customers

Public Authority

MTR SIZE	Present Rate	Proposed Rate	% Increase
5/8"-3/4"	$ 14.50	$ 19.80	36.55%
1"	30.05	41.03	36.54%
1-1/2"	60.11	82.08	36.55%
2"	102.96	140.59	36.55%
3"	193.12	263.71	36.55%
4"	321.90	439.56	36.55%
6"	643.80	879.12	36.55%
8"	1,030.16	1,406.70	36.55%
10"	1,480.85	2,022.13	36.55%
Consumption Charge			
No Block			
First 25 MGL	$ 9.0510	$ 11.6300	28.49%
All Over 25 MGL	6.5790	9.2110	40.01%

Large Industrial

	Present Rate	Proposed Rate	% Increase
Service Charge	$ 14.50	$ 19.80	36.55%
	30.05	41.03	36.54%
	60.11	82.08	36.55%
	102.96	140.59	36.55%
	193.12	263.71	36.55%
	321.90	439.56	36.55%
	643.80	879.12	36.55%
	1,030.16	1,406.70	36.55%
	1,480.85	2,022.13	36.55%
Minimum Charge		39,599.00	
Consumption Charge			
	$ 4.07000	$ 5.6570	38.99%

Bethel Water Cutomers

Residential

MTR SIZE	Present Rate	Proposed Rate	% Increase	
5/8"	$ 6.31	$ 19.80	213.79%	13.49
3/4"	15.01	19.80	31.91%	4.79
1"	23.68	41.03	73.27%	17.35
1-1/2"	58.40	82.08	40.55%	23.68
2"	75.76	140.59	85.57%	64.83
3"	119.21	263.71	121.21%	144.50
4"	252.72	439.56	73.93%	186.84
6"	336.17	879.12	161.51%	542.95
8"	527.39	1,406.70	166.73%	879.31
10"	892.16	2,022.13	126.66%	1,129.97
Consumption Charge				
First Block First 11 MGL	$ 4.2900	N/A		
Second Block Next 40 MGL	3.8910	N/A		
Third Block Over 51 MGL	3.5240	N/A		
Proposed No Block		$ 5.0500		
Proposed First 25 MGL				
Proposed All Over 25 MGL				

Commercial (includes Apt)

	Present Rate	Proposed Rate	% Increase
Service Charge	$ 6.31	$ 19.80	213.79%
	15.01	19.80	31.91%
	23.68	41.03	73.27%
	58.40	82.08	40.55%
	75.76	140.59	85.57%
	119.21	263.71	121.21%
	252.72	439.56	73.93%
	336.17	879.12	161.51%
	527.39	1,406.70	166.73%
	892.16	2,022.13	126.66%
Consumption Charge			
	$ 4.2900	N/A	
	3.8910	N/A	
	3.5240	N/A	
		5.0500	
		4.0000	

Sales for Resale

	Present Rate	Proposed Rate	% Increase
Service Charge	$ 6.31	$ 19.80	213.79%
	15.01	19.80	31.91%
	23.68	41.03	73.27%
	58.40	82.08	40.55%
	75.76	140.59	85.57%
	119.21	263.71	121.21%
	252.72	439.56	73.93%
	336.17	879.12	161.51%
	527.39	1,406.70	166.73%
	892.16	2,022.13	126.66%
Consumption Charge			
	$ 3.2520	$ 5.8540	80.012%

Kensington Customers

Residential

MTR SIZE	Present Rate	Proposed Rate	% Increase	
5/8"-3/4"	$ 15.00	$ 19.80	32.00%	4.80
1"	15.00	41.03	173.53%	26.03
1-1/2"	15.00	82.08	447.20%	67.08
2"	15.00	140.59	837.27%	125.59
3"	15.00	263.71	1658.07%	248.71
4"	15.00	439.56	2830.40%	424.56
6"	15.00	879.12	5760.80%	864.12
8"	15.00	1,406.70	9278.00%	1,391.70
10"	15.00	2,022.13	13380.87%	2,007.13
Consumption Charge				
Allowance/Proposed No Blk	$ -	$ 11.6300		
First Block/Proposed No Blk	7.1000	11.6300	63.803%	
Proposed First 25 MGL				
Proposed All Over 25 MGL				

Commercial (includes Apt)

	Present Rate	Proposed Rate	% Increase
Service Charge	$ 15.00	$ 19.80	32.00%
	15.00	41.03	173.53%
	15.00	82.08	447.20%
	15.00	140.59	837.27%
	15.00	263.71	1658.07%
	15.00	439.56	2830.40%
	15.00	879.12	5760.80%
	15.00	1,406.70	9278.00%
	15.00	2,022.13	13380.87%
Consumption Charge			
	$ -	N/A	
	7.1000	N/A	
		$ 11.6300	63.803%
		$ 9.2110	

Overbrook Customers

Residential & Non-Residential

	Present Rate	Proposed Rate	% Increase
Service Charge	Various*	$ 19.80	
	Various*	41.03	
	Various*	82.08	
	Various*	140.59	
	Various*	263.71	
	Various*	439.56	
	Various*	879.12	
	Various*	1,406.70	
	Various*	2,022.13	
Consumption Charge Residential (All Usage)	$ -	$ 11.6300	
Consumption Charge Non-Residential		$ 11.6300	
		$ 9.2110	

**Present rate structure charges customers by number and types of water fixtures in household or commercial establishment.*

VEOLIA WATER PENNSYLVANIA INC.

COMPARISON OF PRESENT AND PROPOSED RATES

Mahoning Township Customers

MTR SIZE	Residential Present Rate	Residential Proposed Rate	Residential % Increase		Commercial (includes Apt) Present Rate	Commercial (includes Apt) Proposed Rate	Commercial (includes Apt) % Increase
	Service Charge				**Service Charge**		
5/8"	$ 21.38	$ 19.80	-7.39%	(1.58)	$ 21.38	$ 19.80	-7.39%
3/4"	$ 26.95	$ 19.80	-26.53%	(7.15)	$ 26.95	$ 19.80	-26.53%
1"	$ 32.95	$ 41.03	24.52%	8.08	$ 32.95	$ 41.03	24.52%
1-1/2"	$ 44.94	$ 82.08	82.64%	37.14	$ 44.94	$ 82.08	82.64%
2"	$ 56.95	$ 140.59	146.87%	83.64	$ 56.95	$ 140.59	146.87%
3"	$ 56.95	$ 263.71	363.06%	206.76	$ 56.95	$ 263.71	363.06%
4"	$ 104.96	$ 439.56	318.79%	334.60	$ 104.96	$ 439.56	318.79%
6"	$ 152.97	$ 879.12	474.70%	726.15	$ 152.97	$ 879.12	474.70%
8"		$ 1,406.70		1,406.70	$ -	$ 1,406.70	
10"		$ 2,022.13		2,022.13	$ -	$ 2,022.13	
Geisinger	$ 26.95	$ 19.80	-26.531%		$ 26.95	$ 19.80	-26.531%
	Consumption Charge				**Consumption Charge**		
Allowance/Proposed No Blk	$ -	$ 11.6300			$ -	N/A	
First Block/Proposed No Blk	$ 4.4900	$ 11.6300	159.020%		$ 4.4900	N/A	
Proposed First 25 MGL						$ 11.6300	
Proposed All Over 25 MGL						$ 9.2110	

FIRE PROTECTION

Main Division, Mahoning Township, Kensington and Overbrook Customers

CONNECTION SIZE	Private Fire Protection-Monthly Current Per Unit	Private Fire Protection-Monthly Proposed Rate	Private Fire Protection-Monthly % Increase	Private Fire Hydrant-Monthly Current Per Unit	Private Fire Hydrant-Monthly Proposed Rate	Private Fire Hydrant-Monthly % Increase	Public Fire Protection-Monthly	Current Per Unit	Proposed Rate
2"	$ 21.23	$ 33.61	58.31%	$ 47.30	$ 74.88	58.31%	Hydrants-BMB	$ 20.00	$ 34.84
3"	57.26	90.64	58.30%				Hydrants-DAL	20.00	34.84
4"	73.44	116.26	58.31%				Hydrants-HAR	25.83	35.41
6"	122.08	193.25	58.30%				Hydrants-MEC	25.83	35.41
8"	181.96	288.04	58.30%						
10"	260.05	411.66	58.30%						
12"	361.50	572.25	58.30%						
14"	664.08	1,051.23	58.30%						

Bethel Water Customers

CONNECTION SIZE	Private Fire Protection-Monthly Current Per Unit	Private Fire Protection-Monthly Proposed Rate	Private Fire Protection-Monthly % Increase	Private Fire Hydrant-Monthly Current Per Unit	Private Fire Hydrant-Monthly Proposed Rate	Private Fire Hydrant-Monthly % Increase	Public Fire Protection-Monthly	Current Per Unit	Proposed Rate
2"				38.20	67.17	75.83%	Hydrants-Bethel	$ 28.66	$ 28.66
3"				26.08	67.17	157.54%	Hydrants-Bethel	38.20	38.20
4"	57.29	104.28	82.02%				Hydrants-Bethel*	1.29	1.29
6"	114.59	173.35	51.28%						
8"	171.88	258.38	50.33%				*Non-Subdivsion customers.		
10"	306.39	369.27	20.52%						
12"									
14"									

Exhibit No. GRH-3-R

VEOLIA WATER PENNSYLVANIA INC.

HARRISBURG, PENNSYLVANIA

REBUTTAL

WATER PRO FORMA EXPENSE ADJUSTMENTS

AS OF OCTOBER 31, 2025

GANNETT FLEMING

Excellence Delivered As Promised

Veolia Water Pennsylvania
Docket No. R-2024-3045192
Operation and Maintenance Expenses - Combined
For the Historical, Future and Fully Projected Future Test Year

Exhibit No. GRH-3-R
Schedule-1
Summary of Adjustments

Line No.	Account Number	Utility Operating Expenses	Adjustment No.	VW Pennsylvania 12-Months Ending 9/30/2023	Future Test Year Adjustments	Future Test Year 9/30/2024	Fully Projected Future Test Year Adjustments Present Rates	Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Adjustments Proposed Rates	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	601.0	Labor Expense	1-R	$ 5,811,878	$ 1,281,647	$ 7,093,524	$ 195,072	$ 7,288,596		$ 7,288,596
2	604.0	Employee Group Health & Life	2-R	920,667	542,067	1,462,734	41,171	1,503,906		1,503,906
3	604.0	Employee Pension Benefits	3-R	367,354	681,734	1,049,088	23,080	1,072,168		1,072,168
4	604.0	Employee Post Retirement Benefits Other than Pension	4	75,249	(927,986)	(852,737)	(18,760)	(871,497)		(871,497)
5	604.0	Other Employee Benefits	5-R	370,146	55,019	425,164	11,974	437,138		437,138
6	610.0	Purchased Water	6	1,825,613	127,448	1,953,061	42,967	1,996,029		1,996,029
7	615.0	Purchased Power	7	2,245,114	343,730	2,588,843	399,980	2,988,823		2,988,823
8	616.0	Fuel for Power Production	8	2,000	48	2,048	45	2,093		2,093
9	618.0	Chemicals	9	986,229	339,344	1,325,574	29,163	1,354,736		1,354,736
10	620.0	Materials and Supplies	10	396,023	8,687	404,710	8,904	413,613		413,613
11	634.0	Management and Service Fees	11	4,076,177	437,747	4,513,925	166,251	4,680,176		4,680,176
12	635.0	Lab Testing Fees	12	247,303	(39,540)	207,763	4,571	212,334		212,334
13	636.0	Outside Contractors	13	1,723,551	(49,002)	1,674,549	36,840	1,711,389		1,711,389
14	636.0	Outside Professional Services	14	162,491	(75,606)	86,885	1,911	88,797		88,797
15	641.0	Rental - Building/Real Property	15	-	-	-	-	-		-
16	642.0	Rental of Equipment	16	119,512	2,838	122,350	2,692	125,042		125,042
17	650.0	Transportation Expense	17	559,928	81,363	641,291	107,424	748,715		748,715
18	657.0	Prop& Gen Liab. Insurance	18	(312)	312	-	-	-		-
19	658.0	Worker Compensation	19	19,075	27,648	46,723	1,388	48,111		48,111
20	660.0	Advertising	20	-	-	-	-	-		-
21	666.0	Rate Case Expense - Amort	21	-	-	-	236,460	236,460		236,460
22	666.0	Regulatory Commission Expense	22-R	344,697	(10,420)	334,277	26,113	360,390	94,838	455,228
23	667.0	Amortization of Tax Reform Liability	22.1	(264,888)	-	(264,888)	(451,359)	(716,247)		(716,247)
24	670.0	Bad Debt Expense	23-R	253,213	55,536	308,749	7,900	316,649	83,328	399,977
25	675.0	Fringe Benefit Expense Transfer	24-R	(858,759)	(269,593)	(1,128,351)	(30,404)	(1,158,755)		(1,158,755)
26	675.6	Office Expense and Utilities	25-R	843,857	38,980	882,837	(8,114)	874,724		874,724
27	675.9	Postage and Air Freight Expense	26	422,855	(13,902)	408,953	12,393	421,346		421,346
28	Various	Other O&M	27	146,049	15,453	161,503	3,553	165,056		165,056
29		Customer Assistance Program	28	-	-	-	1,000,000	1,000,000		1,000,000
30		**Adjustments for Acquisitions**	29	$ -	$ -	$ -	$ 117,570	$ 117,570		$ 117,570
31		**Total Operation and Maintenance Expenses**		$ 20,795,021	$ 2,653,554	$ 23,448,576	$ 1,968,783	$ 25,417,358	$ 178,166	$ 25,595,524
32										
33		Inflation Rate Calculator	30		2.38%		2.20%			
34										
35		**Taxes Other Than Income**								
36		Real Estate Tax	31	$ 447,173	$ (104,684)	$ 342,489	$ 7,535	$ 350,024	$ -	$ 350,024
37		Payroll	32-R	704,987	171,985	876,971	22,177	899,148	-	$ 899,148
38										
39		**Total Taxes Other Than Income**		$ 1,152,160	$ 67,301	$ 1,219,460	$ 29,712	$ 1,249,172	$ -	$ 1,249,172
40										
41		**Depreciation Expense**	33	$ 8,828,651	$ 875,590	$ 9,704,241	$ 1,920,219	$ 11,624,460		$ 11,624,460
42		**Amortization of Acquisition Adjustment**		57,744	-	57,744	49,830	107,574		107,574
43		**Amortization of Regulatory Liability**								
44										
45		**Income Taxes**	34	$ 4,495,020	$ (1,224,300)	$ 3,270,721	$ (114,861)	$ 3,155,859	$ 4,189,076	$ 7,344,935
46										
47		**Total**		$ 35,328,596	$ 2,372,146	$ 37,700,741	$ 3,853,682	$ 41,554,423	$ 4,367,242	$ 45,921,665

Veolia Water Pennsylvania
Docket No. R-2024-3045192
Operation and Maintenance Expenses - VW Pennsylvania
For the Historical, Future and Fully Projected Future Test Year

Exhibit No. GRH-3-R
Schedule-1
Summary of Adjustments

Line No.	Account Number	Utility Operating Expenses	Adjustment No.	VW Pennsylvania 12-Months Ending 9/30/2023	Future Test Year Adjustments	Future Test Year 9/30/2024	Fully Projected Future Test Year Adjustments Present Rates	Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Adjustments Proposed Rates	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	601.0	Labor Expense	1-R	$ 5,804,592	$ 1,281,439	$ 7,086,031	$ 194,866	$ 7,280,897		$ 7,280,897
2	604.0	Employee Group Health & Life	2-R	920,056	541,707	1,461,763	41,144	1,502,907		1,502,907
3	604.0	Employee Pension Benefits	3-R	367,110	681,282	1,048,391	23,065	1,071,456		1,071,456
4	604.0	Employee Post Retirement Benefits Other than Pension	4	75,199	(927,369)	(852,171)	(18,748)	(870,919)		(870,919)
5	604.0	Other Employee Benefits	5-R	369,900	54,982	424,882	11,974	436,856		436,856
6	610.0	Purchased Water	6	152,819	3,629	156,448	3,442	159,890		159,890
7	615.0	Purchased Power	7	2,168,330	331,974	2,500,304	386,300	2,886,605		2,886,605
8	616.0	Fuel for Power Production	8	2,000	48	2,048	45	2,093		2,093
9	618.0	Chemicals	9	978,820	336,795	1,315,615	28,944	1,344,558		1,344,558
10	620.0	Materials and Supplies	10	389,405	8,542	397,947	8,755	406,702		406,702
11	634.0	Management and Service Fees	11	3,946,587	423,831	4,370,418	160,966	4,531,383		4,531,383
12	635.0	Lab Testing Fees	12	244,207	(39,045)	205,162	4,514	209,676		209,676
13	636.0	Outside Contractors	13	1,701,975	(48,389)	1,653,586	36,379	1,689,965		1,689,965
14	636.0	Outside Professional Services	14	160,457	(74,660)	85,798	1,888	87,685		87,685
15	641.0	Rental - Building/Real Property	15	-	-	-	-	-		-
16	642.0	Rental of Equipment	16	119,376	2,835	122,211	2,689	124,900		124,900
17	650.0	Transportation Expense	17	559,489	81,363	640,853	107,424	748,276		748,276
18	657.0	Prop& Gen Liab. Insurance	18	(307)	307	-	-	-		-
19	658.0	Worker Compensation	19	19,062	27,648	46,710	1,388	48,098		48,098
20	660.0	Advertising	20	-	-	-	-	-		-
21	666.0	Rate Case Expense - Amort	21	-	-	-	236,460	236,460		236,460
22	666.0	Regulatory Commission Expense	22-R	332,605	(10,054)	322,551	25,197	347,748	91,512	439,259
23	667.0	Amortization of Tax Reform Liability	22.1	(260,924)	-	(260,924)	(444,605)	(705,529)		(705,529)
24	670.0	Bad Debt Expense	23-R	240,243	53,462	293,706	6,724	300,430	79,060	379,490
25	675.0	Fringe Benefit Expense Transfer	24-R	(858,940)	(269,411)	(1,128,351)	(30,404)	(1,158,755)		(1,158,755)
26	675.6	Office Expense and Utilities	25-R	817,293	38,601	855,894	(8,706)	847,188		847,188
27	675.9	Postage and Air Freight Expense	26	368,844	(12,126)	356,718	10,810	367,528		367,528
28	Various	Other O&M	27	144,824	15,324	160,148	3,523	163,671		163,671
29		Customer Assistance Program	28	-	-	-	1,000,000	1,000,000		1,000,000
30		**Adjustments for Acquisitions**	29	$ -	$ -	$ -	$ 8,924	$ 8,924		$ 8,924
31		**Total Operation and Maintenance Expenses**		$ 18,763,022	$ 2,502,715	$ 21,265,737	$ 1,802,955	$ 23,068,692	$ 170,571	$ 23,239,263
32										
33		Inflation Rate Calculator	30		2.38%		2.20%			
34										
35		**Taxes Other Than Income**								
36		Real Estate Tax	31	$ 440,481	$ (104,843)	$ 335,638	$ 7,384	$ 343,022	$ -	$ 343,022
37		Payroll	32-R	704,519	171,985	876,503	22,177	898,680	-	$ 898,680
38										
39		**Total Taxes Other Than Income**		$ 1,145,000	$ 67,142	$ 1,212,141	$ 29,561	$ 1,241,702	$ -	$ 1,241,702
40										
41		**Depreciation Expense**	33	$ 8,788,099	$ 633,003	$ 9,421,102	$ 1,894,472	$ 11,315,574		$ 11,315,574
42		**Amortization of Acquisition Adjustment**		57,744	-	57,744	49,830	107,574		107,574
43		**Amortization of Regulatory Liability**								
44										
45		**Income Taxes**	34	$ 4,432,291	$ (1,103,711)	$ 3,328,580	$ (93,525)	$ 3,235,055	$ 3,980,013	$ 7,215,069
46										
47		**Total**		$ 33,186,156	$ 2,099,149	$ 35,285,305	$ 3,683,293	$ 38,968,598	$ 4,150,584	$ 43,119,182

Veolia Water Pennsylvania
Docket No. R-2024-3045192
Operation and Maintenance Expenses - Bethel Water
For the Historical, Future and Fully Projected Future Test Year

Exhibit No. GRH-3-R
Schedule-1
Summary of Adjustments

Line No.	Account Number	Utility Operating Expenses	Adjustment No.	Bethel 12-Months Ending 9/30/2023	Future Test Year Adjustments	Future Test Year 9/30/2024	Fully Projected Future Test Year Adjustments Present Rates	Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Adjustments Proposed Rates	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	601.0	Labor Expense	1	$ 3,429	$ 98	$ 3,526	$ 97	$ 3,623		$ 3,623
2	604.0	Employee Group Health & Life	2	-	-	-	-	-		-
3	604.0	Employee Pension Benefits	3	-	-	-	-	-		-
4	604.0	Employee Post Retirement Benefits Other than Pension	4	-	-	-	-	-		-
5	604.0	Other Employee Benefits	5	-	-	-	-	-		-
6	610.0	Purchased Water	6	1,521,987	120,237	1,642,224	36,129	1,678,353		1,678,353
7	615.0	Purchased Power	7	-	-	-	-	-		-
8	616.0	Fuel for Power Production	8	-	-	-	-	-		-
9	618.0	Chemicals	9	-	-	-	-	-		-
10	620.0	Materials and Supplies	10	702	15	717	16	733		733
11	634.0	Management and Service Fees	11	69,634	7,478	77,112	2,840	79,953		79,953
12	635.0	Lab Testing Fees	12	3,096	(495)	2,601	57	2,658		2,658
13	636.0	Outside Contractors	13	21,576	(613)	20,962	461	21,424		21,424
14	636.0	Outside Professional Services	14	2,034	(946)	1,088	24	1,112		1,112
15	641.0	Rental - Building/Real Property	15	-	-	-	-	-		-
16	642.0	Rental of Equipment	16	-	-	-	-	-		-
17	650.0	Transportation Expense	17	67	-	67	-	67		67
18	657.0	Prop& Gen Liab. Insurance	18	-	-	-	-	-		-
19	658.0	Worker Compensation	19	-	-	-	-	-		-
20	660.0	Advertising	20	-	-	-	-	-		-
21	666.0	Rate Case Expense - Amort	21	-	-	-	-	-		-
22	666.0	Regulatory Commission Expense	22-R	7,039	(213)	6,826	533	7,359	1,937	9,296
23	667.0	Amortization of Tax Reform Liability	22.1	-	-	-	-	-		-
24	670.0	Bad Debt Expense	23-R	9,320	1,490	10,810	844	11,655	3,067	14,722
25	675.0	Fringe Benefit Expense Transfer	24-R	752	(752)	-	-	-		-
26	675.6	Office Expense and Utilities	25-R	14,238	203	14,441	318	14,759		14,759
27	675.9	Postage and Air Freight Expense	26	16,405	(539)	15,866	481	16,347		16,347
28	Various	Other O&M	27	434	46	480	11	490		490
29		Customer Assistance Program	28	-	-	-	-	-		-
30		**Adjustments for Acquisitions**	29		-	-	-	-		-
31		**Total Operation and Maintenance Expenses**		$ 1,670,714	$ 126,009	$ 1,796,722	$ 41,811	$ 1,838,533	$ 5,004	$ 1,843,537
32										
33		Inflation Rate Calculator	30		2.38%		2.20%			
34										
35		**Taxes Other Than Income**								
36		Real Estate Tax	31	$ -	$ -	$ -	$ -	$ -	$ -	$ -
37		Payroll	32	-	-	-	-	-	-	$ -
38										
39		**Total Taxes Other Than Income**		$ -	$ -	$ -	$ -	$ -	$ -	$ -
40										
41		**Depreciation Expense**	33	$ 40,552	$ 721	$ 41,272	$ 16,312	$ 57,584		$ 57,584
42		**Amortization of Acquisition Adjustment**		$ -		-		-		-
43		**Amortization of Regulatory Liability**								
44										
45		**Income Taxes**	34	$ (4,605)	$ 4,605	$ -	$ -	$ -	$ -	$ -
46										
47		**Total**		$ 1,706,660	$ 131,335	$ 1,837,995	$ 58,123	$ 1,896,117	$ 5,004	$ 1,901,121

Line No.	Account Number	Utility Operating Expenses	Adjustment No.	Mahoning Township 12-Months Ending 9/30/2023	Future Test Year Adjustments	Future Test Year 9/30/2024	Fully Projected Future Test Year Adjustments Present Rates	Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Adjustments Proposed Rates	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	601.0	Labor Expense	1	$ 3,857	$ 110	$ 3,967	$ 109	$ 4,076		$ 4,076
2	604.0	Employee Group Health & Life	2-R	611	360	971	27	999		999
3	604.0	Employee Pension Benefits	3-R	244	453	697	15	712		712
4	604.0	Employee Post Retirement Benefits Other than Pension	4	50	(616)	(566)	(12)	(579)		(579)
5	604.0	Other Employee Benefits	5-R	246	37	282	0	282		282
6	610.0	Purchased Water	6	150,807	3,582	154,389	3,397	157,785		157,785
7	615.0	Purchased Power	7	76,783	11,756	88,539	13,679	102,218		102,218
8	616.0	Fuel for Power Production	8	-	-	-	-	-		-
9	618.0	Chemicals	9	7,409	2,549	9,959	219	10,178		10,178
10	620.0	Materials and Supplies	10	5,916	130	6,046	133	6,179		6,179
11	634.0	Management and Service Fees	11	59,956	6,439	66,395	2,445	68,840		68,840
12	635.0	Lab Testing Fees	12	-	-	-	-	-		-
13	636.0	Outside Contractors	13	-	-	-	-	-		-
14	636.0	Outside Professional Services	14	-	-	-	-	-		-
15	641.0	Rental - Building/Real Property	15	-	-	-	-	-		-
16	642.0	Rental of Equipment	16	136	3	139	3	142		142
17	650.0	Transportation Expense	17	372	-	372	-	372		372
18	657.0	Prop& Gen Liab. Insurance	18	(5)	5	-	-	-		-
19	658.0	Worker Compensation	19	13	-	13	-	13		13
20	660.0	Advertising	20	-	-	-	-	-		-
21	666.0	Rate Case Expense - Amort	21	-	-	-	-	-		-
22	666.0	Regulatory Commission Expense	22-R	5,053	(153)	4,900	383	5,283	1,390	6,673
23	667.0	Amortization of Tax Reform Liability	22.1	(3,964)	-	(3,964)	(6,754)	(10,718)		(10,718)
24	670.0	Bad Debt Expense	23-R	3,650	584	4,233	331	4,564	1,201	5,765
25	675.0	Fringe Benefit Expense Transfer	24-R	(571)	571	-	-	-		-
26	675.6	Office Expense and Utilities	25-R	12,326	176	12,502	275	12,777		12,777
27	675.9	Postage and Air Freight Expense	26	37,605	(1,236)	36,369	1,102	37,471		37,471
28	Various	Other O&M	27	791	84	875	19	894		894
29		Customer Assistance Program	28							
30		**Adjustments for Acquisitions**	29	-	-	-	108,645	108,645		108,645
31		**Total Operation and Maintenance Expenses**		$ 361,286	$ 24,831	$ 386,116	$ 124,017	$ 510,133	$ 2,591	$ 512,724
32										
33		Inflation Rate Calculator	30		2.38%		2.20%			
34										
35		**Taxes Other Than Income**								
36		Real Estate Tax	31	$ 6,692	$ 159	$ 6,851	$ 151	$ 7,001	$ -	$ 7,001
37		Payroll	32	468	-	468	-	468	-	$ 468
38										
39		**Total Taxes Other Than Income**		$ 7,160	$ 159	$ 7,319	$ 151	$ 7,469	$ -	$ 7,469
40										
41		**Depreciation Expense**	33	$ -	$ 241,867	$ 241,867	$ 9,436	$ 251,303		$ 251,303
42		**Amortization of Acquisition Adjustment**		$ -	-	-	-	-		-
43		**Amortization of Regulatory Liability**								
44										
45		**Income Taxes**	34	$ 67,334	$ (125,194)	$ (57,860)	$ (21,337)	$ (79,197)	$ 209,063	$ 129,866
46										
47		**Total**		$ 435,780	$ 141,662	$ 577,442	$ 112,267	$ 689,709	$ 211,654	$ 901,362

Veolia Water Pennsylvania
Docket No. R-2024-3045192
Labor Expense - Net of Capitalized/Transferred In/Out
Various Accounts

Exhibit No. GRH-3-R
Schedule-2
Adjustment No. 1-R

Line No.	Description	12-Months Ending 9/30/2023	Future Test Year		Fully Projected Future Test Year	
1	VW Pennsylvania	$ 5,804,592	$ 7,086,031	**(a)**	$ 7,280,897	**(a)**
2	Bethel Water	3,429	3,526	**(b)**	3,623	**(b)**
3	Mahoning Township	3,857	3,967	**(b)**	4,076	**(b)**
4						
5	**Total Labor Expense**	$ 5,811,878	$ 7,093,524		$ 7,288,596	
6						
7	Adjustment		$ 1,281,647		$ 195,072	
8						
9	**Reference Notes:**					
10	**(a)** See Workpaper GRH-2.1					
	(b) Increased by 2.85% in FTY and 2.75% in FPFTY.					

Line No.		12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 920,056	$ 1,461,763	$ 1,502,907
2	Bethel Water	-	-	-
3	Mahoning Township	611	971	999
4				
5	**Total Employee Group Health and Life Insurance**	$ 920,667	$ 1,462,734	$ 1,503,906
6				
7	Adjustment		$ 542,067	$ 41,171
8				

	Description	Future Test Year	Fully Projected Future Test Year
12	Medical Insurance - VW PA	$ 1,345,830 **(a)**	$ 1,377,256 **(b)**
15	Dental	69,087 **(a)**	74,849 **(b)**
18	Group Life Insurance	47,817 **(a)**	51,800 **(b)**
22	**Total Employee Pensions & Benefits**	$ 1,462,734	$ 1,503,906

	New Employees Adjustment	Number of FTY New Employees	Number of FPFTY New Employees	Average HTY Cost of Coverage	Total Employees with Coverage (%)
26	2023 Medical	4	7	$ 15,278	77%
27	2023 Dental	4	7	813	75%
28	2023 Group Life				
29	Basic STD	4	7	32	100%
30	Basic LTD	4	7	335	100%
31	Basic Life 1X annual	4	7	28	62%
32	Basic Life 3 X annual	4	7	106	31%
33	Basic Life 20K and 37K	4	7	21	4%
34					
35	**Inflation Rate:**				
36	Fully Projected Future Test Year	2.200%			
37					
38	**Refrence Notes:**				

(a) The company provided Future Test Year Employee Group Health and Life Insurance expenses are adjusted for the eleven new employees in 2024. The new employee adjustment takes the number of new hires, multiplied by the average Cost of Coverage of existing employees and the percentage of existing employees with coverage, and added to the Future Test Year Insurance expenses.

(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate

Line No.	Description	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 367,110	1,048,391 **(a)**	$ 1,071,456 **(b)**
2	Bethel Water	-	-	-
3	Mahoning Township	244	697	712
4				
5	**Total Employee Pension Benefits**	$ 367,354	$ 1,049,088	$ 1,072,168
6				
7	Adjustment		$ 681,734	$ 23,080
8				
9	**Inflation Rate:**			
10	Fully Projected Future Test Year	2.200%		
11				
12	**Reference Notes:**			
13	**(a)** Used 2023 estimated ASC 715-30 Net Periodic Pension Cost provided by Actuary.			
14	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.			

Line No.	Description	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 75,199	$ (852,171)	$ (870,919)
2	Bethel Water	-	-	-
3	Mahoning Township	50	(566)	(579)
4				
5	**Total Employee PEBOP Expense**	$ 75,249	$ (852,737)	$ (871,497)
6				
7	Adjustment		$ (927,986)	$ (18,760)
8				
9	**Inflation Rate:**			
10	Fully Projected Future Test Year	2.200%		
11				
12	**Reference Notes:**			
13	**(a)** Used 2023 estimated ASC 715-30 Net Periodic Pension Cost provided by Actuary.			
14	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.			

Line No.	Description	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	401K Matching			
2	VW Pennsylvania	$ 369,835	$ 424,816 **(a)**	$ 436,788 **(b)**
3	Bethel Water	-	-	-
4	Mahoning Township	246	282 **(a)**	282 **(b)**
5	Other Benefits			
6	VW Pennsylvania	$ 65	$ 66 **(c)**	$ 68 **(d)**
7	Bethel Water	-	-	-
8	Mahoning Township	0.04	0.04	0.04
9				
10	**Total 401K Matching and Other Benefits**	$ 370,146	$ 425,164	$ 437,138
11				
12	Adjustment		$ 55,019	$ 11,974
13				

Year	Gross Salary	401K Contribution (%)
2024	11,344,122	3.75%
2025	11,656,086	3.75%

Inflation Rate:

Future Test Year	2.375%
Fully Projected Future Test Year	2.200%

Reference Notes:

(a) 401K Matching adjustment takes the Future Test Year's Gross Salary, multiplied by the Historic Test Year's 401K contribution percentage.

(b) 401K Matching adjustment takes the Fully Projected Future Test Year's Gross Salary, multiplied by the Historic Test Year's 401K contribution percentage.

(c) Based upon the Historic Test Year with the Future Test Year inflation rate.

(d) Based upon the Future Test Year with the Fully Projected Future Test Year inflation rate.

Line No.	Description	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 152,819	$ 156,448 **(a)**	$ 159,890 **(c)**
2	Bethel Water	1,521,987	1,642,224 **(b)**	1,678,353 **(c)**
3	Mahoning Township	150,807	154,389 **(a)**	157,785 **(c)**
4				
5	**Total Purchased Water**	$ 1,825,613	$ 1,953,061	$ 1,996,029
6				
7	Adjustment		$ 127,448	$ 42,967

Year	Cost of Water	Consumption 1000 Gal
2021	$ 1,718,267	16,208
2022	$ 1,669,526	12,811
2023	$ 1,825,613	13,612

Inflation Rate/Known Rate Increase:	
Future Test Year	2.375%
Fully Projected Future Test Year	2.200%
Bethel/Chester Water Authority FTY Increase in January 2024	7.900%

Reference Notes:

(a) Based upon historic test year costs with Future Test Year inflation rate.

(b) The Company will experience a rate incease of 7.9% for purchased water from Chester Water Authority.

(c) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 2,168,330	$ 2,500,304 **(a)**	2,886,605 **(b)**
2	Bethel Water	-	-	-
3	Mahoning Township	76,783	88,539	102,218
4				
5	**Total Purchased Power Expense**	$ 2,245,114	$ 2,588,843	$ 2,988,823
6				
7	Adjustment		$ 343,730	$ 399,980
8				

Year	Power Expense	kWh	Cost Per kWh
2021	$ 1,433,492	18,627,330	0.0770
2022	$ 1,646,455	18,443,605	0.0893
2023	$ 2,244,981	18,777,763	0.1196
2024	$ 2,588,691	18,777,763	0.1379
2025	$ 2,988,647	18,777,763	0.1592

Adjustment Factor:

Future Test Year	15.310%
Fully Projected Future Test Year	15.450%

Reference Notes:

(a) Based upon historical 3-yr trend of Cost per kWh.

(b) Based upon historical 3-Yr and Future Test Year trend of cost per kWh.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 2,000	$ 2,048 **(a)**	$ 2,093 **(b)**
2	Bethel Water	-	-	-
3	Mahoning Township	-	-	-
4				
5	**Total Fuel for Power Production**	$ 2,000	$ 2,048	$ 2,093
6				
7	Adjustment		$ 48	$ 45
8				
9	**Inflation Rate:**			
10	Future Test Year	2.375%		
11	Fully Projected Future Test Year	2.200%		
12				
13	**Reference Notes:**			
14	**(a)** Based upon historic test year Diesel Fuel for Generator expense with Future Test Year			
15	inflation rate.			
16	**(b)** Based upon Future Test Year expense with Fully Projected Future Test Year inflation rate			

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 978,820	$ 1,315,615 **(a)**	$ 1,344,558 **(b)**
2	Bethel Water	-	-	-
3	Mahoning Township	7,409	9,959 **(a)**	10,178 **(b)**
4				
5	**Total Chemical Expense**	$ 986,229	$ 1,325,574	$ 1,354,736
6				
7	Adjustment		$ 339,344	$ 29,163

Year	Chemical Expense
2021	$ 537,215
2022	898,942
2023	978,820
FTY Estimated Expense	1,325,574

Inflation Rate:

Fully Projected Future Test Year	2.200%

Reference Notes:

(a) Based upon estimated FTY cost of chemicals.

(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 389,405	$ 397,947 **(a)**	$ 406,702 **(b)**
2	Bethel Water	702	717 **(a)**	733 **(b)**
3	Mahoning Township	5,916	6,046	6,179
4				
5	**Total Materials and Supplies**	$ 396,023	$ 404,710	$ 413,613
6				
7	Adjustment		$ 8,687	$ 8,904

Year	Materials and Supplies Expense
2021	$ 319,412
2022	336,249
2023	395,321

Inflation Rate:

Future Test Year	2.375%
Fully Projected Future Test Year	2.200%

Reference Notes:

(a) Based upon historic test year cost with Future Test Year inflation rate.

(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 3,946,587	$ 4,370,418 **(a)**	$ 4,531,383 **(b)**
2	Bethel Water	69,634	77,112 **(a)**	79,953 **(b)**
3	Mahoning Township	59,956	66,395 **(a)**	68,840 **(b)**
4				
5	Non-Recoverable Management Fees (c)	$ 26,935 **(b)**	$ -	$ -
6				
7	**Total Management & Service Fees**	$ 4,049,242	$ 4,513,925	$ 4,680,176
8				
9	Adjustment		$ 464,682	$ 166,251
10				
11	**Reference Notes:**			
12	**(a) Please see MFR III-06**			
13	**(b)** Non-recoverable for rate making purposes.			

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	244,207	$ 205,162 **(a)**	$ 209,676 **(b)**
2	Bethel Water	3,096	2,601 **(a)**	2,658 **(b)**
3	Mahoning Township	-	-	-
4				
5	**Total Lab Testing Fees**	$ 247,303	$ 207,763	$ 212,334
6				
7	Adjustment		$ (39,540)	$ 4,571
8				

Year	Lab Testing Fees
2021	$ 166,237
2022	158,583
2023	247,303
2022 and 2023 Average	202,943

Inflation Rate:	
Future Test Year	2.375%
Fully Projected Future Test Year	2.200%

Reference Notes:

(a) Based upon two year average with Future Test Year inflation rate.

(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Veolia Water Pennsylvania | **Exhibit No. GRH-3-R**
Docket No. R-2024-3045192 | **Schedule-14**
Outside Contractors Expense | **Adjustment No. 13**
Account Number 50400 | **Page 1 of 1**

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 1,701,975	$ 1,653,586 **(a)**	$ 1,689,965 **(b)**
2	Bethel Water	21,576	20,962	$ 21,424
3	Mahoning Township	-	-	-
4				
5				
6	**Total Outside Contractors**	$ 1,723,551	$ 1,674,549	$ 1,711,389
7				
8	Adjustment		$ (49,002)	$ 36,840
9				

	Year	Outside Contractor's Expense
12	2022	1,547,851
13	2023	1,723,551
14		
15	Two Year Average	$ 1,635,701

17	**Inflation Rate:**	
18	Future Test Year	2.375%
19	Fully Projected Future Test Year	2.200%

20

21 **Reference Notes:**

22 **(a)** Based upon two year average with Future Test Year inflation rate.

23 **(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 160,457	$ 85,798 **(a)**	$ 87,685 **(b)**
2	Bethel Water	2,034	1,088 **(a)**	1,112 **(b)**
3	Mahoning Township	-	-	-
4				
5	**Total Outside Professional Services**	$ 162,491	$ 86,885	$ 88,797
6				
7	Adjustment		$ (75,606)	$ 1,911

Year	Outside Professional Services Expense
2021	$ 66,045
2022	26,072
2023	162,491
3 Year Average	$ 84,870

Inflation Rate:

Future Test Year	2.375%
Fully Projected Future Test Year	2.200%

Reference Notes:

(a) Based upon three year average with Future Test Year inflation rate.

(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania			
2	Bethel Water	$ -		
3	Mahoning Township			
4				
5	**Total Rent**	$ -	$ -	$ -
6				
7	Adjustment		$ -	$ -
8				
9		**Rent**		
10	**Year**	**Expense**	**Contract**	
11				
12				
13				
14				
15	**Reference Notes:**			
16				
17	**No adjustment, $0 in Rent Expense			
18				

Veolia Water Pennsylvania | **Exhibit No. GRH-3-R**
Docket No. R-2024-3045192 | **Schedule-17**
Rental of Equipment | **Adjustment No. 16**
Account Number 90110 &50310 | **Page 1 of 1**

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 119,376	$ 122,211 **(a)**	$ 124,900 **(b)**
2	Bethel Water	-	-	-
3	Mahoning Township	136	139 **(a)**	142 **(b)**
4				
5	**Total Office Equipment Rental**	$ 119,512	$ 122,350	$ 125,042
6				
7	Adjustment		$ 2,838	$ 2,692
8				
9	**Inflation Rate:**			
10	Future Test Year	2.375%		
11	Fully Projected Future Test Year	2.200%		
12				
13	**Reference Notes:**			
14	**(a)** Based upon historic test year with Future Test Year inflation rate.			
15	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.			

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	Leases	$ 448,809	$ 487,830 **(a)**	$ 591,887 **(a)**
2	Car Allowance	$ -	$ - **(b)**	$ - **(c)**
3	Fuel	$ 254,005	$ 300,733 **(b)**	$ 307,349 **(c)**
4	Maintenance & Repair	$ 110,391	$ 111,578 **(b)**	$ 114,033 **(c)**
5	Insurance	$ 32,274	$ 42,936 **(b)**	$ 43,881 **(c)**
6	Other	$ 59,339	$ 49,994 **(b)**	$ 51,094 **(c)**
7				
8	Total Costs	$ 904,818	$ 993,071	$ 1,108,244
9				
10	Less Cap and Billed Out	$ (344,889)	$ (352,219) **(b)**	$ (359,967) **(c)**
11				
12	**Total Transportation Expense**	$ 559,929	$ 640,853	$ 748,276
13				
14	Adjustment		$ 80,924	$ 107,424
15				
16	**Addiional Leases FTY, FPFTY**	**Avg. Mth Lease**	**No. FTY Leases**	**No. FPFTY Leases**
17	15 Additional Vehicle Leases	$ 1,084	15	10
	Estimate of Leases Expiring	$ 1,084	(12)	(2)
18	**Total Additional Annual Lease Costs**			
19	**(No. of Additional Leases X Avg. Mth. Cost X 12)**		$ 39,021	$ 104,057
20				
21	**Description**	**2021**	**2022**	**2023**	**3 Year Average**
22					
23	Car Allowance	$ -	$ -	$ -	$ -
24	Fuel	$ 233,797	$ 393,467	$ 254,005	$ 293,756
25	Maintenance & Repair	$ 96,996	$ 119,583	$ 110,391	$ 108,990
26	Insurance	$ 51,115	$ 42,431	$ 32,274	$ 41,940
27	Other	$ 29,438	$ 57,726	$ 59,339	$ 48,834
28					
29	Less Cap and Billed Out	$ (346,761)	$ (340,492)	$ (344,889)	$ (344,047)
30					
31	**Inflation Rate:**				
32	Future Test Year	2.375%			
33	Fully Projected Future Test Year	2.200%			
34					
35	**Reference:**				
36	**(a)** Based on projected 2024 costs for Future Test Year and 2025 costs for Fully Projected Future Test Year.				
37	**(b)** Based upon three year average with Future Test Year inflation rate.				
38	**(c)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.				

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year		Fully Projected Future Test Year	
1	VW Pennsylvania	$ (307)	$ -	**(a)**	$ -	**(a)**
2	Bethel Water	-	-	**(a)**	-	**(a)**
3	Mahoning Township	(5)	-	**(a)**	-	**(a)**
4						
5	**Total Property and General Corporate Liability Insurance**	$ (312)	$ -		$ -	
6						
7	Adjustment		$ 312		$ -	
8						
9	**Reference Notes:**					
10	**(a)** Property and General Liability Insurance costs are included in the Management and Services Fees account					

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 19,062	46,697 **(a)**	48,098 **(a)**
2	Bethel Water	-	-	-
3	Mahoning Township	13	13	13
4				
5	**Total Worker Compensation**	$ 19,075	$ 46,710	$ 48,111
6				
7	Adjustment		$ 27,635	$ 1,401
8				
9	**Reference Notes:**			
10	**(a)** Based on projected estimates provided by the Company.			

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ -	$ -	$ -
2	Bethel Water	-	-	-
3	Mahoning Township	-	-	-
4				
5	**Total Advertising Expense**	$ -	$ -	$ -
6				
7	Adjustment		$ -	$ -
8				
9				
10				
11				
12				
13	**Reference Notes:**			
14				
15	**No adjustment, $0 in Advertising Expense			

Veolia Water Pennsylvania
Docket No. R-2024-3045192
Regulatory Commission Expense
Account Number 91900 & 92000

Exhibit No. GRH-3-R
Schedule-22
Adjustment No. 21

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	**Rate Case Expense Details:**			
2	Legal Services			$ 350,000
3	Customer Notifications, Transcripts & Misc.			20,000
4	Consulting Services:			
5	Rate of Return			25,000
6	Cost of Service			74,000
7	Lead-lag Study			116,000
8	Revenue Requirement			44,000
9	Depreciation Study			83,320
10	**Total Rate Case Expenses**			$ 712,320
11				
12	Deduct: Regulatory Liability - Employee Retention Credit			(2,941)
13				
14	**Net Rate Case Expenses**			709,379
15				
16	Current Amortization			
17	Amortize Rate Case Expenses Over 3 Years	$ -	$ -	$ 236,460
18				
19	**Total Regulatory Commission Expense**	$ -	$ -	$ 236,460
20				
21	Adjustment		$ -	$ 236,460

Veolia Water Pennsylvania
Docket No. R-2024-3045192
Regulatory Commission Expense
Account Number 91900 & 92000

Exhibit No. GRH-3-R
Schedule-23
Adjustment No. 22-R and 22.1

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	**Regulatory Commission Expense:**				
2	VW Pennsylvania	$ 332,605	$ 322,551	$ 347,748	$ 439,259
3	Bethel Water	7,039	6,826	7,359	9,296
4	Mahoning Township	5,053	4,900	5,283	6,673
5					
6	**Total Regulatory Commission Expense**	$ 344,697	$ 334,277	$ 360,390	$ 455,228
7					
8	Adjustment		$ (213)	$ 533	$ 1,937
9					
10	2018 Portion				
11	Amortization of Tax Reform Regulatory Liability - VWPA			$ (410,018)	
12	Amortization of Tax Reform Regulatory Liability - Mahoning			$ (6,229)	
13	New Fed Rate				
14	Amortization of Tax Reform Regulatory Liability - VWPA		$ (260,924)	$ (295,511)	
15	Amortization of Tax Reform Regulatory Liability - Mahoning		$ (3,964)	$ (4,489)	
16					

	Regulatory Commission Expense:	Per 2023 PAPUC Assesment	Future Test Year	Fully Projected Future Test Year	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
17					
18					
19					
20					
21					
22					
23	Taxable Revenue	$ 54,130,134	$ 54,509,321	$ 58,767,409	$ 74,232,357
24	Amount Assessed	331,952	334,277	360,390	455,228
25					
26					

Veolia Water Pennsylvania
Docket No. R-2024-3045192
Bad Debt Expense
Account Number 90400 & 90405

Exhibit No. GRH-3-R
Schedule-24
Adjustment No. 23-R

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	VW Pennsylvania	$ 240,243	$ 278,662	$ 300,430	$ 379,490
2	Bethel Water	9,320	10,810	11,655	14,722
3	Mahoning Township	3,650	4,233	4,564	5,765
4					
5	**Total Bad Debt Expense**	$ 253,213	$ 293,706	$ 316,649	$ 399,977
6					
7	Adjustment		$ 40,493	$ 22,943	$ 83,328

		2023	2022	2021
12	Historic Uncollectable Expense	$ 253,213	$ 346,201	$ 158,160
14	Historic Test Year Revenues	50,225,535	50,282,489	37,320,528
16	Effective Uncollectable Rate	0.504%	0.689%	0.424%
18	Average 3 Year Uncollectable Rate	0.539%		

		Future Test Year	Fully Projected Future Test Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
28	Revenues	$ 54,509,321	$ 58,767,409	$ 74,232,357
30	Uncollectable Expense	$ 293,706	$ 316,649	$ 399,977

Veolia Water Pennsylvania
Docket No. R-2024-3045192
Frindge Benefits Transferred
Account Number 90950 & 90953

Exhibit No. GRH-3-R
Schedule-25
Adjustment No. 24-R

Line No.	GL A/C #	Categories	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	70251	FICA Taxes	$ 704,519 **(a)**	$ 849,421	$ 871,598
2	70252	Federal Unemployment Taxes		4,998	4,998
3	70253	State Unemployment Taxes		22,084	22,084
4	91460	Worker compensation	19,062	46,710	48,098
5	91500	Employee Pension Cost	367,354	1,048,391	1,071,456
6	91550	Post Retirement Health Care Accrued	75,249	(852,171)	(870,919)
7	91700	Employee Group Health & Life	920,667	1,461,763	1,502,907
8	91800	Employee 401K	370,081	$ 424,816	$ 436,788
9	91850	Other Employee Benefits	65	$ 66	$ 68
10	91860	Other Awards	-	-	-
11		Total Costs	$ 2,456,996	$ 3,006,079	$ 3,087,079
12					
13		**Account 90950/90953 (A/G)**			
14					
15		Fringe Benefits Capitalized/Transferred Out/Other Accounts	$ (858,940)	$ (1,128,351)	$ (1,158,755)
16					
17		**Total Fringe Benefits Transferred**	$ (858,940)	$ (1,128,351)	$ (1,158,755)
18					
19					
20					
21		Net Transferred In/Out % (3 Yr Avg)	-37.54%		
22					
23		**Inflation Rate:**			
24		Future Test Year	2.375%		
25		Fully Projected Future Test Year	2.200%		
26					
27		**Reference Notes:**			
28		**(a)** Includes Federal and State Unemployment Taxes.			
29					

Line No.	Description	12 Months Ended 12/31/2017	Future Test Year		Fully Projected Future Test Year	
1	VW Pennsylvania	$ 817,293	$ 828,951	(a)	$ 847,188	(b)
3	Bethel Water	14,238	14,441	(a)	14,759	(b)
2	Mahoning Township	12,326	12,502	(a)	12,777	(b)
4						
5	**Total Office Expense and Utilities**	$ 843,857	$ 855,894		$ 874,724	
6						
7	Adjustment		$ 12,037		$ 18,830	
8						

Line No.	Year	Office Expense and Utilities
9		
10		
11	2021	$ 725,539
12	2022	828,219
13	2023	843,857
14		
15	2 Year Average	$ 836,038

Line No.	Inflation Rate:	
16		
17		
18	Future Test Year	2.375%
19	Fully Projected Future Test Year	2.200%

Line No.	Reference Notes:
20	
21	
22	**(a)** Based upon three year average with Future Test Year inflation rate
23	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate

Line No.	Description	12 Months Ended 12/31/2017	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 368,844	$ 356,718 **(a)**	$ 367,528 **(b)**
2	Bethel Water	16,405	15,866 **(a)**	16,347 **(b)**
3	Mahoning Township	37,605	36,369 **(a)**	37,471 **(b)**
4				
5	**Total Postage and Air Freight**	$ 422,855	$ 408,953	$ 421,346
6				
7	Adjustment		$ (13,902)	$ 12,393
8				

	Year	Services Expense
9		
10	2021	$ 373,638
11	2022	394,283
12	2023	422,855
13		
14	3 Year Average	$ 396,925
15		
16	**Postage Rate:**	
17	2023	$ 0.66
18	2024	0.68
19	Percent Change	3.03%
20		

21 **Reference Notes:**
22 **(a)** Based upon three year average with the 2023 to 2024 postage rate percentage change.
23 **(b)** Based upon Future Test Year cost with the 2023 to 2024 postage rate percentage change.

Line No.	Description	12 Months Ended 12/31/2017	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 144,824	$ 160,148	$ 163,671
2	Bethel Water	434	480	490
3	Mahoning Township	791	875	894
4				
5	**Total Other O&M**	$ 146,049	$ 161,503	$ 165,056
6				
7	Adjustment		$ 15,453	$ 3,553

Year	Other O&M Expense
2022	169,463
2023	146,049
2 Year Average	$ 157,756

Inflation Rate:

Future Test Year	2.38%
Fully Projected Future Test Year	2.20%

Reference Notes:

(a) Based upon two year average with Future Test Year inflation rate.
(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	**Customer Assistance Program:**			
2	VW Pennsylvania	-	-	$ 1,000,000
3				
4	**Total Customer Assistance Program Expense**			$ 1,000,000
5				
6	Adjustment		$ -	$ 1,000,000
7				
8	**Reference Notes:**			
9	**(a)** Please reference Company Witness Jordan and Company Witness Cagle direct testimony			
10	for descriptions of the Customer Assistance Program.			

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	Transaction Costs - Amortized	$ -	$ -	$ 117,570
2				
3	**Total Transaction Costs Acquisition Adjustments**		$ -	$ 117,570
4				
5	Adjustment		$ -	$ 117,570
6				
7	Acqusition Transaction Costs	Total	Amortize Over 5 Years	
8	Kensington	$ 28,240	$ 5,648	
9	Mahoning	543,227	108,645	
10	Overbrook	16,381	3,276	
11	Total	$ 587,848	$ 117,570	

Line No.	Description				
1	Source: Blue Chip Financial Forecasts September 1, 2023				
2					
3	Consumer Price Index				
4					
5	**Future Test Year:**				
6		Annual		Quarter	
7	1Q2024	2.40%		0.60%	
8	2Q2024	2.30%		0.58%	
9	3Q2024	2.50%		0.63%	
10	4Q2024	2.30%		0.58%	
11					
12	**Inflation Adjustment:**			2.38%	
13					
14	**Fully Projected Future Test Year:**				
15		Annual		Quarter	
16	1Q2025	2.20%		0.55%	
17	2Q2025	2.20%	**(a)**	0.55%	
18	3Q2025	2.20%	**(a)**	0.55%	
19	4Q2025	2.20%	**(a)**	0.55%	
20					
21	**Inflation Adjustment:**			2.20%	
22					
23	**Reference Notes:**				
24	**(a)** Index not available, used 1Q of 2025 index.				

Line No.	Description	12 Months Ended 12/31/2017	Future Test Year	Fully Projected Future Test Year
1	Real Estate Taxes	$ 440,481	$ 335,638 **(a)**	$ 343,022 **(b)**
2	Bethel	-	-	-
3	Mahoning Township	6,692	6,851	7,001
4				
5	**Total Real Estate Taxes**	$ 447,173	$ 342,489	$ 350,024
6				
7	Adjustment		$ (104,684)	$ 7,535
8				

Line No.	Description	12 Months Ended 12/31/2023	Future Test Year	Fully Projected Future Test Year
9				
10				
11				
12				
13	PURTA	$ 268,555	$ 274,933	$ 280,982
14	Less Refund	112,629	-	-
15	Property Tax	59,297	60,705	62,041
16				
17	Total	$ 440,481	$ 335,638	$ 343,022
18				
19	**Inflation Rate:**			
20	Future Test Year	2.38%		
21	Fully Projected Future Test Year	2.20%		
22				
23	**Reference Notes:**			
24	**(a)** Based upon historic test year (less refund), with Future Test Year inflation rate.			
25	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.			

Historical:

	12-Months Ending 12/31/2017	Future Test Year	Fully Projected Future Test Year
Total Water	$ 704,519	876,503	898,680
Adjustment		$ 171,985	$ 22,177

Future Test Year

	FICA	Medicare	FUI	SUI	Total
Total Water	686,670	162,751	4,998	22,084	$ 876,503

FTY Tax Rates	FICA	Medicare	FUI	SUI
2024	6.20%	1.45%	0.600%	2.3905%

Fully Projected Future Test Year

	FICA	Medicare	FUI	SUI	Total
Total Water	704,371	167,227	4,998	22,084	$ 898,680

FPFTY Tax Rates	FICA	Medicare	FUI	SUI
2025	6.20%	1.45%	0.600%	2.3905%

Reference Notes:
(a) See workpaper GRH-3-1.

Historical:

	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
VW Pennsylvania	$ 8,788,099	10,771,505	12,561,109
Depreciation on CIAC/Advances	-	(1,350,403)	(1,245,535)
Bethel Water	40,552	118,674	150,495
Depreciation on CIAC/Advances	-	(77,401)	(92,911)
Mahoning Township	-	241,867	251,303
Depreciation on CIAC/Advances	-	-	-
	$ 8,828,651	$ 9,704,241	$ 11,624,460
Depreciation Expense Adjustment			
VW Pennsylvania Adjustment		633,003	1,894,472
Mahoning Township Adjustment		241,867	9,436
Bethel Water Adjustment		721	16,312
Total		875,590	1,920,219
Amortization of Acquisition Adjustments			
Brown Manor		57,744	57,744
Kensington			22,500
Overbrook			27,330
Mahoning Township			
		57,744	107,574

Reference Notes:
(a) Data provided by Company.

Line No.	Description	Sep-23 Federal Income Tax Current Rates	Sep-23 State Income Tax Current Rates	Sep-24 Federal Income Tax Current Rates	Sep-24 State Income Tax Current Rates	Sep-24 Total Income Taxes	Oct-25 Federal Income Tax Current Rates	Oct-25 State Income Tax Current Rates	Oct-25 Total Income Taxes	Oct-25 Federal Income Tax Proposed Rates	Oct-25 State Income Tax Proposed Rates	Oct-25 Total Income Taxes Proposed Rates
1	Operating Income Before Income Taxes	$ 23,296,559	$ 23,296,559	$ 20,079,300	$ 20,079,300		$ 20,368,845	$ 20,368,845		$ 35,655,627	$ 35,655,627	
2	Interest Expense (1)	6,121,672	6,121,672	6,925,758	6,925,758		7,539,356	7,539,356		7,539,356	7,539,356	
3	State Income Tax	1,030,506		643,641			584,388			1,823,440		
4	Repair Adjustment on 2023 Additions	2,465,323	2,465,323									
5	Repair Adjustment on 2024 Additions			1,997,215	1,997,215							
6	Repair Adjustment on 2025 Additions						1,914,088	1,914,088		1,914,088	1,914,088	
7	Excess Of Tax Depreciation Over Book	3,325,662	3,556,903	3,459,696	3,685,154		3,461,880	3,705,528		3,461,880	3,705,528	
8	Taxable Income	$ 10,353,396	$ 11,152,661	$ 7,052,989	$ 7,471,172		$ 6,869,133	$ 7,209,873		$ 20,916,862	$ 22,496,654	
9	Income Tax Rate	21.00%	9.24%	21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
10	Pro Forma Income Tax : Current	2,174,213	1,030,506	1,481,128	643,641		1,442,518	584,388		4,392,541	1,823,440	
11	CTA Adjustment											
12	Amortization of Flow through Taxes											
13	Amortization of Income Tax Credit						-			-		
14	Total - Current Income Taxes	$ 2,174,213	$ 1,030,506	$ 1,481,128	$ 643,641		$ 1,442,518	$ 584,388		$ 4,392,541	$ 1,823,440	
	Deferred Income Tax:											
15	Repair Adjustment			$ 1,997,215			1,914,088			1,914,088		
16	Less: State Deduction (Fr. Sch.6-6)											
17	Income Tax Rate			21.00%			21.00%			21.00%		
18	Deferred Income Tax - Repair Adjustment			419,415			401,958			401,958		
19	Excess Of Tax Depreciation Over Book			$ 3,459,696			$ 3,461,880			$ 3,461,880	$ -	
20	Less: State Deferred Income Tax			-			-			-		
21	Income Tax Rate			21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
22	Deferred Income Tax - Tax/Book Deprec.			726,536	-		726,995	-		726,995	-	
23	Total Deferred Income Tax (L18+L22)			1,145,951	-		1,128,953	-		1,128,953	-	
24	Total Income Taxes (L14+L22)	$ 2,174,213	$ 1,030,506	$ 2,627,079	$ 643,641	$ 3,270,721	$ 2,571,471	$ 584,388	$ 3,155,859	$ 5,521,494	$ 1,823,440	$ 7,344,935
	Adjustment											
25	Rate Base	$ 289,303,956	$ 289,303,956	$ 327,304,263	$ 327,304,263		$ 356,302,279	$ 356,302,279		$ 356,302,279	$ 356,302,279	
26	Weighted Cost Of Debt	2.12%	2.12%	2.12%	2.12%		2.12%	2.12%		2.12%	2.12%	
27	Interest Expense (1)	$ 6,121,672	$ 6,121,672	$ 6,925,758	$ 6,925,758		$ 7,539,356	$ 7,539,356		$ 7,539,356	$ 7,539,356	

Line No.	Description	Sep-23 Federal Income Tax Current Rates	Sep-23 State Income Tax Current Rates	Sep-24 Federal Income Tax Current Rates	Sep-24 State Income Tax Current Rates	Sep-24 Total Income Taxes	Oct-25 Federal Income Tax Current Rates	Oct-25 State Income Tax Current Rates	Oct-25 Total Income Taxes	Oct-25 Federal Income Tax Proposed Rates	Oct-25 State Income Tax Proposed Rates	Oct-25 Total Income Taxes Proposed Rates
1	Operating Income Before Income Taxes	$ 23,066,721	$ 23,066,721	$ 20,116,318	$ 20,116,318		$ 20,498,503	$ 20,498,503		$ 35,022,374	$ 35,022,374	
2	Interest Expense (1)	5,975,909	5,975,909	6,784,229	6,784,229		7,405,241	7,405,241		7,405,241	7,405,241	
3	State Income Tax	1,257,804		669,419			614,519			1,791,735		
4	Repair Adjustment on 2023 Additions	2,408,834	2,408,834									
5	Repair Adjustment on 2024 Additions			1,954,135	1,954,135							
6	Repair Adjustment on 2025 Additions						1,877,110	1,877,110		1,877,110	1,877,110	
7	Excess Of Tax Depreciation Over Book	3,252,061	3,478,215	3,386,821	3,607,562		3,395,498	3,634,532		3,395,498	3,634,532	
8	Taxable Income	$ 12,580,947	$ 13,612,597	$ 7,321,714	$ 7,770,393		$ 7,206,134	$ 7,581,620		$ 20,552,789	$ 22,105,491	
9	Income Tax Rate	21.00%	9.24%	21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
10	Pro Forma Income Tax : Current	2,641,999	1,257,804	1,537,560	669,419		1,513,288	614,519		4,316,086	1,791,735	
11	CTA Adjustment											
12	Amortization of Flow through Taxes											
13	Amortization of Income Tax Credit						-			-		
14	Total - Current Income Taxes	$ 2,641,999	$ 1,257,804	$ 1,537,560	$ 669,419		$ 1,513,288	$ 614,519		$ 4,316,086	$ 1,791,735	
	Deferred Income Tax:											
15	Repair Adjustment			$ 1,954,135			1,877,110			1,877,110		
16	Less: State Deduction (Fr. Sch.6-6)											
17	Income Tax Rate			21.00%			21.00%			21.00%		
18	Deferred Income Tax - Repair Adjustment			410,368			394,193			394,193		
19	Excess Of Tax Depreciation Over Book			$ 3,386,821			$ 3,395,498			$ 3,395,498	$ -	
20	Less: State Deferred Income Tax			-			-			-		
21	Income Tax Rate			21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
22	Deferred Income Tax - Tax/Book Deprec.			711,232	-		713,055	-		713,055	-	
23	Total Deferred Income Tax (L18+L22)			1,121,601	-		1,107,248	-		1,107,248	-	
24	Total Income Taxes (L14+L22)	$ 2,641,999	$ 1,257,804	$ 2,659,161	$ 669,419	$ 3,328,580	$ 2,620,536	$ 614,519	$ 3,235,055	$ 5,423,334	$ 1,791,735	$ 7,215,069
	Adjustment											
25	Rate Base	$ 282,415,356	$ 282,415,356	$ 320,615,738	$ 320,615,738		$ 349,964,134	$ 349,964,134		$ 349,964,134	$ 349,964,134	
26	Weighted Cost Of Debt	2.12%	2.12%	2.12%	2.12%		2.12%	2.12%		2.12%	2.12%	
27	Interest Expense (1)	$ 5,975,909	$ 5,975,909	$ 6,784,229	$ 6,784,229		$ 7,405,241	$ 7,405,241		$ 7,405,241	$ 7,405,241	

Line No.	Description	Sep-23 Federal Income Tax Current Rates	Sep-23 State Income Tax Current Rates	Sep-24 Federal Income Tax Current Rates	Sep-24 State Income Tax Current Rates	Sep-24 Total Income Taxes	Oct-25 Federal Income Tax Current Rates	Oct-25 State Income Tax Current Rates	Oct-25 Total Income Taxes	Oct-25 Federal Income Tax Proposed Rates	Oct-25 State Income Tax Proposed Rates	Oct-25 Total Income Taxes Proposed Rates
1	Operating Income Before Income Taxes	$ 229,837	$ 229,837	$ (37,019)	$ (37,019)		$ (129,659)	$ (129,659)		$ 633,252	$ 633,252	
2	Interest Expense (1)	145,763	145,763	141,529	141,529		134,115	134,115		134,115	134,115	
3	State Income Tax	498		(25,778)			(30,132)			31,705		
4	Repair Adjustment on 2023 Additions	56,489	56,489									
5	Repair Adjustment on 2024 Additions			43,080	43,080							
6	Repair Adjustment on 2025 Additions						36,978	36,978		36,978	36,978	
7	Excess Of Tax Depreciation Over Book	73,601	78,688	72,875	77,592		66,382	70,996		66,382	70,996	
8	Taxable Income	$ 9,976	$ 5,387	$ (268,726)	$ (299,221)		$ (337,002)	$ (371,748)		$ 364,073	$ 391,164	
9	Income Tax Rate	21.00%	9.24%	21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
10	Pro Forma Income Tax : Current	2,095	498	(56,432)	(25,778)		(70,770)	(30,132)		76,455	31,705	
11	CTA Adjustment											
12	Amortization of Flow through Taxes											
13	Amortization of Income Tax Credit						-			-		
14	Total - Current Income Taxes	$ 2,095	$ 498	$ (56,432)	$ (25,778)		$ (70,770)	$ (30,132)		$ 76,455	$ 31,705	
	Deferred Income Tax:											
15	Repair Adjustment			$ 43,080			36,978			36,978		
16	Less: State Deduction (Fr. Sch.6-6)											
17	Income Tax Rate			21.00%			21.00%			21.00%		
18	Deferred Income Tax - Repair Adjustment			9,047			7,765			7,765		
19	Excess Of Tax Depreciation Over Book			$ 72,875			$ 66,382			$ 66,382	$ -	
20	Less: State Deferred Income Tax			-			-			-		
21	Income Tax Rate			21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
22	Deferred Income Tax - Tax/Book Deprec.			15,304	-		13,940	-		13,940	-	
23	Total Deferred Income Tax (L18+L22)			24,351	-		21,705	-		21,705	-	
24	Total Income Taxes (L14+L22)	$ 2,095	$ 498	$ (32,082)	$ (25,778)	$ (57,860)	$ (49,065)	$ (30,132)	$ (79,197)	$ 98,161	$ 31,705	$ 129,866
	Adjustment											
25	Rate Base	$ 6,888,600	$ 6,888,600	$ 6,688,525	$ 6,688,525		$ 6,338,145	$ 6,338,145		$ 6,338,145	$ 6,338,145	
26	Weighted Cost Of Debt	2.12%	2.12%	2.12%	2.12%		2.12%	2.12%		2.12%	2.12%	
27	Interest Expense (1)	$ 145,763	$ 145,763	$ 141,529	$ 141,529		$ 134,115	$ 134,115		$ 134,115	$ 134,115	

Exhibit No. GRH-4-R

VEOLIA WATER PENNSYLVANIA INC.

HARRISBURG, PENNSYLVANIA

REBUTTAL
INCOME STATEMENT AND
PRO FORMA REVENUES
AS OF OCTOBER 31, 2025

GANNETT FLEMING

Excellence Delivered As Promised

VEOLIA WATER PENNSYLVANIA INC.

STATEMENT OF THE CALCULATION OF THE RATE OF RETURN UNDER PRESENT RATES FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2023, 2024 AND OCTOBER 31, 2025
AND THE ANTICIPATED RATE OF RETURN UNDER PROPOSED RATES FOR THE YEAR ENDING OCTOBER 31, 2025

Line No.	Description	12 Months Ended 30-Sep-23	Pro Forma FTY Adjustments Ref.	Pro Forma FTY Adjustments Amount	Pro Forma Present Rates, 30-Sep-24	Pro Forma FPFTY Adjustments and DSIC Adjustment Ref.	Pro Forma FPFTY Adjustments and DSIC Adjustment Amount	Pro Forma Present Rates, 31-Oct-25	Under Proposed Rates, Supplement No. ___ to Tariff Water Pa-PUC No. 7 Ref.	Increase	Pro Forma 31-Oct-25
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)	(10)
1	Operating Revenues	$ 1,657,858	GRH-1	$ (10,904)	$ 1,646,954	GRH-1	$ (10,904)	$ 1,636,050	GRH-1	$ 487,706	$ 2,123,756
2											
3	Operating Revenue Deductions										
4	Operation and Maintenance										
5	Expenses	$ 1,150,000	GRH-2	$ (18,866)	$ 1,131,134	GRH-2	$ 23,801	$ 1,154,935	GRH-2	$ 3,124	$ 1,158,059
6	Taxes Other than Income	$ 42	GRH-2	$ 3	$ 45	GRH-2	$ 7	$ 52		$ -	$ 52
7											
8											
9	Depreciation	11,905	GRH-2	315,650	327,555	GRH-2	71,902	399,457	GRH-2	$ -	399,457
10	Amortization of Acquisition Adjustment	-	GRH-2	-	-	GRH-2	-	-	GRH-2	$ -	-
11	Amortization of Regulatory Asset	-	GRH-2		-	GRH-2	-	-	GRH-2		-
12											
13	Total Operating										
14	Revenue Deductions	$ 1,161,946	GRH-2	$ 296,788	$ 1,458,734	GRH-2	$ 95,710	$ 1,554,444		$ 3,124	$ 1,557,568
15											
16	Total Income Before Taxes and Return	$ 495,911		$ (307,692)	$ 188,220		$ (106,614)	$ 81,605		$ 484,583	$ 566,188
17											
18	Less Federal and State Taxes	$ -	GRH-2	$ 5,134	$ 5,134		$ (26,989)	$ (21,856)	GRH-2	$ 132,791	$ 110,935
19											
20											
21	Net Operating Income										
22	Available for Return	$ 495,911		$ (312,825)	$ 183,086		$ (79,625)	$ 103,461		$ 351,791	$ 455,253
23											
24											
25	Rate Base	$ 4,299,992	GRH-1.1	$ 1,877,875	$ 6,177,867		$ (450,928)	$ 5,726,939		$ -	$ 5,726,939
26											
27	Rate of Return	11.53%			2.96%			1.81%			7.95%

VEOLIA WATER PENNSYLVANIA INC.

STATEMENT OF THE CALCULATION OF THE RATE OF RETURN UNDER PRESENT RATES FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2023, 2024 AND OCTOBER 31, 2025
AND THE ANTICIPATED RATE OF RETURN UNDER PROPOSED RATES FOR THE YEAR ENDING OCTOBER 31, 2025

Line No.	Description	12 Months Ended 30-Sep-23	Pro Forma FTY Adjustments Ref.	Pro Forma FTY Adjustments Amount	Pro Forma Present Rates, 30-Sep-24	Pro Forma FPFTY Adjustments and DSIC Adjustment Ref.	Pro Forma FPFTY Adjustments and DSIC Adjustment Amount	Pro Forma Present Rates, 31-Oct-25	Under Proposed Rates, Supplement No. ___ to Tariff Water Pa-PUC No. 7 Ref.	Increase	Pro Forma 31-Oct-25
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)	(10)
1	Operating Revenues	$ 1,611,229	GRH-1	$ (10,904)	$ 1,600,324	GRH-1	$ (10,904)	$ 1,589,420	GRH-1	$ 378,081	$ 1,967,501
2											
3											
4	Operating Revenue Deductions										
5	Operation and Maintenance										
6	Expenses	$ 1,054,514	GRH-2	$ (21,060)	$ 1,033,453	GRH-2	$ 22,465	$ 1,055,918	GRH-2	$ 3,036	$ 1,058,954
7	Taxes Other than Income	$ 3	GRH-2	$ 0	$ 4	GRH-2	$ 0	$ 4		$ -	$ 4
8											
9											
10	Depreciation	-	GRH-2	312,506	312,506	GRH-2	70,060	382,566	GRH-2	$ -	382,566
11	Amortization of Acquisition Adjustment	-	GRH-2	-	-	GRH-2	-	-	GRH-2	$ -	-
12	Amortization of Regulatory Asset	-	GRH-2		-	GRH-2	-	-	GRH-2		-
13											
14	Total Operating										
15	Revenue Deductions	$ 1,054,517	GRH-2	$ 291,446	$ 1,345,963	GRH-2	$ 92,525	$ 1,438,488		$ 3,036	$ 1,441,524
16											
17	Total Income Before Taxes and Return	$ 556,711		$ (302,350)	$ 254,362		$ (103,429)	$ 150,933		$ 375,045	$ 525,978
18											
19	Less Federal and State Taxes	$ -	GRH-2	$ 27,702	$ 27,702		$ (24,964)	$ 2,738	GRH-2	$ 102,775	$ 105,512
20											
21											
22	Net Operating Income										
23	Available for Return	$ 556,711		$ (330,052)	$ 226,660		$ (78,465)	$ 148,195		$ 272,270	$ 420,465
24											
25											
26	Rate Base	$ 3,829,347	GRH-1.1	$ 1,892,790	$ 5,722,137		$ (432,681)	$ 5,289,456		$ -	$ 5,289,456
27											
28	Rate of Return	14.54%			3.96%			2.80%			7.95%

VEOLIA WATER PENNSYLVANIA INC.

STATEMENT OF THE CALCULATION OF THE RATE OF RETURN UNDER PRESENT RATES FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2023, 2024 AND OCTOBER 31, 2025
AND THE ANTICIPATED RATE OF RETURN UNDER PROPOSED RATES FOR THE YEAR ENDING OCTOBER 31, 2025

Line No.	Description	12 Months Ended 30-Sep-23	Pro Forma FTY Adjustments Ref.	Pro Forma FTY Adjustments Amount	Pro Forma Present Rates, 30-Sep-24	Pro Forma FPFTY Adjustments and DSIC Adjustment Ref.	Pro Forma FPFTY Adjustments and DSIC Adjustment Amount	Pro Forma Present Rates, 31-Oct-25	Under Proposed Rates, Supplement No. ___ to Tariff Water Pa-PUC No. 7 Ref.	Increase	Pro Forma 31-Oct-25
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)	(10)
1	Operating Revenues	$ 46,629	GRH-1	$ -	$ 46,629	GRH-1	$ -	$ 46,629	GRH-1	$ 109,625	$ 156,255
2											
3											
4	Operating Revenue Deductions										
5	Operation and Maintenance										
6	Expenses	$ 95,486	GRH-2	$ 2,194	$ 97,681	GRH-2	$ 1,336	$ 99,017	GRH-2	$ 88	$ 99,105
7	Taxes Other than Income	$ 38	GRH-2	$ 3	$ 41	GRH-2	$ 7	$ 48		$ -	$ 48
8											
9											
10	Depreciation	11,905	GRH-2	3,144	15,049	GRH-2	1,842	16,891	GRH-2	$ -	16,891
11	Amortization of Acquisition Adjustment	-	GRH-2	-	-	GRH-2	-	-	GRH-2	$ -	-
12	Amortization of Regulatory Asset	-	GRH-2		-	GRH-2	-	-	GRH-2		-
13											
14	Total Operating										
15	Revenue Deductions	$ 107,429	GRH-2	$ 5,342	$ 112,771	GRH-2	$ 3,185	$ 115,956		$ 88	$ 116,044
16											
17	Total Income Before Taxes and Return	$ (60,800)		$ (5,342)	$ (66,142)		$ (3,185)	$ (69,327)		$ 109,538	$ 40,210
18											
19	Less Federal and State Taxes	$ -	GRH-2	$ (22,568)	$ (22,568)		$ (2,025)	$ (24,594)	GRH-2	$ 30,017	$ 5,423
20											
21											
22	Net Operating Income										
23	Available for Return	$ (60,800)		$ 17,227	$ (43,573)		$ (1,160)	$ (44,734)		$ 79,521	$ 34,787
24											
25											
26	Rate Base	$ 470,645	GRH-1.1	$ (14,915)	$ 455,730		$ (18,246)	$ 437,484		$ -	$ 437,484
27											
28	Rate of Return	-12.92%			-9.56%			-10.23%			7.95%

VEOLIA WATER PENNSYLVANIA INC.
WASTEWATER OPERATIONS
ORIGINAL COST MEASURE OF VALUE AS OF SEPTEMBER 30, 2023,
SEPTEMBER 30, 2024 AND OCTOBER 31, 2025

Mahoning Township		As of 9/30/2023	As of 9/30/2024	As of 10/31/2025
Original Cost of Utility Plant In Service	(a)	$ 6,503,089	$ 8,634,092	$ 8,535,058
~~Mahoning Acquisition Adj~~	(a)			
Less: Accumulated Depreciation	(a)	(2,686,623)	(2,925,752)	(3,260,894)
Net Utility Plant		3,816,466	5,708,340	5,274,164
CIAC and Contributions		-	-	-
Add:				
Deferred Taxes		$ -	$ -	$ -
Regulatory Liability		-	-	-
Materials and Supplies		-	-	-
Cash Working Capital		12,881	13,797	15,292
Total Original Cost Measure of Value		$ 3,829,347	$ 5,722,137	$ 5,289,456

(a) Source: Data provided by Company.

Columbia County		As of 9/30/2023	As of 9/30/2024	As of 10/31/2025
Original Cost of Utility Plant In Service	(a)	$ 437,003	$ 437,003	$ 437,003
Less: Accumulated Depreciation	(a)	30,390	15,341	(2,957)
Net Utility Plant		467,393	452,344	434,046
CIAC and Contributions		-	-	-
Add:				
Deferred Taxes		$ -	$ -	$ -
Regulatory Liability		-	-	-
Materials and Supplies		-	-	-
Cash Working Capital		3,252	3,386	3,438
Total Original Cost Measure of Value		$ 470,645	$ 455,730	$ 437,484
Total Wastewater Original Cost Measure of Value		$ 4,299,992	$ 6,177,867	$ 5,726,939

(a) Source: Data provided by Company.

VEOLIA WASTEWATER PENNSYLVANIA INC.

TYPE OF CAPITAL	RATIOS	COST RATE	WEIGHTED COST RATE
LONG-TERM DEBT	46.00%	4.60%	2.12%
COMMON EQUITY	54.00%	10.80%	5.83%
TOTAL	100.00%		7.95%

Source: Direct testimony of Harold Walker III.

VEOLIA WASTEWATER PENNSYLVANIA INC.

SUMMARY OF PRO FORMA REVENUES UNDER PROPOSED RATES FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2024 AND OCTOBER 31, 2025
AND THE CALCULATION OF THE REVENUE INCREASE UNDER PROPOSED RATES

Customer Classification	Pro Forma Revenues, Present Rates (Schedule 4)	Bill Analysis Revenues, Proposed Rates (Schedule 3)	Adjustment Factor (Sch. 4, col 4)	Revenues, Proposed Rates	Pro Forma Adjustments Proposed Rates (Schedules 3 and 7)	Total Pro Forma Revenue Proposed Rates	Proposed Increase	Percent Increase
(1)	(2)	(3)	(4)	(5)=(4)X(3)	(6)	(7)=(5)+(6)	(8)=(7)-(2)	(9)
COMBINED METERED SALES								
Residential	$ 889,534	$ 1,176,714	0.99999980	$ 1,176,714	$ (8,578)	$ 1,168,137	$ 278,603	31.3%
Non-Residential	746,309	957,208	1.00008690	957,292	(1,880)	955,412	209,103	28.0%
Total Wastewater Sales	1,635,842	2,133,923		2,134,006	(10,457)	2,123,549	487,706	29.8%
Other Operating Revenues	207	207		207		207	-	0.0%
Total	$ 1,636,050	$ 2,134,130		$ 2,134,213	$ (10,457)	$ 2,123,756	$ 487,706	29.8%

VEOLIA WASTEWATER PENNSYLVANIA INC.

SUMMARY OF APPLICATION OF PROPOSED RATES TO CUSTOMER BILL ANALYSIS AND PRO FORMA ADJUSTMENTS
FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2024 AND OCTOBER 31, 2025

Rate Zone	Residential	Commercial	Industrial	Metered Total
(1)	(2)	(3)	(4)	(5)
Proposed Rate Application, Schedule 6				
Sales for Mahoning Township	$ 1,176,714	$ 800,967		$ 1,977,682
Sales for Columbia County		60,824	95,417	156,241
Total	$ 1,176,714	$ 861,791	$ 95,417	$ 2,133,923
Pro Forma Adjustments, Schedule 9 - 2024 and 2025				
Sales for Mahoning Township	$ (8,578)	$ (1,880)		$ (10,457)
Sales for Columbia County				-
Total	$ (8,578)	$ (1,880)	$ -	$ (10,457)

VEOLIA WASTEWATER PENNSYLVANIA INC.

SUMMARY OF REVENUE UNDER PRESENT RATES AND PRO FORMA REVENUES UNDER PRESENT RATES
FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2023 AND 2024 AND OCTOBER 31, 2025

Customer Classification	Adjusted Revenues, Per Books Present Rates 09/30/2023 (a)	Bill Analysis Revenues, Present Rates (Schedule 5)	Ref.	Adjustment Factor	Revenues Under Present Rates	Pro Forma Adjustments Present Rates (Schedules 5 and 7)	Add Back Annualized DSIC Revenue	Total Pro Forma Revenue Present Rates
(1)	(2)	(3)		(4)=(2)/(3)	(5)=(4)X(3)	(6)	(7)	(8)=(5)+(6)+(7)
COMBINED METERED SALES								
Residential	$ 902,694	$ 902,694	Sch. 6	0.99999980	$ 902,694	$ (13,160)		$ 889,534
Non-Residential	754,957	754,891	Sch. 6	1.00008690	754,957	(8,648)		746,309
Total Wastewater Sales	$ 1,657,650	$ 1,657,585			$ 1,657,650	$ (21,808)	$ -	$ 1,635,842
Other Operating Revenues	207	207			207			207
Total	$ 1,657,858	$ 1,657,792			$ 1,657,858	$ (21,808)	$ -	$ 1,636,050

(a) Excludes DSIC and Unbilled Revenue.

VEOLIA WASTEWATER PENNSYLVANIA INC.

SUMMARY OF APPLICATION OF PRESENT RATES TO CUSTOMER BILL ANALYSIS AND PRO FORMA ADJUSTMENTS
FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023 AND 2024, AND OCTOBER 31, 2025

Rate Zone	Residential	Commercial	Industrial	Metered Total
(1)	(2)	(3)	(4)	(5)
Present Rate Application, Schedule 6				
Sales for Mahoning Township	$ 902,694	$ 708,322		$ 1,611,016
Sales for Columbia County		18,146	28,423	46,569
Total	$ 902,694	$ 726,468	$ 28,423	$ 1,657,585
Pro Forma Adjustments - Schedule 9 - 2024				
Sales for Mahoning Township	$ (6,580)	$ (4,324)		$ (10,904)
Sales for Columbia County				-
Subtotal	$ (6,580)	$ (4,324)	$ -	$ (10,904)
Pro Forma Adjustments - Schedule 9 - 2025				
Sales for Mahoning Township	$ (6,580)	$ (4,324)		$ (10,904)
Sales for Columbia County				-
Subtotal	$ (6,580)	$ (4,324)	$ -	$ (10,904)
Total Adjustments	$ (13,160)	$ (8,648)	$ -	$ (21,808)

VEOLIA WASTEWATER PENNSYLVANIA INC.

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
1			Flat Rate Residential - Monthly - Mahoning Township					
2	Flat Rate - EDUs							
3	5/8	16,062		$ 56.20	$ 902,694		$ 73.26	$ 1,176,714
4	Subtotal	16,062			902,694			1,176,714
5								
6	Total Residential	16,062			$ 902,694			$ 1,176,714
7								
8			Commercial - Monthly - Mahoning Township					
9	Minimum Charge - EDUs							
10	Rate 1	11,092		$ 56.20	$ 623,384		$ 64.11	$ 711,123
11	Rate 2	22		61.18	1,346		64.11	1,410
12	Fabtex	12		525.71	6,309		599.70	7,196
13	Atlantic Equipment	12		307.98	3,696		351.33	4,216
14	Geisinger - Justin Dr. II	12		2,191.67	26,300		2,500.14	30,002
15	Geisinger - Hughes North	12		1,264.43	15,173		1,442.40	17,309
16	Subtotal	11,162			676,208			771,256
17								
18	First Block (First 435,000)	-	2,082	5.6447	11,754	2,082	6.2770	13,071
19	Second Block (Over 435,000)	-	2,651	7.6800	20,360	2,651	6.2770	16,640
20	Subtotal	-	4,733		32,114	4,733		29,711
21								
22	Total Commercial	11,162	4,733		$ 708,322	4,733		$ 800,967
23								
24	Total	27,224	4,733		$ 1,611,016	4,733		$ 1,977,682

VEOLIA WASTEWATER PENNSYLVANIA INC.

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED SEPTEMBER 30, 2023

Line No	Rate Block 1000 Gallons	Number Of Bills	Present Consumption	Test Year Rate	Revenue	Proposed Consumption	Proposed Rate	Proposed Revenue
	(1)	(2)	(3)	(4)	(5)		(6)	(7)
1			Commercial - Monthly - Columbia County Operations					
2								
3	Minimum Charge - EDUs							
4	Rate 3	60		$ 277.08	16,625		$ 928.50	$ 55,710
5	Subtotal	60			16,625			55,710
6								
7	First Block (First 5,000) - (Min.)		31	-	-	31	$ -	-
8	Second Block (Next 5,000)		120	2.2170	266	120	7.4540	893
9	Third Block (Next 90,0000)		622	1.9950	1,240	622	6.7070	4,169
10	Fourth Block (Next 100,000)		9	1.7730	15	9	5.9610	52
11	Fifth Block (Over 200,000)		-	1.5520	-	-	5.2180	-
12	Subtotal	-	781		1,521	781		5,114
13								
14	Total Commercial	60	781		$ 18,146	781		$ 60,824
15								
16			Industrial - Monthly - Columbia County Operations					
17	Customer Charge							
18	Rate 3	47		277.08	$ 12,893		$ 928.50	$ 43,206
19	Subtotal	47			12,893			43,206
20								
21	First Block (First 5,000) - (Min.)	-	24	-	-	24	-	-
22	Second Block (Next 5,000)		121	2.2170	269	121	7.4540	903
23	Third Block (Next 90,0000)		1,107	1.9950	2,209	1,107	6.7070	7,427
24	Fourth Block (Next 100,000)		1,200	1.7730	2,128	1,200	5.9610	7,153
25	Fifth Block (Over 200,000)	-	7,039	1.5520	10,924	7,039	5.2180	36,728
26	Subtotal	-	9,491		15,530	9,491		52,211
27								
28	Total Industrial	47	9,491		$ 28,423	9,491		$ 95,417
29								
30	Total	107	10,272		$ 46,569	10,272		$ 156,241

VEOLIA WASTEWATER PENNSYLVANIA INC.

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO PROFORMA ADJUSTMENTS
YEAR ENDED SEPTEMBER 30, 2023 AND 2024, AND OCTOBER 31, 2025

Rate Block 1000 Gallons	Number Of Bills	Total Consumption	Test Year/Present Rate	Revenue	Proposed Rate	Proposed Revenue
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Residential - Monthly - Mahoning Township			
Customer Charge						
5/8	(117)	-	$ 56.20	$ (6,580)	$ 73.26	$ (8,578)
Subtotal	(117)	-		(6,580)		(8,578)
Total Residential	(117)	-		(6,580)	-	(8,578)
			Commercial - Monthly - Mahoning Township			
Customer Charge						
5/8		-	56.20	-	64.11	-
3/4		-	61.18	-	64.11	-
1	(12)	-	277.08	(3,325)	64.11	(769)
Subtotal	(12)	-		(3,325)		(769)
Test Year First Block (First 25)	-	(177)	5.6447	(999)	6.2770	(1,110)
Test Year Second Block (Over 25)	-		7.6800	-	6.2770	-
Subtotal	-	(177)		(999)		(1,110)
Total Class	(12)	(177)		(4,324)		(1,880)
Total	(129)	(177)		(10,904)		(10,457)

ADJUSTMENT 1 - CUSTOMER GROWTH REVENUE ADJUSTMENT UNDER PRESENT RATES
FOR THE TEST YEARS ENDING SEPTEMBER 30, 2023 AND 2024, AND OCTOBER 31, 2025

		Residential	Commercial	Total
	Historic TY Customer Growth Calculation			
1	Actual Normalized Bills	16,062	11,162	27,224
2	Actual Annualized Bills	16,020	11,162	27,182
3	Projected Daily Usage in gallons (a)		491.35	491
4	Monthly Volumes per Normalization (1000 Gallons) Line 3 X30 /1000	-	14.74	
5	HTY Customer Annualized Growth Bills (Line 2-Line 1) Divided by 2	(21)	-	(21)
6	HTY Customer Annualized Growth Volumes (Line 4 X Line 5 / 2)	-	-	-
	Priced At First Block	-		-
	Priced At Second Block			-
	Historic TY Customer Growth Revenue Calculation			
7	Average Service Charge	$ 56.20	$ 56.20	
8	Revenue From Service Charge (Line 7 X Line 5)	$ (1,185)		
9	Volume Charge - First Block	0	5.6447	
	Volume Charge - Second Block		7.68	
10	Revenue from Volumetric Charge (Line 9 X Line 6)			
	Priced At First Block	$ -	$ -	
	Priced At Second Block			
11	Total Historical TY Adjustment (Line 8 + Line 10)	$ (1,185)		$ (1,185)

ADJUSTMENT 1 - CUSTOMER GROWTH REVENUE ADJUSTMENT UNDER PRESENT RATES
FOR THE TEST YEARS ENDING SEPTEMBER 30, 2023 AND 2024, AND OCTOBER 31, 2025

		Residential	Commercial	Total
	Future Test Year Customer Growth Calculation			
12	Forecasted Customer Growth	(4.0)	(0.5)	
13	Annualized Bills (Line 12 X 12)	(48)	(6)	
14	Average Volumes Per Normalization			
	Priced At First Block	-	14.74	
	Priced At Second Block			
15	Normalized Volumes (Line 13 X Line 14)	-	(88)	
16	Revenue From Service Charge (Line 7 X Line 13)	$ (2,698)	$ (337)	$ (3,035)
17	Revenue from Volumetric Charge (Line 9 X Line 15)			
	Priced At First Block	$ -	$ (499)	$ (499)
	Priced At Second Block	$ -	$ -	-
18	Total FTY Adjustment (Line 16 + Line 17)	$ (2,698)	$ (836)	$ (3,534)
	Fully Projected Future Test Year Customer Growth Calculation			
19	Forecasted Customer Growth	(4.0)	(0.5)	
20	Annualized Bills (Line 12 X 12)	(48)	(6)	
21	Average Volumes Per Normalization			
	Priced At First Block	-	14.74	
	Priced At Second Block	-	-	
	Total	-	14.74	
22	Normalized Volumes (Line 13 X Line 14)	-	(88)	
23	Revenue From Service Charge (Line 7 X Line 13)	$ (2,698)	$ (337)	$ (3,035)
24	Revenue from Volumetric Charge (Line 9 X Line 15)			
	Priced At First Block	$ -	$ (499)	$ (499)
	Priced At Second Block	$ -	$ -	1
25	Total FTY Adjustment (Line 16 + Line 17)	$ (2,698)	$ (836)	$ (3,534)
	Total Adjustment	$ (6,580)	$ (1,673)	$ (8,253)

(a) For residential and commercial, see declining usage workpaper. For Industrial and Public, based on 2017 usage.

	Number of Customers	Residential	Commercial
26	**Period Ending 09/30/21**	1,343.0	103.0
27	**Period Ending 09/30/22**	1,337.0	103.0
28	**Historic Test Year Period Ending 09/30/23**	1,335.0	102.0
29	**Increase 2021-2022**	(6.0)	-
30	**Increase 2022-2023**	(2.0)	(1.0)
31	**Average Growth/(Decline)**	(4.0)	(0.5)

VEOLIA WASTEWATER PENNSYLVANIA INC.
MAHONING TOWNSHIP
COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
RESIDENTIAL - MONTHLY
5/8 INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES	BILLS UNDER PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 56.20	$ 73.26	$ 17.06	30.36%
1,000	$ 56.20	$ 73.26	$ 17.06	30.36%
2,000	$ 56.20	$ 73.26	$ 17.06	30.36%
3,000	$ 56.20	$ 73.26	$ 17.06	30.36%
3,500	$ 56.20	$ 73.26	$ 17.06	30.36%
4,000	$ 56.20	$ 73.26	$ 17.06	30.36%
5,000	$ 56.20	$ 73.26	$ 17.06	30.36%
6,000	$ 56.20	$ 73.26	$ 17.06	30.36%
7,000	$ 56.20	$ 73.26	$ 17.06	30.36%
8,000	$ 56.20	$ 73.26	$ 17.06	30.36%
9,000	$ 56.20	$ 73.26	$ 17.06	30.36%
10,000	$ 56.20	$ 73.26	$ 17.06	30.36%
11,000	$ 56.20	$ 73.26	$ 17.06	30.36%
12,000	$ 56.20	$ 73.26	$ 17.06	30.36%
13,000	$ 56.20	$ 73.26	$ 17.06	30.36%
14,000	$ 56.20	$ 73.26	$ 17.06	30.36%
15,000	$ 56.20	$ 73.26	$ 17.06	30.36%
16,000	$ 56.20	$ 73.26	$ 17.06	30.36%
17,000	$ 56.20	$ 73.26	$ 17.06	30.36%
18,000	$ 56.20	$ 73.26	$ 17.06	30.36%
19,000	$ 56.20	$ 73.26	$ 17.06	30.36%
20,000	$ 56.20	$ 73.26	$ 17.06	30.36%
25,000	$ 56.20	$ 73.26	$ 17.06	30.36%
30,000	$ 56.20	$ 73.26	$ 17.06	30.36%
35,000	$ 56.20	$ 73.26	$ 17.06	30.36%
40,000	$ 56.20	$ 73.26	$ 17.06	30.36%
45,000	$ 56.20	$ 73.26	$ 17.06	30.36%
50,000	$ 56.20	$ 73.26	$ 17.06	30.36%
60,000	$ 56.20	$ 73.26	$ 17.06	30.36%
70,000	$ 56.20	$ 73.26	$ 17.06	30.36%
80,000	$ 56.20	$ 73.26	$ 17.06	30.36%
90,000	$ 56.20	$ 73.26	$ 17.06	30.36%
100,000	$ 56.20	$ 73.26	$ 17.06	30.36%
110,000	$ 56.20	$ 73.26	$ 17.06	30.36%
120,000	$ 56.20	$ 73.26	$ 17.06	30.36%
130,000	$ 56.20	$ 73.26	$ 17.06	30.36%
140,000	$ 56.20	$ 73.26	$ 17.06	30.36%
150,000	$ 56.20	$ 73.26	$ 17.06	30.36%
160,000	$ 56.20	$ 73.26	$ 17.06	30.36%
170,000	$ 56.20	$ 73.26	$ 17.06	30.36%
180,000	$ 56.20	$ 73.26	$ 17.06	30.36%

VEOLIA WASTEWATER PENNSYLVANIA INC.
MAHONING TOWNSHIP
COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
COMMERCIAL - MONTHLY
2-INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES	PROPOSED RATES	INCREASE AMOUNT	PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 56.20	$ 64.11	$ 7.91	14.07%
1,000	$ 61.84	$ 70.39	$ 8.54	13.81%
5,000	$ 84.42	$ 95.50	$ 11.07	13.11%
10,000	$ 112.65	$ 126.88	$ 14.23	12.64%
11,000	$ 118.29	$ 133.16	$ 14.87	12.57%
12,000	$ 123.94	$ 139.43	$ 15.50	12.50%
13,000	$ 129.58	$ 145.71	$ 16.13	12.45%
14,000	$ 135.23	$ 151.99	$ 16.76	12.40%
15,000	$ 140.87	$ 158.27	$ 17.39	12.35%
16,000	$ 146.52	$ 164.54	$ 18.03	12.30%
17,000	$ 152.16	$ 170.82	$ 18.66	12.26%
18,000	$ 157.80	$ 177.10	$ 19.29	12.22%
19,000	$ 163.45	$ 183.37	$ 19.92	12.19%
20,000	$ 169.09	$ 189.65	$ 20.56	12.16%
25,000	$ 197.32	$ 221.04	$ 23.72	12.02%
30,000	$ 235.72	$ 252.42	$ 16.70	7.09%
35,000	$ 274.12	$ 283.81	$ 9.69	3.53%
40,000	$ 312.52	$ 315.19	$ 2.67	0.86%
45,000	$ 350.92	$ 346.58	$ (4.34)	-1.24%
50,000	$ 389.32	$ 377.96	$ (11.36)	-2.92%
60,000	$ 466.12	$ 440.73	$ (25.39)	-5.45%
75,000	$ 581.32	$ 534.89	$ (46.43)	-7.99%
85,000	$ 658.12	$ 597.66	$ (60.46)	-9.19%
95,000	$ 734.92	$ 660.43	$ (74.49)	-10.14%
105,000	$ 811.72	$ 723.20	$ (88.52)	-10.91%
115,000	$ 888.52	$ 785.97	$ (102.55)	-11.54%
125,000	$ 965.32	$ 848.74	$ (116.58)	-12.08%
135,000	$ 1,042.12	$ 911.51	$ (130.61)	-12.53%
145,000	$ 1,118.92	$ 974.28	$ (144.64)	-12.93%
155,000	$ 1,195.72	$ 1,037.05	$ (158.67)	-13.27%
165,000	$ 1,272.52	$ 1,099.82	$ (172.70)	-13.57%
175,000	$ 1,349.32	$ 1,162.59	$ (186.73)	-13.84%
185,000	$ 1,426.12	$ 1,225.36	$ (200.76)	-14.08%

VEOLIA WASTEWATER PENNSYLVANIA INC.
COLUMBIA COUNTY
COMPARISON OF BILLS UNDER PRESENT AND PROPOSED RATES
COMMERCIAL AND INDUSTRIAL - MONTHLY
4-INCH METERS

CONSUMPTION GALLONS	BILLS UNDER PRESENT RATES	PROPOSED RATES	INCREASE AMOUNT	INCREASE PERCENT
(1)	(2)	(3)	(4)	(5)
0	$ 277.08	$ 928.50	$ 651.42	235.10%
1,000	$ 277.08	$ 928.50	$ 651.42	235.10%
5,000	$ 277.08	$ 928.50	$ 651.42	235.10%
10,000	$ 288.17	$ 965.77	$ 677.60	235.14%
15,000	$ 298.14	$ 999.30	$ 701.16	235.18%
20,000	$ 308.12	$ 1,032.84	$ 724.72	235.21%
25,000	$ 318.09	$ 1,066.37	$ 748.28	235.24%
30,000	$ 328.07	$ 1,099.91	$ 771.84	235.27%
35,000	$ 338.04	$ 1,133.44	$ 795.40	235.30%
40,000	$ 348.02	$ 1,166.98	$ 818.96	235.32%
45,000	$ 357.99	$ 1,200.51	$ 842.52	235.35%
50,000	$ 367.97	$ 1,234.05	$ 866.08	235.37%
100,000	$ 467.72	$ 1,569.40	$ 1,101.68	235.55%
150,000	$ 556.37	$ 1,867.45	$ 1,311.08	235.65%
200,000	$ 645.02	$ 2,165.50	$ 1,520.48	235.73%
225,000	$ 683.82	$ 2,295.95	$ 1,612.13	235.76%
250,000	$ 722.62	$ 2,426.40	$ 1,703.78	235.78%
275,000	$ 761.42	$ 2,556.85	$ 1,795.43	235.80%
300,000	$ 800.22	$ 2,687.30	$ 1,887.08	235.82%
350,000	$ 877.82	$ 2,948.20	$ 2,070.38	235.86%

VEOLIA WATER PENNSYLVANIA INC.

COMPARISON OF PRESENT AND PROPOSED RATES

Mahoning Township Customers

Residential

Flat Rate Charge

MTR SIZE	Present Rate	Proposed Rate	% Increase
All Meter Sizes	$ 56.20	$ 73.26	30.356%

Non-Residential

Service Charge

MTR SIZE	Present Rate	Proposed Rate	% Increase
Rate 1	$ 56.20	$ 64.11	14.07%
Rate 2	$ 61.18	$ 64.11	4.79%
Rate 3	$ 277.08	$ 64.11	-76.86%
Geisinger - Justin Dr. II	$ 2,191.67	$ 2,500.14	14.07%
Geisinger - Huges North	$ 1,264.43	$ 1,442.40	14.08%
Atlantic Equipment	$ 307.98	$ 351.33	14.08%
FAB-TEX	$ 525.71	$ 599.70	14.07%

Consumption Charge

First 435 MGL/No Blk Proposed	$ 5.6447	$ 6.2770	11.202%
Over 435 MGL/No Blk Proposed	$ 7.6800	$ 6.2770	-18.268%

Columbia County Customers

Non-Residential

Service Charge

MTR SIZE	Present Rate	Proposed Rate	% Increase
All Meter Sizes	$ 277.08	$ 928.50	235.100%

Consumption Charge

First 5 MGL (Min)	$ -	$ -	
Next 5 MGL	2.2170	7.4540	236.22%
Next 90 MGL	1.9950	6.7070	236.19%
Next 100 MGL	1.7730	5.9610	236.21%
Over 200 MGL	1.5520	5.2180	236.21%

Exhibit No. GRH-5-R

VEOLIA WATER PENNSYLVANIA INC.

HARRISBURG, PENNSYLVANIA

REBUTTAL

WASTEWATER

PRO FORMA EXPENSE ADJUSTMENTS

AS OF OCTOBER 31, 2025

GANNETT FLEMING

Excellence Delivered As Promised

Veolia Water Pennsylvania
Docket No. R-2024-3045193
Operation and Maintenance Expenses - Combined
For the Historical, Future and Fully Projected Future Test Year

Exhibit No. GRH-5-R
Schedule-1
Summary of Adjustments

Line No.	Account Number	Utility Operating Expenses	Adjustment No.	12-Months Ending 9/30/2023	Future Test Year Adjustments	Future Test Year 9/30/2024	Fully Projected Future Test Year Adjustments Present Rates	Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Adjustments Proposed Rates	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	601.0	Labor Expense	1	$ 48,598	$ 1,385	$ 49,983	$ 1,375	$ 51,358		$ 51,358
2	604.0	Employee Group Health & Life	2	7,179	171	7,350	162	7,511		7,511
3	604.0	Employee Pension Benefits	3	2,055	49	2,104	46	2,150		2,150
4	604.0	Employee Post Retirement Benefits Other than Pension	4	422	10	432	9	441		441
5	604.0	Other Employee Benefits	5	780	88	868	22	890		890
6	610.0	Purchased Water	6	-	-	-	-	-		-
7	615.0	Purchased Power	7	-	-	-	-	-		-
8	616.0	Fuel for Power Production	8	-	-	-	-	-		-
9	618.0	Chemicals	9	929	205	1,134	25	1,159		1,159
10	620.0	Materials and Supplies	10	3,801	1,248	5,049	111	5,160		5,160
11	634.0	Management and Service Fees	11	-	-	-	-	-		-
12	635.0	Lab Testing Fees	12	123,964	(14,339)	109,625	2,412	112,037		112,037
13	636.0	Outside Contractors	13	863,955	26,293	890,248	19,585	909,833		909,833
14	636.0	Outside Professional Services	14	81,451	(34,998)	46,453	1,022	47,475		47,475
15	641.0	Rental - Building/Real Property	15	-	-	-	-	-		-
16	642.0	Rental of Equipment	16	-	-	-	-	-		-
17	650.0	Transportation Expense	17	5,054	120	5,174	114	5,288		5,288
18	657.0	Prop& Gen Liab. Insurance	18	(62)	62	-	-	-		-
19	658.0	Worker Compensation	19	108	(13)	95	1	97		97
20	660.0	Advertising	20	-	-	-	-	-		-
21	666.0	Rate Case Expense - Amort	21	-	-	-	-	-		-
22	666.0	Regulatory Commission Expense	22	10,586	(70)	10,516	(70)	10,447	3,114	13,561
23	667.0	Amortization of Tax Reform Liability	22.1							
24	670.0	Bad Debt Expense	23	98	(34)	64	(32)	32	10	42
25	675.0	Fringe Benefit Expense Transfer	24	0	(0)	-	-	-		-
26	675.6	Office Expense and Utilities	25	1,082	956	2,039	(982)	1,057		1,057
27	675.9	Postage and Air Freight Expense	26	-	-	-	-	-		-
28	Various	Other O&M	27	-	-	-	-	-		-
29		Customer Assistance Program	28	-	-	-	-	-		-
30		Adjustments for Acquisitions	29	-	-	-	-	-		-
31		**Total Operation and Maintenance Expenses**		$ 1,150,000	$ (18,866)	$ 1,131,134	$ 23,801	$ 1,154,935	$ 3,124	$ 1,158,059
32										
33		Inflation Rate Calculator	30		2.38%		2.20%			
34										
35		**Taxes Other Than Income**								
36		Real Estate Tax	31	$ -	$ -	$ -	$ -	$ -	$ -	$ -
37		Payroll	32	42	3	45	3	$ 48	-	$ 48
38										
39		**Total Taxes Other Than Income**		$ 42	$ 3	$ 45	$ 3	$ 48	$ -	$ 48
40										
41		**Depreciation Expense**	33-R	$ 11,905	$ 315,650	$ 327,555	$ 71,902	$ 399,457		$ 399,457
42		**Amortization of Acquisition Adjustment**		-		-	-	-		-
43		**Amortization of Regulatory Liability**								
44										
45		**Income Taxes**	34	$ -	$ 5,134	$ 5,134	$ (26,989)	$ (21,856)	$ 132,791	$ 110,935
46										
47		**Total**		$ 1,161,946	$ 301,921	$ 1,463,868	$ 68,717	$ 1,532,584	$ 135,915	$ 1,668,500

Veolia Water Pennsylvania
Docket No. R-2024-3045193
Operation and Maintenance Expenses - Columbia County Operations
For the Historical, Future and Fully Projected Future Test Year

Exhibit No. GRH-5-R
Schedule-1
Summary of Adjustments
Page 2 of 3

Line No.	Account Number	Utility Operating Expenses	Adjustment No.	12-Months Ending 9/30/2023	Future Test Year Adjustments	Future Test Year 9/30/2024	Fully Projected Future Test Year Adjustments Present Rates	Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Adjustments Proposed Rates	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	601.0	Labor Expense	1	$ 44,741	$ 1,275	$ 46,017	$ 1,265	$ 47,282		$ 47,282
2	604.0	Employee Group Health & Life	2	6,609	157	6,766	149	6,915		6,915
3	604.0	Employee Pension Benefits	3	1,892	45	1,937	43	1,979		1,979
4	604.0	Employee Post Retirement Benefits Other than Pension	4	388	9	397	9	406		406
5	604.0	Other Employee Benefits	5	718	84	802	20	823		823
6	610.0	Purchased Water	6	-	-	-	-	-		-
7	615.0	Purchased Power	7	-	-	-	-	-		-
8	616.0	Fuel for Power Production	8	-	-	-	-	-		-
9	618.0	Chemicals	9	929	205	1,134	25	1,159		1,159
10	620.0	Materials and Supplies	10	107	35	142	3	145		145
11	634.0	Management and Service Fees	11	-	-	-	-	-		-
12	635.0	Lab Testing Fees	12	4,060	(470)	3,590	79	3,669		3,669
13	636.0	Outside Contractors	13	28,292	861	29,154	641	29,795		29,795
14	636.0	Outside Professional Services	14	2,667	(1,146)	1,521	33	1,555		1,555
15	641.0	Rental - Building/Real Property	15	-	-	-	-	-		-
16	642.0	Rental of Equipment	16	-	-	-	-	-		-
17	650.0	Transportation Expense	17	4,653	111	4,763	105	4,868		4,868
18	657.0	Prop& Gen Liab. Insurance	18	(2)	2	-	-	-		-
19	658.0	Worker Compensation	19	100	(5)	95	1	96		96
20	660.0	Advertising	20	-	-	-	-	-		-
21	666.0	Rate Case Expense - Amort	21	-	-	-	-	-		-
22	666.0	Regulatory Commission Expense	22	298	(2)	296	(2)	294	88	381
23	667.0	Amortization of Tax Reform Liability	22.1	-		-		-		-
24	670.0	Bad Debt Expense	23	3	30	32	(32)	1	0	1
25	675.0	Fringe Benefit Expense Transfer	24	-	-	-	-	-		-
26	675.6	Office Expense and Utilities	25	30	1,003	1,034	(1,004)	30		30
27	675.9	Postage and Air Freight Expense	26	-	-	-	-	-		-
28	Various	Other O&M	27	-	-	-	-	-		-
29		Customer Assistance Program	28	-	-	-	-	-		-
30		Adjustments for Acquisitions	29	$ -	$ -	$ -	$ -	$ -		$ -
31		**Total Operation and Maintenance Expenses**		$ 95,486	$ 2,194	$ 97,681	$ 1,336	$ 99,017	$ 88	$ 99,105
32										
33		Inflation Rate Calculator	30		2.38%		2.20%			
34										
35		**Taxes Other Than Income**								
36		Real Estate Tax	31	$ -	$ -	$ -	$ -	$ -	$ -	$ -
37		Payroll	32	38	3	41	3	44	-	$ 44
38										
39		**Total Taxes Other Than Income**		$ 38	$ 3	$ 41	$ 3	$ 44	$ -	$ 44
40										
41		**Depreciation Expense**	33	$ 11,905	$ 3,144	$ 15,049	$ 1,842	$ 16,891		$ 16,891
42		**Amortization of Acquisition Adjustment**		$ -		$ -		$ -		$ -
43		**Amortization of Regulatory Liability**								
44										
45		**Income Taxes**	34	$ -	$ (22,568)	$ (22,568)	$ (2,025)	$ (24,594)	$ 30,017	$ 5,423
46										
47		**Total**		$ 107,429	$ (17,227)	$ 90,203	$ 1,156	$ 91,359	$ 30,105	$ 121,464

Veolia Water Pennsylvania
Docket No. R-2024-3045193
Operation and Maintenance Expenses - Mahoning Township
For the Historical, Future and Fully Projected Future Test Year

Exhibit No. GRH-5-R
Schedule-1
Summary of Adjustments

Line No.	Account Number	Utility Operating Expenses	Adjustment No.	12-Months Ending 9/30/2023	Future Test Year Adjustments	Future Test Year 9/30/2024	Fully Projected Future Test Year Adjustments Present Rates	Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Adjustments Proposed Rates	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	601.0	Labor Expense	1	$ 3,857	$ 110	$ 3,967	$ 109	$ 4,076		$ 4,076
2	604.0	Employee Group Health & Life	2	570	14	583	13	596		596
3	604.0	Employee Pension Benefits	3	163	4	167	4	171		171
4	604.0	Employee Post Retirement Benefits Other than Pension	4	33	1	34	1	35		35
5	604.0	Other Employee Benefits	5	62	4	65	2	67		67
6	610.0	Purchased Water	6	-	-		-			-
7	615.0	Purchased Power	7	-	-	-	-	-		-
8	616.0	Fuel for Power Production	8	-	-	-	-	-		-
9	618.0	Chemicals	9	-	-	-	-	-		-
10	620.0	Materials and Supplies	10	3,694	1,213	4,907	108	5,015		5,015
11	634.0	Management and Service Fees	11	-	-		-			-
12	635.0	Lab Testing Fees	12	119,905	(13,869)	106,035	2,333	108,368		108,368
13	636.0	Outside Contractors	13	835,662	25,432	861,094	18,944	880,038		880,038
14	636.0	Outside Professional Services	14	78,784	(33,852)	44,932	988	45,920		45,920
15	641.0	Rental - Building/Real Property	15	-	-	-	-	-		-
16	642.0	Rental of Equipment	16	-	-	-	-	-		-
17	650.0	Transportation Expense	17	401	10	411	9	420		420
18	657.0	Prop& Gen Liab. Insurance	18	(60)	60	-	-	-		-
19	658.0	Worker Compensation	19	9	(8)	1	0	1		1
20	660.0	Advertising	20	-	-	-	-	-		-
21	666.0	Rate Case Expense - Amort	21	-	-	-	-	-		-
22	666.0	Regulatory Commission Expense	22	10,288	(68)	10,221	(68)	10,153	3,027	13,180
23	667.0	Amortization of Tax Reform Liability	22.1	-		-		-		-
24	670.0	Bad Debt Expense	23	95	(63)	32	(0)	31	9	41
25	675.0	Fringe Benefit Expense Transfer	24	0	(0)	-	-	-		-
26	675.6	Office Expense and Utilities	25	1,052	(47)	1,005	22	1,027		1,027
27	675.9	Postage and Air Freight Expense	26	-	-	-	-	-		-
28	Various	Other O&M	27	-	-	-	-	-		-
29		Customer Assistance Program	28	-	-	-	-	-		-
30		Adjustments for Acquisitions	29	-	-	-	-	-		-
31		**Total Operation and Maintenance Expenses**		$ 1,054,514	$ (21,060)	$ 1,033,453	$ 22,465	$ 1,055,918	$ 3,036	$ 1,058,954
32										
33		Inflation Rate Calculator	30		2.38%		2.20%			
34										
35		**Taxes Other Than Income**								
36		Real Estate Tax	31	$ -	$ -	$ -	$ -	$ -	$ -	$ -
37		Payroll	32	3	0	4	0	4	-	$ 4
38										
39		**Total Taxes Other Than Income**		$ 3	$ 0	$ 4	$ 0	$ 4	$ -	$ 4
40										
41		**Depreciation Expense**	33-R	$ -	$ 312,506	$ 312,506	70,060	$ 382,566		$ 382,566
42		**Amortization of Acquisition Adjustment**		$ -		$ -	$ -	$ -		$ -
43		**Amortization of Regulatory Liability**								
44										
45		**Income Taxes**	34	$ -	$ 27,702	$ 27,702	$ (24,964)	$ 2,738	$ 102,775	$ 105,512
46										
47		**Total**		$ 1,054,517	$ 319,148	$ 1,373,665	$ 67,561	$ 1,441,225	$ 105,810	$ 1,547,036

Line No.	Description	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VWW Pennsylvania	$ 44,741	$ 46,017 **(a)**	$ 47,282 **(b)**
2	Mahoning Township	3,857	3,967 **(a)**	4,076 **(b)**
3				
4	**Total Labor Expense**	$ 48,598	$ 49,983	$ 51,358
5				
6	Adjustment		$ 1,385	$ 1,375
7				
8	Projected Labor Increase			
9	2024	2.85%		
10	2025	2.75%		
11				
12	**Reference Notes:**			
13	**(a)** Based on projected wage increase for 2024.			
14	**(b)** Based on projected wage increase for 2025.			

Line No.	Description	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VWW Pennsylvania	$ 6,609	$ 6,766	$ 6,915
2	Mahoning Township	570	583	596
3				
4	**Total Employee Group Health and Life Insurance**	$ 7,179	$ 7,350	$ 7,511
5				
6	Adjustment		$ 171	$ 162
7				
8	**Inflation Rate:**			
9	Future Test Year	2.375%		
10	Fully Projected Future Test Year	2.200%		
11				
12	**Reference Notes:**			
13	**(a)** Based upon historic test year cost with Future Test Year inflation rate.			
14	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.			

Line No.	Description	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VWW Pennsylvania	$ 1,892	$ 1,937 **(a)**	$ 1,979 **(b)**
2	Mahoning Township	163	167 **(a)**	171 **(b)**
3				
4	**Total Employee Pension Benefits**	$ 2,055	$ 2,104	$ 2,150
5				
6	Adjustment		$ 49	$ 46
7				
8	**Inflation Rate:**			
9	Future Test Year	2.375%		
10	Fully Projected Future Test Year	2.200%		
11				
12	**Reference Notes:**			
13	**(a)** Based upon Historic Test Year cost with Future Test Year inflation rate.			
14	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.			

Line No.	Description	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VWW Pennsylvania	$ 388	$ 397	$ 406
2	Mahoning Township	33	34	35
3				
4	**Total Employee PEBOP Expense**	$ 422	$ 432	$ 441
5				
6	Adjustment		$ 10	$ 9
7				
8	**Inflation Rate:**			
9	Future Test Year	2.375%		
10	Fully Projected Future Test Year	2.200%		
11				
12	**Reference Notes:**			
13	**(a)** Based upon Historic Test Year cost with Future Test Year inflation rate.			
14	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.			

Line No.	Description	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	401K Matching			
2	VWW Pennsylvania	$ 780	$ 802 **(a)**	$ 823 **(b)**
3	Mahoning Township	62	65 **(a)**	$ 67 **(b)**
4				
5	**Total 401K Matching and Other Benefits**	$ 842	$ 868	$ 890
6				
7	Adjustment		$ 26	$ 22
8				

Year	Gross Salary	401K Contribution (%)
2024	49,983	1.73%
2025	51,358	1.73%

Reference Notes:

(a) 401K Matching adjustment takes the Future Test Year's Gross Salary, multiplied by the Historic Test Year's 401K contribution percentage.

(b) 401K Matching adjustment takes the Fully Projected Future Test Year's Gross Salary, multiplied by the Historic Test Year's 401K contribution percentage.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 929	$ 1,134 **(a)**	$ 1,159 **(b)**
2	Mahoning Township	-	- **(a)**	- **(b)**
3				
4	**Total Chemical Expense**	$ 929	$ 1,134	$ 1,159
5				
6	Adjustment		$ 205	$ 25

Year	Chemical Expense
2021	$ 1,235
2022	1,160
2023	929
3 Year Average	$ 1,108

Inflation Rate:	
Future Test Year	2.375%
Fully Projected Future Test Year	2.200%

Reference Notes:

(a) Based upon three year average with Future Test Year inflation rate.

(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 107	$ 142 **(a)**	$ 145 **(b)**
2	Mahoning Township	3,694	4,907 **(a)**	5,015 **(b)**
3				
4	**Total Materials and Supplies**	$ 3,801	$ 5,049	$ 5,160
5				
6	Adjustment		$ 1,248	$ 111

Year	Materials and Supplies Expense
2021	$ 3,892
2022	7,104
2023	3,801
3 Year Average	$ 4,932

Inflation Rate:

Future Test Year	2.375%
Fully Projected Future Test Year	2.200%

Reference Notes:

(a) Based upon three year average with Future Test Year inflation rate.

(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 4,060	$ 3,590	$ 3,669
2	Mahoning Township	119,905	106,035	108,368
3				
4	**Total Lab Testing Fees**	$ 123,964	$ 109,625	$ 112,037
5				
6	Adjustment		$ (14,339)	$ 2,412
7				

	Year	Lab Testing Fees
10	2022	90,200
11	2023	123,964
12		
13	2022 and 2023 Average	107,082
14		
15	**Inflation Rate:**	
16	Future Test Year	2.375%
17	Fully Projected Future Test Year	2.200%
18		
19	**Reference Notes:**	
20	**(a)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.	

Veolia Water Pennsylvania | **Exhibit No. GRH-5-R**
Docket No. R-2024-3045193 | **Schedule-10**
Outside Contractors Expense | **Adjustment No. 13**
Account Number 50400 | **Page 1 of 1**

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 28,292	$ 29,154	$ 29,795
2	Mahoning Township	835,662	861,094	880,038
3				
4	**Total Outside Contractors**	$ 863,955	$ 890,248	$ 909,833
5				
6	Adjustment		$ 26,293	$ 19,585
7				

	Year	Outside Contractor's Expense
10	2022	875,235
11	2023	863,955
12		
13	Two Year Average	$ 869,595

15	**Inflation Rate:**	
16	Future Test Year	2.375%
17	Fully Projected Future Test Year	2.200%

18

19 **Reference Notes:**

20 **(a)** Based upon two year average with Future Test Year inflation rate.

21 **(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 2,667	$ 1,521 **(a)**	$ 1,554.692 **(b)**
2	Mahoning Township	78,784	44,932 **(a)**	45,920 **(b)**
3				
4	**Total Outside Professional Services**	$ 81,451	$ 46,453	$ 47,475
5				
6	Adjustment		$ (34,998)	$ 1,022

Year	Outside Professional Services Expense
2021	$ 39,845
2022	14,830
2023	81,451
3 Year Average	$ 45,375

Inflation Rate:

Future Test Year	2.375%
Fully Projected Future Test Year	2.200%

Reference Notes:

(a) Based upon three year average with Future Test Year inflation rate.

(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VWW Pennsylvania	$ 4,653	$ 4,763 **(a)**	$ 4,868 **(a)**
2	Mahoning Township	401	411 **(b)**	420 **(c)**
3				
4	Total Costs	$ 5,054	$ 5,174	$ 5,288
5				
6	**Total Transportation Expense**	$ 5,054	$ 5,174	$ 5,288
7				
8	Adjustment		$ 120	$ 114
9				
10	**Inflation Rate:**			
11	Future Test Year	2.38%		
12	Fully Projected Future Test Year	2.20%		
13				
14	**Reference:**			
15	**(a)** Based on projected 2024 costs for Future Test Year and 2025 costs for Fully Projected Future Test Year.			
16	**(b)** Based upon three year average with Future Test Year inflation rate.			
17	**(c)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.			

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year		Fully Projected Future Test Year	
1	VW Pennsylvania	$ (2)	$ -	**(a)**	$ -	**(a)**
2	Mahoning Township	(60)	-	**(a)**	-	**(a)**
3						
4	**Total Property and General Corporate Liability Insurance**	$ (62)	$ -		$ -	
5						
6	Adjustment		$ 62		$ -	
7						
8	**Reference Notes:**					
9	**(a)** General liability insurance expense is included in management and services fees expense account.					

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 100	94 **(a)**	96 **(b)**
2	Mahoning Township	9	1 **(a)**	1 **(b)**
3				
4	**Total Worker Compensation**	$ 108	$ 95	$ 97
5				
6	Adjustment		$ (14)	$ 2
7				
8	**Inflation Rate:**			
9	Future Test Year	2.38%		
10	Fully Projected Future Test Year	2.20%		
11				
12	**Reference Notes:**			
13	**(a)** Based upon historic test year cost with Future Test Year inflation rate.			
14	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.			

Veolia Water Pennsylvania
Docket No. R-2024-3045193
Regulatory Commission Expense
Account Number 91900 & 92000

Exhibit No. GRH-5-R
Schedule-15
Adjustment No. 22
Page 1 of 1

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	**Regulatory Commission Expense:**				
2	VW Pennsylvania	$ 298	$ 296	$ 294	$ 381
3	Mahoning Township	10,288	10,221	10,153	13,180
4					
5	**Total Regulatory Commission Expense**	$ 10,586	$ 10,516	$ 10,447	$ 13,561
6					
7	Adjustment		$ (70)	$ (70)	$ 3,114
8					
9					

Line No.	Regulatory Commission Expense:	Per 2023 PAPUC Assesment	Future Test Year	Fully Projected Future Test Year	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
10					
11					
12					
13					
14					
15					
16	Taxable Revenue	$ 1,657,858	$ 1,646,954	$ 1,636,050	$ 2,123,756
17	Amount Assessed	10,586	10,516	10,447	13,561
18					
19					

Veolia Water Pennsylvania
Docket No. R-2024-3045193
Bad Debt Expense
Account Number 90400 & 90405

Exhibit No. GRH-5-R
Schedule-16
Adjustment No. 23
Page 1 of 1

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
1	VW Pennsylvania	$ 3	$ 1	$ 1	$ 1
2	Mahoning Township	95	32	31	41
3					
4	**Total Bad Debt Expense**	$ 98	$ 32	$ 32	$ 42
5					
6	Adjustment		$ (65)	$ (0)	$ 10
7					
8					

		2023	2022	2021
10				
11	Historic Uncollectable Expense	$ 98	$ -	$ 0
12				
13	Historic Test Year Revenues	1,657,650	1,643,436	1,611,663
14				
15	Effective Uncollectable Rate	0.006%	0.000%	0.000%
16				
17	Average 3 Year Uncollectable Rate	0.002%		

		Future Test Year	Fully Projected Future Test Year Under Present Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025
26				
27	Revenues	$ 1,646,954	$ 1,636,050	$ 2,123,756
28				
29	Uncollectable Expense	$ 32	$ 32	$ 42
30				

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 30	$ 29.08	$ 29.72
2	Mahoning Township	1,052	1,005 **(a)**	1,027 **(b)**
3				
4	**Total Office Expense and Utilities**	$ 1,082	$ 1,034	$ 1,057
5				
6	Adjustment		$ (48)	$ 23
7				

	Year	Office Expense and Utilities
8	2021	$ 807
9	2022	1,141
10	2023	1,082
11		
12	3 Year Average	$ 1,010
13		
14	**Inflation Rate:**	
15	Future Test Year	2.375%
16	Fully Projected Future Test Year	2.200%
17		
18	**Reference Notes:**	
19	**(a)** Based upon three year average with Future Test Year inflation rate.	
20	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.	

Line No.	Description				
1	Source: Blue Chip Financial Forecasts September 1, 2023				
2					
3	Consumer Price Index				
4					
5	**Future Test Year:**				
6		Annual		Quarter	
7	1Q2024	2.40%		0.60%	
8	2Q2024	2.30%		0.58%	
9	3Q2024	2.50%		0.63%	
10	4Q2024	2.30%		0.58%	
11					
12	**Inflation Adjustment:**			2.38%	
13					
14	**Fully Projected Future Test Year:**				
15		Annual		Quarter	
16	1Q2025	2.20%		0.55%	
17	2Q2025	2.20%	**(a)**	0.55%	
18	3Q2025	2.20%	**(a)**	0.55%	
19	4Q2025	2.20%	**(a)**	0.55%	
20					
21	**Inflation Adjustment:**			2.20%	
22					
23	**Reference Notes:**				
24	**(a)** Index not available, used 1Q of 2025 index.				

Historical:

	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
VW Pennsylvania	$ 38	$ 41	$ 44
Mahoning Township	3	4	4
Total Payroll Taxes	42	45	48
Adjustment		$ 3	$ 3

Inflation Rate:

Future Test Year	7.65%
Fully Projected Future Test Year	7.65%

Reference Notes:

(a) Based upon historic test year (less refund), with Future Test Year inflation rate.
(b) Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.

Historical:

	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
VW Pennsylvania	$ 11,905	15,049	16,891
Mahoning Township	-	312,506	382,566
	$ 11,905	$ 327,555	$ 399,457
Adjustment		$ 315,650	$ 71,902
Amortization of Mahoning Acquisition Adjustment			$ -

Reference Notes:
(a) Data provided by Company.

Line No.	Description	Sep-23 Federal Income Tax Current Rates	Sep-23 State Income Tax Current Rates	Sep-24 Federal Income Tax Current Rates	Sep-24 State Income Tax Current Rates	Sep-24 Total Income Taxes	Oct-25 Federal Income Tax Current Rates	Oct-25 State Income Tax Current Rates	Oct-25 Total Income Taxes	Oct-25 Federal Income Tax Proposed Rates	Oct-25 State Income Tax Proposed Rates	Oct-25 Total Income Taxes Proposed Rates
1	Operating Income Before Income Taxes	$ 495,911	$ 495,911	$ 188,220	$ 188,220		$ 81,605	$ 81,605		$ 566,188	$ 566,188	
2	Interest Expense (1)	91,617	91,617	131,627	131,627		122,020	122,020		122,020	122,020	
3	State Income Tax	36,603		(8,545)			(16,923)			22,355		
4	Repair Adjustment on 2024 Additions		3,411	55,615	55,615							
5	Repair Adjustment on 2025 Additions						57,661	57,661		57,661	57,661	
9	Excess Of Tax Depreciation Over Book	4,445	4,752	94,078	100,168		103,512	110,707		103,512	110,707	
10	Taxable Income	$ 363,247	$ 396,132	$ (84,556)	$ (99,191)		$ (184,665)	$ (208,783)		$ 260,641	$ 275,800	
11	Income Tax Rate	21.00%	9.24%	21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
12	Pro Forma Income Tax : Current	76,282	36,603	(17,757)	(8,545)		(38,780)	(16,923)		54,735	22,355	
13	CTA Adjustment											
14	Amortization of Flow through Taxes											
15	Amortization of Income Tax Credit						-			-		
16	Total - Current Income Taxes	$ 76,282	$ 36,603	$ (17,757)	$ (8,545)		$ (38,780)	$ (16,923)		$ 54,735	$ 22,355	
	Deferred Income Tax:											
17	Repair Adjustment			$ 55,615			57,661			57,661		
18	Less: State Deduction (Fr. Sch.6-6)											
19	Income Tax Rate			21.00%			21.00%			21.00%		
20	Deferred Income Tax - Repair Adjustment			11,679			12,109			12,109		
21	Excess Of Tax Depreciation Over Book			$ 94,078			$ 103,512			$ 103,512	$ -	
22	Less: State Deferred Income Tax			-			-			-		
23	Income Tax Rate			21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
24	Deferred Income Tax - Tax/Book Deprec.			19,756	-		21,738	-		21,738	-	
25	Total Deferred Income Tax (L20+L24)			31,436	-		33,846	-		33,846	-	
26	Total Income Taxes (L16+L25)	$ 76,282	$ 36,603	$ 13,679	$ (8,545)	$ 5,134	$ (4,933)	$ (16,923)	$ (21,856)	$ 88,581	$ 22,355	$ 110,935
	Adjustment											
27	Rate Base	$ 4,299,992	$ 4,299,992	$ 6,177,867	$ 6,177,867		$ 5,726,939	$ 5,726,939		$ 5,726,939	$ 5,726,939	
28	Weighted Cost Of Debt	2.13%	2.13%	2.13%	2.13%		2.13%	2.13%		2.13%	2.13%	
29	Interest Expense (1)	$ 91,617	$ 91,617	$ 131,627	$ 131,627		$ 122,020	$ 122,020		$ 122,020	$ 122,020	

Line No.	Description	Sep-23 Federal Income Tax Current Rates	Sep-23 State Income Tax Current Rates	Sep-24 Federal Income Tax Current Rates	Sep-24 State Income Tax Current Rates	Sep-24 Total Income Taxes	Oct-25 Federal Income Tax Current Rates	Oct-25 State Income Tax Current Rates	Oct-25 Total Income Taxes	Oct-25 Federal Income Tax Proposed Rates	Oct-25 State Income Tax Proposed Rates	Oct-25 Total Income Taxes Proposed Rates
1	Operating Income Before Income Taxes	$ 556,711	$ 556,711	$ 254,362	$ 254,362		$ 150,933	$ 150,933		$ 525,978	$ 525,978	
2	Interest Expense (1)	81,589	81,589	121,918	121,918		112,699	112,699		112,699	112,699	
3	State Income Tax	43,901		(141)			(6,698)			23,701		
4	Repair Adjustment on 2024 Additions			47,866	47,866							
5	Repair Adjustment on 2025 Additions						41,395	41,395		41,395	41,395	
9	Excess Of Tax Depreciation Over Book	-	-	80,971	86,212		74,311	79,477		74,311	79,477	
10	Taxable Income	$ 431,221	$ 475,122	$ 3,748	$ (1,634)		$ (70,774)	$ (82,637)		$ 273,872	$ 292,408	
11	Income Tax Rate	21.00%	9.24%	21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
12	Pro Forma Income Tax : Current	90,556	43,901	787	(141)		(14,862)	(6,698)		57,513	23,701	
13	CTA Adjustment											
14	Amortization of Flow through Taxes											
15	Amortization of Income Tax Credit						-			-		
16	Total - Current Income Taxes	$ 90,556	$ 43,901	$ 787	$ (141)		$ (14,862)	$ (6,698)		$ 57,513	$ 23,701	
	Deferred Income Tax:											
17	Repair Adjustment			$ 47,866			41,395			41,395		
18	Less: State Deduction (Fr. Sch.6-6)											
19	Income Tax Rate			21.00%			21.00%			21.00%		
20	Deferred Income Tax - Repair Adjustment			10,052			8,693			8,693		
21	Excess Of Tax Depreciation Over Book			$ 80,971			$ 74,311			$ 74,311	$ -	
22	Less: State Deferred Income Tax			-			-			-		
23	Income Tax Rate			21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
24	Deferred Income Tax - Tax/Book Deprec.			17,004	-		15,605	-		15,605	-	
25	Total Deferred Income Tax (L20+L24)			27,056	-		24,298	-		24,298	-	
26	Total Income Taxes (L16+L25)	$ 90,556	$ 43,901	$ 27,843	$ (141)	$ 27,702	$ 9,436	$ (6,698)	$ 2,738	$ 81,811	$ 23,701	$ 105,512
	Adjustment											
27	Rate Base	$ 3,829,347	$ 3,829,347	$ 5,722,137	$ 5,722,137		$ 5,289,456	$ 5,289,456		$ 5,289,456	$ 5,289,456	
28	Weighted Cost Of Debt	2.13%	2.13%	2.13%	2.13%		2.13%	2.13%		2.13%	2.13%	
29	Interest Expense (1)	$ 81,589	$ 81,589	$ 121,918	$ 121,918		$ 112,699	$ 112,699		$ 112,699	$ 112,699	

Line No.	Description	Sep-23 Federal Income Tax Current Rates	Sep-23 State Income Tax Current Rates	Sep-24 Federal Income Tax Current Rates	Sep-24 State Income Tax Current Rates	Sep-24 Total Income Taxes	Oct-25 Federal Income Tax Current Rates	Oct-25 State Income Tax Current Rates	Oct-25 Total Income Taxes	Oct-25 Federal Income Tax Proposed Rates	Oct-25 State Income Tax Proposed Rates	Oct-25 Total Income Taxes Proposed Rates
1	Operating Income Before Income Taxes	$ (60,800)	$ (60,800)	$ (66,142)	$ (66,142)		$ (69,327)	$ (69,327)		$ 40,210	$ 40,210	
2	Interest Expense (1)	10,028	10,028	9,710	9,710		9,321	9,321		9,321	9,321	
3	State Income Tax	(6,984)		(8,405)			(10,225)			(1,346)		
4	Repair Adjustment on 2024 Additions			7,749	7,749							
5	Repair Adjustment on 2025 Additions						16,266	16,266		16,266	16,266	
9	Excess Of Tax Depreciation Over Book	7,673	4,752	13,108	13,956		29,201	31,231		29,201	31,231	
10	Taxable Income	$ (71,517)	$ (75,580)	$ (88,304)	$ (97,557)		$ (113,891)	$ (126,145)		$ (13,232)	$ (16,608)	
11	Income Tax Rate	21.00%	9.24%	21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
12	Pro Forma Income Tax : Current	(15,019)	(6,984)	(18,544)	(8,405)		(23,917)	(10,225)		(2,779)	(1,346)	
13	CTA Adjustment											
14	Amortization of Flow through Taxes											
15	Amortization of Income Tax Credit						-			-		
16	Total - Current Income Taxes	$ (15,019)	$ (6,984)	$ (18,544)	$ (8,405)		$ (23,917)	$ (10,225)		$ (2,779)	$ (1,346)	
	Deferred Income Tax:											
17	Repair Adjustment			$ 7,749			16,266			16,266		
18	Less: State Deduction (Fr. Sch.6-6)											
19	Income Tax Rate			21.00%			21.00%			21.00%		
20	Deferred Income Tax - Repair Adjustment			1,627			3,416			3,416		
21	Excess Of Tax Depreciation Over Book			$ 13,108			$ 29,201			$ 29,201	$ -	
22	Less: State Deferred Income Tax			-			-			-		
23	Income Tax Rate			21.00%	8.62%		21.00%	8.11%		21.00%	8.11%	
24	Deferred Income Tax - Tax/Book Deprec.			2,753	-		6,132	-		6,132	-	
25	Total Deferred Income Tax (L20+L24)			4,380	-		9,548	-		9,548	-	
26	Total Income Taxes (L16+L25)	$ (15,019)	$ (6,984)	$ (14,164)	$ (8,405)	$ (22,568)	$ (14,369)	$ (10,225)	$ (24,594)	$ 6,769	$ (1,346)	$ 5,423
	Adjustment											
27	Rate Base	$ 470,645	$ 470,645	$ 455,730	$ 455,730		$ 437,484	$ 437,484		$ 437,484	$ 437,484	
28	Weighted Cost Of Debt	2.13%	2.13%	2.13%	2.13%		2.13%	2.13%		2.13%	2.13%	
29	Interest Expense (1)	$ 10,028	$ 10,028	$ 9,710	$ 9,710		$ 9,321	$ 9,321		$ 9,321	$ 9,321	

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

PREPARED DIRECT TESTIMONY

OF

CONSTANCE E. HEPPENSTALL

GANNETT FLEMING
VALUATION AND RATE CONSULTANTS, LLC

REGARDING COST OF SERVICE ALLOCATION

February 2024

Q. Please state your name and address.

A. My name is Constance E. Heppenstall. My business address is 1010 Adams Avenue, Audubon, Pennsylvania.

Q. By whom are you employed?

A. I am employed by Gannett Fleming Valuation and Rate Consultants, LLC ("Gannett Fleming").

Q. Please describe your position with Gannett Fleming, and briefly state your general duties and responsibilities.

A. My title is Senior Project Manager, Rate Studies. My duties and responsibilities include the preparation of accounting and financial data for revenue requirement and cash working capital claims, the allocation of cost of service to customer classifications, and the design of customer rates in support of public utility rate filings.

Q. Have you presented testimony in rate proceedings before a regulatory agency?

A. Yes. I have testified before the Pennsylvania Public Utility Commission ("Commission" or "PUC"), the Kentucky Public Service Commission, the Arizona Corporation Commission, the Missouri Public Service Commission, the Virginia State Corporation Commission, the Hawaii Public Utility Commission, the West

Virginia Public Service Commission, the New Jersey Board of Public Utilities, the Indiana Utility Regulatory Commission, the Public Utilities Commission of Ohio, the Nevada Public Utility Commission, and the California Public Utility Commission concerning revenue requirements, cost of service allocation, rate design and revenue requirements. A list of cases in which I have testified is attached to my testimony.

Q. What is your educational background?

A. I have a Bachelor of Arts degree from the University of Virginia, Charlottesville, Virginia and a Master of Science in Industrial Administration from the Carnegie-Mellon University Tepper School of Business, Pittsburgh, Pennsylvania.

Q. Would you please describe your professional affiliations?

A. I am a member of the American Water Works Association ("AWWA"), the Pennsylvania Municipal Authorities Association and the National Association of Water Companies.

Q. Briefly describe your work experience.

A. I joined the Valuation and Rate Division of Gannett Fleming (formerly Gannett Fleming, Inc.) in August 2006, as a Rate Analyst. Prior to my employment at Gannett Fleming, I was a Vice President of PriMuni, LLP where I developed financial analyses to test proprietary software to ensure its pricing accuracy in

accordance with securities industry conventions. From 1987 to 2001, I was employed by Commonwealth Securities and Investments, Inc. as a public finance professional where I created and implemented financial models for public finance clients to create debt structures to meet clients' needs. From 1986 to 1987, I was a public finance associate with Mellon Capital Markets.

Q. What is the purpose of your testimony in this proceeding?

A. My testimony is in support of the cost of service allocation and rate design study conducted under my direction and supervision for Veolia Water Pennsylvania, Inc. (the "Company" or "Veolia").

Q. Have you prepared exhibits presenting the results of your study?

A. Yes. Exhibit No. CEH-1 presents the results of the allocation of pro forma Veolia and Bethel Water Operations cost of service as of October 31, 2025, and the proposed rate design. Also, responses to Rate Structure and Cost of Service Filing Requirement No. RS1 are found in the Appendix to Exhibit No. CEH-1. Exhibit No. CEH-2 presents the results of the allocation of pro forma Mahoning Water Operations cost of service as of October 31, 2025. Exhibit No. CEH-3 presents the results of the allocation of pro forma Mahoning Wastewater Operations cost of service as of October 31, 2025. Also, responses to Rate Structure and Cost of Service Filing Requirement No. RS1 are found in the Appendix to Exhibit No. CEH-3. Exhibit No. CEH-4 presents the pro forma

Columbia County Wastewater operations cost of service or revenue requirements as of October 31, 2025, as compared to revenue under present and proposed rates. In addition, Exhibit No. CEH-4 shows the total wastewater cost of service (Mahoning and Columbia County Wastewater Operations) and revenues under present and proposed rates. A separate cost of service study was not performed for this area as all the customers are non-residential, and as the purpose of a cost of service study is to allocate costs by customer class, a cost of service study was not necessary.

VEOLIA AND BETHEL WATER OPERATIONS COST OF SERVICE ALLOCATION

Q. Briefly describe the purpose of your cost allocation study.

A. The purpose of the study was to allocate the total cost of service, which is the total revenue requirement, to the several customer classifications. In the study, the total costs were allocated to the residential, commercial, industrial, large industrial, public authority, sales for resale, private fire protection and public fire protection classifications in accordance with generally accepted principles and procedures. The cost of service allocation results in indications of the relative cost responsibilities of each class of customers. The allocated cost of service is one of several criteria appropriate for consideration in designing customer rates to produce the required revenues.

Q. Have you prepared an exhibit presenting the results of your studies?

A. Yes. The results of my allocation of the pro forma cost of service as of October 31, 2025, and proposed customer rates to produce the pro forma revenue requirement as of that date are presented in Veolia Exhibit No. CEH-1.

Q. Please describe the method of cost allocation that was used in your study.

A. The base-extra capacity method, as described in the 2017 and prior editions of the Water Rates Manual published by the American Water Works Association (AWWA), was used to allocate the pro forma costs. It is a recognized method for allocating the cost of providing water service to customer classifications in proportion to each classification's use of the commodity, facilities, and services. It is generally accepted as a sound method for allocating the cost of water service and has been accepted by this Commission for that purpose. It is the method that was used by the Company and accepted by this Commission in the Company's prior rate cases.

Q. Is the method described in Exhibit No. CEH-1?

A. Yes. It is described on pages I-2 to I-4 of the exhibit.

Q. Please describe the procedure followed in the cost allocation study.

A. Each identified classification of cost in the pro forma cost of service was allocated to the customer classifications using appropriate allocation factors.

This allocation is presented in Schedule D on pages II-5 through II-9 of Exhibit No. CEH-1. The items of cost, which include operation and maintenance expenses, depreciation expense, taxes and income available for return, are identified in column 1 of Schedule D. The cost of each item, shown in column 3, is allocated to the several customer classifications based on allocation factors referenced in column 2. The development of the allocation factors is presented in Schedule E of the exhibit.

I will use some of the larger cost items to illustrate the principles and considerations used in the cost allocation methodology. Purchased water, purchased electric power and treatment chemicals are examples of costs that tend to vary with the amount of water consumed and are thus considered base costs. They are allocated to the several customer classifications in direct proportion to the average daily consumption of those classifications through the use of Factor 1. The development of Factor 1 is shown in Schedule E of Exhibit No. CEH-1.

Other source of supply, water treatment and transmission costs are associated with meeting usage requirements in excess of the average, generally to meet maximum day requirements. Costs of this nature were allocated to customer classifications partially as base costs, proportional to average daily consumption, partially as maximum day extra capacity costs, in proportion to maximum day extra capacity, and, in the case of certain pumping stations and transmission mains, partially as fire protection costs, through the use of Factors 2

and 3. The development of the allocation factors, referenced as Factors 2 and 3, is shown in Schedule E of Exhibit No. CEH-1.

Costs associated with storage facilities and the capital costs of distribution mains were allocated partly on the basis of average consumption and partly on the basis of maximum hour extra demand, including the demand for fire protection service, because these facilities are designed to meet maximum hour and fire demand requirements. The Large Industrial class was excluded from Factor 4 since this class is served from transmission mains only. The development of the factors, referenced as Factors 4 and 5, used for these allocations is shown in Schedule E of Exhibit No. CEH-1. Fire demand costs were allocated to public and private fire protection service and general service in proportion to the relative potential demands on the system by hydrants, fire services, and commercial service lines sized to provide both fire protection and general service, as presented on Schedule G of Exhibit No. CEH-1.

Costs associated with the operation and maintenance of mains were allocated on combined bases of maximum day and maximum hour extra capacity because these facilities serve both functions. The relative weightings of Factor 3 (maximum day) and Factor 4 (maximum hour) for the operation and maintenance of mains were based on footage of mains, serving maximum day and maximum hour functions. The development of these weighted factors, referenced as Factor 6, is presented in Schedule E of Exhibit No. CEH-1.

Costs associated with meters and services facilities were allocated to customer classifications in proportion to the capital costs of the sizes and quantities of meters and services serving each classification. The development of factors for meters and services, referenced as Factor 8 and Factor 9, is presented on Schedule E of Exhibit No. CEH-1. Costs for customer accounting, billing and collecting were allocated on the basis of the number of customers for each classification, and costs for meter reading were allocated on the basis of metered customers. The development of these factors, referenced as Factor 12 and Factor 13, is presented in Schedule E of Exhibit No. CEH-1.

Administrative and general costs were allocated on the basis of allocated direct costs excluding those costs, such as purchased water, power, and chemicals which require little administrative and general expense. The development of factors for this allocation, referenced as Factor 14, is presented in Schedule E of Exhibit No. CEH-1. Annual depreciation accruals were allocated on the basis of the function of the facilities represented by the depreciation expense for each depreciable plant account. The original cost less depreciation of utility plant in service was similarly allocated for the purpose of developing factors, referenced as Factor 18, for allocating items such as income taxes and return. The development of Factor 18 is presented in Schedule E of Exhibit No. CEH-1.

Q. What was the source of the total cost of service data set forth in column 3 of Schedule D of Veolia Exhibit No. CEH-1?

A. The pro forma costs of service are set forth in Exhibit GRH-1.

Q. Refer to Schedule E, pages II-11 through II-15 of Exhibit No. CEH-1, and explain the source of the system maximum day and maximum hour ratios used in the development of factors referenced as Factors 2, 3 and 4.

A. The ratios were based on a review of experienced Company data. The maximum day ratio of 1.3 times the average day approximates the ratio of maximum daily send-out experienced by the Company in past years. The system maximum hour ratio of 1.8 times the average hour was estimated based on the relationship of system maximum hour ratios to maximum day ratios.

Q. How are the customer class extra capacity factors determined?

A. The customer class extra capacity factors were primarily based on the customer class demand study conducted for the last rate case.

Q. What factors were considered in estimating the maximum day extra capacity and maximum hour extra capacity demands used for the customer classifications in the development of Factors 2, 3 and 4?

A. The estimated demands were based on judgment which considered field studies of actual customer class demands conducted for the Company, field

observations of the service areas of the Company, field studies of similar service areas in Pennsylvania, and generally-accepted customer class maximum day and maximum hour demand ratios.

Q. Please describe the reallocation of public fire costs.

A. The cost of service study reallocates the unrecovered portion of public fire protection to the residential, commercial, industrial and public classifications. This was done pursuant to Section 1328 of the Pennsylvania Public Utility Code, which states that public fire hydrant rates may only recover 25% of the cost of service and the unrecovered portion should be recovered in the other classes' fixed charges.

Q. How did you allocate the unrecovered portion of public fire service?

A. Based on the requirement that these costs are to be recovered in fixed charges, I allocated the unrecovered public fire costs using Factor 20, which is based on the meter equivalents of the residential, commercial, industrial, large industrial and public classifications.

Q. Have you summarized the results of your cost allocation study?

A. Yes. The results are summarized in columns 1, 2 and 3 of Schedule A of Veolia Exhibit No. CEH-1. Column 2 sets forth the total allocated pro forma cost of service as of October 31, 2025 for each customer classification identified in

column 1. Column 3 presents each customer classification's cost responsibility as a percent of the total cost.

Q. Have you compared these cost responsibilities with the proportionate revenue under existing rates for each customer classification?

A. Yes. A comparison of the allocated cost responsibilities and the percentage revenue under existing rates can be made by comparing columns 3 and 5 of Schedule A of Veolia Exhibit No. CEH-1. A similar comparison of the percentage cost responsibilities (relative cost of service) and the percentage of pro forma revenues (relative revenues) under proposed rates can be made by comparing columns 3 and 7 of Schedule A of Exhibit No. CEH-1.

MAHONING WATER OPERATIONS COST OF SERVICE ALLOCATION

Q. Please describe Exhibit No. CEH-2, the Mahoning Water Operations Cost of Service Study.

A. The Company was required to perform a cost of service study for Mahoning Water Operations as part of the order approving the sale dated December 20, 2018. This cost of service study was performed in the same manner as the Veolia Water Operations cost of service study previously described.

MAHONING WASTEWATER OPERATIONS COST OF SERVICE ALLOCATION

Q. Please describe the overall cost of service allocation methodology for the Company's Mahoning Wastewater Operations as shown in Exhibit No. CEH-3.

A. The Company was required to perform a cost of service study for Mahoning Wastewater Operations as part of the order approving the sale dated December 20, 2018.

The purpose of the study is to allocate the total cost of service, which is the total revenue requirement, to the several customer classifications. In the studies, the total costs are allocated to the residential and non-residential customer classifications in accordance with generally accepted cost of service principles and procedures.

Q. Have you prepared an exhibit presenting the results of your studies?

A. Yes. The results of my allocations of the pro forma cost of service as of October 31, 2025, and proposed customer rates to produce the pro forma revenue requirements for each division as of that date are presented in Exhibit No. CEH-3

Q. Please describe the method of cost allocation that was used in your studies.

A. I used the functional cost allocation methodology described in "Financing and Changes for Wastewater Systems," Manual of Practice No. 27, published by the

Water Environment Federation ("Manual of Practice No. 27"). This method allocated the cost of providing wastewater service to customer classifications in proportion to each classifications' use of the service provider's facilities and services. Costs are assigned to cost components using predominant operational purposes as cost-causative factors. The functional cost method is generally accepted as a sound method for allocating the cost of water service.

Q. What procedures did you use to apply the cost allocation methodology for wastewater operations?

A. Each element of the cost of service is allocated to customer classifications according to the functional categories of flow, infiltration and inflow ("I&I"), customer facilities and customer accounting. The functional costs are allocated to customer classifications based on the amount of flow contributed to the system, the amount of I&I allocated to each class, and the number and relative size of customers.

Q. Have you summarized the results of your cost allocation study?

A. Yes. The results are summarized in Schedule A in Exhibit No. CEH-3. Column 2 of Schedule A sets forth the total allocated pro forma cost of service for each customer classification identified in column 1. Column 3 presents each customer classification's cost responsibility as a percent of the total cost. The cost of service by class in column 2 was developed in Schedule B. The factors used to

allocate the cost of service by function to customer class are shown in Schedule C. The cost of service by function, reflected in Schedule B, was developed in Schedule D. The factors that allocate the cost of service to the cost functions are presented in Schedule E.

Q. Have you compared these cost responsibilities with the proportionate revenue under existing rates for each customer classification?

A. Yes. A comparison of the allocated cost responsibilities and the percentage revenue under existing rates can be made by comparing columns 3 and 5 of Schedule A in Exhibit No. CEH-3. The revenues in column 6 are simply the revenues that would be required to move toward (or approximate) the cost of service in column 3, and the increase or decrease from present revenues is shown in column 8, with the percentage increase or decrease in column 9.

COLUMBIA COUNTY WASTEWATER OPERATIONS

Q. Please describe the Schedules A and A-1 of Exhibit No. CEH-4 for the Company's Columbia County Wastewater Operations.

A. As stated previously in my direct testimony, as the purpose of a cost of service study is to allocate costs by customer class, a separate cost of service study was not performed for this area as all the customers are non-residential. Schedule A shows a comparison of the cost of service (or revenue requirement) for Columbia County Wastewater Operations as compared to revenues under present and

proposed rates. A revenue contribution was applied from Mahoning to mitigate the increase to the Columbia County Wastewater customers. See testimony of Veolia Witness Greg R. Herbert. Schedule A-1 shows the entire wastewater cost of service and revenues under present and proposed rates.

Q. Does this complete your direct testimony?

A. Yes, it does. However, I reserve the right to supplement my testimony as additional issues and facts arise during the course of the proceeding. Thank you.

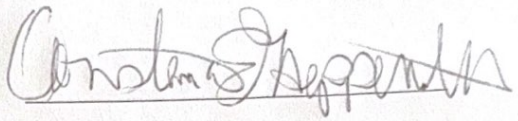
	Year	Jurisdiction	Docket No.	Client Utility	Subject
1.	2010	AZ CC	W-01303A-09-0343 and SW-01303A-09-0343	Arizona American Water Company	Rate Consolidation
2.	2010	PA PUC	R-2010-2179103	City of Lancaster – Bureau of Water	Revenue Reqmts
3.	2012	PA PUC	R-2012-2311725	Hanover Borough	Cost of Service/Revenue Reqmts
4.	2012	PA PUC	R-2012-2310366	City of Lancaster – Sewer Fund	Revenue Reqmts
5.	2013	PA PUC	R-2013-2350509	City of DuBois – Bureau of Water	Revenue Reqmts
6.	2013	PA PUC	R-2013-2390244	City of Bethlehem – Bureau of Water	Revenue Reqmts
7.	2014	PA PUC	R-2014-2418872	City of Lancaster – Bureau of Water	Revenue Reqmts
8.	2014	PA PUC	R-2014-2428304	Hanover Borough	Revenue and Revenue Reqmts
9.	2015	KY PSC	Case No.2015-000143	Northern Kentucky Water District	Cost of Service
10.	2016	AZ CC	WS-01303A-16-0145	EPCOR Water Arizona, Inc.	Cost of Service/Rate Design
11.	2016	PA PUC	R-2016-2554150	City of DuBois – Bureau of Water	Cost of Service/Revenue Reqmts
12.	2017	AZ CC	WS-01303A-17-0257	EPCOR Water Arizona, Inc	Cost of Service/Rate Design
13.	2017	HI PUC	2017-0446	Hana Water Systems, LLC – North	Cost of Service/Rate Design
14.	2017	HI PUC	2017-0447	Hana Water Systems, LLC – South	Cost of Service/Rate Design
15.	2017	MO PSC	WR-2017-0285	Missouri-American Water Company	Cost of Service/Rate Design
16.	2017	MO PSC	SR-2017-0286	Missouri-American Water Company	Cost of Service/Rate Design
17.	2017	VA SCC	PUR-2017-00082	Aqua Virginia, Inc	Cost of Service
18.	2018	IN IRC	50208	Indiana American Water Company	Cost of Service/Demand Study
19.	2018	KY PSC	2018-00208	Water Service Corp of KY	Cost of Service/Rate Design
20.	2018	KY PSC	2018-00291	Northern Kentucky Water District	Cost of Service/Rate Design
21.	2018	KY PSC	2018-0358	Kentucky American Water	Cost of Service/Rate Design
22.	2018	PA PUC	2018-200208	SUEZ Water Pennsylvania	Revenue Reqmts
23.	2018	WV PSC	18-0573-W-42t	West Virginia American Water Co.	Cost of Service
24.	2019	PA PUC	R-2019-3006904	Newtown Artesian Water Co.	Revenue Reqmts./Rate Design
25.	2019	PA PUC	R-2019-3010955	City of Lancaster – Sewer Fund	Rev. Reqmts./Cost of Service/Rates
26.	2020	CA PUC	A2101003	San Jose Water Company	Rate Design
27.	2020	PA PUC	R-2020-3017206	Philadelphia Gas Works	Cost of Service
28.	2020	PA PUC	R-2020-3019369	Pennsylvania American Water Co.	Cost of Service/Rate Design
29.	2020	PA PUC	R-2020-3019371	Pennsylvania American Water Co.	Cost of Service/Rate Design
30.	2020	PA PUC	R-2020-	City of Bethlehem	Rev. Reqmts./Cost of Service/Rates

	Year	Jurisdiction	Docket No.	Client Utility	Subject
			3020256		
31.	2020	VA SCC	PUR-2020-00106	Aqua Virginia, Inc.	Cost of Service
32.	2021	NJ BPU	WR21071007	Atlantic City Sewerage Co.	Rev. Reqmts./Cost of Service/Rates
33.	2021	NV PUC	21-12025	Great Basin Water Company	Cost of Service/Rate Design
34.	2021	PA PUC	R-2021-3026116	Hanover Borough	Cost of Service
35.	2021	PA PUC	R-2021-3027385	Aqua Pennsylvania	Cost of Service/Rate Design
36.	2021	PA PUC	R-2021-3027386	Aqua Pennsylvania	Cost of Service/Rate Design
37.	2021	PA PUC	R-2021-3026682	City of Lancaster – Bureau of Water	Cost of Service/Rate Design
38.	2021	PUCO	21-0595-WW-AIR	Aqua Ohio, Inc	Cost of Service
39.	2021	PUCO	21-0596-ST-AIR	Aqua Ohio, Inc	Cost of Service
40.	2022	KY PSC	2022-00161	Northern Kentucky Water District	Cost of Service/Rate Design
41.	2022	PA PUC	R-2021-3030218	UGI Utilities, Inc. – Gas Division	Cost of Service
42.	2022	PA PUC	R-2022-3031704	Borough of Ambler	Rev. Req./Rate Design
43.	2022	PA PUC	R-2022-30316732	Pennsylvania American Water	Cost of Service
44.	2022	PA PUC	R-2022-3031340	York Water Company	Cost of Service/Rate Design
45.	2022	PA PUC	R-2022-3032806	York Water Company	Cost of Service/Rate Design
46.	2022	PUCO	22-1094-WW-AIR	Aqua Ohio Inc.	Cost of Service
47.	2022	PUCO	22-1096-ST-AIR	Aqua Ohio Inc.	Cost of Service
48.	2023	NJBPU	WR23050292	Middlesex Water Company	Cost of Service/Rate Design
49.	2023	PA PUC	R-2023-3037933	Philadelphia Gas Works	Cost of Service
50.	2023	PA PUC	R-2023-3043189	Pennsylvania American Water Co.	Cost of Service
51.	2023	PA PUC	R-2023-3043190	Pennsylvania American Water Co.	Cost of Service
52	2024	NJ BPU	WR24010057	Aqua New Jersey, Inc.	Cost of Serice

VERIFICATION

I, Constance E. Heppenstall, hereby state that the facts set forth above are true and correct to the best of my knowledge, information and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: _6/25/2024_____



BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

EXHIBITS TO ACCOMPANY DIRECT TESTIMONY

OF

CONSTANCE E. HEPPENSTALL

GANNETT FLEMING

VALUATION AND RATE CONSULTANTS, LLC

VEOLIA WATER PENNSYLVANIA, INC.

February 2024

Exhibit No. CEH-1

VEOLIA WATER PENNSYLVANIA INC.

HARRISBURG, PENNSYLVANIA

COST OF SERVICE
ALLOCATION STUDY
VEOLIA AND BETHEL
WATER OPERATIONS
FOR THE TEST YEAR ENDED
OCTOBER 31, 2025

GANNETT FLEMING

Excellence Delivered As Promised

Exhibit No. CEH-1

VEOLIA WATER PENNSYLVANIA INC.

Harrisburg, Pennsylvania

COST OF SERVICE
ALLOCATION STUDY
VEOLIA AND BETHEL WATER OPERATIONS
FOR THE TEST YEAR ENDED
OCTOBER 31, 2025

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania

Gannett Fleming
Valuation and Rate Consultants, LLC

Corporate Headquarters
207 Senate Avenue
Camp Hill, PA 17011
P 717.763.7211 | **F** 717.763.8150

gannettfleming.com

January 26, 2024

Veolia Water M&S (Paramus), Inc.
461 From Road, Suite 400
Paramus, NJ 07640

Attention Mr. James C. Cagle
Vice President, Rates and Regulatory Affairs

Gentlemen:

Pursuant to your request, we have conducted a cost of service allocation study for the Veolia and Bethel Water Operations based on the revenue requirements estimated for the test year ended October 31, 2025.

The attached report presents the results of the allocation study, as well as supporting schedules which set forth the detailed cost allocation calculations and the proposed schedule of rates. Schedule A presents a comparison of the cost of service by customer classification with the pro forma revenues produced by each classification under present and proposed rates.

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

CONSTANCE E. HEPPENSTALL
Senior Project Manager, Rate Studies

CEH:mle

076494.200

CONTENTS

PART I. INTRODUCTION

Veolia WATER PENNSYLVANIA INC.

COST OF SERVICE ALLOCATION STUDY
FOR THE TEST YEAR ENDED DECEMBER 31, 2019

PART I. INTRODUCTION

PLAN OF REPORT

The report sets forth the results of the cost of service allocation study based on revenue requirements as of October 31, 2025, for Veolia Water Pennsylvania Inc. Veolia and Bethel Water Operations. Part I, Introduction, contains statements with respect to the basis of the study, the procedures employed, and a summary of the results of the study. Part II, Cost of Service by Customer Classification, presents detailed schedules of the allocation of costs to specific customer classifications, as well as the bases for the allocations. Schedule A in Part II summarizes the cost allocation and the revenues produced under present and proposed rates. Part III sets forth present and proposed rates with bill comparisons.

BASIS OF STUDY

The purpose of the cost allocation study was to determine the relative cost of service responsibilities of the several customer classifications within each operating district, based on considerations of quantity of water consumed, variability of rate of consumption, and costs associated with customer metering, billing and accounting. The allocation study incorporated generally-accepted principles and procedures for allocating the several categories of cost to customer classifications in proportion to each classification's use of facilities, commodities and services required in providing water service.

ALLOCATION PROCEDURES

The allocation study was based on the Base-Extra Capacity Method for allocating costs to customer classifications. The method is described in the 2017 and prior editions of the Water Rates Manual published by the American Water Works Association. The four basic categories of cost responsibility are base, extra capacity, customer, and fire protection costs. The following discussion presents a brief description of these costs and the manner in which they were allocated.

Base Costs are costs that tend to vary with the quantity of water used, plus costs associated with supplying, treating, pumping, and distributing water to customers under average load conditions, without the elements necessary to meet peak demands. Base costs were allocated to customer classifications on the basis of average daily usage.

Extra Capacity Costs are costs associated with meeting usage requirements in excess of the average. They include operating and capital costs for additional plant and system capacity beyond that required for average use. The extra capacity costs in this study are subdivided into costs necessary to meet maximum day extra demand and costs to meet maximum hour extra demand. The extra capacity costs were allocated to customer classifications on the bases of each classification's maximum day and hour usage in excess of average usage.

Customer Costs are costs associated with serving customers regardless of their usage or demand characteristics. Customer costs include the operating and capital costs related to meters and services, meter reading costs, and billing and collecting costs. The customer costs were allocated on the bases of the capital cost of meters and services, and the number of customers.

Fire Protection Costs are costs associated with providing the facilities to meet the potential peak demand of fire protection service. Fire Protection costs are subdivided into costs to meet Public Fire Protection and Private Fire Protection demands. The extra capacity costs assigned to fire protection service were allocated to Public and Private Fire Protection on the basis of the total relative demands of the hydrants and fire service lines, sized to provide fire protection.

RESULTS OF STUDY

The results of the cost of service allocation study are set forth in Part II. The data summarized in Schedule A, Comparison of Pro Forma Cost of Service with Revenues Under Present and Proposed Rates for the Test Year Ended October 31, 2025, constitute the principal results of the cost allocation study and subsequent rate designs.

The cost of service by customer classification shown in column 2 of Schedule A is developed in Schedule B, Cost of Service for the Twelve Months Ended October 31, 2025, Allocated to Customer Classifications. The allocation of the total cost of service to the several customer classifications was performed by applying the allocation factors referenced in column 2 of Schedule B to the cost of service set forth in column 3. The bases for the allocation factors are presented in Schedule C.

Schedule D sets forth the experienced average day and maximum day system sendout and the maximum day ratios from 2000 through 2022. Schedule E presents the basis for allocating demand related costs of fire service to private and public fire protection classifications.

PART II. COST OF SERVICE BY CUSTOMER CLASSIFICATION

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES
FOR THE TEST YEAR ENDED SEPTEMBER 30, 2025

Customer Classification	Cost of Service		Revenues, Present Rates*		Revenues, Proposed Rates		Proposed Increase	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent Increase
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Residential	$ 42,159,024	58.2%	$ 35,257,068	61.0%	$ 43,990,956	60.5%	$ 8,733,888	24.8%
Commercial	19,292,375	26.6%	15,759,765	27.3%	19,427,277	26.7%	3,667,513	23.3%
Industrial	1,255,367	1.7%	1,006,656	1.7%	1,253,921	1.7%	247,266	24.6%
Large Industrial	870,422	1.2%	398,177	0.7%	561,287	0.8%	163,110	41.0%
Public Authority	2,210,512	3.1%	1,716,898	3.0%	2,219,467	3.1%	502,568	29.3%
Sales for Resale	2,053,820	2.8%	721,446	1.2%	1,301,990	1.8%	580,545	80.5%
Private Fire Service	3,108,623	4.3%	1,852,501	3.2%	2,727,873	3.8%	875,371	47.3%
Public Fire Service	1,488,954	2.1%	1,085,138	1.9%	1,193,325	1.6%	108,187	10.0%
Total Sales	72,439,098	100.0%	57,797,649	100.0%	72,676,097	100.0%	14,878,448	25.7%
Other Revenues	325,208		325,208		325,208		-	0.0%
Revenue to Mahoning Twp. Water					(237,000)		(237,000)	
Total	$ 72,764,305		$ 58,122,857		$ 72,764,304		$ 14,641,448	25.2%

* Includes DSIC Revenue.

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS
DEVELOPMENT OF RATE OF RETURN BY CUSTOMER CLASSIFICATION
UNDER PRESENT RATES

ITEM	COST OF SERVICE	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	LARGE INDUSTRIAL	PUBLIC	Sales for Resale	FIRE PROTECTION PRIVATE	FIRE PROTECTION PUBLIC
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. REVENUES FROM SALES	57,797,649	35,257,068	15,759,765	1,006,656	398,177	1,716,898	721,446	1,852,501	1,085,138
2. OTHER REVENUES AND CONTRIB. TO MAHONING	325,208	174,963	84,468	5,603	4,018	9,880	9,375	12,661	24,240
3. TOTAL OPERATING REVENUES	58,122,857	35,432,031	15,844,233	1,012,258	402,195	1,726,778	730,821	1,865,163	1,109,378
4. LESS: OPERATING EXPENSES (INCLUDES REALLOCATION OF FIRE)	37,557,423	23,809,113	10,318,504	670,495	503,972	1,190,508	1,134,478	1,102,913	(1,172,561)
5. RETURN AND INCOME TAXES	20,565,434	11,622,918	5,525,729	341,763	(101,778)	536,270	(403,657)	762,249	2,281,939
6. LESS: TAXABLE EXCLUSIONS (FACTOR 18)	7,537,520	3,735,784	1,908,330	125,771	79,450	219,210	199,263	432,995	836,717
7. TAXABLE INCOME	13,027,914	7,887,134	3,617,398	215,993	(181,228)	317,061	(602,920)	329,254	1,445,222
8. LESS: INCOME TAXES (TAX. INC.)	3,251,883	1,968,699	902,935	53,914	(45,236)	79,141	(150,494)	82,185	360,740
9. NET RETURN (Line 5 - Line 8)	17,313,551	9,654,219	4,622,794	287,850	(56,541)	457,129	(253,163)	680,065	1,921,199
10. ORIGINAL COSTS MEASURE OF VALUE	349,877,351	173,407,992	88,581,070	5,838,030	3,687,935	10,175,304	9,249,403	20,098,814	38,838,803
11. RATE OF RETURN, PERCENT	4.95	5.57	5.22	4.93	(1.53)	4.49	(2.74)	3.38	4.95
12. RELATIVE RATE OF RETURN	1.00	1.13	1.05	1.00	(0.31)	0.91	(0.55)	0.68	1.00

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS
DEVELOPMENT OF RATE OF RETURN BY CUSTOMER CLASSIFICATION
UNDER PROPOSED RATES

ITEM	COST OF SERVICE	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	LARGE INDUSTRIAL	PUBLIC	Sales for Resale	FIRE PROTECTION PRIVATE	FIRE PROTECTION PUBLIC
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. REVENUES FROM SALES	72,676,097	43,990,956	19,427,277	1,253,921	561,287	2,219,467	1,301,990	2,727,873	1,193,325
2. OTHER REVENUES AND CONTRIB. TO MAHONING	88,208	46,743	22,776	1,508	1,056	2,654	2,498	3,760	7,212
3. TOTAL OPERATING REVENUES	72,764,304	44,037,699	19,450,053	1,255,430	562,343	2,222,121	1,304,488	2,731,633	1,200,538
4. LESS: OPERATING EXPENSES (INCLUDES REALLOCATION OF FIRE)	37,740,700	24,972,691	10,509,211	676,531	505,149	1,201,731	1,137,149	1,110,544	(2,372,307)
5. RETURN AND INCOME TAXES	35,023,604	19,065,008	8,940,842	578,898	57,194	1,020,390	167,339	1,621,089	3,572,844
6. LESS: TAXABLE EXCLUSIONS (FACTOR 18)	7,537,520	3,735,803	1,908,319	125,770	79,450	219,208	199,261	432,995	836,715
7. TAXABLE INCOME	27,486,084	15,329,204	7,032,523	453,129	(22,256)	801,182	(31,922)	1,188,094	2,736,130
8. LESS: INCOME TAXES (TAX. INC.)	7,215,909	4,024,369	1,846,245	118,960	(5,843)	210,334	(8,380)	311,910	718,315
9. NET RETURN (Line 5 - Line 8)	27,807,695	15,040,639	7,094,597	459,939	63,037	810,056	175,720	1,309,179	2,854,529
10. ORIGINAL COSTS MEASURE OF VALUE	349,877,351	173,408,890	88,580,530	5,837,983	3,687,896	10,175,225	9,249,314	20,098,815	38,838,698
11. RATE OF RETURN, PERCENT	7.95	8.67	8.01	7.88	1.71	7.96	1.90	6.51	7.35
12. RELATIVE RATE OF RETURN	1.00	1.09	1.01	0.99	0.22	1.00	0.24	0.82	0.92

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS
COST OF SERVICE FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2025, ALLOCATED TO CUSTOMER CLASSIFICATIONS

not updated Account	Factor Ref.	Cost of Service	Residential	Commercial	Industrial	Large Industrial	Public Authorities	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
OPERATION AND MAINTENANCE EXPENSES										
SOURCE OF SUPPLY EXPENSES										
Employee Salaries	2	162,323	87,003	53,584	3,835	3,424	6,758	6,900	295	524
Purchased Water	1	1,838,244	981,883	604,754	41,654	37,166	76,295	84,430	4,348	7,714
Purchased Power	1	1,322,597	706,455	435,114	29,970	26,741	54,894	60,746	3,128	5,550
Fuel for Power Production	1	243	130	80	6	5	10	11	1	1
Material and Supplies	2	33,704	18,065	11,126	796	711	1,403	1,433	61	109
Outside Services	2	114,533	61,388	37,808	2,706	2,416	4,769	4,869	208	370
Transportation Expense	2	16,719	8,961	5,519	395	353	696	711	30	54
Miscellaneous Other	2	0	0	0	0	0	0	0	0	0
Office Expenses and Utilities	2	135,191	72,461	44,628	3,194	2,851	5,629	5,747	246	436
TOTAL SOURCE OF SUPPLY EXPENSE - OPERATION		3,623,555	1,936,346	1,192,613	82,555	73,666	150,454	164,846	8,318	14,757
Employee Salaries	2	1,111	596	367	26	23	46	47	2	4
Fuel for Power Production	1	0	0	0	0	0	0	0	0	0
Material and Supplies	2	0	0	0	0	0	0	0	0	0
Outside Services	2	43,235	23,173	14,272	1,021	912	1,800	1,838	79	140
Uniforms	2	0	0	0	0	0	0	0	0	0
Transportation Expense	2	91	49	30	2	2	4	4	0	0
Miscellaneous Other	2	0	0	0	0	0	0	0	0	0
TOTAL SOURCE OF SUPPLY EXPENSE - MAINTENANCE		44,437	23,818	14,669	1,050	937	1,850	1,889	81	143
TOTAL SOURCE OF SUPPLY EXPENSE		3,667,992	1,960,164	1,207,282	83,605	74,603	152,304	166,735	8,399	14,901
POWER AND PUMPING										
Employee Salaries	3	70,447	29,810	18,360	1,314	1,173	2,316	2,364	5,495	9,615
Outside Services	3	2,342	991	610	44	39	77	79	183	320
Transportation Expense	3	7,143	3,023	1,862	133	119	235	240	557	975
Miscellaneous Other	3		0	0	0	0	0	0	0	0
Office Expenses and Utilities	3	(300)	(127)	(78)	(6)	(5)	(10)	(10)	(23)	(41)
TOTAL POWER AND PUMPING - OPERATION		79,633	33,697	20,754	1,485	1,326	2,618	2,672	6,211	10,869
Employee Salaries	3	374,046	158,282	97,484	6,977	6,229	12,295	12,553	29,174	51,053
Fuel for Power Production	3	6	2	1	0	0	0	0	0	1
Material and Supplies	3	1,064	450	277	20	18	35	36	83	145
Outside Services	3	52,167	22,075	13,596	973	869	1,715	1,751	4,069	7,120
Office Expenses and Utilities	3	1,103	467	287	21	18	36	37	86	151
Transportation Expense	3	39,052	16,525	10,178	728	650	1,284	1,311	3,046	5,330
Miscellaneous Other	3		0	0	0	0	0	0	0	0
TOTAL POWER AND PUMPING EXPENSE - MAINTENANCE		467,437	197,801	121,823	8,719	7,784	15,365	15,687	36,458	63,800
TOTAL POWER AND PUMPING		547,069	231,499	142,577	10,204	9,110	17,983	18,359	42,669	74,669
WATER TREATMENT										
Employee Salaries	2	2,236,053	1,198,494	738,137	52,826	47,162	93,098	95,049	4,068	7,218
Purchased Power	1	(753)	(402)	(248)	(17)	(15)	(31)	(35)	(2)	(3)
Chemicals	1	1,344,558	718,185	442,339	30,467	27,185	55,805	61,755	3,180	5,642
Material and Supplies	2	24,249	12,997	8,005	573	511	1,010	1,031	44	78
Testing	2	1	1	0	0	0	0	0	0	0
Outside Services	2	417,199	223,613	137,720	9,856	8,799	17,370	17,734	759	1,347
Transportation Expense	2	225,698	120,971	74,504	5,332	4,760	9,397	9,594	411	729
Office Expense and Utilities	2	30,127	16,147	9,945	712	635	1,254	1,281	55	97
TOTAL WATER TREATMENT EXPENSE - OPERATION		4,277,132	2,290,006	1,410,403	99,750	89,038	177,903	186,409	8,515	15,107
Employee Salaries	2	273,325	146,498	90,227	6,457	5,765	11,380	11,618	497	882
Fuel for Power Production	1	0	0	0	0	0	0	0	0	0
Chemicals	1	0	0	0	0	0	0	0	0	0
Material and Supplies	2	25,955	13,912	8,568	613	547	1,081	1,103	47	84
Outside Services	2	82,437	44,185	27,213	1,948	1,739	3,432	3,504	150	266
Outside Services - Mahoning	2	0	0	0	0	0	0	0	0	0
Rental of Equipment	2	0	0	0	0	0	0	0	0	0
Transportation Expense	2	27,784	14,892	9,172	656	586	1,157	1,181	51	90
TOTAL WATER TREATMENT EXPENSE - MAINTENANCE		409,502	219,487	135,179	9,674	8,637	17,050	17,407	745	1,322

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS
COST OF SERVICE FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2025, ALLOCATED TO CUSTOMER CLASSIFICATIONS

not updated Account	Factor Ref.	Cost of Service	Residential	Commercial	Industrial	Large Industrial	Public Authorities	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
TOTAL WATER TREATMENT EXPENSE		4,686,633	2,509,493	1,545,583	109,424	97,675	194,953	203,816	9,260	16,429
TRANSMISSION AND DISTRIBUTION EXPENSES										
Employee Salaries -General	10	154,319	75,284	44,887	3,015	2,043	5,375	5,434	5,399	12,882
Employee Salaries - Mains	6	661,480	227,096	186,605	12,699	2,625	20,999	17,105	70,680	123,671
Employee Salaries - Meters	8	108,721	93,298	14,295	385	10	717	16	0	0
Employee Salaries - Services	9	64,414	55,323	6,457	79	2	325	3	2,225	0
Employee Salaries - Hydrants	7	54,541	0	0	0	0	0	0	0	54,541
Employee Salaries - Storage	5	167	58	52	4	2	6	4	15	27
Purchased Power	1	1,484,940	793,169	488,522	33,648	30,023	61,632	68,203	3,512	6,231
Material and Supplies	10	4,697	2,291	1,366	92	62	164	165	164	392
Outside Services - General	10	116,876	57,018	33,996	2,284	1,547	4,071	4,115	4,089	9,756
Outside Services - Mains	6	33,187	11,394	9,362	637	132	1,054	858	3,546	6,205
Rentals of Building/Real Property	10	0	0	0	0	0	0	0	0	0
Transportation Expense - General	10	16,069	7,839	4,674	314	213	560	566	562	1,341
Transportation Expense - Mains	6	67,112	23,041	18,932	1,288	266	2,130	1,735	7,171	12,547
Transportation Expense - Meters	8	11,223	9,631	1,476	40	1	74	2	0	0
Transportation Expense - Services	9	6,006	5,159	602	7	0	30	0	207	0
Transportation Expense - Hydrants	7	5,214	0	0	0	0	0	0	0	5,214
Transportation Expense - Storage	5	51	18	16	1	1	2	1	5	8
Miscellaneous Other	10	0	0	0	0	0	0	0	0	0
Office Expense, Utilities and Other	10	3,136	1,530	912	61	42	109	110	110	262
TOTAL T & D EXPENSE OPERATION		2,792,151	1,362,146	812,154	54,555	36,969	97,245	98,319	97,685	233,077
Employee Salaries -General	11	135,441	63,248	34,262	2,128	1,030	3,572	2,629	11,067	17,505
Employee Salaries - Mains	11	580,560	271,108	146,862	9,120	4,416	15,312	11,270	47,438	75,033
Employee Salaries - Meters	5	95,421	32,859	29,839	1,997	1,296	3,238	2,418	8,646	15,128
Employee Salaries - Services	6	56,534	19,409	15,948	1,085	224	1,795	1,462	6,041	10,570
Employee Salaries - Hydrants	9	47,869	41,114	4,798	59	1	242	2	1,653	0
Employee Salaries - Storage	7	147	0	0	0	0	0	0	0	147
Fuel for Power Production	1	0	0	0	0	0	0	0	0	0
Material and Supplies	11	11,705	5,466	2,961	184	89	309	227	956	1,513
Outside Services - General	11	77,387	36,138	19,576	1,216	589	2,041	1,502	6,323	10,002
Outside Services - Mains	6	21,974	7,544	6,199	422	87	698	568	2,348	4,108
Transportation Expense - General	11	14,513	6,777	3,671	228	110	383	282	1,186	1,876
Transportation Expense - Mains	6	60,615	20,810	17,100	1,164	241	1,924	1,567	6,477	11,333
Transportation Expense - Meters	8	10,136	8,698	1,333	36	1	67	1	0	0
Transportation Expense - Services	9	5,425	4,659	544	7	0	27	0	187	0
Transportation Expense - Hydrants	7	4,709	0	0	0	0	0	0	0	4,709
Transportation Expense - Storage	5	46	16	14	1	1	2	1	4	7
Office Expense and Utilities	11	193	90	49	3	1	5	4	16	25
TOTAL T & D EXPENSE - MAINTENANCE		1,122,676	517,937	283,157	17,649	8,087	29,613	21,934	92,343	151,956
TOTAL T & D EXPENSE		3,914,828	1,880,083	1,095,312	72,204	45,056	126,859	120,253	190,028	385,033
CUSTOMER ACCOUNTS										
Employee Salaries - Supervision	12	1,015,050	914,810	72,675	710	15	3,714	15	22,565	547
Employee Salaries - Meter Reading	13		0	0	0	0	0	0	0	0
Employee Salaries - Billing	12		0	0	0	0	0	0	0	0
Outside Services	12	543,814	490,110	38,935	380	8	1,990	8	12,089	293
Transportation Expense	12	101,328	91,321	7,255	71	1	371	1	2,253	55
Bad Debt Expense	12	394,349	355,406	28,234	276	6	1,443	6	8,767	213
Office Expense, Utilities and Other	12	7,217	6,504	517	5	0	26	0	160	4
Customer Assistance Program	DA	1,000,000	1,000,000							
TOTAL CUSTOMER ACCOUNTING EXPENSE		3,061,758	2,858,151	147,616	1,443	30	7,543	30	45,834	1,112
ADMINISTRATIVE AND GENERAL EXPENSES										
Employee Salaries	14	1,326,561	658,285	393,116	27,177	20,451	47,359	45,492	45,217	89,464
Employee Pension & Benefits	16	1,803,177	1,045,240	484,021	32,767	27,388	58,315	57,120	38,825	59,501
Purchased Power	14	81,664	40,525	24,201	1,673	1,259	2,915	2,801	2,784	5,508
Management Fees- Engineering	18	399,322	197,915	101,099	6,663	4,209	11,613	10,556	22,939	44,327

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS
COST OF SERVICE FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2025, ALLOCATED TO CUSTOMER CLASSIFICATIONS

not updated Account	Factor Ref.	Cost of Service	Residential	Commercial	Industrial	Large Industrial	Public Authorities	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Management Fees- Customer Related	12	310,782	280,091	22,251	217	5	1,137	5	6,909	168
Management Fees- Employee related	16	276,030	160,005	74,094	5,016	4,193	8,927	8,744	5,943	9,108
Management Fees- Other	14	3,625,202	1,798,950	1,074,300	74,268	55,887	129,423	124,321	123,567	244,487
Outside Services	14	294,821	146,300	87,368	6,040	4,545	10,525	10,110	10,049	19,883
Outside Services - Testing	2	212,334	113,808	70,093	5,016	4,478	8,841	9,026	386	685
Rental of Equipment	14	124,900	61,979	37,013	2,559	1,925	4,459	4,283	4,257	8,423
Transportation Expense	14	129,409	64,217	38,349	2,651	1,995	4,620	4,438	4,411	8,727
Insurance - General Liability	14	0	0	0	0	0	0	0	0	0
Insurance -Workman's Compensation	14	48,098	23,868	14,254	985	741	1,717	1,649	1,639	3,244
Advertising	14	0	0	0	0	0	0	0	0	0
Rate Case Expense - Amort	18	685,203	339,605	173,477	11,433	7,222	19,927	18,114	39,362	76,062
Amortization of Regulatory Liability	18	(705,529)	(349,680)	(178,623)	(11,772)	(7,437)	(20,518)	(18,651)	(40,529)	(78,318)
Fringe Benefits	16	(1,039,548)	(602,590)	(279,042)	(18,891)	(15,789)	(33,619)	(32,930)	(22,383)	(34,303)
Miscellaneous Other	16	0	0	0	0	0	0	0	0	0
Office Expenses and Utilities	14	685,002	339,921	202,995	14,033	10,560	24,455	23,491	23,349	46,197
Uniforms, Materials and Supplies and Other	14	306,060	151,878	90,699	6,270	4,718	10,927	10,496	10,432	20,641
Postage	14	383,875	190,492	113,758	7,864	5,918	13,705	13,164	13,085	25,889
Travel	14	164,161	81,462	48,648	3,363	2,531	5,861	5,630	5,596	11,071
TOTAL A & G EXPENSE		9,111,523	4,742,271	2,592,069	177,334	134,799	310,588	297,859	295,838	560,765
Total Operation & Maintenance Expenses		24,989,803	14,181,661	6,730,438	454,213	361,273	810,230	807,053	592,027	1,052,909
DEPRECIATION EXPENSE										
Water Source Structures	2	208,978	112,009	68,985	4,937	4,408	8,701	8,883	380	675
Collection and Impounding Reservoirs	1	20,589	10,997	6,773	467	416	855	946	49	86
Lakes, River and Other Intakes	2	91,532	49,060	30,215	2,162	1,931	3,811	3,891	167	295
Wells & Springs	2	53,774	28,822	17,751	1,270	1,134	2,239	2,286	98	174
Infiltration Galleries and Tunnels	2	116,792	62,599	38,554	2,759	2,463	4,863	4,965	212	377
Purification Buildings	2		0	0	0	0	0	0	0	0
Power Generation Equip	3	5,354	2,265	1,395	100	89	176	180	418	731
Electric Pumping Equipment	3	476,088	201,462	124,078	8,880	7,928	15,649	15,977	37,133	64,981
Oil Engine Pumping Equipment	2	10,652	5,709	3,516	252	225	444	453	19	34
Purification System - Treatment Structures	2	473,738	253,917	156,384	11,192	9,992	19,724	20,137	862	1,529
Purification System - Painting	2		0	0	0	0	0	0	0	0
Purification Equipment	2	1,528,785	819,408	504,663	36,117	32,245	63,651	64,985	2,781	4,935
Laboratory Equipement	2	3,895	2,088	1,286	92	82	162	166	7	13
T&D Structures and Improvements	6	45,095	15,482	12,721	866	179	1,432	1,166	4,818	8,431
Distribution Reservoirs and Standpipes	5	442,276	152,303	138,305	9,257	6,005	15,007	11,207	40,073	70,119
Distribution Mains	4	1,224,538	389,811	353,676	23,718	0	38,441	28,715	141,899	248,277
Transmission Mains	3	1,411,236	597,180	367,796	26,322	23,500	46,389	47,361	110,070	192,619
Services	9	1,080,433	927,961	108,299	1,330	29	5,452	44	37,318	0
Meters	8	1,606,360	1,378,486	211,207	5,695	147	10,591	235	0	0
Hydrants	7	178,660	0	0	0	0	0	0	0	178,660
General Land and Land Rights	14		0	0	0	0	0	0	0	0
Office Buildings	14	398,941	197,968	118,223	8,173	6,150	14,243	13,681	13,598	26,905
Stores, Shop and Garage Buildings	14		0	0	0	0	0	0	0	0
Miscellaneous Structures and Improvements	14		0	0	0	0	0	0	0	0
Other Plant and Mischellaneous Equipment	14		0	0	0	0	0	0	0	0
Office Furniture and Equipment	14	160,801	79,795	47,652	3,294	2,479	5,741	5,514	5,481	10,845
Computer Software	14		0	0	0	0	0	0	0	0
Computer Software-CIS Implementation	12		0	0	0	0	0	0	0	0
Transportation Equipment	14		0	0	0	0	0	0	0	0
Stores Equipment	14		0	0	0	0	0	0	0	0
Tools and work Equipment	14	218,757	108,555	64,827	4,482	3,372	7,810	7,502	7,456	14,753
Shop Equipment	14	33,254	16,502	9,855	681	513	1,187	1,140	1,133	2,243
Power Operated Equipment	14		0	0	0	0	0	0	0	0

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS
COST OF SERVICE FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2025, ALLOCATED TO CUSTOMER CLASSIFICATIONS

not updated Account	Factor Ref.	Cost of Service	Residential	Commercial	Industrial	Large Industrial	Public Authorities	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Communication Equipment	14	863,381	428,439	255,856	17,688	13,310	30,823	29,608	29,429	58,227
Miscellaneous Equipment	14	106,507	52,852	31,562	2,182	1,642	3,802	3,652	3,630	7,183
Amortization of Net Salvage	17	612,742	303,583	154,982	10,211	6,439	17,796	16,167	35,317	68,247
Bethel Adjustment	17		0	0	0	0	0	0	0	0
Total Depreciation Expense		11,373,158	6,197,255	2,828,564	182,127	124,677	318,988	288,862	472,349	960,338
Amortizations	18	116,498	57,740	29,495	1,944	1,228	3,388	3,080	6,692	12,932
Taxes Other Than Income										
Real Estate	18	343,022	170,011	86,845	5,724	3,616	9,976	9,068	19,705	38,078
Payroll Taxes	16	918,219	532,260	246,474	16,686	13,946	29,695	29,087	19,771	30,299
Total Taxes, Other Than Income		1,261,241	702,271	333,319	22,410	17,562	39,671	38,155	39,476	68,377
Income Taxes	18	7,215,909	3,576,404	1,826,895	120,403	76,060	209,855	190,759	414,520	801,014
Utility Income Available for Return	18	27,807,696	13,782,263	7,040,240	463,994	293,108	808,711	735,121	1,597,422	3,086,838
Total Cost of Service		72,764,305	38,497,593	18,788,950	1,245,090	873,908	2,190,842	2,063,029	3,122,486	5,982,408
Less: Other Water Revenues	19	325,208	172,334	83,970	5,561	3,895	9,785	9,208	13,863	26,591
Total Cost of Service Related to Sales of Water		72,439,098	38,325,259	18,704,979	1,239,529	870,013	2,181,057	2,053,820	3,108,623	5,955,817
Reallocation of Public Fire	20	0	3,833,765	587,396	15,838	409	29,455	0	0	(4,466,862)
Total		$ 72,439,098	$ 42,159,024	$ 19,292,375	$ 1,255,367	$ 870,422	$ 2,210,512	$ 2,053,820	$ 3,108,623	$ 1,488,954

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 1. ALLOCATION OF COSTS WHICH VARY WITH THE AMOUNT OF WATER CONSUMED

Factors are based on the pro forma test year average daily consumption for each customer classification.

Customer Classification	Average Daily Consumption, Thousand Gallons	Allocation Factor
(1)	(2)	(3)
Residential	7,001	0.5341
Commercial	4,312	0.3290
Industrial	297	0.0227
Large Industrial	265	0.0202
Public Authority	544	0.0415
Sales for Resale	602	0.0459
Private Fire Protection	31	0.0024
Public Fire Protection	55	0.0042
Total	13,107	1.0000

FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM DAY EXTRA CAPACITY FUNCTIONS.

Factors are based on the weighting of the factors for average daily consumption (Factor 1) and the factors derived from maximum day extra capacity demand for each customer classification, as follows:

	Average Daily Consumption		Maximum Day Extra Capacity		
Customer Classification	Allocation Factor 1	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor
(1)	(2)	(3)=(2)x 0.7692	(4)	(5)=(4)x 0.2308	(6)=(3)+(5)
Residential	0.5341	0.4109	0.5421	0.1251	0.5360
Commercial	0.3290	0.2531	0.3338	0.0770	0.3301
Industrial	0.0227	0.0174	0.0268	0.0062	0.0236
Large Industrial	0.0202	0.0156	0.0240	0.0055	0.0211
Public Authority	0.0415	0.0319	0.0421	0.0097	0.0416
Sales for Resale	0.0459	0.0353	0.0311	0.0072	0.0425
Private Fire Protection	0.0024	0.0018			0.0018
Public Fire Protection	0.0042	0.0032			0.0032
Total	1.0000	0.7692	1.0000	0.2308	1.0000

The derivation of the maximum day extra capacity factors in column 4 and the basis for the column 3 and 5 weightings are presented on the following page.

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM DAY EXTRA CAPACITY FUNCTIONS, cont.

		Maximum Day Extra Capacity		
Customer Classification	Average Daily Consumption, Thousand Gal.	Factor*	Rate of Flow, Thousand Gal. Per Day	Allocation Factor
(1)	(2)	(3)	(4)=(2)x(3)	(5)
Residential	7,001	0.6	4,201	0.5421
Commercial	4,312	0.6	2,587	0.3338
Industrial	297	0.7	208	0.0268
Large Industrial	265	0.7	186	0.0240
Public Authority	544	0.6	326	0.0421
Sales for Resale	602	0.4	241	0.0311
Total	12,419		7,749	1.0000

The weighting of the factors is based on the maximum day ratio of 1.30, based on a review of maximum day ratios experienced during the period 2000 through 2017 (see Schedule F).

	Maximum Day Ratio	Weight
Average Day	1.00	0.7692
Maximum Day Extra Capacity	0.30	0.2308
Total	1.30	1.0000

* Ratio of maximum day to average day minus 1.0.

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 3. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE, MAXIMUM DAY EXTRA CAPACITY AND FIRE PROTECTION FUNCTIONS.

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

	Average Daily Consumption		Maximum Day Extra Capacity		Fire Protection		
Customer Classification	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor
(1)	(2)	(3)=(2) X 0.6073	(4)	(5)=(4) X 0.1822	(6)	(7)=(6) X 0.2105	(8)=(3)+(5)+(7)
Residential	0.5341	0.3244	0.5421	0.0988			0.4232
Commercial	0.3290	0.1998	0.3338	0.0608			0.2606
Industrial	0.0227	0.0138	0.0268	0.0049			0.0187
Large Industrial	0.0202	0.0123	0.0240	0.0044			0.0167
Public Authority	0.0415	0.0252	0.0421	0.0077			0.0329
Sales for Resale	0.0459	0.0279	0.0311	0.0057			0.0336
Private Fire Protection	0.0024	0.0014			0.3637	0.0766	0.0780
Public Fire Protection	0.0042	0.0025			0.6363	0.1339	0.1365
Total	1.0000	0.6073	1.0000	0.1822	1.0000	0.2105	1.0000

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 3. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE, MAXIMUM DAY EXTRA CAPACITY AND FIRE PROTECTION FUNCTIONS, cont.

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum day ratio of 1.30 and the average daily system sendout for 2022 of 17.3 MGD. The system demand for fire protection is 10,000 Gallons per minute for 10 hours.

	Ratio	Rate of Flow, (GPD)	Weight
Average Day	1.00	17,309,827	0.6073
Maximum Day Extra Capacity	0.30	5,192,948	0.1822
Subtotal	1.30	22,502,775	0.7895
Fire Protection		6,000,000	0.2105
Total		28,502,775	1.0000

The public and private fire protection allocation factors in column 6 on the previous page are based on the relative potential demands (see Schedule G).

VEOLIA WATER PENNSYLVANIA INC.

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM HOUR EXTRA CAPACITY FUNCTIONS.

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

	Average Hourly Consumption			Maximum Hour Extra Capacity		Fire Protection		
Customer Classification	Thousand Gallons	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor
(1)	(2)	(3)	(4)=(3) X 0.3800	(5)	(6)=(5) X 0.3040	(7)	(8)=(7) X 0.3161	(9)=(4)+(6)+(8)
Residential	291.7	0.5450	0.2071	0.3660	0.1112			0.3183
Commercial	179.7	0.3358	0.1276	0.5305	0.1612			0.2888
Industrial	12.4	0.0232	0.0088	0.0348	0.0106			0.0194
Public Authority	22.7	0.0424	0.0161	0.0503	0.0153			0.0314
Sales for Resale	25.1	0.0469	0.0178	0.0185	0.0056			0.0234
Private Fire Protection	1.3	0.0024	0.0009			0.3637	0.1150	0.1159
Public Fire Protection	2.3	0.0043	0.0016			0.6363	0.2011	0.2028
Total	535.2	1.0000	0.3800	1.0000	0.3040	1.0000	0.3161	1.0000

The maximum hour extra capacity factors in column 5 are determined on the following page.

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM HOUR EXTRA CAPACITY FUNCTIONS, cont.

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum hour ratio of 1.80 and the average daily system sendout for 2022 of 17.3 MGD. The system demand for fire protection is 10,000 gallons per minute

	Ratio	Rate of Flow, (GPM)	Weight
Average Hour	1.00	12,021	0.3800
Maximum Hour Extra Capacity	0.80	9,617	0.3040
Subtotal	1.80	21,638	0.6839
Fire Protection		10,000	0.3161
Total		31,638	1.0000

The maximum hour extra capacity factors in column 5 of the previous page are determined as follows:

Customer Classification	Average Hourly Consumption Thousand Gal.	Maximum Hour Extra Capacity Factor*	Maximum Hour Extra Capacity 1,000 Gallons Per Hour	Allocation Factor
(1)	(2)	(3)	(4)=(2)x(3)	(5)
Residential	291.7	1.7	495.9	0.3660
Commercial	179.7	4.0	718.8	0.5305
Industrial	12.4	3.8	47.1	0.0348
Public Authority	22.7	3.0	68.1	0.0503
Sales for Resale	25.1	1.0	25.1	0.0185
Total	531.6		1,355.0	1.0000

* Ratio of Maximum Hour To Average Hour Minus 1.0.

The public and private fire protection allocation factors in column 7 on the previous page are based on the relative potential demands (see Schedule G).

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH STORAGE FACILITIES.

Factors are based on the weighting of the average hourly consumption, the maximum hour extra capacity demand, and the fire protection demand for each customer classification.

	Average Hourly Consumption			Maximum Hour Extra Capacity		Fire Protection		
Customer Classification	Thousand Gallons	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor
(1)	(2)	(3)	(4)=(3) X 0.4187	(5)	(6)=(5) X 0.3349	(7)	(8)=(7) X 0.2464	(9)=(4)+(6)+(8)
Residential	291.7	0.5341	0.2236	0.3605	0.1207			0.3444
Commercial	179.7	0.3290	0.1377	0.5224	0.1750			0.3127
Industrial	12.4	0.0227	0.0095	0.0342	0.0114			0.0209
Large Industrial	11.0	0.0202	0.0085	0.0153	0.0051			0.0136
Public Authority	22.7	0.0415	0.0174	0.0494	0.0166			0.0339
Sales for Resale	25.1	0.0459	0.0192	0.0182	0.0061			0.0253
Private Fire Protection	1.3	0.0024	0.0010			0.3637	0.0896	0.0906
Public Fire Protection	2.3	0.0042	0.0018			0.6363	0.1568	0.1585
Total	546.1	1.0000	0.4187	1.0000	0.3349	1.0000	0.2464	1.0000

The weighting of the factors is based on the ratio of the capacity required for a 10 hour demand of fire flow, as related to total storage capacity. The calculation is shown on the following page.

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH STORAGE FACILITIES, cont.

The weighting of the factors is based on the ratio of the capacity required for a 10 hour demand of fire flow, as related to total storage capacity.

Fire not updated.

Fire Protection Weight = $\frac{10{,}000 \text{ GPM X } 60 \text{ Min. X } 10 \text{ Hrs.}}{24{,}354{,}500 \text{ Gallons}}$ = 0.2464

General Service Weight = 1.0000 - 0.2464 = 0.7536

The weighting of the average hourly consumption and maximum hour extra demand for general service is based on the maximum hour ratio, as follows:

	Maximum Hour Ratio	Percent	Weight
Average Hour	1.00	55.56	0.4187
Extra Capacity Maximum Hour	0.80	44.44	0.3349
Total	1.80	100.00	0.7536

Customer Classification	Average Hourly Consumption Thousand Gal.	Maximum Hour Extra Capacity Factor*	Maximum Hour Extra Capacity 1,000 Gallons Per Hour	Allocation Factor
(1)	(2)	(3)	(4)=(2)x(3)	(5)
Residential	291.7	1.7	495.9	0.3605
Commercial	179.7	4.0	718.7	0.5224
Industrial	12.4	3.8	47.0	0.0342
Large Industrial	11.0	1.9	21.0	0.0153
Public Authority	22.7	3.0	68.0	0.0494
Sales for Resale	25.1	1.0	25.1	0.0182
Total	542.5		1375.7	1.0000

* Ratio of Maximum Hour To Average Hour Minus 1.0.

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 6. ALLOCATION OF COSTS ASSOCIATED WITH TRANSMISSION AND DISTRIBUTION MAINS.

Factors are based on the weighting of the maximum daily consumption with fire, Factor 3, and the maximum hour

	Maximum Daily Consumption w/ Fire		Maximum Hourly Consumption		
Customer Classification	Allocation Factor 3	Weighted Factor	Allocation Factor 4	Weighted Factor	Allocation Factor
(1)	(2)	(3)=(2)X 0.2383	(4)	(5)=(4)X 0.7617	(6)=(3)+(5)
Residential	0.4232	0.1008	0.3183	0.2425	0.3433
Commercial	0.2606	0.0621	0.2888	0.2200	0.2821
Industrial	0.0187	0.0044	0.0194	0.0148	0.0192
Large Industrial	0.0167	0.0040	0.0000	0.0000	0.0040
Public Authority	0.0329	0.0078	0.0314	0.0239	0.0317
Sales for Resale	0.0336	0.0080	0.0234	0.0179	0.0259
Private Fire Protection	0.0780	0.0186	0.1159	0.0883	0.1069
Public Fire Protection	0.1365	0.0325	0.2028	0.1544	0.1870
Total	1.0000	0.2383	1.0000	0.7617	1.0000

The weighting of the factors is based on the total footage of mains, designated as either transmission mains or distribution mains, as follows:

	Total Footage of Mains	Weight
Transmission Mains	1,216,345	0.2383
Distribution Mains	3,887,709	0.7617
Total	5,104,054	1.0000

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 7. ALLOCATION OF COSTS ASSOCIATED WITH FIRE HYDRANTS.

Costs are assigned directly to Public Fire Protection.

Customer Classification	Allocation Factor
(1)	(3)
Public Fire Protection	1.0000
Total	1.0000

FACTOR 8. ALLOCATION OF COSTS ASSOCIATED WITH METERS.

Factors are based on the relative cost of meters by size and customer classification, as developed on the following page and summarized below.

Customer Classification	5/8" Dollar Equivalents	Allocation Factor
(1)	(2)	(3)
Residential	65,600	0.8581
Commercial	10,051	0.1315
Industrial	271	0.0035
Large Industrial	7	0.0001
Public Authority	504	0.0066
Sales for Resale	11	0.0001
Private Fire	0	0.0000
Total	76,444	1.0000

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

BASIS FOR ALLOCATING METER COSTS TO CUSTOMER CLASSIFICATIONS

Meter Size	5/8" Dollar Equivalent	Residential		Commercial		Industrial		Large Industrial		Public Authority		Sales for Resale		Total	
		Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting
(1)	(2)	(3)	(4)=(2)X(3)	(5)	(6)=(2)X(5)	(7)	(8)=(2)X(7)	(9)	(10)=(2)X(9)	(11)	(12)=(2)X(11)	(13)	(14)=(2)X(13)	(15)	(16)
5/8 and 3/4	1.0	58,633	58,633	2,581	2,581	11	11	0	0	100	100		0	61,325	61,325
1	1.2	1,751	2,117	39	47	1	1	0	0	41	50		0	1,832	2,215
1-1/2	1.9	715	1,348	1,123	2,117	10	19	0	0	30	57		0	1,878	3,541
2	2.1	255	526	546	1,127	4	8	0	0	58	120		0	863	1,781
3	5.2	243	1,258	537	2,781	8	41	0	0	12	62		0	800	4,142
4	7.3	234	1,718	27	198	8	59	1	7	5	37		0	275	2,019
6	11.2	0	0	34	380	3	34	0	0	4	45	1	11	42	470
8	32.8	0	0	25	820	3	98	0	0	1	33		0	29	951
Total		61,831	65,600	4,912	10,051	48	271	1	7	251	504	1	11	67,044	76,444

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 9. ALLOCATION OF COSTS ASSOCIATED WITH SERVICES.

Factors are based on the relative cost of services by size and customer classification, as developed on the following page and summarized below.

Customer Classification	3/4" Dollar Equivalents	Allocation Factor
(1)	(2)	(3)
Residential	63,484	0.8589
Commercial	7,409	0.1002
Industrial	91	0.0012
Large Industrial	2	0.0000
Public Authority	373	0.0050
Sales for Resale	3	0.0000
Private Fire Protection	2,553	0.0345
Total	73,915	1.0000

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

BASIS FOR ALLOCATING SERVICE COSTS TO CUSTOMER CLASSIFICATIONS

Service Size	3/4" Dollar Equivalent	Residential		Commercial		Industrial		Large Industrial		Public Authority		Sales for Resale		Private Fire Protection		Total	
		Number of Services	Weighting	Number of Services	Weighting	Number of Services	Weighting	Number of Services	Weighting	Number of Services	Weighting	Number of Meters	Weighting	Number of Services	Weighting	Number of Services	Weighting
(1)	(2)	(3)	(4)=(2)X(3)	(5)	(6)=(2)X(5)	(7)	(8)=(2)X(7)	(9)	(10)=(2)X(9)	(11)	(12)=(2)X(11)	(13)	(14)=(2)X(13)	(15)	(16)=(2)X(15)	(15)	(16)
3/4	1.00	58,633	58,633	2,581	2,581	11	11	0	0	100	100	0	0	0	0	61,325	61,325
1	1.05	1,751	1,843	39	41	1	1	0	0	41	43	0	0	0	0	1,832	1,928
1-1/2	2.03	715	1,449	1,123	2,276	10	20	0	0	30	61	0	0	0	0	1,878	3,806
2	2.03	255	517	546	1,106	4	8	0	0	58	118	0	0	72	146	935	1,895
3	2.18	243	531	537	1,173	8	17	0	0	12	26	0	0	5	11	805	1,758
4	2.18	234	511	27	59	8	17	1	2	5	11	0	0	205	448	480	1,048
6	2.79	0	0	34	95	3	8	0	0	4	11	1	3	358	1,000	400	1,117
8	3.11	0	0	25	78	3	9	0	0	1	3	0	0	239	743	268	833
10	4.12	0	0	0	0	0	0	0	0	0	0	0	0	39	159	39	159
12	4.65	0	0	0	0	0	0	0	0	0	0	0	0	10	46	10	46
Total		61,831	63,484	4,912	7,409	48	91	1	2	251	373	1	3	928	2,553	67,972	73,915

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 10. ALLOCATION OF TRANSMISSION AND DISTRIBUTION OPERATION SUPERVISION AND ENGINEERING AND MISCELLANEOUS EXPENSES.

Factors are based on transmission and distribution operation expenses other than those being allocated, as follows:

Customer Classification	Transmission & Distribution Operating Expenses	Allocation Factor
(1)	(2)	(3)
Residential	$ 1,218,184	0.4878
Commercial	726,320	0.2909
Industrial	48,790	0.0195
Large Industrial	33,062	0.0132
Public Authority	86,968	0.0348
Sales for Resale	87,928	0.0352
Private Fire Protection	87,361	0.0350
Public Fire Protection	208,444	0.0835
Total	2,497,056	1.0000

FACTOR 11. ALLOCATION OF TRANSMISSION AND DISTRIBUTION MAINTENANCE SUPERVISION AND ENGINEERING, STRUCTURES AND IMPROVEMENTS, AND OTHER EXPENSES.

Factors are based on transmission and distribution maintenance expenses other than those being allocated, as follows:

Customer Classification	Transmission & Distribution Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	$ 93,382	0.4670
Commercial	50,586	0.2530
Industrial	3,141	0.0157
Large Industrial	1,521	0.0076
Public Authority	5,274	0.0264
Sales for Resale	3,882	0.0194
Private Fire Protection	16,340	0.0817
Public Fire Protection	25,845	0.1292
Total	$199,970	1.0000

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 12. ALLOCATION OF BILLING AND COLLECTING COSTS.

Factors are based on the total number of customers.

Customer Classification	Total Customers	Allocation Factor
(1)	(2)	(3)
Residential	61,831	0.9012
Commercial	4,912	0.0716
Industrial	48	0.0007
Large Industrial	1	0.0000
Sales for Resale	1	0.0000
Public Authority	251	0.0037
Private Fire Protection	1,525	0.0222
Public Fire Protection	37	0.0005
Total	68,606	1.0000

FACTOR 13. ALLOCATION OF METER READING COSTS.

Factors are based on the number of metered customers.

Customer Classification	Total Metered Customers	Allocation Factor
(1)	(2)	(3)
Residential	61,831	0.9222
Commercial	4,912	0.0733
Industrial	48	0.0007
Large Industrial	1	0.0000
Sales for Resale	1	0.0000
Public Authority	251	0.0037
Total	67,044	1.0000

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 14. ALLOCATION OF ADMINISTRATIVE AND GENERAL EXPENSES

Factors are based on the allocation of all other operation and maintenance expenses excluding purchased water, power, chemicals and waste disposal.

Customer Classification	Operation & Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	$3,348,120	0.4962
Commercial	1,999,437	0.2963
Industrial	138,224	0.0205
Large Industrial	104,014	0.0154
Public Authority	240,875	0.0357
Sales for Resale	231,380	0.0343
Private Fire Protection	229,977	0.0341
Public Fire Protection	455,027	0.0674
Total	$6,747,055	1.0000

FACTOR 15. ALLOCATION OF ADMINISTRATIVE AND CASH WORKING CAPITAL

Factors are based on the allocation of all operation and maintenance expenses including purchased water, power, chemicals and waste disposal.

Customer Classification	Operation & Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	$13,762,322	0.5719
Commercial	6,491,908	0.2698
Industrial	437,686	0.0182
Large Industrial	348,168	0.0145
Public Authority	781,225	0.0325
Sales for Resale	778,674	0.0324
Private Fire Protection	527,587	0.0219
Public Fire Protection	936,169	0.0389
Total	$24,063,739	1.0000

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 16. ALLOCATION OF LABOR RELATED TAXES AND BENEFITS.

Factors are based on the allocation of direct labor expense.

Customer Classification	Direct Labor Expense	Allocation Factor
(1)	(2)	(3)
Residential	$3,332,310	0.5797
Commercial	1,543,098	0.2684
Industrial	104,465	0.0182
Large Industrial	87,314	0.0152
Public Authority	185,913	0.0323
Sales for Resale	182,102	0.0317
Private Fire Protection	123,779	0.0215
Public Fire Protection	189,695	0.0330
Total	$5,748,676	1.0000

FACTOR 17. ALLOCATION OF ORGANIZATION, FRANCHISES AND CONSENTS, MISCELLANEOUS INTANGIBLE PLANT AND OTHER RATE BASE ELEMENTS.

Factors are based on the allocation of the original cost less depreciation other than those items being allocated, as follows:

Customer Classification	Original Cost Less Depreciation	Allocation Factor
(1)	(2)	(3)
Residential	$183,790,284	0.4955
Commercial	93,826,748	0.2529
Industrial	6,181,702	0.0167
Large Industrial	3,898,122	0.0105
Public Authority	10,773,670	0.0290
Sales for Resale	9,787,628	0.0264
Private Fire Protection	21,381,151	0.0576
Public Fire Protection	41,316,825	0.1114
Total	$370,956,131	1.0000

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 18. ALLOCATION OF INCOME TAXES AND INCOME AVAILABLE FOR RETURN.

Factors are based on the allocation of the original cost measure of value rate base as shown on the following pages and summarized below.

Customer Classification	Original Cost Measure of Value	Allocation Factor
(1)	(2)	(3)
Residential	$173,408,890	0.4956
Commercial	88,580,530	0.2532
Industrial	5,837,983	0.0167
Large Industrial	3,687,896	0.0105
Public Authority	10,175,225	0.0291
Sales for Resale	9,249,314	0.0264
Private Fire Protection	20,098,815	0.0574
Public Fire Protection	38,838,698	0.1110
Total	$349,877,351	1.0000

FACTOR 19. ALLOCATION OF REGULATORY COMMISSION EXPENSES, ASSESSMENTS A OTHER WATER REVENUES.

The factors are based on the allocation of the total cost of service, excluding those items being allocated.

Customer Classification	Total Cost of Service	Allocation Factor
(1)	(2)	(3)
Residential	$38,218,430	0.5299
Commercial	18,622,024	0.2582
Industrial	1,233,282	0.0171
Large Industrial	863,784	0.0120
Public Authority	2,170,063	0.0301
Sales for Resale	2,042,127	
Private Fire Protection	3,074,293	0.0426
Public Fire Protection	5,897,063	0.0818
Total	$72,121,065	0.9717

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS
COST OF SERVICE FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2025, ALLOCATED TO CUSTOMER CLASSIFICATIONS

not updated Account	Factor Ref.	Cost of Service	Residential	Commercial	Industrial	Large Industrial	Public Authorities	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
RATE BASE										
Organization	17	$ (60,373)	$ (29,912)	$ (15,270)	$ (1,006)	$ (634)	$ (1,753)	$ (1,593)	$ (3,480)	$ (6,724)
Franchises and Consents	17	65,436	32,420	16,551	1,090	688	1,900	1,727	3,772	7,288
Source of Supply - Land and Land Rights	2	3,684,842	1,975,025	1,216,393	87,054	77,719	153,418	156,634	6,704	11,894
Water Source Structures	2	-	-	-	-	-	-	-	-	-
Power and Pumping Structures	3	8,747,943	3,701,792	2,279,886	163,165	145,670	287,552	293,578	682,298	1,194,003
Collection and Impounding Reservoirs	1	2,326,836	1,242,861	765,493	52,725	47,044	96,574	106,871	5,503	9,764
Lakes, River and Other Intakes	2	2,839,984	1,522,193	937,499	67,094	59,900	118,243	120,721	5,167	9,167
Wells & Springs	2	2,182,568	1,169,827	720,481	51,563	46,034	90,871	92,776	3,971	7,045
Infiltration Galleries and Tunnels	2	2,587,465	1,386,846	854,141	61,128	54,574	107,729	109,987	4,707	8,352
Water Treatment - Land and Land Rights	2	1,231,239	659,927	406,441	29,088	25,969	51,263	52,337	2,240	3,974
Power Generation Equip	3	71,590	30,294	18,658	1,335	1,192	2,353	2,403	5,584	9,771
Electric Pumping Equipment	3	9,241,372	3,910,592	2,408,483	172,369	153,886	303,772	310,137	720,783	1,261,350
Oil Engine Pumping Equipment	2	29,349	15,731	9,688	693	619	1,222	1,248	53	95
Purification System - Treatment Structures	2	12,978,456	6,956,277	4,284,282	306,614	273,737	540,358	551,683	23,612	41,893
Purification System - Equipment	2	46,384,925	24,861,692	15,311,998	1,095,837	978,334	1,931,237	1,971,712	84,390	149,725
Laboratory Equipment	2	22,298	11,952	7,361	527	470	928	948	41	72
T&D - Land and Land Rights	6	900,720	309,230	254,096	17,292	3,574	28,593	23,292	96,243	168,399
T&D Structures and Improvements	6	1,572,451	539,845	443,593	30,188	6,240	49,917	40,662	168,019	293,987
Distribution Reservoirs and Standpipes	5	12,497,377	4,303,612	3,908,085	261,566	169,682	424,062	316,686	1,132,336	1,981,348
Distribution Mains	4	78,582,089	25,015,257	22,696,415	1,522,070	-	2,466,882	1,842,748	9,106,062	15,932,656
Transmission Mains	3	90,973,751	38,496,578	23,709,550	1,696,829	1,514,884	2,990,385	3,053,047	7,095,516	12,416,964
Services	9	46,948,773	40,323,289	4,705,993	57,801	1,270	236,919	1,906	1,621,595	-
Meters	8	19,963,388	17,131,435	2,624,818	70,772	1,828	131,620	2,916	-	-
Hydrants	7	6,587,212	-	-	-	-	-	-	-	6,587,212
Other Plant and Mischellaneous Equipment	14	-	-	-	-	-	-	-	-	-
General Land and Land Rights	14	990,587	491,563	293,553	20,294	15,271	35,365	33,971	33,765	66,806
Office Buildings	14	12,495,499	6,200,694	3,702,943	255,990	192,633	446,100	428,515	425,917	842,708
Stores, Shop and Garage Buildings	14	(641,362)	(318,266)	(190,062)	(13,139)	(9,887)	(22,897)	(21,995)	(21,861)	(43,254)
Miscellaneous Structures and Improvements	14	(199,195)	(98,847)	(59,030)	(4,081)	(3,071)	(7,111)	(6,831)	(6,790)	(13,434)
Office Furniture and Equipment	14	1,422,818	706,051	421,641	29,149	21,934	50,796	48,793	48,498	95,956
Computer Software	14		-	-	-	-	-	-	-	-
Computer Software-CIS Implementation	12		-	-	-	-	-	-	-	-
Transportation Equipment	14	(145,358)	(72,131)	(43,076)	(2,978)	(2,241)	(5,189)	(4,985)	(4,955)	(9,803)
Stores Equipment	14	(56,602)	(28,088)	(16,774)	(1,160)	(873)	(2,021)	(1,941)	(1,929)	(3,817)
Tools and work Equipment	14	3,848,462	1,909,739	1,140,462	78,842	59,329	137,393	131,977	131,177	259,544
Shop Equipment	14	347,545	172,464	102,992	7,120	5,358	12,408	11,919	11,846	23,439
Power Operated Equipment	14		-	-	-	-	-	-	-	-
Communication Equipment	14	4,917,391	2,440,178	1,457,230	100,740	75,807	175,555	168,635	167,612	331,633
Miscellaneous Equipment	14	1,268,397	629,422	375,879	25,985	19,554	45,283	43,498	43,234	85,542
Adv/CIAC Reconciling Items	17	(3,646,681)	(1,806,749)	(922,363)	(60,769)	(38,320)	(105,910)	(96,217)	(210,187)	(406,165)
Kensington and Overbrook	17	532,144	263,651	134,596	8,868	5,592	15,455	14,041	30,672	59,270
Total Utility Plant in Service		371,493,338	184,056,444	93,962,625	6,190,655	3,903,767	10,789,272	9,801,803	21,412,114	41,376,659
Other Rate Base Items										
Add:										
Cash Working Capital	15	795,082	454,716	214,497	14,461	11,504	25,812	25,728	17,432	30,932
Materials and Supplies	14	1,656,030	821,779	490,752	33,926	25,530	59,122	56,791	56,447	111,684
Less:										
Deferred Income Taxes/Regulatory Liability	17	(24,067,099)	(11,924,049)	(6,087,344)	(401,060)	(252,905)	(698,980)	(635,007)	(1,387,178)	(2,680,576)
Total Other Rate Base Elements		(21,615,987)	(10,647,554)	(5,382,096)	(352,672)	(215,871)	(614,046)	(552,488)	(1,313,300)	(2,537,960)
Total Original Cost Measure of Value		$ 349,877,351	$ 173,408,890	$ 88,580,530	$ 5,837,983	$ 3,687,896	$ 10,175,225	$ 9,249,314	$ 20,098,815	$ 38,838,698

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 20. REALLOCATION OF PUBLIC FIRE

Factors are based on the relative cost of meters by size and customer classification.

Customer Classification	5/8" Dollar Equivalents	Allocation Factor
(1)	(2)	(3)
Residential	65,600	0.8583
Commercial	10,051	0.1315
Industrial	271	0.0035
Large Industrial	7	0.0001
Public Authority	504	0.0066
Sales for Resale	0	0.0000
Private Fire	0	0.0000
Total	76,433	1.0000

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

SUMMARY OF AVERAGE DAILY SEND OUT AND MAXIMUM DAILY USAGE
FOR THE YEARS 2000-2022

Year	Average Daily Send out (MGD)	Maximum Daily Use	
		MGD	Ratio to Average
(1)	(2)	(3)	(4)
2000	16.010	20.137	1.26
2001	17.281	21.573	1.25
2002	17.247	22.597	1.31
2003	17.570	21.991	1.25
2004	18.112	22.207	1.23
2005	18.592	23.222	1.25
2006	18.188	22.856	1.26
2007	19.895	24.576	1.24
2008	19.265	23.575	1.22
2009	18.071	21.814	1.21
2010	19.498	24.391	1.25
2011	19.247	22.252	1.16
2012	18.380	22.537	1.23
2013	18.261	22.268	1.22
2014	18.007	21.094	1.17
2015	18.152	21.090	1.16
2016	17.970	20.444	1.14
2017	17.093	19.422	1.14

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

BASIS FOR ALLOCATING DEMAND RELATED COSTS OF FIRE SERVICE TO PRIVATE AND PUBLIC FIRE PROTECTION CUSTOMER CLASSIFICATIONS

Description		Restrictive Diameters Squared	Quantity	Relative Demand*	Allocation Factor
(1)		(2)	(3)	(4)=(2)x(3)	(5)
PRIVATE FIRE PROTECTION					
Fire Lines					
2 -inch		4.00	72	289	
3 -inch		9.00	5	45	
4 -inch		16.00	205	3,279	
6 -inch		36.00	358	12,897	
8 -inch		64.00	239	15,296	
10 -inch		100.00	39	3,864	
12 -inch		144.00	10	1,439	
Private Hydrants		26.50	597	15,822	
Total Private Fire Protection			1,525	52,931	0.3637
PUBLIC FIRE PROTECTION					
Hydrant	Nozzle Sizes				
5 1/4" Valve	2- 2-1/2" & 1-5 1/4"	26.50	3,495	92,623	
Total Public Fire Prorection			3,495	92,623	0.6363
Total Fire Protection			5,020	145,554	1.0000

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS
CALCULATION OF CUSTOMER COST PER MONTH FOR A 5/8-INCH METER

Cost Function	Cost of Service	Total Units		Cost Per 5/8-inch Meter	Cost Per 5/8-inch Meter Monthly Bill
(1)	(2)	(3)		(4)	(5)
Meters	3,921,668	76,444	5/8-inch Equivalents	$ 51.30	$ 4.28
Services	6,288,899	71,359	3/4-inch Equivalents	$ 88.13	$ 7.34
Billing, Collecting and Meter Reading	3,653,120	67,044	Customers	$ 54.49	$ 4.54
Subtotal Customer Costs	$13,863,687				$ 16.16
Unrecovered Public Fire	4,466,862	76,444	5/8-inch Equivalents	$ 58.43	$ 4.87
Total Customer Costs and Public Fire	$18,330,550				$ 21.03

VEOLIA WATER PENNSYLVANIA INC.
CALCULATION OF CUSTOMER COST PER MONTH FOR A 5/8-INCH METER
BASED ON DIRECT COSTS

Cost Function	Direct Cost of Service	Total Units		Cost Per 5/8-inch Meter	Cost Per 5/8-inch Meter Monthly Bill
(1)	(2)	(3)		(4)	(5)
Meters	3,647,802	76,444	5/8-inch Equivalents	$ 47.72	$ 3.98
Services	5,626,180	71,359	3/4-inch Equivalents	$ 78.84	$ 6.57
Billing, Collecting and Meter Reading	3,525,979	67,044	Customers	$ 52.59	$ 4.38
Subtotal Customer Costs	$12,799,961				$ 14.93
Unrecovered Public Fire	4,466,862	76,444	5/8-inch Equivalents	$ 58.43	$ 4.87
Total Customer Costs and Public Fire	$17,266,823				$ 19.80

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

ANALYSIS OF DIRECT CUSTOMER COSTS

Description	Meters	Services	Billing & Collecting
Operation and Maintenance Expenses			
T&D Labor - Operation			
Employee Salaries - Supervision	$ 7,413		
Employee Salaries - Meters	108,721		
T&D Labor - Maintenance			
Employee Salaries - Supervision		$ 31,302	
Employee Salaries - Structures and Improvments		134,174	
Employee Salaries - Services		46,215	
Total Customer Accounting Expenses			$ 3,015,924
Management Fees - Customer Related			303,873
Management Fees - Employee Related	1,718	4,697	47,655
Transportation Expense	2,767	6,079	-
Worker's Compensation	1,028	2,259	-
Advertising Expense	-	-	-
Subtotal	121,646	224,727	3,367,452
Depreciation Expense			
Meters	1,606,360		
Services		1,043,115	
Office Buildings	8,529	18,740	-
Office Furniture & Equipment	3,438	7,554	-
Computer Software - CIS			-
Subtotal	1,618,328	1,069,409	-
Taxes Other Than Income			
Payroll Taxes	5,714	15,624	158,527
Assessments	-	-	-
Subtotal	5,714	15,624	158,527
Rate Base			
Meters	19,963,388		
Services		45,327,178	
Office Land/Buildings	288,337	633,503	-
Office Furniture and Equipment	30,420	66,836	-
Computer Software - CIS			-
Materials and Supplies	35,406	77,791	-
Deferred Taxes	(1,315,895)	(2,985,315)	-
Subtotal	19,001,657	43,119,994	-
Return and Income Taxes	1,902,114	4,316,420	-
Total Direct Customer Costs	3,647,802	5,626,180	3,525,979

APPENDIX

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

RESPONSES TO RATE STRUCTURE AND COST OF SERVICE FILING REQUIREMENTS

1. Provide a complete, fully allocated, cost of service study if an interval of 3 years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water or wastewater rate structure is fair and equitable to all classifications of water or wastewater customers (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
   a. A description of the allocation methods used. A comparison of the allocated cost of service by class with the present and proposed revenues. A cost of service schedule showing the rate of return produced by present and proposed rates by class of service.

RESPONSE

A description of the methods used for the cost of service study is provided in Exhibit CEH-1. A comparison of the allocated cost of service by class with the present and proposed revenues is provided on Schedule A of Exhibit No. CEH-1. Schedules B and C showing the rate of return produced by present and proposed rated by customer classification are provided in Exhibit CEH-1.

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

RESPONSES TO RATE STRUCTURE AND COST OF SERVICE FILING REQUIREMENTS

1. Provide a complete, fully allocated, cost of service study if an interval of 3 years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water or wastewater rate structure is fair and equitable to all classifications of water or wastewater customers (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
   b. Indicate if the method used for establishing the allocation factors in the cost of service study deviates from the previous study submitted in the last rate case. If yes, indicate which allocation factors were changed and discuss the reason for the changes.

RESPONSE

The method used for establishing the allocation factors in the cost of service study is the base extra capacity method. This is the same method used in the previous study submitted in the las case.

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

RESPONSES TO RATE STRUCTURE AND COST OF SERVICE FILING REQUIREMENTS

1. Provide a complete, fully allocated, cost of service study if an interval of 3 years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water or wastewater rate structure is fair and equitable to all classifications of water or wastewater customers (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
   c. Supply the average day, the maximum day and the maximum hour deliveries to the system adjusted for storage for the historic test year and 2 prior years. Also provide workpapers, analyses, comparative data or other documentation supporting the estimated maximum day and peak hour demands by customer class reflected in the company's cost of service study.

RESPONSE

Refer to Schedule D of Exhibit No. CEH-1 for the average day and maximum day system deliveries for the years 2000 through 2022. Support for the customer class demand factors is provided in the attached pages from the Customer Class Demand Study filed in Docket No. R-2011-2232985.

UNITED WATER PENNSYLVANIA INC.

Harrisburg, Pennsylvania

CUSTOMER CLASS DEMAND STUDY

GANNETT FLEMING, INC. - VALUATION AND RATE DIVISION
Harrisburg, Pennsylvania

Gannett Fleming

GANNETT FLEMING, INC.
P.O. Box 67100
Harrisburg, PA 17106-7100

Location:
207 Senate Avenue
Camp Hill, PA 17011

Office: (717) 763-7211
Fax: (717) 763-4590
www.gannettfleming.com

May 2, 2011

United Water Pennsylvania Inc.
4211 East Park Circle
Harrisburg, PA 17111

Attention Mr. John Hollenbach
Vice President and General Manager

Gentlemen:

Pursuant to your request, we have prepared a customer class demand study. The study was conducted to provide a basis for the selection of class maximum day and hour demand ratios for use in the cost of service allocation study.

The attached report presents a description of the methods and procedures used, the usage data for each monitored customer, and the detailed calculations of maximum day and hour ratios by classification. The results of the study are presented on page I-6 of the report.

Respectfully submitted,

GANNETT FLEMING, INC.

Paul R Herbert

PAUL R. HERBERT
President

C E Heppenstall

CONSTANCE E. HEPPENSTALL
Rate Analyst

PRH:krm

053354

TABLE OF CONTENTS

PART I. INTRODUCTION

PART II. MAXIMUM DAY AND HOUR RATIOS

TABLE OF CONTENTS

PART II. MAXIMUM DAY AND HOUR RATIOS, cont.

PART III. DAILY AND HOURLY USAGE DATA

PART I. INTRODUCTION

UNITED WATER PENNSYLVANIA INC.

CUSTOMER CLASS DEMAND STUDY

PART I. INTRODUCTION

PLAN OF REPORT

The report sets forth the results of the customer class demand study conducted during the period of August 2010 through March 2011 for United Water Pennsylvania Inc. (Company). The study is organized into three parts. Part I, Introduction, contains statements with respect to the basis of the study, a description of the methods and procedures used, and a summary of the study results. Part II, Maximum Day and Hour Ratios, sets forth a description of the calculations of the maximum day and maximum hour ratios for each classification as a result of the observed demand data. Part III, Daily and Hourly Usage Data, provides the daily usage for each monitored customer and the hourly usage for selected days during the study period.

BASIS OF STUDY

In the Base Extra-Capacity method of cost allocation, as described in AWWA Manual M1 - Principles of Water Rates, Fees, and Charges, the extra capacity portion of the water system is allocated to customer classifications based on the non-coincident demands of each classification. The non-coincident demand is the sum of the peaks for each class regardless of the day or hour such peaks may occur. The purpose of a customer class demand study is to establish a basis for selecting maximum day and maximum hour ratios for each customer classification. The ratios will be used for allocating maximum day and hour extra capacity costs in the cost of service allocation study prepared for the Company's rate filing. The results of the cost of service allocation study are used as a guide for designing the proposed rate structure.

METHODS AND PROCEDURES

The customers were selected for the study with the objective of obtaining a reasonably representative sample of customers in each class. The residential class sample consists of data from nine SCADA monitoring points that serve exclusively or predominantly residential customers. Most of these sample areas have a mix of medium and high density housing types. Two very large areas are predominantly composed of high density housing. One area is almost exclusively low density housing. The total number of residential customers in the areas sampled is approximately 5,000, which amounts to nearly ten percent of total residential customers served by United Water Pennsylvania Inc..

The commercial customer class is represented by a sample of 38 customers including fast food establishments, restaurants, a health club, hospitals, and hotels, along with a separate grouping of seven apartment complexes. The commercial sample represents approximately ten percent of all consumption by customers coded "commercial" for billing. The apartment sample represents approximately seven percent of consumption by customers coded "apartment". The combined commercial and apartment samples represent approximately nine percent of total consumption by all customers of these two types.

The industrial customer class is represented by a sample of seven customers, including most of the largest customers. The large industrial customer class is represented by the only two customers in this class. The industrial and large industrial customer samples account for 78 percent of consumption by all industrial customers. The public customer class consists of facilities owned by public entities such as offices, prisons, schools, public housing, and wastewater treatment plants. The public customer class is represented by a sample of ten customers that account for approximately 23 percent of consumption by all public customers.

The Company operates a number of separate areas ("systems") in Pennsylvania. The demand study includes residential SCADA monitoring data from the Harrisburg, Mechanicsburg, and Newberry systems. The commercial, industrial, and public customer class samples include customers in the Harrisburg, Bloomsburg, Mechanicsburg, and Dallas systems. For each class this study combines data from each of these systems to produce maximum day and hour ratios to be applied to the entire United Water Pennsylvania Inc. service area.

The source of the usage data for the residential sample is the Company's SCADA information system, which continuously monitors flows through a pump or valve, and for areas with tanks also records hourly storage tank levels.

Radio read devices (ERT's, for "Encoded Receiver Transmitter") were installed on the non-residential sample customers. The ERT attaches to a customer's meter and records hourly usage for a fixed period of time, which is then periodically read by a mobile device. The majority of the ERT's were of the type "100W" and the remainder were OMNI brand devices, which differ slightly in the methods of data storage and retrieval.

The data for each customer are summarized in spreadsheet format for each classification. For each day, the sum of the day's consumption amounts for all sampled customers in the class is calculated. The maximum of these sums - the coincident maximum day demand – is the peak that occurs for the group of customers at the same time. The non-coincident peak is the sum of each customer's individual peak usage, regardless of the day on which the peak occurred. The results of both the coincident and non-coincident peak demands are used in the selection of maximum day ratios. These calculations will be discussed further in Part II of the report.

In order to calculate the peak demands for the residential samples, an additional step was required. Six of the nine SCADA monitoring stations have a storage tank connected to the distribution grid. Consequently, the flow data must be adjusted in

order to account for water drawn from or accumulated in the tanks. The adjusted data represents water that was delivered to the distribution system and consumed by customers. An increase in water in a tank over a measuring period represents water pumped but not consumed in that period, and is therefore subtracted from pumpage in order to calculate consumption for that period. The opposite is true for decreases in water storage in the tanks. Company staff performed the calculations to make these adjustments, using SCADA data on tank levels to calculate changes to the volume of water stored in the tanks.

Maximum day and hour ratios were calculated as a result of the peak day and peak hour data recorded from the analysis. The peak day usage is divided by the 2010 average daily usage for each customer to produce the maximum day ratio, and similarly for the maximum hour ratio. For the residential monitoring stations, the average was calculated from the same adjusted SCADA monitoring station data that was used to determine the coincident and non-coincident maximums. For the non-residential customers, the average usage was determined from the billing records over a twelve-month period.

RESULTS OF STUDY

A description of the calculations of the maximum day and hour ratios for each customer classification is provided in Part II of the report. The selected ratios for use in the cost of service allocation study accompanying this report are summarized in the table below. A listing of the daily and peak hourly usage for the nine SCADA monitoring points and for each monitored customer is provided in Part III of the report.

SUMMARY OF MAXIMUM DAY AND HOUR RATIOS

Customer Classification	Maximum Day Ratio	Maximum Hour Ratio
Residential	1.6	2.7
Commercial	1.6	5.0
Industrial	1.7	4.8
Large Industrial	1.7	2.9
Public	1.6	4.0

PART II. MAXIMUM DAY AND HOUR RATIOS

PART II. MAXIMUM DAY AND HOUR RATIOS

Residential - Maximum Day. The maximum day ratios for the residential class are based on weighted coincident and non-coincident ratios resulting from the analysis of data from nine SCADA monitoring points. For the selection of maximum day ratios, more weight is given to the coincident analysis because maximum day facilities serve customers over several distribution systems. The non-coincident analysis was considered because it represents the potential peak demands of each SCADA monitoring point and it provides an indication of what the coincident maximum ratio would be if each monitoring point's peak usage occurred on the same day, and also reflects the demands placed on facilities at the local level.

The coincident and non-coincident maximum day ratios are calculated on Schedule 1. The maximum day usage in gallons and the date on which the peak usage occurred are shown in columns 5 and 6 for each residential zone represented by SCADA monitoring point in column 1. The average day usage is shown in column 4, and is based on 2010 SCADA data for that monitoring point. The maximum day ratio for each area is calculated by dividing the peak day usage by the average daily usage and is shown in column 7.

The residential non-coincident maximum day ratio for the Company is calculated as a weighted composite of each SCADA monitoring point's maximum day ratio shown in column 7. The weighting is selected in order to be representative of the housing distribution types in the Company's service area. Through the use of the Company's GIS system, it was determined that 8.5 percent of the Company's residential customers have a lot size over 0.6 acres, regarded as the size of low density housing. The balance of customer lots (91.5%) are 0.6 acres and under, corresponding to a mix of medium and high density housing. These characteristics are used in the weightings shown in column 10. The non-coincident maximum day ratio for the area served by Continental Booster, which is a low density development, is given a weight of 8.5%. The ratios for

the remaining eight monitoring stations are considered reasonably representative of the balance of the service area (medium and high density). These ratios are averaged and the resulting average is given a weight of 91.5%. The resulting weighted composite non-coincident maximum day ratio, shown in column 11, is 1.68.

The coincident maximum day--the day with the highest usage of all of the sampled SCADA monitoring stations combined--occurred on July 5, 2010. The calculation of the coincident maximum day ratio uses the same process as for the non-coincident maximum day. In this case, the coincident maximum day ratio analysis uses a weighted composite of each SCADA monitoring point's ratio on the coincident maximum day. Each monitoring point's usage and ratio on the coincident maximum day are shown in columns 8 and 9 respectively. The composite is calculated using the same weights that are used to determine a non-coincident maximum day ratio. Column 12 shows that the composite average of the ratios on the coincident maximum day is 1.39.

Based on the composite coincident ratio of 1.39 and the non-coincident ratio of 1.68, the maximum day ratio for residential customers is estimated at 1.6.

Residential - Maximum Hour. The analysis of maximum hour data was performed in a similar manner as the maximum day analysis. The maximum hour was found by examining the hourly usage on a day of relatively high use for that SCADA monitoring point. The calculation of non-coincident maximum hour ratios is summarized on Schedule 2.

The selection of the maximum hour ratio is based exclusively on the non-coincident analysis because maximum hour facilities are those that are required to meet peak demands at a certain location or local distribution system. The non-coincident ratios for the nine SCADA monitoring points range from 1.43 to 5.67. The composite average of these ratios using the weights described above for maximum day is 2.68. Based on these results, the maximum hour ratio for residential customers is estimated at 2.7.

UNITED WATER PENNSYLVANIA INC.

SUMMARY OF NON-COINCIDENT AND COINCIDENT MAXIMUM DAY RATIOS
BASED ON SCADA DATA, JANUARY THROUGH DECEMBER 2010

RESIDENTIAL

SCADA Monitoring Point	Density*	System	Average Hour, Gallons **	Non-Coincident Maximum Day			Coincident Maximum Day (7/5/2010)		Composite Ratio Computation		
				Usage	Date	Ratio	Usage	Ratio	Weight	Non-Coincident	Coincident
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)=(7)X(10)	(12)=(9)X(10)
Oberlin***	High	HBG	497,452	629,000	2/7/2010	1.26	554,000	1.11			
Sixth Street***	High	HBG	172,196	346,000	9/9/2010	2.01	209,583	1.22			
Blue Meadows	Medium & High	HBG	125,179	178,000	7/5/2010	1.42	178,000	1.42			
Marysville***	Medium & High	HBG	274,622	352,203	9/15/2010	1.28	299,376	1.09			
Hidden Lakes	Medium & High	HBG	89,027	129,000	7/5/2010	1.45	129,000	1.45			
Susquehanna Village	Medium & High	NEW	59,630	87,000	7/5/2010	1.46	87,000	1.46			
Forest Hills***	Medium	HBG	57,224	99,688	9/12/2010	1.74	72,070	1.26			
Center Square	Medium	MECH	114,838	196,490	9/15/2010	1.71	151,540	1.32			
Subotal of Medium and High Density - Average of Ratios						1.54		1.29	91.5%	1.41	1.18
Continental Booster	Low	HBG	6,872	22,000	6/20/2010	3.20	16,000	2.33	8.5%	0.27	0.20
Composite Maximum Day Ratio****										1.68	1.38

*All areas have a mix of medium and high housing densities, with the exception of Continental Booster. The predominant density or combination of densities is listed.
** Average usage based on annual SCADA data divided by 365 days.
***Includes some non-residential customers (less than 10% by number of customers)
****A weighted average of the ratios, in which the low density area ratio is weighted by 8.5% to reflect the low density composition of the UWPA service area and the medium and high density area ratios are equally weighted for the remaining 91.5%.

UNITED WATER PENNSYLVANIA INC.

SUMMARY OF MAXIMUM HOUR RATIOS
BASED ON SCADA DATA, JANUARY THROUGH DECEMBER 2010
RESIDENTIAL

SCADA Monitoring Point	Density	System	Average Usage*	Maximum Hour Usage			Maximum Hour Ratio	Composite Ratio Calculation	
				Gallons	Date	Hour		Weighting	Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(8) X (9)
Sixth Street**	High	HBG	7,175	18,525	7/4/2010	11:00 AM	2.58		
Forest Hills**	Medium	HBG	2,384	8,630	5/27/2010	8:00 PM	3.62		
Blue Meadows	Medium & High	HBG	5,216	15,012	7/5/2010	8:00 PM	2.88		
Oberlin**	High	HBG	20,727	34,168	2/7/2010	11:00 AM	1.65		
Marysville**	Medium & High	HBG	11,443	16,325	12/7/2010	7:00 PM	1.43		
Hidden Lakes	Medium & High	HBG	3,709	9,867	7/5/2010	12:00 PM	2.66		
Susquehanna Village	Medium & High	NEW	2,485	4,823	7/5/2010	6:00 PM	1.94		
Center Square	Medium	MECH	4,772	11,718	7/4/2010	11:00 AM	2.46		
Subotal of Medium and High Density - Average of Ratios							2.40	91.5%	2.20
Continental Booster	Low	HBG	286	1,625	7/4/2010	10:00 AM	5.67	8.5%	0.48
Composite Maximum Hour Ratio***									2.68

* Average usage based on annual SCADA data divided by 365 days and divided by 24 hours.
**Includes some non-residential customers (less than 10% by number of customers)

***A weighted average of the ratios, in which the Continental Booster ratio is weighted by 8.5% to reflect the low density composition of the UWPA service area and the balance of the other pumping station ratios are equally weighted for the remaining 91.5%.

Commercial - Maximum Day. The data for the sampled commercial customers were gathered and summarized in a similar manner as the residential class and are presented in Schedule 3. Besides the sample of customers coded as "commercial" for billing, an additional sample of seven customers who are coded for billing as "apartments" was examined to determine whether this group constituted a sufficiently different customer type in terms of capacity ratios to warrant creation of a separate customer class for apartments. The results for the apartment sample are presented in Schedule 4. Maximum day ratios for a combined sample of the commercial customers and the additional apartments are shown in Schedule 5.

Commercial customers are separated by system or service area including Harrisburg, Bloomsburg, Mechanicsburg, and Dallas. Since each system is essentially stand-alone, each area was considered separately. The maximum day usage in gallons and the date on which the peak usage occurred are shown in columns 5 and 6 for each customer. The average day usage, shown in column 4, is based on total consumption billed in 2010 divided by total days billed. The maximum day ratio for each customer, shown in column 7, is calculated by dividing the peak day usage by the average daily usage. The non-coincident demand for each system's commercial customers, shown in column 5, is the sum of each customer's maximum demand. The non-coincident maximum day ratio for the each system's commercial customers is calculated as the non-coincident maximum demand divided by the average daily consumption.

For the commercial customer sample shown in Schedule 3, the non-coincident maximum day ratios for the four areas range from 1.72 for the Bloomsburg system to 2.39 for Harrisburg. The commercial composite non-coincident maximum day ratio for all of United Water Pennsylvania is calculated as a weighted average of the ratios of these four areas. Each system's ratio is weighted by its share of the total commercial consumption by all commercial customers in all four systems. For example, out of all commercial consumption in these four systems for the year 2009, 66.4 percent occurred

in the Harrisburg system; so Harrisburg's ratio is weighted at 66.4 percent. The resulting composite non-coincident commercial maximum day ratio is 2.20.

The coincident maximum day ratio is computed in the same manner. A coincident maximum day and ratio are identified for each system and ratios are combined using the same weighting as for the non-coincident ratio. The coincident ratios for the systems range from 1.40 for Harrisburg to 2.01 for Dallas. The resulting weighted composite coincident ratio for commercial customers is 1.46.

The analysis for apartments is shown in Schedule 4. The non-coincident maximum day ratio for the apartments in the Harrisburg system is 1.92 and the ratio for the Mechanicsburg system is 1.98. The weighted composite non-coincident ratio is computed analogously to that described above for commercial customers, in this case using the system's share of all consumption by customers coded as "apartment". The weighting is 96.2% for Harrisburg and 3.8% for Mechanicsburg, resulting in a composite non-coincident demand ratio of 1.93 for apartments. The coincident maximum day ratio in the Harrisburg system is 1.40, which is combined with Mechanicsburg's ratio of 1.98 for a weighted composite coincident maximum day ratio of 1.43.

The analysis for the combined sample of the mixed commercial customers and the seven additional apartments is shown in Schedule 5. The non-coincident ratios for the individual systems range from 1.72 for the Bloomsburg system to 2.20 for the Harrisburg system. The weighting used in calculating the composite ratio for the combined grouping uses the share of consumption by all customers coded as commercial or apartment. The resulting weighted composite non-coincident maximum day ratio is 2.13. The coincident maximum day ratios range from 1.19 in Harrisburg to 2.01 in Dallas. The weighted composite coincident maximum day ratio for the combined commercial and apartment samples is 1.27. The ratios for the three commercial groupings are shown on the following page.

Summary of Commercial Maximum Day Ratios

	Non-coincident	Coincident
Commercial	2.20	1.46
Apartments	1.93	1.43
Combined	2.13	1.27

The difference in ratios among the three commercial groupings is considered not sufficiently significant to warrant the treatment of apartments as a separate customer class. Based on the ratios presented above, the maximum day ratio for the commercial class is estimated at 1.6.

UNITED WATER PENNSYLVANIA INC.

SUMMARY OF NON-COINCIDENT AND COINCIDENT MAXIMUM DAY RATIOS
DURING THE PERIOD AUGUST 2010 THROUGH MARCH 2011

COMMERCIAL CUSTOMERS

Account Number	Type	Recorder Type	Average Day Gallons *	Maximum Day			Composite Ratio Calculation		
				Usage	Date	Ratio	Weight **	Ratio Non-Coincident	Ratio Coincident
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)=(7)X(8)	(10)=(7)X(8)
Harrisburg System									
999-856-941	Funeral Home	100W	233	870	3/25/2011	3.74			
999-832-785	Dentist	100W	422	1,840	2/3/2011	4.36			
998-910-171	Restaurant	100W	3,055	3,980	1/0/1900	1.30			
998-604-371	Restaurant	100W	809	2,370	4/1/2011	2.93			
998-845-004	Day Care	100W	844	1,460	3/29/2011	1.73			
999-835-062	Office Building	100W	121	270	1/10/2011	2.24			
998-694-780	Bowling Lanes	100W	580	1,900	3/19/2011	3.28			
999-796-266	Store and Car Wash	100W	5,079	18,500	2/13/2011	3.64			
998-754-807	Restaurant	100W	5,299	5,700	1/1/2011	1.08			
998-759-416	Health Club	100W	1,382	3,200	1/0/1900	2.32			
998-641-386	Convenience Store	100W	3,778	10,400	1/15/2011	2.75			
998-960-375	Restaurant	100W	890	1,400	2/12/2011	1.57			
999-871-967	Home Center	100W	1,301	2,000	8/31/2010	1.54			
999-320-207	Department Store	100W	1,299	2,500	9/18/2010	1.92			
999-956-491	Laundromat	100W	2,541	5,800	4/3/2011	2.28			
999-928-727	Department Store	100W	6,099	9,000	9/1/2010	1.48			
999-034-306	Office Building	100W	1,000	8,300	3/21/2011	8.30			
999-997-961	Bakery	100W	25,090	47,000	3/16/2011	1.87			
999-997-653	Hospital	100W	12,959	63,000	2/23/2011	4.86			
999-997-631	Hospital	100W	23,055	35,000	1/11/2011	1.52			
999-060-365	Indoor Shopping Mall	100W	19,077	55,000	8/31/2010	2.88			
998-681-943	Hotel	100W	25,777	45,000	9/5/2010	1.75			
998-516-074	Bank	100W	40	280	3/29/2011	6.95			
999-928-045	Medical Office	100W	80	380	3/31/2011	4.77			
998-579-060	Hotel	OMNI	8,609	18,331	8/21/2010	2.13			
998-567-389	Hotel	OMNI	4,932	12,974	8/21/2010	2.63			
998-545-499	Hotel	OMNI	5,352	22,797	9/1/2010	4.26			

(Continued on next page.)

UNITED WATER PENNSYLVANIA INC.

SUMMARY OF NON-COINCIDENT AND COINCIDENT MAXIMUM DAY RATIOS
DURING THE PERIOD AUGUST 2010 THROUGH MARCH 2011

COMMERCIAL CUSTOMERS

Account Number	Type	Recorder Type	Average Day Gallons *	Maximum Day Usage	Maximum Day Date	Maximum Day Ratio	Composite Ratio Calculation Weight **	Composite Ratio Calculation Ratio Non-Coincident	Composite Ratio Calculation Ratio Coincident
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)=(7)X(8)	(10)=(7)X(8)
Harrisburg System	(Continued from previous page.)								
998-523-686	Bank and Restaurant	OMNI	293	1,038	11/13/2010	3.54			
998-504-799	Church	OMNI	883	3,992	3/13/2011	4.52			
998-557-888	Office and Apartments	OMNI	423	1,219	12/8/2010	2.88			
Non-coincident Demand			161,302	385,501		2.39	66.4%	1.59	
Coincident Demand			161,302	225,671	2/18/2011	1.40	66.4%		0.93
Bloomsburg System									
999-406-876	Medical Office	100W	13,016	21,000	9/2/2010	1.61			
999-596-076	Hospital	100W	18,663	25,700	9/2/2010	1.38			
999-592-226	Mobile Home Park	100W	11,934	32,000	3/13/2011	2.68			
998-943-061	Truck Stop	100W	17,121	25,500	3/26/2011	1.49			
Non-coincident Demand			60,734	104,200		1.72	15.8%	0.27	
Coincident Demand			60,734	87,800	3/15/2011	1.45	15.8%		0.23
Mechanicsburg System									
999-490-146	Apts. & Assisted Living	100W	20,841	26,100	1/14/2011	1.25			
998-852-542	Fuel Oil Retailer	OMNI	1,466	15,197	12/20/2010	10.37			
998-448-365	Laundromat	OMNI	1,365	3,550	3/6/2011	2.60			
Non-coincident Demand			23,672	44,847		1.89	14.9%	0.28	
Coincident Demand			23,672	38,289	12/20/2010	1.62	14.9%		0.24
Dallas System									
998-697-904	Apartments & Villas	OMNI	5,825	11,726	9/10/2010	2.01	2.9%	0.06	0.06
COMPOSITE MAXIMUM DAY RATIOS								2.20	1.46

* Average daily consumption is based on billed consumption for the twelve months of 2010, except for Mid Penn Bank, Sonic Drive In, Fiesta Mexico, and William Kotsalos. These customers use available early 2011 billed consumption in place of early 2010 consumption due to unavailability of data or nonrepresentative conditions (e.g., construction) over that period of 2010.

**The system's commercial consumption as a percentage of total commercial consumption across all four systems.

UNITED WATER PENNSYLVANIA INC.

SUMMARY OF NON-COINCIDENT AND COINCIDENT MAXIMUM DAY RATIOS
DURING THE PERIOD AUGUST 2010 THROUGH MARCH 2011

APARTMENTS

Account Number	Recorder Type	Average Day, Gallons *	Maximum Day Usage	Maximum Day Date	Maximum Day Ratio	Composite Ratio Calculation Weight **	Composite Ratio Calculation Ratio Non-Coincident	Composite Ratio Calculation Ratio Coincident
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) =(6) X (7)	(9)= (6) X (7)
Harrisburg System								
999-829-914	100W	8,096	12,400	10/16/2010	1.53			
999-998-896	100W	31,363	53,000	9/26/2010	1.69			
999-017-982	100W	23,836	35,000	9/20/2010	1.47			
999-326-059	100W	16,652	40,003	9/7/2010	2.40			
998-766-148	100W	7,458	31,000	3/31/2011	4.16			
999-998-291	100W	21,647	38,000	3/31/2011	1.76			
Non-Coincident Demand		109,050	209,403		1.92	96.2%	1.85	
Coincident Demand		109,050	152,400	3/31/2011	1.40	96.2%		1.35
Mechanicsburg System								
999-478-244	100W	11,101	22,000	9/27/2010	1.98	3.8%	0.08	0.08
COMPOSITE MAXIMUM DAY RATIOS							1.93	1.43

* Average day is based on billed consumption for the twelve months of 2010.

**The system's apartment consumption as a percentage of total apartment consumption over both systems.

UNITED WATER PENNSYLVANIA INC.

SUMMARY OF NON-COINCIDENT AND COINCIDENT MAXIMUM DAY RATIOS
DURING THE PERIOD AUGUST 2010 THROUGH MARCH 2011

COMBINED APARTMENTS AND COMMERCIAL CUSTOMERS

System	Average Day, Gallons	Maximum Day Usage	Maximum Day Date	Maximum Day Ratio	Composite Ratio Calculation Weight *	Ratio Non-Coincident	Ratio Coincident
(1)	(2)	(3)	(4)	(5)	(6)	(7)= (5) X (6)	(8)= (5) X (6)
HARRISBURG							
Non-Coincident Demand	270,352	594,904		2.20	78.0%	1.72	
Coincident Demand	270,352	321,171	2/18/2011	1.19	78.0%		0.93
BLOOMSBURG							
Non-Coincident Demand	60,734	104,200		1.72	9.7%	0.17	
Coincident Demand	60,734	87,800	3/15/2011	1.45	9.7%		0.14
MECHANICSBURG							
Non-Coincident Demand	34,774	66,847		1.92	10.5%	0.20	
Coincident Demand	34,774	51,634	12/13/2010	1.48	10.5%		0.16
DALLAS							
Coincident/Non-Coincident Demand	5,825	11,726	9/10/2010	2.01	1.8%	0.04	0.04
COMPOSITE MAXIMUM DAY RATIOS						2.13	1.27

* The system's commercial and apartment consumption as a percentage of total apartment and commercial consumption across all four systems.

Commercial - Maximum Hour. The maximum hour data for the sampled commercial customers are presented in Schedule 6. The selection of maximum hour ratios is based exclusively on the non-coincident analysis because maximum hour facilities are required to meet peak demands at a certain location or local distribution system. The non-coincident maximum hour ratios range from 2.88 for Bloomsburg to 6.18 for Harrisburg. The composite non-coincident maximum hour ratio for all of United Water Pennsylvania Inc. is calculated as a weighted average, using the same weighting as for the maximum day ratios. The resulting composite maximum hour ratio is 5.54.

The maximum hour data for the sample of seven apartments is shown in Schedule 7. The non-coincident maximum hour ratio for the apartments in the Harrisburg system is 3.65 and the ratio for the Mechanicsburg system is 6.49. The weighted composite maximum hour ratio for apartments is calculated using the same weights as for the maximum day ratio for apartments. The resulting composite maximum hour ratio for apartments is 3.76.

The maximum hour data for the combined commercial and apartment samples is shown in Schedule 8. The non-coincident maximum hour ratio for the four systems ranges from 2.88 for Bloomsburg to 5.97 for Dallas. The weighted composite non-coincident maximum hour ratio is 5.02.

The maximum hour ratios for the three commercial groupings are shown below.

Summary of Commercial Non-Coincident
Maximum Hour Ratios

	Ratio
Commercial	5.54
Apartments	3.76
Combined	5.02

Based on these results, the maximum hour ratio for the commercial class is estimated at 5.0.

UNITED WATER PENNSYLVANIA INC.

SUMMARY OF MAXIMUM HOUR RATIOS
DURING THE PERIOD AUGUST 2010 THROUGH MARCH 2011

COMMERCIAL CUSTOMERS

Account Number	Type	Recorder Type	Average Hour, Gallons	Maximum Hour Usage			Max Hour Ratio	Composite Ratio Calculation	
				Gallons	Date	Hour		Weight *	Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(8)X(9)
Harrisburg System									
999-856-941	Funeral Home	100W	10	130	10/14/2010	11:00 AM	13.40		
999-832-785	Dentist	100W	18	390	2/3/2011	1:00 PM	22.18		
998-910-171	Restaurant	100W	127	350	10/12/2010	6:00 PM	2.75		
998-604-371	Restaurant	100W	34	240	2/18/2011	4:00 PM	7.12		
998-845-004	Day Care	100W	35	310	3/29/2011	11:00 AM	8.82		
999-835-062	Office Building	100W	5	60	3/2/2011	3:00 PM	11.95		
998-694-780	Bowling Lanes	100W	24	300	3/19/2011	12:00 AM	12.42		
999-796-266	Store and Car Wash	100W	212	2,100	2/13/2011	4:00 PM	9.92		
998-754-807	Restaurant	100W	221	600	10/7/2010	9:00 PM	2.72		
998-759-416	Health Club	100W	58	400	1/31/2011	6:00 PM	6.95		
998-641-386	Convenience Store	100W	157	900	1/9/2011	4:00 PM	5.72		
998-960-375	Restaurant	100W	37	200	1/15/2011	7:00 PM	5.39		
999-871-967	Home Center	100W	54	300	1/20/2011	8:00 AM	5.53		
999-320-207	Department Store	100W	54	300	2/15/2011	2:00 PM	5.54		
999-956-491	Laundromat	100W	106	1,200	12/31/2010	2:00 PM	11.33		
999-928-727	Department Store	100W	254	1,600	1/5/2011	2:00 PM	6.30		
999-034-306	Office Building	100W	42	700	2/16/2011	12:00 PM	16.80		
999-997-961	Bakery	100W	1,045	6,000	3/16/2011	11:00 AM	5.74		
999-997-653	Hospital	100W	540	4,000	2/24/2011	12:00 PM	7.41		
999-997-631	Hospital	100W	961	4,000	1/11/2011	2:00 PM	4.16		
999-060-365	Indoor Shopping Mall	100W	795	5,000	8/31/2010	8:00 AM	6.29		
998-681-943	Hotel	100W	1,074	5,000	9/5/2010	7:00 AM	4.66		
998-516-074	Bank	100W	2	150	3/29/2011	10:00 AM	89.35		
999-928-045	Medical Office	100W	3	150	3/31/2011	11:00 AM	45.19		
998-579-060	Hotel	OMNI	359	2,502	8/21/2010	7:00 AM	6.97		
998-567-389	Hotel	OMNI	205	1,896	8/21/2010	6:00 AM	9.23		
998-545-499	Hotel	OMNI	223	1,741	11/7/2010	6:00 PM	7.81		

UNITED WATER PENNSYLVANIA INC.

SUMMARY OF MAXIMUM HOUR RATIOS
DURING THE PERIOD AUGUST 2010 THROUGH MARCH 2011

COMMERCIAL CUSTOMERS

Account Number	Type	Recorder Type	Average Hour, Gallons	Maximum Hour Usage			Max Hour Ratio	Composite Ratio Calculation	
				Gallons	Date	Hour		Weight *	Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)=(8)X(9)
Harrisburg System	(Continued from previous page.)								
998-523-686	Bank and Restaurant	OMNI	12	172	11/13/2010	5:00 PM	14.08		
998-504-799	Church	OMNI	37	571	12/4/2010	1:00 PM	15.51		
998-557-888	Office and Apartments	OMNI	17	278	12/8/2010	5:00 PM	16.68		
Non-Coincident Demand			6,720	41,540			6.18	66.4%	4.10
Bloomsburg System									
999-406-876	Medical Office	100W	542	2,000	9/2/2010	8:00 AM	3.69		
999-596-076	Hospital	100W	778	1,800	9/2/2010	11:00 AM	2.31		
999-592-226	Mobile Home Park	100W	497	2,000	2/27/2011	10:00 AM	4.02		
998-943-061	Truck Stop	100W	713	1,500	2/28/2011	6:00 PM	2.10		
Non-Coincident Demand			2,531	7,300			2.88	15.8%	0.46
Mechanicsburg System									
999-490-146	Apts. & Assisted Living	100W	868	2,200	8/30/2010	6:00 PM	2.53		
998-852-542	Fuel Oil Retailer	OMNI	61	2,538	10/11/2010	7:00 AM	41.56		
998-448-365	Laundromat	OMNI	57	599	11/21/2010	11:00 AM	10.53		
Non-Coincident Demand			986	5,337			5.41	14.9%	0.81
Dallas System									
998-697-904	Apartments & Villas	OMNI	243	1,450	9/10/2010	11:00 AM	5.97	2.9%	0.17
COMPOSITE NON-COINCIDENT MAXIMUM HOUR DEMAND RATIO									5.54

*The system's commercial consumption as a percentage of total commercial consumption across all four systems.

UNITED WATER PENNSYLVANIA INC.

SUMMARY OF MAXIMUM HOUR RATIOS
DURING THE PERIOD AUGUST 2010 THROUGH MARCH 2011

APARTMENTS

Account Number	Recorder Type	Average Hour, Gallons	Maximum Hour Usage			Max Hour Ratio	Composite Ratio Calculation		
			Gallons	Date	Hour		Weight *		Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)=(7)X(8)
Harrisburg System									
999-829-914	100W	337	800	9/20/10	10:00 AM	2.37			
999-998-896	100W	1,307	2,500	1/9/11	11:00 AM	1.91			
999-017-982	100W	993	3,000	9/20/10	1:00 AM	3.02			
999-326-059	100W	694	3,000	1/18/11	11:00 AM	4.32			
998-766-148	100W	311	4,000	12/20/10	6:00 AM	12.87			
999-998-291	100W	902	3,290	1/22/11	10:00 AM	3.65			
Non-Coincident Demand		4,544	16,590			3.65	96.2%		3.51
Mechanicsburg System									
999-478-244	100W	463	3,000	1/31/11	11:00 PM	6.49	3.8%		0.25
COMPOSITE NON-COINCIDENT MAXIMUM HOUR DEMAND RATIO									3.76

*The system's apartment consumption as a percentage of total apartment consumption over both systems.

UNITED WATER PENNSYLVANIA INC.

SUMMARY OF MAXIMUM HOUR RATIOS
DURING THE PERIOD AUGUST 2010 THROUGH MARCH 2011

COMBINED APARTMENTS AND COMMERCIAL

System	Average Hour, Gallons	Maximum Hour Usage	Maximum Hour Ratio	Composite Ratio Calculation Weight *	Composite Ratio Calculation Ratio
(1)	(2)	(3)	(4)	(5)	(6)=(4) X (5)
NON-COINCIDENT DEMAND					
Harrisburg	11,264	58,130	5.16	78.0%	4.02
Bloomsburg	2,531	7,300	2.88	9.7%	0.28
Mechanicsburg	1,449	8,337	5.75	10.5%	0.60
Dallas	243	1,450	5.97	1.8%	0.11
COMPOSITE NON-COINCIDENT MAXIMUM HOUR DEMAND RATIO					5.02

*The system's commercial and apartment consumption as a percentage of total apartment and commercial consumption across all four systems.

Industrial and Large Industrial - Maximum Day. The maximum day data for the industrial and large industrial classes are presented in Schedule 9. Because the sampled industrial customers constitute roughly three-fourths of all consumption by industrial customers, the sample data are considered sufficiently representative of the population of industrial customers to use without any weighting adjustments to the results based on location. Two sets of ratios were calculated for the industrial class: one for the large industrial customers, which consists of two customers, and one for the remaining industrial customers. The average daily consumption, shown in column 4, is the total billed usage for 2010 divided by total days billed. The non-coincident demand for the seven industrial customers, shown in column 5, is the sum of each customer's maximum demand. The non-coincident maximum day ratio for the industrial customers is calculated as the non-coincident maximum demand divided by the average daily consumption.

For the general class of industrial customers, the coincident maximum day, October 27, 2011, is the day on which the sum of all of the sampled customers' demands was at its maximum. The coincident maximum demand, 451,080, is the demand on this coincident maximum day. The coincident maximum day ratio is calculated as the coincident maximum demand divided by the average daily consumption (shown in column 4). One of the customers was excluded from calculating the average for the coincident maximum ratio because a lack of monitoring data for that day.

The resulting ratios are shown in column 7. Based on the 1.85 non-coincident ratio and the 1.67 coincident ratio, the maximum day ratio for the industrial class is estimated at 1.7.

Analogous calculations were performed for the separate category of large industrial customers. The non-coincident maximum day ratio for the two large industrial customers combined is 1.71 and the coincident maximum day ratio is 1.63. Based on

these two ratios, the maximum day ratio for large industrial customers is estimated as 1.7, the same as for the general industrial class.

Industrial and Large Industrial - Maximum Hour. The maximum hour data for the industrial and large industrial classes are presented in Schedule 10. The selection of maximum hour ratios is based exclusively on the non-coincident analysis because maximum hour facilities are those which are required to meet peak demands at a certain location or local distribution system. The non-coincident maximum hour ratio for the general class of sampled industrial customers, calculated by dividing the sum of the maximum hourly demands (in column 5) by the sum of the average hourly demands (in column 4), is 4.85. Based on this result, and informed by a review of the component maximum hour ratios, the non-coincident hourly demand ratio for the industrial class is estimated as 4.8.

The non-coincident maximum hour ratios for the two large industrial customers were 2.66 and 3.07, with a ratio for both combined at 2.87. Based on these results the non-coincident maximum hour ratio for large industrial customers is estimated at 2.9.

UNITED WATER PENNSYLVANIA INC.

SUMMARY OF NON-COINCIDENT AND COINCIDENT MAXIMUM DAY RATIOS
DURING THE PERIOD AUGUST 2010 THROUGH MARCH 2011

INDUSTRIAL AND LARGE INDUSTRIAL CUSTOMERS

Account Number	System	Recorder Type	Average Day, Gallons *	Maximum Day Gallons	Maximum Day Date	Maximum Day Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Industrial						
999-998-346	HBG	100W	1,293	4,500	8/30/2010	3.48
999-998-676	HBG	100W	4,951	7,000	2/17/2011	1.41
999-595-922	BLOOM	100W	122,479	203,000	10/5/2010	1.66
99-595-900	BLOOM	100W	61,570	155,000	10/25/2010	2.52
999-595-867	BLOOM	100W	959	2,670	9/2/2010	2.78
999-586-605	BLOOM	100W	17,641	43,300	9/22/2010	2.45
999-539-767	MECH	100W	66,931	95,000	9/13/2010	1.42
Non-Coincident Demand			275,825	510,470		1.85
Coincident Demand			270,874 **	451,080 **	10/27/2010	1.67
Large Industrial						
999-997-840	HBG	OMNI	236,255	332,930	9/2/2010	1.41
999-606-889	BLOOM	100W	250,512	501,000	2/11/2011	2.00
Non-Coincident Demand			486,767	833,930		1.71
Coincident Demand			486,767	792,630	2/11/2011	1.63

* Average day is based on billed consumption for the twelve months of 2010.

** Account # 999-998-676 is not included because it does not have any recorded data on this date (10/27/10).

UNITED WATER PENNSYLVANIA INC.

SUMMARY OF MAXIMUM HOUR RATIOS
DURING THE PERIOD AUGUST 2010 THROUGH MARCH 2011

INDUSTRIAL AND LARGE INDUSTRIAL CUSTOMERS

Account Number	System	Recorder Type	Average Hour, Gallons	Maximum Hour Usage			Max Hour Ratio
				Gallons	Date	Hour	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Industrial							
999-998-346	HBG	100W	54	1,000	8/30/10	4:00 AM	18.56
999-998-676	HBG	100W	206	2,000	2/17/2011	1:00 AM	9.70
999-595-922	BLOOM	100W	5,103	30,000	9/23/2010	12:00 AM	5.88
99-595-900	BLOOM	100W	2,565	10,000	3/10/2011	2:00 PM	3.90
999-595-867	BLOOM	100W	40	370	3/1/2011	3:00 PM	9.26
999-586-605	BLOOM	100W	735	3,400	2/28/2011	6:00 AM	4.63
999-539-767	MECH	100W	2,789	9,000	10/30/2010	6:00 AM	3.23
Non-Coincident Demand			11,493	55,770			4.85
Large Industrial							
999-997-840	HBG	OMNI	9,844	26,140	12/8/2010	4:00 AM	2.66
999-606-889	BLOOM	100W	10,438	32,000	8/30/2010	3:00 PM	3.07
Non-Coincident Demand			20,282	58,140			2.87

Public – Maximum Day. The maximum day data for public customers is shown in Schedule 11. The calculation of non-coincident and coincident maximum day ratios are performed in a manner similar to that for the industrial class. The calculated non-coincident maximum day ratio for the sampled public customers is 2.00. The calculated coincident maximum day ratio for the sampled public customers is 1.48. Based on these results, the maximum day ratio for the public customer class is estimated at 1.6.

Public – Maximum Hour. The maximum hour data for the public customer class are presented in Schedule 12. The selection of maximum hour ratios is based exclusively on the non-coincident analysis because maximum hour facilities are those which are required to meet peak demands at a certain location or local distribution system. The non-coincident maximum hour ratio for the sampled public customers is 4.04. Based on this result, the non-coincident hourly demand ratio for the public customer class is estimated at 4.0.

UNITED WATER PENNSYLVANIA INC.

SUMMARY OF NON-COINCIDENT AND COINCIDENT MAXIMUM DAY RATIOS
DURING THE PERIOD AUGUST 2010 THROUGH MARCH 2011

PUBLIC CUSTOMERS

Account Number	Type	Systen	Recorder Type	Average Day, Gallons *	Maximum Day		
					Usage	Date	Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
999-997-400	School	HBG	100W	4,624	14,000	1/19/2011	3.03
999-770-173	School	HBG	100W	2,762	4,500	8/31/2010	1.63
999-998-203	Prison	HBG	100W	95,838	136,000	8/26/2010	1.42
999-998-181	Prison	HBG	100W	24,759	50,000	8/26/2010	2.02
999-998-247	Detention Center & Offices	HBG	OMNI	5,452	6,148	8/7/2010	1.13
998-513-269	College	HBG	OMNI	2,865	6,592	11/11/2010	2.30
999-618-769	Prison	BLOOM	100W	13,025	18,500	1/25/2011	1.42
999-525-720	WW Treatment Plant	MECH	100W	1,861	8,200	3/16/2011	4.41
999-478-134	WW Treatment Plant	MECH	100W	77	470	2/16/2011	6.13
999-478-332	College	MECH	100W	16,816	92,500	12/7/2010	5.50
Non-Coincident Demand				168,078	336,910		2.00
Coincident Demand				163,378 **	242,297 **	9/24/2010	1.48

* Average day based on billed consumption for the 12 months of 2010 with the following exception: Mechanicsburg Disposal Plant uses billed consumption from May 2010 through Feb 2011.

** Excludes customers # 999-997-400 and 999-478-134 because they have no recorded data on this date (9/24/2010).

UNITED WATER PENNSYLVANIA INC.

SUMMARY OF MAXIMUM HOUR RATIOS
DURING THE PERIOD AUGUST 2010 THROUGH MARCH 2011

PUBLIC CUSTOMERS

Account Number	Type	Systen	Recorder Type	Average Hour, Gallons	Maximum Hour Usage			Max Hour Ratio
					Gallons	Date	Hour	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
999-997-400	School	HBG	100W	193	1,500	12/3/10	1:00 PM	7.79
999-770-173	School	HBG	100W	115	600	1/20/11	1:00 PM	5.21
999-998-203	Prison	HBG	100W	3,993	8,000	8/26/10	12:00 PM	2.00
999-998-181	Prison	HBG	100W	1,032	5,000	8/26/10	1:00 AM	4.85
999-998-247	Detention Center & Offices	HBG	OMNI	227	884	8/3/10	6:00 PM	3.89
998-513-269	College	HBG	OMNI	119	1,247	8/4/10	7:00 AM	10.45
999-618-769	Prison	BLOOM	100W	543	2,800	12/31/10	7:00 PM	5.16
999-525-720	WW Treatment Plant	MECH	100W	78	400	3/16/11	11:00 PM	5.16
999-478-134	WW Treatment Plant	MECH	100W	3	360	2/16/11	12:00 AM	112.63
999-478-332	College	MECH	100W	701	7,500	9/24/10	5:00 PM	10.70
Non-Coincident Demand				7,003	28,291			4.04

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

RESPONSES TO RATE STRUCTURE AND COST OF SERVICE FILING REQUIREMENTS

1. Provide a complete, fully allocated, cost of service study if an interval of 3 years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water or wastewater rate structure is fair and equitable to all classifications of water or wastewater customers (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
   d. Explain thoroughly the methodology employed if the company distinguishes between transmission and distribution or collection mains in its allocation of costs.

RESPONSE

For cost allocation purposes, mains that are 12-inch and larger are considered to be transmission mains and are allocated using Factor 3, which is based on average and maximum day extra capacity demands plus the daily requirement for fire demand. Mains sized under 12-inch are considered distribution mains and are allocated using Factor 4, which is based on average and maximum hour extra capacity demands plus the hourly requirement for fire demands.

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

RESPONSES TO RATE STRUCTURE AND COST OF SERVICE FILING REQUIREMENTS

1. Provide a complete, fully allocated, cost of service study if an interval of 3 years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water or wastewater rate structure is fair and equitable to all classifications of water or wastewater customers (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
   e. Provide a detailed explanation of how storage is utilized to meet base, maximum day and maximum hour demands.

RESPONSE

In any water system, distribution storage is generally used to meet base load, maximum day, and peak hour demands. Generally, peak hour demands control the design of distribution storage facilities. However, meeting peak hour implies that there is some contribution to meeting maximum day demands. Further, base load demands can also be met through distribution storage, particularly in emergency situations.

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

RESPONSES TO RATE STRUCTURE AND COST OF SERVICE FILING REQUIREMENTS

1. Provide a complete, fully allocated, cost of service study if an interval of 3 years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water or wastewater rate structure is fair and equitable to all classifications of water or wastewater customers (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
   f. Provide workpapers, calculations and supporting documentation which develop the equivalent meters and equivalent service line weights reflected in the company's cost of service study.

RESPONSE

The 5/8-inch dollar equivalent was developed using actual installation costs by meter size, provided by the Company, as follows:

Meter Size	Actual Installation Cost	5/8-Inch Dollar Equivalent
5/8"	$ 432.57	1.0
1"	464.04	1.2
1-1/2"	522.97	1.9
2"	815.41	2.1
3"	893.04	5.2
4"	2,239.94	7.3
6"	3,176.00	11.2
8”	4,830.59	32.8

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

RESPONSES TO RATE STRUCTURE AND COST OF SERVICE FILING REQUIREMENTS

1f. cont.

The 3/4-inch dollar equivalent for 3/4" to 2" services was developed using the actual installation costs by size, provided by the Company. Greater than 2" service size ratios were developed from Gannett Fleming estimates.

Service Size	Actual Installation Cost	1-Inch Equivalent
3/4"	$3,800.00	1.00
1"	4,000.00	1.05
2"	7,700.00	2.03

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

RESPONSES TO RATE STRUCTURE AND COST OF SERVICE FILING REQUIREMENTS

1. Provide a complete, fully allocated, cost of service study if an interval of 3 years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water or wastewater rate structure is fair and equitable to all classifications of water or wastewater customers (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
   g. Provide all workpapers and supporting documentation for the fire flow requirement and duration utilized in the cost of service study.

RESPONSE

The source for the estimated fire protection demand of 10,000 gpm is published fire flow criteria for the population served.

General fire-fighting requirements, based on population established by the National Board of Fire Underwriters, are as follows:

a) For populations of 200,000 or less, $Q = 1020\sqrt{P}\,(1 - 0.01\sqrt{P})$ where Q is the fire draft in gpm and P is the population in thousands.

b) For populations in excess of 200,000, Q = 12,000 gpm plus 2,000 to 8,000 gpm for a potential second fire.

Inasmuch as the Company serves a population of approximately 140,000, the fire flow of 10,000 gpm would apply.

The foregoing requirements were published in Volume I, "Water and Wastewater Engineering," by Fair, Geyer & Okon, published in 1966 by John Wiley & Sons, Inc.

The required fire flow duration is ten hours.

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

RESPONSES TO RATE STRUCTURE AND COST OF SERVICE FILING REQUIREMENTS

1. Provide a complete, fully allocated, cost of service study if an interval of 3 years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water or wastewater rate structure is fair and equitable to all classifications of water or wastewater customers (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
   h. Provide a breakdown of the number and size of private fire services according to the general water service class of customer.

RESPONSE

Please refer to Exhibit No. CEH-1.

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

RESPONSES TO RATE STRUCTURE AND COST OF SERVICE FILING REQUIREMENTS

1. Provide a complete, fully allocated, cost of service study if an interval of 3 years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water or wastewater rate structure is fair and equitable to all classifications of water or wastewater customers (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
   i. Provide a calculation of the company's base cost of water or wastewater per unit of consumption or usage.

RESPONSE

Base Cost of Water (See attached functional allocation)	$37,403,586
Pro forma Water Consumption (1000 gallons)	4,753,194
Base cost per 1000 gallons	$7.869

VEOLIA WATER PENNSYLVANIA INC.

COST OF SERVICE FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2025, ALLOCATED TO COST FUNCTIONS

Account		Cost of Service	Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
OPERATION AND MAINTENANCE EXPENSES									
SOURCE OF SUPPLY EXPENSES									
Employee Salaries	2	162,323	124,044	37,459	0	0	0	0	819
Purchased Water	1	1,838,244	1,826,182	0	0	0	0	0	12,061
Purchased Power	1	1,322,597	1,313,919	0	0	0	0	0	8,678
Fuel for Power Production	1	243	242	0	0	0	0	0	2
Material and Supplies	2	33,704	25,756	7,778	0	0	0	0	170
Outside Services	2	114,533	87,525	26,431	0	0	0	0	578
Transportation Expense	2	16,719	12,777	3,858	0	0	0	0	84
Miscellaneous Other	2	0	0	0	0	0	0	0	0
Office Expenses and Utilities	2	135,191	103,311	31,198	0	0	0	0	682
TOTAL SOURCE OF SUPPLY EXPENSE - OPERATION		3,623,555	3,493,756	106,724	0	0	0	0	23,075
Employee Salaries	2	1,111	849	256	0	0	0	0	6
Fuel for Power Production	1	0	0	0	0	0	0	0	0
Material and Supplies	2	0	0	0	0	0	0	0	0
Outside Services	2	43,235	33,039	9,977	0	0	0	0	218
Uniforms	2	0	0	0	0	0	0	0	0
Transportation Expense	2	91	70	21	0	0	0	0	0
Miscellaneous Other	2	0	0	0	0	0	0	0	0
TOTAL SOURCE OF SUPPLY EXPENSE - MAINTENANCE		44,437	33,958	10,255	0	0	0	0	224
TOTAL SS EXPENSE		3,667,992	3,527,714	116,979	0	0	0	0	23,300
POWER AND PUMPING									
Employee Salaries	3	70,447	42,502	12,835	0	0	0	0	15,110
Outside Services	3	2,342	1,413	427	0	0	0	0	502
Transportation Expense	3	7,143	4,310	1,301	0	0	0	0	1,532
Miscellaneous Other	3	0	0	0	0	0	0	0	0
Office Expenses and Utilities	3	(300)	(181)	(55)	0	0	0	0	(64)
TOTAL POWER AND PUMPING - OPERATION		79,633	48,044	14,509	0	0	0	0	17,080
Employee Salaries	3	374,046	225,668	68,151	0	0	0	0	80,227
Fuel for Power Production	3	6	3	1	0	0	0	0	1
Material and Supplies	3	1,064	642	194	0	0	0	0	228
Outside Services	3	52,167	31,473	9,505	0	0	0	0	11,189
Office Expenses and Utilities	3	1,103	665	201	0	0	0	0	237
Transportation Expense	3	39,052	23,561	7,115	0	0	0	0	8,376
Miscellaneous Other	3	0	0	0	0	0	0	0	0
TOTAL POWER AND PUMPING EXPENSE - MAINTENANCE		467,437	282,012	85,167	0	0	0	0	100,258
TOTAL POWER AND PUMPING		547,069	330,055	99,676	0	0	0	0	117,338
WATER TREATMENT									
Employee Salaries	2	2,236,053	1,708,755	516,012	0	0	0	0	11,286
Purchased Power	1	(753)	(748)	0	0	0	0	0	(5)
Chemicals	1	1,344,558	1,335,736	0	0	0	0	0	8,822
Material and Supplies	2	24,249	18,531	5,596	0	0	0	0	122
Testing	2	1	1	0	0	0	0	0	0
Outside Services	2	417,199	318,817	96,277	0	0	0	0	2,106
Transportation Expense	2	225,698	172,474	52,084	0	0	0	0	1,139
Miscellaneous Other	2	30,127	23,022	6,952	0	0	0	0	152
TOTAL WATER TREATMENT EXPENSE - OPERATION		4,277,132	3,576,588	676,922	0	0	0	0	23,622
Employee Salaries	2	273,325	208,870	63,075	0	0	0	0	1,380
Fuel for Power Production	1	0	0	0	0	0	0	0	0
Chemicals	1	0	0	0	0	0	0	0	0
Material and Supplies	2	25,955	19,835	5,990	0	0	0	0	131
Outside Services	2	82,437	62,997	19,024	0	0	0	0	416
Outside Services - Mahoning	2	0	0	0	0	0	0	0	0
Rental of Equipment	2	0	0	0	0	0	0	0	0
Transportation Expense	2	27,784	21,232	6,412	0	0	0	0	140
TOTAL WT EXPENSE - MAINTENANCE		409,502	312,934	94,500	0	0	0	0	2,067

VEOLIA WATER PENNSYLVANIA INC.

COST OF SERVICE FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2025, ALLOCATED TO COST FUNCTIONS

Account		Cost of Service	Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
TOTAL WT EXPENSE		4,686,633	3,889,522	771,422	0	0	0	0	25,689
TRANSMISSION AND DISTRIBUTION EXPENSES									
Employee Salaries -General	10	154,319	111,475	2,044	10,905	7,413	4,202	0	18,281
Employee Salaries - Mains	6	661,480	285,255	28,721	153,153	0	0	0	194,351
Employee Salaries - Meters	8	108,721	0	0	0	108,721	0	0	0
Employee Salaries - Services	9	64,414	0	0	0	0	62,189	0	2,225
Employee Salaries - Hydrants	7	54,541	0	0	0	0	0	0	54,541
Employee Salaries - Storage	5	167	70	0	56	0	0	0	42
Purchased Power	1	1,484,940	1,475,197	0	0	0	0	0	9,743
Material and Supplies	10	4,697	3,393	62	332	226	128	0	556
Outside Services - General	10	116,876	84,427	1,548	8,259	5,614	3,182	0	13,845
Outside Services - Mains	6	33,187	14,312	1,441	7,684	0	0	0	9,751
Rentals of Building/Real Property	10	0	0	0	0	0	0	0	0
Transportation Expense - General	10	16,069	11,608	213	1,135	772	438	0	1,904
Transportation Expense - Mains	6	67,112	28,941	2,914	15,539	0	0	0	19,718
Transportation Expense - Meters	8	11,223	0	0	0	11,223	0	0	0
Transportation Expense - Services	9	6,006	0	0	0	0	5,799	0	207
Transportation Expense - Hydrants	7	5,214	0	0	0	0	0	0	5,214
Transportation Expense - Storage	5	51	21	0	17	0	0	0	13
Miscellaneous Other	10	0	0	0	0	0	0	0	0
Office Expense, Utilities and Other	10	3,136	2,265	42	222	151	85	0	371
TOTAL T & D EXPENSE OPERATION		2,792,151	2,016,963	36,985	197,301	134,118	76,022	0	330,763
Employee Salaries -General	11	135,441	43,393	1,663	30,512	0	31,302	0	28,572
Employee Salaries - Mains	11	580,560	186,001	7,127	130,787	0	134,174	0	122,471
Employee Salaries - Meters	5	95,421	39,687	0	31,960	0	0	0	23,774
Employee Salaries - Services	6	56,534	24,379	2,455	13,089	0	0	0	16,610
Employee Salaries - Hydrants	9	47,869	0	0	0	0	46,215	0	1,653
Employee Salaries - Storage	7	147	0	0	0	0	0	0	147
Fuel for Power Production	1	0	0	0	0	0	0	0	0
Material and Supplies	11	11,705	3,750	144	2,637	0	2,705	0	2,469
Outside Services - General	11	77,387	24,793	950	17,434	0	17,885	0	16,325
Outside Services - Mains	6	21,974	9,476	954	5,088	0	0	0	6,456
Transportation Expense - General	11	14,513	4,650	178	3,270	0	3,354	0	3,062
Transportation Expense - Mains	6	60,615	26,140	2,632	14,034	0	0	0	17,809
Transportation Expense - Meters	8	10,136	0	0	0	10,136	0	0	0
Transportation Expense - Services	9	5,425	0	0	0	0	5,237	0	187
Transportation Expense - Hydrants	7	4,709	0	0	0	0	0	0	4,709
Transportation Expense - Storage	5	46	19	0	15	0	0	0	11
Office Expense and Utilities	11	193	62	2	43	0	45	0	41
TOTAL T & D EXPENSE - MAINTENANCE		1,122,676	362,350	16,104	248,869	10,136	240,918	0	244,298
TOTAL T & D EXPENSE		3,914,828	2,379,313	53,089	446,170	144,254	316,940	0	575,061
CUSTOMER ACCOUNTS									
Employee Salaries - Supervision	12	1,015,050	0	0	0	0	0	992,485	22,565
Employee Salaries - Meter Reading	13	0	0	0	0	0	0	0	0
Employee Salaries - Billing	12	0	0	0	0	0	0	0	0
Outside Services	12	543,814	0	0	0	0	0	531,725	12,089
Transportation Expense	12	101,328	0	0	0	0	0	99,075	2,253
Bad Debt Expense	12	394,341	0	0	0	0	0	385,575	8,766
Office Expense, Utilities and Other	12	7,217	0	0	0	0	0	7,056	160
Customer Assistance Program	13	1,000,000	0	0	0	0	0	1,000,000	0
TOTAL CUSTOMER ACCOUNTING EXPENSE		3,061,750	0	0	0	0	0	3,015,916	45,834
ADMINISTRATIVE AND GENERAL EXPENSES									
Employee Salaries	14	1,326,561	811,626	201,854	87,723	28,362	62,315	0	134,681
Employee Pension & Benefits	16	1,803,177	1,027,948	283,352	40,507	11,221	30,682	311,311	98,155
Purchased Power	14	81,664	49,964	12,426	5,400	1,746	3,836	0	8,291
Management Fees- Engineering	18	399,322	185,714	42,994	32,180	21,733	49,302	128	67,270

VEOLIA WATER PENNSYLVANIA INC.

COST OF SERVICE FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2025, ALLOCATED TO COST FUNCTIONS

Account		Cost of Service	Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
Management Fees- Customer Related	12	310,782	0	0	0	0	0	303,873	6,909
Management Fees- Employee related	16	276,030	157,358	43,376	6,201	1,718	4,697	47,655	15,026
Management Fees- Other	14	3,625,202	2,217,996	551,624	239,728	77,508	170,292	0	368,054
Outside Services	14	294,821	180,379	44,861	19,496	6,303	13,849	0	29,932
Outside Services - Testing	2	212,334	162,262	49,000	0	0	0	0	1,072
Rental of Equipment	14	124,900	76,417	19,005	8,259	2,670	5,867	0	12,681
Transportation Expense	14	129,409	79,176	19,691	8,558	2,767	6,079	0	13,138
Insurance - General Liability	14	0	0	0	0	0	0	0	0
Insurance -Workman's Compensation	14	48,098	29,428	7,319	3,181	1,028	2,259	0	4,883
Advertising	14	0	0	0	0	0	0	0	0
Rate Case Expense - Amort	18	685,194	318,666	73,773	55,218	37,292	84,598	219	115,428
Regulatory Commission Expense	18	(705,529)	(328,123)	(75,962)	(56,857)	(38,399)	(87,108)	(226)	(118,853)
Fringe Benefits	16	(1,039,548)	(592,621)	(163,355)	(23,353)	(6,469)	(17,689)	(179,474)	(56,587)
Miscellaneous Other - Transfer Fringe Benefits	16	0	0	0	0	0	0	0	0
Office Expenses and Utilities	14	685,002	419,103	104,232	45,298	14,646	32,178	0	69,546
Uniforms, Materials and Supplies and Other	14	306,060	187,256	46,571	20,239	6,544	14,377	0	31,073
Postage	14	383,875	234,865	58,412	25,385	8,207	18,032	0	38,973
Travel	14	164,161	100,438	24,979	10,856	3,510	7,711	0	16,667
TOTAL A & G EXPENSE		9,111,514	5,317,851	1,344,153	528,019	180,388	401,278	483,487	856,338
Total Operation & Maintenance Expenses		24,989,786	15,444,456	2,385,319	974,189	324,643	718,218	3,499,403	1,643,559
DEPRECIATION EXPENSE									
Water Source Structures	2	208,978	159,697	48,226	0	0	0	0	1,055
Collection and Impounding Reservoirs	1	20,589	20,453	0	0	0	0	0	135
Lakes, River and Other Intakes	2	91,532	69,948	21,123	0	0	0	0	462
Wells & Springs	2	53,774	41,093	12,409	0	0	0	0	271
Infiltration Galleries and Tunnels	2	116,792	89,250	26,952	0	0	0	0	589
Purification Buildings	2	0	0	0	0	0	0	0	0
Power Generation Equip	3	5,354	3,230	975	0	0	0	0	1,148
Electric Pumping Equipment	3	476,088	287,231	86,743	0	0	0	0	102,114
Oil Engine Pumping Equipment	3	10,652	6,427	1,941	0	0	0	0	2,285
Purification System - Treatment Structures	2	473,738	362,023	109,324	0	0	0	0	2,391
Purification System - Painting	2	0	0	0	0	0	0	0	0
Purification System - Chemical Treatment	2	1,528,785	1,168,273	352,797	0	0	0	0	7,716
Laboratory Equipement	2	3,895	2,977	899	0	0	0	0	20
T&D Structures and Improvements	6	45,095	19,447	1,958	10,441	0	0	0	13,249
Distribution Reservoirs and Standpipes	5	442,276	183,951	0	148,133	0	0	0	110,192
Distribution Mains	4	1,224,538	462,139	0	372,223	0	0	0	390,176
Transmission Mains	3	1,411,236	851,420	257,127	0	0	0	0	302,689
Services	9	1,080,433	0	0	0	0	1,043,115	0	37,318
Meters	8	1,606,360	0	0	0	1,606,360	0	0	0
Hydrants	7	178,660	0	0	0	0	0	0	178,660
General Land and Land Rights	14	0	0	0	0	0	0	0	0
Office Buildings	14	398,941	244,083	60,704	26,381	8,529	18,740	0	40,503
Stores, Shop and Garage Buildings	14	0	0	0	0	0	0	0	0
Miscellaneous Structures and Improvements	14	0	0	0	0	0	0	0	0
Other Plant and Mischellaneous Equipment	14	0	0	0	0	0	0	0	0
Office Furniture and Equipment	14	160,801	98,383	24,468	10,633	3,438	7,554	0	16,326
Computer Software	14	0	0	0	0	0	0	0	0
Computer Software-CIS Implementation	12	0	0	0	0	0	0	0	0
Transportation Equipment	14	0	0	0	0	0	0	0	0
Stores Equipment	14	0	0	0	0	0	0	0	0
Tools and work Equipment	14	218,757	133,841	33,287	14,466	4,677	10,276	0	22,210
Shop Equipment	14	33,254	20,346	5,060	2,199	711	1,562	0	3,376
Power Operated Equipment	14	0	0	0	0	0	0	0	0
Communication Equipment	14	863,381	528,240	131,375	57,094	18,459	40,557	0	87,656
Amortization of Net Salvage	14	106,507	65,164	16,206	7,043	2,277	5,003	0	10,813
Bethel Adjustment	17	612,742	284,331	65,862	49,478	33,502	76,005	0	103,564
	17								
Total Depreciation Expense		11,373,158	5,101,945	1,257,437	698,091	1,677,955	1,202,813	0	1,434,917

VEOLIA WATER PENNSYLVANIA INC.

COST OF SERVICE FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2025, ALLOCATED TO COST FUNCTIONS

Account		Cost of Service	Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
Amortizations	18	116,498	54,180	12,543	9,388	6,341	14,383	37	19,625
Taxes Other Than Income									
Real Estate	18	343,022	159,531	36,932	27,643	18,669	42,351	110	57,785
Payroll Taxes	16	918,219	523,455	144,289	20,627	5,714	15,624	158,527	49,983
Total Taxes, Other Than Income		1,261,241	682,985	181,222	48,270	24,384	57,975	158,636	107,768
Income Taxes	18	7,215,569	3,355,776	776,882	581,485	392,715	890,871	2,307	1,215,533
Utility Income Available for Return	18	27,806,250	12,931,974	2,993,827	2,240,839	1,513,384	3,433,101	8,892	4,684,233
Total Cost of Service		72,762,502	37,571,316	7,607,228	4,552,263	3,939,421	6,317,362	3,669,276	9,105,635
Less: Other Water Revenues	19	325,208	167,731	33,807	20,493	17,740	28,433	16,546	40,458
Total Cost of Service Related to Sales of Water		72,437,294	37,403,586	7,573,421	4,531,771	3,921,680	6,288,929	3,652,730	9,065,177
Reallocation of Public Fire	20	0	0	0	0	4,466,855	0	0	(4,466,855)
Total		$ 72,437,294	$ 37,403,586	$ 7,573,421	$ 4,531,771	$ 8,388,535	$ 6,288,929	$ 3,652,730	$ 4,598,322

VEOLIA WATER PENNSYLVANIA INC.

COST OF SERVICE FOR THE TWELVE MONTHS ENDED OCTOBER 31, 2025, ALLOCATED TO COST FUNCTIONS

Account		Cost of Service	Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
	17								
	17								
Total Depreciation Expense		10,775,084	4,844,539	1,191,828	669,620	1,618,931	1,110,349	0	1,339,817
Amortization of Acquisition Adjustment	18	66,668	30,987	7,135	5,474	3,608	8,179	16	11,268
Amortization of Regulatory Liability	18	0	0	0	0	0	0	0	0
Taxes Other Than Income									
Real Estate	18	343,022	159,437	36,712	28,163	18,566	42,084	81	57,979
Payroll Taxes	16	918,219	523,455	144,289	20,627	5,714	15,624	158,526	49,983
Total Taxes, Other Than Income		1,261,241	682,892	181,001	48,790	24,281	57,708	158,608	107,962

VEOLIA WATER PENNSYLVANIA INC.

COST OF SERVICE FOR THE TWELVE MONTHS ENDED OCTOBER 31, 2025, ALLOCATED TO COST FUNCTIONS

Account		Cost of Service	Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
Income Taxes	18	7,278,878	3,383,233	779,015	597,609	393,975	893,020	1,724	1,230,302
Utility Income Available for Return	18	28,027,335	13,027,145	2,999,598	2,301,096	1,517,003	3,438,576	6,637	4,737,280
Total Cost of Service		70,972,510	37,181,717	7,486,102	4,571,870	3,872,880	6,204,747	2,627,120	9,028,075
Less: Other Water Revenues	19	325,208	170,182	34,108	21,109	17,884	28,646	12,138	41,140
Total Cost of Service Related to Sales of Water		70,647,302	37,011,535	7,451,994	4,550,761	3,854,995	6,176,101	2,614,982	8,986,934
Reallocation of Public Fire	20	0	0	0	0	4,481,589	0	0	(4,481,589)
Total		$ 70,647,302	$ 37,011,535	$ 7,451,994	$ 4,550,761	$ 8,336,584	$ 6,176,101	$ 2,614,982	$ 4,505,346

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

RESPONSES TO RATE STRUCTURE AND COST OF SERVICE FILING REQUIREMENTS

1. Provide a complete, fully allocated, cost of service study if an interval of 3 years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water or wastewater rate structure is fair and equitable to all classifications of water or wastewater customers (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:
   j. Provide a detailed cost analysis that supports the company's customer charges, by meter size, showing all direct and indirect costs included.

RESPONSE

Please refer to Schedule H of Exhibit No. CEH-1.

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

RESPONSES TO RATE STRUCTURE AND COST OF SERVICE FILING REQUIREMENTS

2. Provide a listing of negotiated special rate contracts which includes a comparison of revenues under special rate contracts and under tariff rates. Provide the cost of service treatment of any deficiency in revenues resulting from the negotiated special rate contracts. Special rates are defined as rates not contained in the currently effective tariff.

RESPONSE

Veolia Water Pennsylvania does not have any special rate contracts.

Exhibit No. CEH-2

VEOLIA WATER PENNSYLVANIA INC.

HARRISBURG, PENNSYLVANIA

COST OF SERVICE
ALLOCATION STUDY
MAHONING
WATER OPERATIONS
FOR THE TEST YEAR ENDED
OCTOBER 31, 2025

GANNETT FLEMING

Excellence Delivered As Promised

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES
FOR THE TEST YEAR ENDED OCTOBER 31, 2025

Customer Classification	Cost of Service		Revenues, Present Rates*		Revenues, Proposed Rates		Proposed Increase	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent Increase
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Residential	$ 828,028	55.7%	$ 405,710	64.0%	$ 770,427	61.6%	$ 364,717	89.9%
Commercial	582,026	39.1%	178,989	28.2%	424,611	34.0%	245,622	137.2%
Private Fire Service	8,825	0.6%	2,441	0.4%	3,594	0.3%	1,154	47.3%
Public Fire Service	68,238	4.6%	46,804	7.4%	51,484	4.1%	4,680	10.0%
Total Sales	1,487,117	100.0%	633,944	100.0%	1,250,116	100.0%	616,172	97.2%
Other Revenues	6,894		6,894		6,894		-	0.0%
Revenue from Veolia Water					237,000		237,000	
Total	$ 1,494,011		$ 640,838		$ 1,494,010		$ 853,172	133.1%

* Includes DSIC Revenue.

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS
COST OF SERVICE FOR THE TWELVE MONTHS ENDED OCTOBER 31, 2025, ALLOCATED TO CUSTOMER CLASSIFICATIONS

not updated Account	Factor Ref.	Cost of Service	Residential	Commercial	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)
OPERATION AND MAINTENANCE EXPENSES						
SOURCE OF SUPPLY EXPENSES						
Employee Salaries	2	89	51	37	0	0
Purchased Water	1	157,785	90,991	65,759	373	662
Purchased Power	1	46,835	27,009	19,519	111	197
Fuel for Power Production	1	0	0	0	0	0
Material and Supplies	2	511	295	214	1	2
Outside Services	2	0	0	0	0	0
Transportation Expense	2	8	5	3	0	0
Miscellaneous Other	2	0	0	0	0	0
Office Expenses and Utilities	2	2,000	1,154	836	4	6
TOTAL SOURCE OF SUPPLY EXPENSE - OPERATION		207,229	119,505	86,368	489	867
Employee Salaries	2	1	0	0	0	0
Fuel for Power Production	1	0	0	0	0	0
Material and Supplies	2	0	0	0	0	0
Outside Services	2	0	0	0	0	0
Uniforms	2	0	0	0	0	0
Transportation Expense	2	0	0	0	0	0
Miscellaneous Other	2	0	0	0	0	0
TOTAL SOURCE OF SUPPLY EXPENSE - MAINTENANCE		1	0	0	0	0
TOTAL SOURCE OF SUPPLY EXPENSE		207,229	119,505	86,368	489	867
POWER AND PUMPING						
Employee Salaries	3	39	18	13	0	8
Outside Services	3	0	0	0	0	0
Transportation Expense	3	4	2	1	0	1
Miscellaneous Other	3		0	0	0	0
Office Expenses and Utilities	3	(4)	(2)	(1)	(0)	(1)
TOTAL POWER AND PUMPING - OPERATION		38	17	12	0	8
Employee Salaries	3	206	94	68	1	43
Fuel for Power Production	3	0	0	0	0	0
Material and Supplies	3	16	7	5	0	3
Outside Services	3	0	0	0	0	0
Office Expenses and Utilities	3	16	7	5	0	3
Transportation Expense	3	19	9	6	0	4
Miscellaneous Other	3		0	0	0	0
TOTAL POWER AND PUMPING EXPENSE - MAINTENANCE		257	117	85	2	53
TOTAL POWER AND PUMPING		295	134	97	2	61
WATER TREATMENT						
Employee Salaries	2	1,229	709	514	2	4
Purchased Power	1	(27)	(15)	(11)	(0)	(0)
Chemicals	1	10,178	5,869	4,242	24	43
Material and Supplies	2	368	212	154	1	1
Testing	2	1	1	0	0	0
Outside Services	2	0	0	0	0	0
Transportation Expense	2	112	65	47	0	0

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS
COST OF SERVICE FOR THE TWELVE MONTHS ENDED OCTOBER 31, 2025, ALLOCATED TO CUSTOMER CLASSIFICATIONS

not updated Account	Factor Ref.	Cost of Service	Residential	Commercial	Fire Protection	
					Private	Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Office Expense and Utilities	2	446	257	186	1	1
TOTAL WATER TREATMENT EXPENSE - OPERATION		12,306	7,097	5,132	28	50
Employee Salaries	2	150	87	63	0	0
Fuel for Power Production	1	0	0	0	0	0
Chemicals	1	0	0	0	0	0
Material and Supplies	2	394	227	165	1	1
Outside Services	2	0	0	0	0	0
Outside Services - Mahoning	2	0	0	0	0	0
Rental of Equipment	2	0	0	0	0	0
Transportation Expense	2	14	8	6	0	0
TOTAL WATER TREATMENT EXPENSE - MAINTENANCE		558	322	233	1	2
TOTAL WATER TREATMENT EXPENSE		12,864	7,419	5,365	29	51
TRANSMISSION AND DISTRIBUTION EXPENSES						
Employee Salaries -General	10	85	49	35	0	1
Employee Salaries - Mains	6	363	132	126	3	103
Employee Salaries - Meters	8	60	50	10	0	0
Employee Salaries - Services	9	35	31	4	0	0
Employee Salaries - Hydrants	7	30	0	0	0	30
Employee Salaries - Storage	5	0	0	0	0	0
Purchased Power	1	52,584	30,324	21,915	124	221
Material and Supplies	10	71	41	30	0	0
Outside Services - General	10	0	0	0	0	0
Outside Services - Mains	6	0	0	0	0	0
Rentals of Building/Real Property	10	0	0	0	0	0
Transportation Expense - General	10	8	5	3	0	0
Transportation Expense - Mains	6	33	12	12	0	9
Transportation Expense - Meters	8	6	5	1	0	0
Transportation Expense - Services	9	3	3	0	0	0
Transportation Expense - Hydrants	7	3	0	0	0	3
Transportation Expense - Storage	5	0	0	0	0	0
Miscellaneous Other	10	0	0	0	0	0
Office Expense, Utilities and Other	10	46	27	19	0	0
TOTAL T & D EXPENSE OPERATION		53,327	30,677	22,154	128	367
Employee Salaries -General	11	74	36	23	0	15
Employee Salaries - Mains	11	319	156	99	2	63
Employee Salaries - Meters	5	52	19	20	0	13
Employee Salaries - Services	6	31	11	11	0	9
Employee Salaries - Hydrants	9	26	23	3	0	0
Employee Salaries - Storage	7	0	0	0	0	0
Fuel for Power Production	1	0	0	0	0	0
Material and Supplies	11	178	87	55	1	35
Outside Services - General	11	0	0	0	0	0

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS
COST OF SERVICE FOR THE TWELVE MONTHS ENDED OCTOBER 31, 2025, ALLOCATED TO CUSTOMER CLASSIFICATIONS

not updated Account	Factor Ref.	Cost of Service	Residential	Commercial	Fire Protection	
					Private	Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Outside Services - Mains	6	0	0	0	0	0
Transportation Expense - General	11	7	4	2	0	1
Transportation Expense - Mains	6	30	11	10	0	9
Transportation Expense - Meters	8	5	4	1	0	0
Transportation Expense - Services	9	3	2	0	0	0
Transportation Expense - Hydrants	7	2	0	0	0	2
Transportation Expense - Storage	5	0	0	0	0	0
Office Expense and Utilities	11	3	1	1	0	1
TOTAL T & D EXPENSE - MAINTENANCE		731	354	226	4	147
TOTAL T & D EXPENSE		54,058	31,032	22,380	132	514
CUSTOMER ACCOUNTS						
Employee Salaries - Supervision	12	558	512	44	2	0
Employee Salaries - Meter Reading	13		0	0	0	0
Employee Salaries - Billing	12		0	0	0	0
Outside Services	12	0	0	0	0	0
Transportation Expense	12	50	46	4	0	0
Bad Debt Expense	12	5,767	5,291	451	19	5
Office Expense, Utilities and Other	12	107	98	8	0	0
TOTAL CUSTOMER ACCOUNTING EXPENSE		6,482	5,947	507	22	5
ADMINISTRATIVE AND GENERAL EXPENSES						
Employee Salaries	14	729	402	287	2	38
Employee Pension & Benefits	16	1,190	738	408	3	41
Purchased Power	14	2,827	1,561	1,112	8	146
Management Fees- Engineering	18	5,961	2,291	2,133	44	1,494
Management Fees- Customer Related	12	4,639	4,257	363	16	4
Management Fees- Employee related	16	4,121	2,554	1,414	12	142
Management Fees- Other	14	54,118	29,882	21,297	148	2,792
Outside Services	14	0	0	0	0	0
Outside Services - Testing	2	0	0	0	0	0
Rental of Equipment	14	142	79	56	0	7
Transportation Expense	14	64	35	25	0	3
Insurance - General Liability	14	0	0	0	0	0
Insurance -Workman's Compensation	14	13	7	5	0	1
Advertising	14	6,676	3,686	2,627	18	344
Rate Case Expense - Amort	18	0	0	0	0	0
Regulatory Commission Expense	18	0	0	0	0	0
Fringe Benefits	16	0	0	0	0	0
Miscellaneous Other	16	0	0	0	0	0
Office Expenses and Utilities	14	10,134	5,596	3,988	28	523
Uniforms, Materials and Supplies and Other	14	4,641	2,563	1,826	13	239
Postage	14	37,471	20,690	14,746	102	1,933
Travel	14	894	494	352	2	46
TOTAL A & G EXPENSE		133,621	74,834	50,639	395	7,753
Total Operation & Maintenance Expenses		414,550	238,871	165,358	1,069	9,252

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS
COST OF SERVICE FOR THE TWELVE MONTHS ENDED OCTOBER 31, 2025, ALLOCATED TO CUSTOMER CLASSIFICATIONS

not updated Account	Factor Ref.	Cost of Service	Residential	Commercial	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)
DEPRECIATION EXPENSE						
Water Source Structures	2		0	0	0	0
Collection and Impounding Reservoirs	1		0	0	0	0
Lakes, River and Other Intakes	2		0	0	0	0
Wells & Springs	2		0	0	0	0
Infiltration Galleries and Tunnels	2		0	0	0	0
Purification Buildings	2		0	0	0	0
Power Generation Equip	3	11,012	5,015	3,635	76	2,286
Electric Pumping Equipment	3	41,656	18,970	13,752	286	8,649
Oil Engine Pumping Equipment	2		0	0	0	0
Purification System - Treatment Structures	2	2,933	1,692	1,227	5	9
Purification System - Painting	2		0	0	0	0
Purification Equipment	2	162	94	68	0	1
Laboratory Equipement	2		0	0	0	0
T&D Structures and Improvements	6	23,929	8,680	8,266	188	6,796
Distribution Reservoirs and Standpipes	5	72,335	26,430	27,884	531	17,491
Distribution Mains	4	29,873	9,970	10,461	244	9,199
Transmission Mains	3	17,755	8,086	5,861	122	3,686
Services	9	246	216	29	0	0
Meters	8	2,116	1,772	344	0	0
Hydrants	7	206	0	0	0	206
General Land and Land Rights	14		0	0	0	0
Office Buildings	14		0	0	0	0
Stores, Shop and Garage Buildings	14		0	0	0	0
Miscellaneous Structures and Improvements	14	1,421	785	559	4	73
Other Plant and Mischellaneous Equipment	14		0	0	0	0
Office Furniture and Equipment	14	559	309	220	2	29
Transportation Equipment	14		0	0	0	0
Stores Equipment	14		0	0	0	0
Tools and work Equipment	14		0	0	0	0
Shop Equipment	14		0	0	0	0
Power Operated Equipment	14	705	389	277	2	36
Communication Equipment	14	13,056	7,209	5,138	36	674
Miscellaneous Equipment	14		0	0	0	0
Adv/Ciac reconciling items	17		0	0	0	0
	17		0	0	0	0
Total Depreciation Expense		217,967	89,615	77,722	1,495	49,135
Amortization of Acquisition Adjustment	18	231,412	88,944	82,794	1,693	57,981
Amortization of Regulatory Liability	18	(10,718)	(4,120)	(3,835)	(78)	(2,685)
Taxes Other Than Income						
Real Estate	18	7,001	2,691	2,505	51	1,754
Payroll Taxes	16	468	290	161	1	16
Total Taxes, Other Than Income		7,469	2,981	2,666	53	1,770

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS
COST OF SERVICE FOR THE TWELVE MONTHS ENDED OCTOBER 31, 2025, ALLOCATED TO CUSTOMER CLASSIFICATIONS

not updated Account	Factor Ref.	Cost of Service	Residential	Commercial	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Income Taxes	18	129,888	49,923	46,471	950	32,544
Utility Income Available for Return	18	503,444	193,500	180,122	3,683	126,139
Total Cost of Service		1,494,011	659,713	551,298	8,865	274,136
Less: Other Water Revenues	19	6,894	3,113	2,558	39	1,185
Total Cost of Service Related to Sales of Water		1,487,117	656,601	548,740	8,825	272,951
Reallocation of Public Fire	20	0	171,428	33,285	0	(204,713)
Total		$ 1,487,117	$ 828,028	$ 582,026	$ 8,825	$ 68,238

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 1. ALLOCATION OF COSTS WHICH VARY WITH THE AMOUNT OF WATER CONSUMED.

Factors are based on the pro forma test year average daily consumption for each customer classification.

Customer Classification	Average Daily Consumption, Thousand Gallons	Allocation Factor
(1)	(2)	(3)
Residential	119.0	0.5767
Commercial	86.0	0.4168
Private Fire Protection	0.5	0.0024
Public Fire Protection	0.9	0.0042
Total	206.4	1.0000

FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM DAY EXTRA CAPACITY FUNCTIONS.

Factors are based on the weighting of the factors for average daily consumption (Factor 1) and the factors derived from maximum day extra capacity demand for each customer classification, as follows:

	Average Daily Consumption		Maximum Day Extra Capacity		
Customer Classification	Allocation Factor 1	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor
(1)	(2)	(3)=(2)x 0.7692	(4)	(5)=(4)x 0.2308	(6)=(3)+(5)
Residential	0.5767	0.4436	0.5772	0.1332	0.5768
Commercial	0.4168	0.3206	0.4228	0.0976	0.4181
Private Fire Protection	0.0024	0.0018			0.0018
Public Fire Protection	0.0042	0.0032			0.0032
Total	1.0000	0.7692	1.0000	0.2308	1.0000

The derivation of the maximum day extra capacity factors in column 4 and the basis for the column 3 and 5 weightings are presented on the following page.

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM DAY EXTRA CAPACITY FUNCTIONS, cont.

		Maximum Day Extra Capacity		
Customer Classification	Average Daily Consumption, Thousand Gal.	Factor*	Rate of Flow, Thousand Gal. Per Day	Allocation Factor
(1)	(2)	(3)	(4)=(2)x(3)	(5)
Residential	119	0.6	71	0.5772
Commercial	86	0.6	52	0.4228
Industrial	0	0.7	0	0.0000
Large Industrial	0	0.7	0	0.0000
Public Authority	0	0.6	0	0.0000
Sales for Resale	0	0.4	0	0.0000
Total	205		123	1.0000

The weighting of the factors is based on the maximum day ratio of 1.30, based on a review of maximum day ratios experienced during the period 2000 through 2017 (see Schedule F).

	Maximum Day Ratio	Weight
Average Day	1.00	0.7692
Maximum Day Extra Capacity	0.30	0.2308
Total	1.30	1.0000

* Ratio of maximum day to average day minus 1.0.

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 3. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE, MAXIMUM DAY EXTRA CAPACITY AND FIRE PROTECTION FUNCTIONS.

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

	Average Daily Consumption		Maximum Day Extra Capacity		Fire Protection		
Customer Classification	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor
(1)	(2)	(3)=(2) X 0.6073	(4)	(5)=(4) X 0.1822	(6)	(7)=(6) X 0.2105	(8)=(3)+(5)+(7)
Residential	0.5767	0.3502	0.5772	0.1052			0.4554
Commercial	0.4168	0.2531	0.4228	0.0770			0.3301
Industrial	0.0000	0.0000	0.0000	0.0000			0.0000
Large Industrial	0.0000	0.0000	0.0000	0.0000			0.0000
Public Authority	0.0000	0.0000	0.0000	0.0000			0.0000
Sales for Resale	0.0000	0.0000	0.0000	0.0000			0.0000
Private Fire Protection	0.0024	0.0014			0.0258	0.0054	0.0069
Public Fire Protection	0.0042	0.0025			0.9742	0.2051	0.2076
Total	1.0000	0.6073	1.0000	0.1822	1.0000	0.2105	1.0000

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 3. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE, MAXIMUM DAY EXTRA CAPACITY AND FIRE PROTECTION FUNCTIONS, cont.

The weighting of the factors is based the weighting of the Veolia Water Cost of Service Study

	Ratio	Weight
Average Day	1.00	0.6073
Maximum Day Extra Capacity	0.30	0.1822
Subtotal	1.30	0.7895
Fire Protection		0.2105
Total		1.0000

The public and private fire protection allocation factors in column 6 on the previous page are based on the relative potential demands (see Schedule G).

VEOLIA WATER PENNSYLVANIA INC.

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM HOUR EXTRA CAPACITY FUNCTIONS.

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

	Average Hourly Consumption			Maximum Hour Extra Capacity		Fire Protection		
Customer Classification	Thousand Gallons	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor
(1)	(2)	(3)	(4)=(3) X 0.3800	(5)	(6)=(5) X 0.3040	(7)	(8)=(7) X 0.3161	(9)=(4)+(6)+(8)
Residential	5.0	0.5814	0.2209	0.3712	0.1128			0.3337
Commercial	3.6	0.4186	0.1591	0.6288	0.1911			0.3502
Industrial	0.0	0.0000	0.0000	0.0000	0.0000			0.0000
Public Authority	0.0	0.0000	0.0000	0.0000	0.0000			0.0000
Sales for Resale	0.0	0.0000	0.0000	0.0000	0.0000			0.0000
Private Fire Protection	0.0	0.0000	0.0000			0.0258	0.0082	0.0082
Public Fire Protection	0.0	0.0000	0.0000			0.9742	0.3079	0.3079
Total	8.6	1.0000	0.3800	1.0000	0.3040	1.0000	0.3161	1.0000

The maximum hour extra capacity factors in column 5 are determined on the following page.

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM HOUR EXTRA CAPACITY FUNCTIONS, cont.

The weighting of the factors is based the weighting of the Veolia Water Cost of Service Study

	Weight
Average Hour	0.3800
Maximum Hour Extra Capacity	0.3040
Subtotal	0.6839
Fire Protection	0.3161
Total	1.0000

The maximum hour extra capacity factors in column 5 of the previous page are determined as follows:

	Average Hourly	Maximum Hour Extra Capacity		
Customer Classification	Consumption Thousand Gal.	Factor*	1,000 Gallons Per Hour	Allocation Factor
(1)	(2)	(3)	(4)=(2)x(3)	(5)
Residential	5.0	1.7	8.5	0.3712
Commercial	3.6	4.0	14.4	0.6288
Total	8.6		22.9	1.0000

* Ratio of Maximum Hour To Average Hour Minus 1.0.

The public and private fire protection allocation factors in column 7 on the previous page are based on the relative potential demands.

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH STORAGE FACILITIES.

Factors are based on the weighting of the average hourly consumption, the maximum hour extra capacity demand, and the fire protection demand for each customer classification.

Customer Classification	Average Hourly Consumption			Maximum Hour Extra Capacity		Fire Protection		
	Thousand Gallons	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor
(1)	(2)	(3)	(4)=(3) X 0.4187	(5)	(6)=(5) X 0.3349	(7)	(8)=(7) X 0.2464	(9)=(4)+(6)+(8)
Residential	5.0	0.5767	0.2414	0.3700	0.1239			0.3654
Commercial	3.6	0.4168	0.1745	0.6300	0.2110			0.3855
Industrial	0.0	0.0000	0.0000	0.0000	0.0000			0.0000
Large Industrial	0.0	0.0000	0.0000	0.0000	0.0000			0.0000
Public Authority	0.0	0.0000	0.0000	0.0000	0.0000			0.0000
Sales for Resale	0.0	0.0000	0.0000	0.0000	0.0000			0.0000
Private Fire Protection	0.0	0.0024	0.0010			0.0258	0.0064	0.0073
Public Fire Protection	0.0	0.0042	0.0018			0.9742	0.2400	0.2418
Total	8.6	1.0000	0.4187	1.0000	0.3349	1.0000	0.2464	1.0000

The weighting of the factors is based on the ratio of the capacity required for a 10 hour demand of fire flow, as related to total storage capacity. The calculation is shown on the following page.

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH STORAGE FACILITIES, cont.

The weighting of the factors is based the weighting of the Veolia Water Cost of Service Study

Fire Protection Weight = 0.2464

General Service Weight = 0.7536

The weighting of the average hourly consumption and maximum hour extra demand for general service is based on the maximum hour ratio, as follows:

	Weight
Average Hour	0.4187
Extra Capacity Maximum Hour	0.3349
Total	0.7536

Customer Classification	Average Hourly Consumption Thousand Gal.	Maximum Hour Extra Capacity Factor*	Maximum Hour Extra Capacity 1,000 Gallons Per Hour	Maximum Hour Extra Capacity Allocation Factor
(1)	(2)	(3)	(4)=(2)x(3)	(5)
Residential	5.0	1.7	8.4	0.3700
Commercial	3.6	4.0	14.3	0.6300
Total	8.5		22.7	1.0000

* Ratio of Maximum Hour To Average Hour Minus 1.0.

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 6. ALLOCATION OF COSTS ASSOCIATED WITH TRANSMISSION AND DISTRIBUTION MAINS.

Factors are based on the weighting of the maximum daily consumption with fire, Factor 3, and the maximum hour

	Maximum Daily Consumption w/ Fire		Maximum Hourly Consumption		
Customer Classification	Allocation Factor 3	Weighted Factor	Allocation Factor 4	Weighted Factor	Allocation Factor
(1)	(2)	(3)=(2)X 0.2383	(4)	(5)=(4)X 0.7617	(6)=(3)+(5)
Residential	0.4554	0.1085	0.3337	0.2542	0.3627
Commercial	0.3301	0.0787	0.3502	0.2667	0.3454
Industrial	0.0000	0.0000	0.0000	0.0000	0.0000
Large Industrial	0.0000	0.0000	0.0000	0.0000	0.0000
Public Authority	0.0000	0.0000	0.0000	0.0000	0.0000
Sales for Resale	0.0000	0.0000	0.0000	0.0000	0.0000
Private Fire Protection	0.0069	0.0016	0.0082	0.0062	0.0078
Public Fire Protection	0.2076	0.0495	0.3079	0.2345	0.2840
Total	1.0000	0.2383	1.0000	0.7617	1.0000

The weighting of the factors is based on the weightings in Veolia Water Cost of Service Study

	Weight
Transmission Mains	0.2383
Distribution Mains	0.7617
Total	1.0000

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 7. ALLOCATION OF COSTS ASSOCIATED WITH FIRE HYDRANTS.

Costs are assigned directly to Public Fire Protection.

Customer Classification	Allocation Factor
(1)	(3)
Public Fire Protection	1.0000
Total	1.0000

FACTOR 8. ALLOCATION OF COSTS ASSOCIATED WITH METERS.

Factors are based on the relative cost of meters by size and customer classification, as developed on the following page and summarized below.

Customer Classification	5/8" Dollar Equivalents	Allocation Factor
(1)	(2)	(3)
Residential	1,097	0.8374
Commercial	213	0.1626
Total	1,310	1.0000

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

BASIS FOR ALLOCATING METER COSTS TO CUSTOMER CLASSIFICATIONS

Meter Size	5/8" Dollar Equivalent	Residential		Commercial		Industrial		Large Industrial		Public Authority		Sales for Resale		Total	
		Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting
(1)	(2)	(3)	(4)=(2)X(3)	(5)	(6)=(2)X(5)	(7)	(8)=(2)X(7)	(9)	(10)=(2)X(9)	(11)	(12)=(2)X(11)	(13)	(14)=(2)X(13)	(15)	(16)
5/8 and 3/4	1.0	1,080	1,080	19	19	0	0	0	0	0	0		0	1,099	1,099
1	1.2	2	2	24	29	0	0	0	0	0	0		0	26	31
1-1/2	1.9	8	15	13	25	0	0	0	0	0	0		0	21	40
2	2.1	0	0	23	47	0	0	0	0	0	0		0	23	47
3	5.2	0	0	10	52	0	0	0	0	0	0		0	10	52
4	7.3	0	0	1	7	0	0	0	0	0	0		0	1	7
6	11.2	0	0	3	34	0	0	0	0	0	0	0	0	3	34
8	32.8	0	0	0	0	0	0	0	0	0	0		0	0	0
10	0.0	0	0	0	0	0	0	0	0	0	0		0	0	0
Total		1,090	1,097	93	213	0	0	0	0	0	0	0	0	1,183	1,310

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 9. ALLOCATION OF COSTS ASSOCIATED WITH SERVICES.

Factors are based on the relative cost of services by size and customer classification, as developed on the following page and summarized below.

Customer Classification	3/4" Dollar Equivalents	Allocation Factor
(1)	(2)	(3)
Residential	1,098	0.8805
Commercial	149	0.1195
Private Fire Protection	0	0.0000
Total	1,247	1.0000

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

BASIS FOR ALLOCATING SERVICE COSTS TO CUSTOMER CLASSIFICATIONS

Service Size	3/4" Dollar Equivalent	Residential		Commercial		Industrial		Large Industrial		Public Authority		Sales for Resale		Private Fire Protection		Total	
		Number of Services	Weighting	Number of Services	Weighting	Number of Services	Weighting	Number of Services	Weighting	Number of Services	Weighting	Number of Meters	Weighting	Number of Services	Weighting	Number of Services	Weighting
(1)	(2)	(3)	(4)=(2)X(3)	(5)	(6)=(2)X(5)	(7)	(8)=(2)X(7)	(9)	(10)=(2)X(9)	(11)	(12)=(2)X(11)	(13)	(14)=(2)X(13)	(15)	(16)=(2)X(15)	(15)	(16)
3/4	1.00	1,080	1,080	19	19	0	0	0	0	0	0	0	0	0	0	1,099	1,099
1	1.05	2	2	24	25	0	0	0	0	0	0	0	0	0	0	26	27
1-1/2	2.03	8	16	13	26	0	0	0	0	0	0	0	0	0	0	21	42
2	2.03	0	0	23	47	0	0	0	0	0	0	0	0	0	0	23	47
3	2.18	0	0	10	22	0	0	0	0	0	0	0	0	0	0	10	22
4	2.18	0	0	1	2	0	0	0	0	0	0	0	0	0	0	1	2
6	2.79	0	0	3	8	0	0	0	0	0	0	0	0	0	0	3	8
8	3.11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	4.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	4.65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		1,090	1,098	93	149	0	0	0	0	0	0	0	0	0	0	1,183	1,247

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 10. ALLOCATION OF TRANSMISSION AND DISTRIBUTION OPERATION SUPERVISION AND ENGINEERING AND MISCELLANEOUS EXPENSES.

Factors are based on transmission and distribution operation expenses other than those being allocated, as follows:

Customer Classification	Transmission & Distribution Operating Expenses	Allocation Factor
(1)	(2)	(3)
Residential	$ 30,556	0.5753
Commercial	22,067	0.4154
Private Fire Protection	127	0.0024
Public Fire Protection	366	0.0069
Total	53,117	1.0000

FACTOR 11. ALLOCATION OF TRANSMISSION AND DISTRIBUTION MAINTENANCE SUPERVISION AND ENGINEERING, STRUCTURES AND IMPROVEMENTS, AND OTHER EXPENSES.

Factors are based on transmission and distribution maintenance expenses other than those being allocated, as follows:

Customer Classification	Transmission & Distribution Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	$ 54	0.4877
Commercial	34	0.3102
Private Fire Protection	1	0.0057
Public Fire Protection	22	0.1964
Total	$110	1.0000

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 12. ALLOCATION OF BILLING AND COLLECTING COSTS.

Factors are based on the total number of customers.

Customer Classification	Total Customers	Allocation Factor
(1)	(2)	(3)
Residential	1,090	0.9175
Commercial	93	0.0783
Private Fire Protection	4	0.0034
Public Fire Protection	1	0.0008
Total	1,188	1.0000

FACTOR 13. ALLOCATION OF METER READING COSTS.

Factors are based on the number of metered customers.

Customer Classification	Total Metered Customers	Allocation Factor
(1)	(2)	(3)
Residential	1,090	0.9214
Commercial	93	0.0786
Total	1,183	1.0000

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 14. ALLOCATION OF ADMINISTRATIVE AND GENERAL EXPENSES

Factors are based on the allocation of all other operation and maintenance expenses excluding purchased water, power, chemicals and waste disposal.

Customer Classification	Operation & Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	$3,895	0.5522
Commercial	2,776	0.3935
Private Fire Protection	19	0.0027
Public Fire Protection	364	0.0516
Total	$7,054	1.0000

FACTOR 15. ALLOCATION OF ADMINISTRATIVE AND CASH WORKING CAPITAL

Factors are based on the allocation of all operation and maintenance expenses including purchased water, power, chemicals and waste disposal.

Customer Classification	Operation & Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	$236,445	0.5791
Commercial	163,128	0.3995
Private Fire Protection	1,023	0.0025
Public Fire Protection	7,697	0.0189
Total	$408,293	1.0000

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS
COST OF SERVICE FOR THE TWELVE MONTHS ENDED OCTOBER 31, 2025, ALLOCATED TO CUSTOMER CLASSIFICATIONS

not updated Account		Factor Ref.	Cost of Service	Residential	Commercial	Fire Protection	
						Private	Public
(1)		(2)	(3)	(4)	(5)	(6)	(7)
	RATE BASE						
301.0	Organization	17	$ -	$ -	$ -	$ -	$ -
302.0	Franchises and Consents	17	-	-	-	-	-
303.2	Source of Supply - Land and Land Rights	2	-	-	-	-	-
304.2	Water Source Structures	2	-	-	-	-	-
304.3	Power and Pumping Structures	3	13,030	5,934	4,302	89	2,705
305.0	Collection and Impounding Reservoirs	1	-	-	-	-	-
306.0	Lakes, River and Other Intakes	2	-	-	-	-	-
307.0	Wells & Springs	2	-	-	-	-	-
308.0	Infiltration Galleries and Tunnels	2	-	-	-	-	-
303.3	Water Treatment - Land and Land Rights	2	-	-	-	-	-
310.0	Power Generation Equip	3	120,067	54,677	39,637	825	24,928
311.2	Electric Pumping Equipment	3	251,871	114,700	83,149	1,730	52,293
311.2	Oil Engine Pumping Equipment	2	-	-	-	-	-
320.1	Purification System - Treatment Structures	2	55,909	32,249	23,378	102	180
320.2	Purification System - Equipment	2	5,958	3,437	2,491	11	19
344.0	Laboratory Equipment	2	-	-	-	-	-
303.4	T&D - Land and Land Rights	6	5	2	2	0	1
304.4	T&D Structures and Improvements	6	783,956	284,359	270,787	6,152	222,657
330.0	Distribution Reservoirs and Standpipes	5	2,301,242	840,819	887,075	16,908	556,440
331.0	Distribution Mains	4	1,453,484	485,073	509,000	11,853	447,558
331.0	Transmission Mains	3	863,872	393,398	285,186	5,932	179,355
333.0	Services	9	19,354	17,041	2,313	-	-
334.0	Meters	8	33,783	28,290	5,493	-	-
335.0	Hydrants	7	10,352	-	-	-	10,352
339.0	Other Plant and Mischellaneous Equipment	14	-	-	-	-	-
303.5	General Land and Land Rights	14	-	-	-	-	-
304.5	Office Buildings	14	-	-	-	-	-
304.5	Stores, Shop and Garage Buildings	14		-	-	-	-
304.5	Miscellaneous Structures and Improvements	14	36,278	20,031	14,276	99	1,872
340.1	Office Furniture and Equipment	14	844	466	332	2	44
340.2	Computer Software	14		-	-	-	-
340.2	Computer Software-CIS Implementation	12		-	-	-	-
341.0	Transportation Equipment	14	-	-	-	-	-
342.0	Stores Equipment	14	-	-	-	-	-
343.1	Tools and work Equipment	14	-	-	-	-	-
343.2	Shop Equipment	14	-	-	-	-	-
345.0	Power Operated Equipment	14	2,099	1,159	826	6	108
346.0	Communication Equipment	14	30,445	16,810	11,981	83	1,571
399.9	Miscellaneous Equipment	14	-	-	-	-	-
	Mahoning Manual Deprec Entry/Acquisition Adj.	17	396,422	152,302	141,818	2,902	99,400
	Total Utility Plant in Service		6,378,971	2,450,747	2,282,046	46,694	1,599,484

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS
COST OF SERVICE FOR THE TWELVE MONTHS ENDED OCTOBER 31, 2025, ALLOCATED TO CUSTOMER CLASSIFICATIONS

not updated Account	Factor Ref.	Cost of Service	Residential	Commercial	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Other Rate Base Items						
Add:						
Cash Working Capital	15	5,223	3,025	2,087	13	98
Materials and Supplies	14	0	0	0	0	0
Less:						
Deferred Income Taxes	17	(46,056)	(17,694)	(16,476)	(337)	(11,548)
Total Other Rate Base Elements		(40,833)	(14,670)	(14,390)	(324)	(11,450)
Total Original Cost Measure of Value		$ 6,338,138	$ 2,436,077	$ 2,267,657	$ 46,370	$ 1,588,034

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 16. ALLOCATION OF LABOR RELATED TAXES AND BENEFITS.

Factors are based on the allocation of direct labor expense.

Customer Classification	Direct Labor Expense	Allocation Factor
(1)	(2)	(3)
Residential	$1,957	0.6197
Commercial	1,083	0.3430
Private Fire Protection	9	0.0028
Public Fire Protection	109	0.0344
Total	$3,158	1.0000

FACTOR 17. ALLOCATION OF ORGANIZATION, FRANCHISES AND CONSENTS, MISCELLANEOUS INTANGIBLE PLANT AND OTHER RATE BASE ELEMENTS.

Factors are based on the allocation of the original cost less depreciation other than those items being allocated, as follows:

Customer Classification	Original Cost Less Depreciation	Allocation Factor
(1)	(2)	(3)
Residential	$2,450,747	0.3842
Commercial	2,282,046	0.3577
Private Fire Protection	46,694	0.0073
Public Fire Protection	1,599,484	0.2507
Total	$6,378,971	1.0000

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 18. ALLOCATION OF INCOME TAXES AND INCOME AVAILABLE FOR RETURN.

Factors are based on the allocation of the original cost measure of value rate base as shown on the following pages and summarized below.

Customer Classification	Original Cost Measure of Value	Allocation Factor
(1)	(2)	(3)
Residential	$2,436,077	0.3844
Commercial	2,267,657	0.3578
Private Fire Protection	46,370	0.0073
Public Fire Protection	1,588,034	0.2506
Total	$6,338,138	1.0000

FACTOR 19. ALLOCATION OF REGULATORY COMMISSION EXPENSES, ASSESSMENTS A OTHER WATER REVENUES.

The factors are based on the allocation of the total cost of service, excluding those items being allocated.

Customer Classification	Total Cost of Service	Allocation Factor
(1)	(2)	(3)
Residential	$574,755	0.4515
Commercial	472,241	0.3710
Private Fire Protection	7,248	0.0057
Public Fire Protection	218,779	0.1719
Total	$1,273,023	1.0000

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 20. REALLOCATION OF PUBLIC FIRE

Factors are based on the relative cost of meters by size and customer classification.

Customer Classification	5/8" Dollar Equivalents	Allocation Factor
(1)	(2)	(3)
Residential	1,097	0.8374
Commercial	213	0.1626
Total	1,310	1.0000

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

BASIS FOR ALLOCATING DEMAND RELATED COSTS OF FIRE SERVICE TO PRIVATE AND PUBLIC FIRE PROTECTION CUSTOMER CLASSIFICATIONS

Description		Restrictive Diameters Squared	Quantity	Relative Demand*	Allocation Factor
(1)		(2)	(3)	(4)=(2)x(3)	(5)
PRIVATE FIRE PROTECTION					
Fire Lines					
2 -inch		4.00		0	
3 -inch		9.00		0	
4 -inch		16.00		0	
6 -inch		36.00		0	
8 -inch		64.00		0	
10 -inch		100.00		0	
12 -inch		144.00		0	
Private Hydrants		26.50	4	106	
Total Private Fire Protection			4	106	0.0258
PUBLIC FIRE PROTECTION					
Hydrant	Nozzle Sizes				
5 1/4" Valve	2- 2-1/2" & 1-5 1/4"	26.50	151	4,002	
Total Public Fire Prorection			151	4,002	0.9742
Total Fire Protection			155	4,108	1.0000

Exhibit No. CEH-3

VEOLIA WATER PENNSYLVANIA, INC.

HARRISBURG, PENNSYLVANIA

COST OF SERVICE ALLOCATION STUDY MAHONING SEWER OPERATIONS FOR THE TEST YEAR ENDED OCTOBER 31, 2025

GANNETT FLEMING

Excellence Delivered As Promised

Exhibit No. CEH-3
Docket No. R-2024-3045192
and R-2024-3045193
Witness: C.E. Heppenstall

VEOLIA PENNSYLVANIA, INC.

Bryn Mawr, Pennsylvania

MAHONING WASTEWATER OPERATIONS
COST OF SERVICE ALLOCATION STUDY
AS OF OCTOBER 31, 2025

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania

TABLE OF CONTENTS

COST OF SERVICE ALLOCATION STUDY

MAHONING WASTEWATER OPERATIONS

VEOLIA PENNSYLVANIA, INC.

MAHONING WASTEWATER OPERATION

WASTEWATER COST OF SERVICE ALLOCATION STUDIES
AS OF OCTOBER 31, 2025
AND PROPOSED CUSTOMER RATES

PLAN OF REPORT

The reports set forth the results of the cost of service allocation study for the Mahoning Wastewater Operations based on pro forma costs as of October 31, 2025, for Veolia Pennsylvania, Inc. The introduction contains statements with respect to the basis of the study, the procedures employed, and a summary of the results of the study. Schedule A summarizes the cost allocation for the Mahoning wastewater operations and total revenues under present and proposed rates. Cost of Service by Customer Classification presents detailed schedules of the allocation of costs to customer classifications, as well as the basis for the allocations.

BASIS OF STUDY

The method used for the allocation of wastewater cost of service incorporates the functional cost allocation methodology described in the text “Financing and Charges for Wastewater Systems”, Manual of Practice No. 27, published by the Water Environment Federation. This method is recognized for allocating the cost of providing wastewater service to customer classifications in proportion to the classifications' use of the commodity, facilities, and services. It is generally accepted as a sound method for allocating the cost of wastewater service. Under the functional cost method, costs are assigned to cost components using predominant operational purposes as cost-

causative factors.

Each element of the cost of service is allocated to customer classifications according to the functional categories. The cost functions are flow, infiltration and inflow (I&I), customer facilities and customer accounting. The functional costs are allocated to customer classifications based on the amount of flow contributed to the system, the amount of I&I allocated to each class, and the number and relative size of customers.

The results of the allocation of wastewater cost of service is summarized on Schedule A, column 2. The cost allocation results can be compared with revenues under present and proposed rates in columns 4 and 6 of Schedule A. The proposed increase and percentage increase in revenues are shown in columns 8 and 9.

VEOLIA PENNSYLVANIA, INC
MAHONING WASTEWATER OPERATIONS
COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES - WASTEWATER
FOR THE TWELVE MONTHS ENDING OCTOBER 31, 2025

Customer Classification	Cost of Service		Revenues, Present Rates		Revenues, Proposed Rates		Proposed Increase	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent Increase
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Residential	$ 1,763,276	86.1%	$ 889,534	56.0%	$ 1,227,771	59.9%	$ 338,238	38.0%
Non-Residential	285,031	13.9%	699,679	44.0%	820,536	40.1%	120,856	17.3%
Total Sales	2,048,307	100.0%	1,589,213	100.0%	2,048,307	100.0%	459,094	28.9%
Other Revenues	207		207		207		-	0.0%
Total	$ 2,048,514		$ 1,589,420		$ 2,048,514		$ 459,094	28.9%

VEOLIA PENNSYLVANIA, INC

WASTEWATER BASE OPERATIONS

ALLOCATION OF COST OF SERVICE BY FUNCTION TO CUSTOMER CLASSIFICATIONS

Description	Flow		Infiltration & Inflow	Customer Facilities	Customer Accounting	Total
	Collection	Treatment				
(1)	(2)			(5)	(6)	(7)
Total Cost of Service	$ 1,491,434	$ 84,202	$ 472,474	$ 43	$ 154	$ 2,048,307
Factor Reference	A	A1	C	B	B	
Residential						
Factor	0.9101	0.9101	0.6967	0.5900	0.5900	
Cost of Service	$ 1,357,354	$ 76,633	$ 329,173	25	91	1,763,276
Non-Residential						
Factor	0.0899	0.0899	0.3033	0.4100	0.4100	
Cost of Service	$ 134,080	$ 7,570	$ 143,301	17	63	$ 285,031
Total	1,491,434	84,203	472,474	42	154	2,048,307

VEOLIA PENNSYLVANIA, INC
MAHONING WASTEWATER OPERATIONS
FACTORS FOR ALLOCATING COSTS BY FUNCTION TO CUSTOMER CLASSIFICATIONS

FACTOR A. ALLOCATION OF FLOW COLLECTION COSTS.

Factors are based on the pro forma test year average daily consumption for each customer classification.

Classification	Average Daily Consumption, 100 gallons	Allocation Factor
(1)	(2)	(3)
Residential	1,316	0.9101
Non-Residential	130	0.0899
Total	1,446	1.0000

FACTOR A1. ALLOCATION OF FLOW TREATMENT COSTS.

Factors are based on the pro forma test year average daily consumption for each customer

Classification	Average Daily Consumption, 100 gallons	Allocation Factor
(1)	(2)	(3)
Residential	1,316	0.9101
Non-Residential	130	0.0899
Total	1,446	1.0000

VEOLIA PENNSYLVANIA, INC
MAHONING WASTEWATER OPERATIONS
FACTORS FOR ALLOCATING COSTS BY FUNCTION TO CUSTOMER CLASSIFICATIONS

FACTOR B. ALLOCATION OF COSTS ASSOCIATED WITH BILLING AND COLLECTING.

Factors are based on the number of customers.

Customer Classification	Number of Customers	Allocation Factor
(1)	(2)	(3)
Residential	1,339	0.5900
Non-Residential	930	0.4100
Total	2,269	1.0000

FACTOR C. ALLOCATION OF COSTS ASSOCIATED WITH INFILTRATION AND INFLOW.

Factors are based on a 1/3-2/3 weighting of flow and number of customers.

Customer Classification	Average Daily Flow		Number of Bills		Allocation Factor
	Factor A	Weight	Factor C	Weight	
(1)	(2)	(3)=(2) x 0.3333	(4)	(5)=(4) x 0.6667	(6)=(3)+(5)
Residential	0.9101	0.3033	0.5900	0.3934	0.6967
Non-Residential	0.0899	0.0300	0.4100	0.2733	0.3033
Total	1.0000	0.3333	1.0000	0.6667	1.0000

VEOLIA PENNSYLVANIA, INC
MAHONING WASTEWATER OPERATIONS
COST OF SERVICE ALLOCATED TO COST FUNCTIONS FOR THE TWELVE MONTHS ENDING OCTOBER 31, 2025

Account	Factor Ref.	Cost of Service	Flow		Infiltration & Inflow	Customer Facilities	Customer Accounting
			Collection	Treatment			
(1)	(2)	(3)	(4)	(5)	(7)	(8)	(8)
OPERATION AND MAINTENANCE EXPENSES							
COLLECTION							
Labor	1	4,076	3,135	0	941	0	0
Purchased Power	1		0	0	0	0	0
Purchased Power	1		0	0	0	0	0
Supplies	1	5,015	3,858	0	1,157	0	0
Outside Services	1	926,165	712,435	0	213,730	0	0
Other Expense	1	420	323	0	97	0	0
TOTAL COLLECTION EXPENSE		935,676	719,750	0	215,925	0	0
SEWAGE TREATMENT							
Salary and Wages	1A		0	0	0	0	0
Purchased Wastewater	1A		0	0	0	0	0
Chemicals	1A		0	0	0	0	0
Sludge Disposal	1A		0	0	0	0	0
Lab Testing	1A	108,368	0	83,360	25,008	0	0
Supplies	1A		0	0	0	0	0
Transporation	1A		0	0	0	0	0
OS Other	1A		0	0	0	0	0
TOTAL SEWAGE TREATMENT EXPENSE		108,368	0	83,360	25,008	0	0

VEOLIA PENNSYLVANIA, INC
MAHONING WASTEWATER OPERATIONS
COST OF SERVICE ALLOCATED TO COST FUNCTIONS FOR THE TWELVE MONTHS ENDING OCTOBER 31, 2025

Account	Factor Ref.	Cost of Service	Flow		Infiltration & Inflow	Customer Facilities	Customer Accounting
			Collection	Treatment			
(1)	(2)	(3)	(4)	(5)	(7)	(8)	(8)
CUSTOMER ACCOUNTS							
Salary and Wages	2		0	0	0	0	0
Other	2		0	0	0	0	0
Uncollectible Accounts	2	42	0	0	0	42	0
TOTAL CUSTOMER ACCOUNTING EXPENSE		42	0	0	0	42	0
ADMINISTRATIVE AND GENERAL EXPENSES							
Salaries and Wages	4		0	0	0	0	0
Employee Benefits	5	869	716	0	0	0	153
Supplies	4		0	0	0	0	0
Accounting	4		0	0	0	0	0
Legal	4		0	0	0	0	0
Management Fees	4		0	0	0	0	0
Leases	4		0	0	0	0	0
Transportation	4		0	0	0	0	0
Insurance other than Group	4	1	0	0	0	0	0
OS Other	4		0	0	0	0	0
Amortization of Rate Case Expense	8	13,682	9,962	562	3,156	0	1
Other	4	1,027	708	82	237	0	0
Employee Benefits	5		0	0	0	0	0
TOTAL A & G EXPENSE		15,579	11,387	644	3,393	0	154
Total Operation & Maintenance Expenses		1,059,665	731,137	84,005	244,326	43	154
DEPRECIATION EXPENSE							
Structures and Improvements							
Pumping	1	471	362	-	109	-	-
Collection Mains - Gravity	1	5,537	4,259	-	1,278	-	-
Collection Mains - Force	1	204,861	157,585	-	47,276	-	-
Pumping Equipment	1	98,067	75,436	-	22,631	-	-
Tools, Shop and Gargage Equipment	4	1,003	692	80	232	0	-
Mahoning Acq Adjustment	10	153,034	117,717	1	35,316	0	-

VEOLIA PENNSYLVANIA, INC
MAHONING WASTEWATER OPERATIONS
COST OF SERVICE ALLOCATED TO COST FUNCTIONS FOR THE TWELVE MONTHS ENDING OCTOBER 31, 2025

Account	Factor Ref.	Cost of Service	Flow		Infiltration & Inflow	Customer Facilities	Customer Accounting
			Collection	Treatment			
(1)	(2)	(3)	(4)	(5)	(7)	(8)	(8)
Total Depreciation Expense		462,973	356,052	81	106,840	0	0
Taxes Other Than Income							
PUC Assessment	7	0	-	-	-	-	-
OCA, OSBA Assessment	7	0	-	-	-	-	-
Local Property Tax	7	4	3	0	1	0	0
Total Taxes, Other Than Income		4	3	0	1	0	0
Total Operating Expense		1,522,642	1,087,192	84,086	351,167	43	154
Income Taxes	7	105,483	81,116	25	24,342	0	0
Utility Income Available for Return	7	420,389	323,276	100	97,013	0	0
Total Cost of Service		2,048,514	1,491,585	84,211	472,522	43	154
Less: Other Revenues							
Contribution to Columbia County	8	0	-	-	-	-	-
Other Operating Revenues	8	207	151	9	48	0	0
Total Cost of Service Related to Sales of Wastewater Services		2,048,307	1,491,434	84,202	472,474	43	154

VEOLIA PENNSYLVANIA, INC
MAHONING WASTEWATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO COST FUNCTIONS

Reference	Flow Collection	Flow Treatment	Infiltration & Inflow	Customer Facilities	Customer Accounting	Total
Factor 1 - Flow and I&I	0.7692		0.2308			1.0000
Factor 1A - Treatment		0.7692	0.2308			1.0000
Factor 2 - Customer Facilities				1.0000		1.0000
Factor 3 - Customer Accounting					0.0000	0.0000
Factor 4 - O&M Exp less Power and Chemicals						
Cost	719,750	83,360	240,933	42	0	1,044,086
Factor	0.6894	0.0798	0.2308	0.0000	0.0000	1.0000
Factor 5 - Labor Expense						
Cost	4,076	0	0	0	869	4,945
Factor	0.8243	0.0000	0.0000	0.0000	0.1757	1.0000
Factor 6 - Rate Base less Allocated Costs						
Cost	4,057,010	38	1,217,115	0	0	5,274,164
Factor	0.7692	0.0000	0.2308	0.0000	0.0000	1.0000
Factor 7 - Rate Base						
Cost	4,067,554	1,258	1,220,641	1	2	5,289,456
Factor	0.7690	0.0002	0.2308	0.0000	0.0000	1.0000
Factor 8 - Total Cost of Service						
Cost	1,481,622	83,648	469,366	42	153	2,034,832
Factor	0.7281	0.0411	0.2307	0.0000	0.0001	1.0000
Factor 9 - O&M Exp						
Cost	721,175	83,442	241,170	42	153	1,045,982
Factor	0.6895	0.0798	0.2306	0.0000	0.0001	1.0000
Factor 10 - Rate Base ex Acq. Adj.						
Cost	3,925,817	37	1,177,756	0	0	5,103,610
Factor	0.7692	0.0000	0.2308	0.0000	0.0000	1.0000

VEOLIA PENNSYLVANIA, INC
MAHONING WASTEWATER OPERATIONS
COST OF SERVICE ALLOCATED TO COST FUNCTIONS FOR THE TWELVE MONTHS ENDING OCTOBER 31, 2025

Account	Factor Ref.	Cost of Service	Flow		Infiltration & Inflow	Customer Facilities	Customer Accounting
			Collection	Treatment			
(1)	(2)	(3)	(4)	(5)	(7)	(8)	(8)
RATE BASE							
Structures and Improvements							
Pumping	1	13,305	10,235	0	3,070	0	0
Collection Mains - Gravity	1	76,493	58,841	0	17,652	0	0
Collection Mains - Force	1	4,847,670	3,728,977	0	1,118,693	0	0
Pumping Equipment	1	165,677	127,444	0	38,233	0	0
Tools, Shop and Gargage Equipment	4	465	321	37	107	0	0
Mahoning Acq Adjustment	10	170,554	131,194	1	39,359	0	0
TOTAL UTILITY PLANT IN SERVICE SEWER		$ 5,274,164	$ 4,057,010	$ 38	$ 1,217,115	$ 0	$ -
Other Rate Base Items:							
Working Capital	9	15,292	10,543	1,220	3,526	1	2
Customer Contributions	6	0	0	0	0	0	0
Total Other Rate Base Elements		15,292	10,543	1,220	3,526	1	2
Total Original Cost Measure of Value		5,289,456	4,067,554	1,258	1,220,641	1	2

Exhibit No. CEH-4

VEOLIA WATER PENNSYLVANIA, INC.

HARRISBURG, PENNSYLVANIA

COST OF SERVICE ALLOCATION STUDY COLUMBIA COUNTY SEWER OPERATIONS FOR THE TEST YEAR ENDED OCTOBER 31, 2025

GANNETT FLEMING

Excellence Delivered As Promised

VEOLIA PENNSYLVANIA, INC
COLUMBIA COUNTY WASTEWATER OPERATIONS
COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES - WASTEWATER
FOR THE TWELVE MONTHS ENDING OCTOBER 31, 2025

Customer Classification	Cost of Service		Revenues, Present Rates		Revenues, Proposed Rates		Proposed Increase	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent Increase
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Non-Residential	$ 156,255	100.0%	$ 46,629	100.0%	$ 156,255	100.0%	$ 109,625	235.1%
Total Sales	156,255	100.0%	46,629	100.0%	156,255	100.0%	109,625	235.1%
Contribution From Mahoning					-			
Other Revenues	-		-		-		-	
Total	$ 156,255		$ 46,629		$ 156,255		$ 109,625	235.1%

VEOLIA PENNSYLVANIA, INC
TOTAL WASTEWATER OPERATIONS
COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES - WASTEWATER
FOR THE TWELVE MONTHS ENDING OCTOBER 31, 2025

Customer Classification	Cost of Service		Revenues, Present Rates		Revenues, Proposed Rates		Proposed Increase	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent Increase
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Residential	$ 1,763,276	80.0%	$ 889,534	54.4%	$ 1,227,771	55.7%	$ 338,238	38.0%
Non-Residential	441,286	20.0%	746,309	45.6%	976,790	44.3%	230,482	30.9%
Total Sales	2,204,562	100.0%	1,635,842	100.0%	2,204,561	100.0%	568,719	34.8%
Other Revenues	207		207		207		-	0.0%
Total	$ 2,204,769		$ 1,636,050		$ 2,204,769		$ 568,719	34.8%

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NOS. R-2024-3045192-Water R-2024-3045193 WW

REBUTTAL TESTIMONY

OF

CONSTANCE E. HEPPENSTALL

GANNETT FLEMING

VALUATION AND RATE CONSULTANTS, LLC

REGARDING COST OF SERVICE ALLOCATION ISSUES

JUNE 7, 2024

Q. What is your name and business address?

A. My name is Constance E. Heppenstall, and my business address is 1010 Adams Avenue, Audubon, PA 19403.

Q. Are you the same Constance E. Heppenstall that prefiled direct testimony in this docket?

A. Yes, I am.

Q. What is the purpose of your rebuttal testimony in this proceeding?

A. The purpose of my rebuttal testimony is to comment on Mr. Mierzwa's calculation of customer costs for determining the Company's customer charge under proposed rates. Mr. Mierzwa only includes certain costs that he describes as "direct costs", costs that vary (increase or decrease) with the addition or subtraction of a customer.

Q. Do you agree with Mr. Mierzwa's direct cost analysis?

A. No. Mr. Mierzwa's definition of direct costs is similar to the definition of marginal costs, costs that are not fixed but vary with the addition or subtraction of a customer. OCA's assertion to only include these specific costs was denied by the Commission in the 2021 Aqua Pennsylvania rate case, Docket No. R-2021-3027385, as these limitations are "unreasonably narrow" (page 269 of Opinion and

Order). For example, due to his definition of customer costs, Mr. Mierzwa omits costs related to office building and furniture expenses that I included in the Company's customer cost analysis. The cost of these facilities need to be included as they are essential for billing and collection's personnel to perform their jobs. Consequently, these categories of costs are directly related to customer cost functions, though they may not be marginal costs. Also, Mr. Mierzwa excludes bad debt expense and the costs related to the Customer Assistance Program. These are customer costs and <u>are</u> costs that vary with the addition or subtraction of a customer. In fact, Mr. Mierzwa has included bad debt expense in his calculation of customer costs in other cases before the Commission OCA's direct cost analysis should not be used to determine the proposed level of customer charges in this case due to the inappropriate exclusion of these costs.

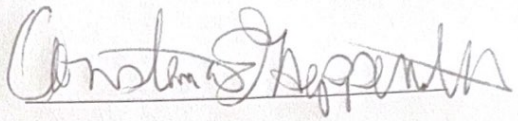
Q. Does this conclude your rebuttal testimony?

A. Yes. it does.

VERIFICATION

I, Constance E. Heppenstall, hereby state that the facts set forth above are true and correct to the best of my knowledge, information and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: _6/25/2024_____



BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

PREPARED DIRECT TESTIMONY

OF

HAROLD WALKER, III

REGARDING

RATE OF RETURN AND CASH WORKING CAPITAL

VEOLIA WATER PENNSYLVANIA, INC.

February 2024

VWPA STATEMENT NO. 4
DIRECT TESTIMONY OF HAROLD WALKER
REGARDING RATE OF RETURN AND CASH WORKING CAPITAL

TABLE OF CONTENTS

OVERALL RATE OF RETURN TERMS, ABBREVIATIONS AND ACRONYMS

Terms, Abbreviations and Acronyms	Defined
CAPM	Capital Asset Pricing Model
Commission	Pennsylvania Public Utility Commission
Company	Veolia Water Pennsylvania, Inc.
Comparable Companies	Water Group Followed by Analysts
Comparable Group	Water Group Followed by Analysts
Cost of Capital	Investor-required cost rate
DCF	Discounted Cash Flow
DPS	Dividend per share
EPA	U.S. Environmental Protection Agency's
EPS	Earnings per share
Financial Risk	Leverage
GICS	Global Industry Classification System
IOU	Investor Owned Utilities
Leverage	Fixed cost capital
Long-term U.S. Treasury Securities	Base Risk-Free Rate
M/B	Market-to-Book Ratios
Moody's	Moody's Investors Service
NARUC	National Association of Regulatory Utility Commissioners
Non-Systematic Risk	Company-Specific Risk
PUC	Pennsylvania Public Utility Commission
ROE	Return on Equity
RP	Risk Premium
S&P	Standard & Poor's
SIC	Standard Industrial Classification
Systematic Risk	Non-Diversifiable Risk
Value Line	Value Line Investment Survey
VUR	Veolia Utility Resources LLC
VWPA	Veolia Water Pennsylvania, Inc.
Water Group	Water Group Followed by Analysts

VWPA STATEMENT NO. 4
DIRECT TESTIMONY OF HAROLD WALKER
REGARDING RATE OF RETURN AND CASH WORKING CAPITAL

INTRODUCTION

Q. Please state your name and business address.

A. My name is Harold Walker, III. My business address is 1010 Adams Avenue, Audubon, Pennsylvania 19403.

Q. By whom are you employed and in what capacity?

A. I am employed by Gannett Fleming Valuation and Rate Consultants, LLC as Manager, Financial Studies.

Q. What is your educational background and employment experience?

A. My educational background, business experience and qualifications are provided in Appendix A.

SCOPE OF TESTIMONY

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to recommend an appropriate overall rate of return that Veolia Water Pennsylvania, Inc. ("VWPA" or the "Company") should be afforded an opportunity to earn on its water service rate base. Additionally, the reason of my testimony is to recommend an appropriate cash working capital allowance that VWPA should be afforded an opportunity to earn on as part of its rate base claim. My cash working capital

recommendation is based upon the results of a lead-lag study that was performed under my direct supervision.

My testimony regarding rate of return is supported by Exhibit HW-1, which is composed of 19 Schedules. I have also prepared Exhibit HW-2 which contains the 28 supporting schedules, identified as Schedule HW-1 through Schedule HW-28, summarizing the Company's cash working capital requirement in this proceeding.

Therefore, when discussing rate of return and I refer to a schedule, I am referring to the schedules contained in Exhibit HW-1 unless noted otherwise. Conversely, when discussing the Company's cash working capital requirement and I refer to a schedule, I am referring to the schedules contained in Exhibit HW-2 unless noted otherwise.

SUMMARY OF RATE OF RETURN RECOMMENDATION

Q. What is your recommended cost of equity?

A. My recommendation is that VWPA be permitted an overall rate of return of 7.95%, including a 10.80%[1] cost of common equity, based upon the Company's capital structure projected at October 31, 2025. My recommended cost of common equity reflects VWPA's unique risk characteristics.

[1] It should be noted that my current analysis contained in Exhibit HW-1 supports a cost of common equity of 10.80% for the Company. The Company's filing includes an overall rate of return of 7.95% and a 10.80% cost of common equity for filing purposes to minimize the requested revenue increase.

Q. How did you determine your recommended common equity cost rate?

A. I used several models to help me in formulating my recommended common equity cost rate including Discounted Cash Flow ("DCF"), Capital Asset Pricing Model ("CAPM") and Risk Premium ("RP").

Q. Is it important to use more than one market model?

A. Yes. It is necessary to estimate common equity cost rates using a number of different models. At any given time, a particular model may understate or overstate the cost of equity. While any single investor may rely solely upon one model, different investors rely on different models and many investors use multiple models. Therefore, because the price of common stock reflects a number of valuation models, it is appropriate to estimate the market-required common equity cost rate by applying a broad range of analytical models.

Q. Please summarize your common equity cost rate recommendation.

A. There is no market data concerning VWPA's shares of common stock because VWPA shares of common stock are not publicly traded. Accordingly, due to the lack of market data concerning VWPA's equity, I used a comparable group of publicly traded companies to estimate the common equity cost rate. Based upon the results of my entire analysis, I conclude VWPA's current common equity cost rate is at least 10.80%. The

current range of common equity cost for VWPA is 9.45% (DCF), 11.75% (CAPM), and 11.35% (RP). Value Line Investment Survey ("Value Line") is relied upon by many investors and is the only investment advisory service of which I am aware that projects earned return on equity. As a check on the reasonableness of my common equity cost rate recommendation, I reviewed Value Line's projected returns on common equity for comparable utilities. Value Line's projected earned returns on common equity for my comparable utilities average 10.7% and the median is 10.3%. The range of the projected returns suggests that my recommendation that VWPA be permitted an opportunity to earn 10.80% is reasonable, if not conservative.

PRINCIPLES OF RATE REGULATION AND FAIR RATE OF RETURN

Q. What are the principles guiding fair rates of return in the context of rate regulation?

A. In a capitalistic or free market system, competition determines the price for all goods and services. Utilities are permitted to operate as monopolies or near monopolies as a tradeoff for a ceiling on the price of service because: (1) the services provided by utilities are considered necessities by society; and (2) capital-intensive and long-lived facilities are necessary to provide utility service. Generally, utilities are required to serve all customers in their service territory at reasonable rates determined by regulators. As a result,

regulators act as a substitute for a competitive-free market system when they authorize prices for utility service.

Although utilities operate in varying degrees as regulated monopolies, they must compete with governmental bodies, non-regulated industries, and other utilities for labor, materials, and capital. Capital is provided by investors who seek the highest return commensurate with the perceived level of risk; the greater the perceived risk, the higher the required return rate. In order for utilities to attract the capital required to provide service, a fair rate of return should equal an investor-required, market-determined rate of return.

Q. What constitutes a fair rate of return?

A. Two noted Supreme Court cases define the benchmarks of a fair rate of return. In *Bluefield*[2], a fair rate of return is defined as: (1) equal to the return on investments in other business undertakings with the same level of risks (the comparable earnings standard); (2) sufficient to assure confidence in the financial soundness of a utility (the financial integrity standard); (3) adequate to permit a public utility to maintain and support its credit, enabling the utility to raise or attract additional capital necessary to provide reliable service (the capital attraction standard). The second case, *Hope*[3],

[2]Bluefield Water Works & Improvement Company v. P.S.C. of West Virginia, 262 U.S. 679 (1923).

[3]Federal Power Commission v. Hope Natural Gas Company, 320 U.S. 591 (1944).

determined a fair rate of return to be based upon guidelines found in *Bluefield* as well as stating that: (1) allowed revenues must cover capital costs including service on debt and dividends on stock; and (2) the Commission was not bound to use any single formula or combination of formulae in determining rates. Utilities are not entitled to a guaranteed return. However, the regulatory-determined price for service must allow the utility a fair opportunity to recover all costs associated with providing the service, including a fair rate of return.

INVESTMENT RISK

Q. Previously, you referred to risk. Please define the term risk.

A. Risk is the uncertainty associated with a particular action; the greater the uncertainty of a particular outcome, the greater the risk. Investors who invest in risky assets expose themselves to investment risk particular to that investment. Investment risk is the sum of business risk and financial risk. Business risk is the risk inherent in the operations of a business. Assuming that a Company is financed with 100% common equity, business risk includes all operating factors that affect the probability of receiving expected future income such as: sales volatility, management actions, availability of product substitutes, technological obsolescence, regulation, raw materials, labor, size and growth of the market served, diversity of the customer base, economic activity of the area served, and other similar factors.

Q. What is financial risk?

A. Financial risk reflects the manner in which an enterprise is financed. Financial risk arises from the use of fixed cost capital (leverage) such as debt and/or preferred stock, because of the contractual obligations associated with the use of such capital. Because the fixed contractual obligations must be serviced before earnings are available for common stockholders, the introduction of leverage increases the potential volatility of the earnings available for common shareholders and therefore increases common shareholder risks.

Although financial risk and business risk are separate and distinct, they are interrelated. In order for a company to maintain a given level of investment risk, business risk and financial risk should complement one another to the extent possible. For example, two firms may have similar investment risks while having different levels of business risk, if the business risk differences are compensated for by using more or less leverage (financial risk) thereby resulting in similar investment risk.

DESCRIPTION OF VWPA

Q. Please give a brief description of the Company.

A. VWPA is a private or investor-owned company. VWPA is a regulated public utility that provides water and wastewater service to about 66,000 (12/31/22) customers located in its franchise territories in the

Commonwealth of Pennsylvania, in a portion of Columbia, Cumberland, Dauphin, Luzerne, Montour, Perry, Schuylkill, Wyoming, and York Counties. The price of service of VWPA is regulated by the Pennsylvania Public Utility Commission ("Commission" or "PUC").

VWPA is a wholly-owned subsidiary of Veolia Utility Resources LLC ("VUR"). VUR is the sole source of VWPA's external capital. VUR owns and provides services to water and wastewater utility companies which are located throughout the United States (e.g., VWPA). VUR was founded in 1869 and is based in Paramus, New Jersey. VUR is a subsidiary of Veolia Utility Parent, Inc., which is a subsidiary of Veolia North America, Inc.

Veolia North America, Inc. is a wholly-owned subsidiary of Veolia Environnement S.A: Veolia Environnement S.A. is a French transnational company with activities in three main service and utility areas: water management, waste management and energy services.

THE INDUSTRY

Q. Please give a brief overview of the industry in which the Company operates.

A. VWPA operates in the water supply industry and the wastewater utility industry. The water supply industry has a Standard Industrial Classification ("SIC") code of 4941, has water utilities, and includes establishments primarily engaged in distributing water for sale for residential, commercial,

and industrial uses. Government controlled establishments such as municipalities, public service districts and other local governmental entities dominate the industry. Private companies or investor owned utilities ("IOU") are active in the construction and improvement of water supply facilities and infrastructure. There are currently about 11,000 U.S. Businesses with a SIC code of 4941.

A comparative industry to the water supply industry is the wastewater supply industry. The wastewater utility industry has a Standard Industrial Classification ("SIC") code of 4952 (Sewerage Systems), has sewer utilities, and includes establishments primarily engaged in the collection and disposal of wastes conducted through a sewer system, including such treatment processes as may be provided. There are currently about 2,200 U.S. Businesses with a SIC code of 4952.

The water supply industry is the most fragmented of the major utility industries with more than 53,000 community water systems in the U.S. (83% of which serve less than 3,300 customers). The nation's water systems range in size from large municipally owned systems, such as the New York City water system that serves approximately 9 million people, to small systems, where a few customers share a common well.

According to the U.S. Environmental Protection Agency's ("EPA") most recent survey of publicly-owned wastewater treatment facilities in 2008, there are approximately 15,000 such facilities in the nation, serving

approximately 74% of the U.S. population. Ninety eight percent of domestic wastewater systems are government owned rather than IOUs. Currently, there are no wastewater utility companies that have actively traded stock.[4]

An estimated 16% of all water supplies are managed or owned by IOUs. IOUs consist of companies with common stock that is either actively traded or inactively traded, as well as companies that are closely held, or not publicly traded. Currently, there are only about nine investor owned water utility companies with publicly traded stock in the U.S.

The water utility industry's and wastewater utility industry's increased compliance with state and federal water purity levels and large infrastructure replacements are driving consolidation of the wastewater utility and water utility industries. Because many wastewater utility and water utility operations do not have the means to finance the significant capital expenditures needed to comply with these requirements, many have been selling their operations to larger, financially stronger utilities.

The larger IOUs have been following an aggressive acquisition program to expand their operations by acquiring smaller wastewater and water systems. Generally, they enter a new market by acquiring one or several wastewater or water utilities. After their initial entry into a new market, the larger investor-owned water utility companies continually seek

[4]Many of the publicly traded water utility stocks also own some wastewater utilities but there are no publicly traded utility stocks which are comprised solely of wastewater utilities.

to expand their market share and services through the acquisition of wastewater and water utility businesses and operations that can be integrated with their existing operations. Such acquisitions may allow a company to expand market share and increase asset utilization by eliminating duplicate management, administrative, and operational functions. Acquisitions of small, independent utilities can often add earning assets without necessarily incurring the costs associated with the Safe Drinking Water Act ("SDWA") [5] if such acquisitions are contiguous to the potential purchaser.

In summary, the result of increased capital spending, to meet the SDWA and CWA requirements and replace the aging infrastructure of many systems, has moved the wastewater and water industries toward consolidation. Moreover, Federal and State regulations and controls concerning water quality are still in the process of being developed and it is not possible to predict the scope or the enforceability of regulations or standards which may be established in the future, or the cost and effect of existing and potential regulations and legislation upon VWPA. However, as a small to medium size water and wastewater system, VWPA faces the cost

[5]The SDWA is the principal federal law in the United States intended to ensure safe drinking water for the public. Pursuant to the act, the EPA is required to set standards for drinking water quality and oversee all states, localities, and water suppliers who implement these standards. The CWA, or Clean Water Act, is the primary federal law in the United States governing water pollution. The CWA's objective is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands.

of compliance with less financial resources when compared to larger IOU water utilities.

COMPARABLE GROUP

Q. How do you estimate the cost of common equity for VWPA?

A. VWPA's common stock is not publicly traded. Accordingly, I employed a comparable group of utility companies with actively traded stock, to determine a market-required cost rate of common equity capital for VWPA. Since no companies are perfectly identical to VWPA, it is reasonable to determine the market-required cost rate for a comparable group of utility companies and adjust, to the extent necessary, for investment risk differences between VWPA and the comparable group.

Q. How did you select the comparable group used to determine the cost of common equity for VWPA?

A. I selected a comparable group of water utilities to determine the cost of common equity for VWPA considering security analysts' coverage. Unlike the other utility industries, only a portion of the IOU water companies with publicly traded stock in the U.S. are followed by security analysts. Coverage by security analysts is important when determining a market required cost of common equity. Accordingly, security analysts' coverage was considered when selecting my comparable group. I selected my water utility comparable group, Water Group Followed by Analysts ("Water

Group"), based upon a general criteria that includes: (1) all U.S. water utilities that are covered by security analysts as measured by the existence of sources of published projected five-year growth rates in earnings per share ("EPS"); (2) with a Standard Industrial Classification (SIC) of 4941 (i.e., Water Supply Facilities and Infrastructure); (3) with a North American Industry Classification System (NAICS) of 221310 (i.e., Water Supply and Irrigation Systems); (4) are not the announced subject of an acquisition; (5) currently pay a common dividend and have not reduced their common dividend within the past four years; (6) have market value of common stock, the product of multiplying the closing stock price by the number of common shares outstanding, greater than $500.0 million; and (7) have a total enterprise, the sum of market value, preferred stock and total debt, greater than $700.0 million.

It should be noted that the Water Group is also referred to as the Comparable Group and/or the Comparable Companies.[6] The names of the utilities that comprise the Comparable Group and their bond or credit ratings are listed in Table 1.

[6]All of the Comparable Companies also provide some wastewater service.

Bond and Credit Ratings for
The Water Group Followed by Analysts

Water Group Followed by Analysts	S&P Credit Rating
American States Water Co	A+
American Water Works Co Inc	A
California Water Service Gp *	A+
Essential Utilities, Inc.	A
Middlesex Water Co	A
SJW Corp	A-
York Water Co	A-
Average	A

* - The A+ bond rating is that for California Water Service, Inc.

Table 1

Q. Why did you include not being the subject of an acquisition as a criteria for the Water Group?

A. To begin with, there are only about nine investor owned water utility companies with publicly traded stock in the U.S., and some of these companies are very small. As stated previously, the IOU water industry receives only limited exposure on Wall Street.

Additionally, the merger activity in the water industry can result in abnormal or "tainted" stock prices in terms of a DCF analysis because premiums are typically paid in corporate acquisitions. That is, when a tender offer is made for the purchase of all the outstanding stock of a

company, the amount of that offer usually exceeds the price at which the stock was previously traded in the market. These large premiums are often reflected in the prices of other water utilities that are not currently the announced subject of an acquisition.[7]

CAPITAL STRUCTURE

Q. What is required to develop an overall rate of return?

A. The first step in developing an overall rate of return is the selection of capital structure ratios to be employed. Next, the cost rate for each capital component is determined. The overall rate of return is the product of weighting each capital component by its respective capital cost rate. This procedure results in VWPA's overall rate of return being weighted proportionately to the amount of capital and cost of capital of each type of capital.

Q. Does VWPA directly raise or issue its own debt capital?

A. No, prospectively VWPA does not raise its own capital; rather VUR is the sole source of VWPA's external capital.

[7] Multiple publications mention these impacts including Research Magazine – April 2010, Barron's – March 2001, Utility Business – June 2002, Value Line Investment Survey – April 2013, and Wastewater Digest, March 2022.

Q. What capital structure ratios are appropriate to be used to develop VWPA's overall rate of return?

A. Consistent with settled rate setting principles, I believe it is necessary to evaluate VWPA's current cost of capital based on VUR's projected October 31, 2025 capital structure, which includes 46% debt and 54% common equity as reflected in Schedule 1.

Q. Is there a set of regulatory and financial principles used in deciding the appropriate capital structure to use for cost of capital purposes?

A. Yes. There is a general set of regulatory and financial principles used in deciding the capital structure issue for cost of capital purposes that are consistent with both regulatory and financial theories:

1) It is generally preferable to use a utility's actual capital structure in developing its rate of return. However, in deciding whether a departure from this general preference is warranted in a particular case, it is appropriate to first look to the issue of whether the utility is a financially independent entity. In determining whether a utility is a financially independent entity or self-financing, it is important to look to whether the utility:

- has its own bond rating;
- provides its own debt financing; and
- debt financing is <u>not</u> guaranteed by a parent company.

2) When a utility issues its own debt that is not guaranteed by the public or private parent and has its own bond rating, regulatory and financial principles indicate to use a utility's own capital structure, unless the utility's capital structure is not representative of the utility's risk profile or where use of the actual capital structure would create atypical results. Regulatory and financial principles involve determining whether the actual capital structure is atypical when compared with the capital structures approved by the Commission for other utilities that operate in the same industry (*i.e.,* water utility, gas distribution utility, etc.), as well as those of the proxy utility companies that operate in the same industry.

3) For utility subsidiaries without publicly traded stock, the manner in which the utility obtains its debt financing determines whether it does its own financing. Public Utility Commissions generally determine if a subsidiary has financial, operational, and managerial relationships with its parent entity. However, having such ties typically has not led to use of a parent's capital structure for regulatory purposes, unless the subsidiary utility issues no long-term debt, issues long-term debt only to its parent, or issues long-term debt to outside investors only with the guarantee of its parent.

4) If a utility does not provide its own financing, Public Utility Commissions often look to another entity. Generally, Public Utility

Commissions use the actual capital structure of the entity that does the financing for the regulated utility as long as it results in just and reasonable rates. This generally means using a parent company.

5) If the parent's capital structure is used, because it finances the operation of the utility, regulatory and financial principles require adjustments in the utility's allowed rate of return on equity to adjust for risk differences, if any, between the parent and the regulated subsidiary. If, however, the financing entity's capital structure is inconsistent relative to the capital structures of the publicly-traded proxy companies used in the cost of equity analysis and capital structures approved for other utilities that operate in the same industry (*i.e.,* water utility, gas distribution utility, etc.), Public Utility Commissions employ a hypothetical capital structure.

Once the cost of equity for the proxy companies is determined, thereby establishing a range of reasonable returns, Public Utility Commissions should determine where to set the utility's return in that range based upon how the utility's risk compares with that of other utilities that operate in the same industry (*i.e.,* water utility, gas distribution utility, etc.). The risk analysis begins with the assumption that the utility generally falls within a broad range of average risk, absent highly unusual circumstances that indicate an inconsistently high or low risk as compared to other utilities that operate in the same industry (*i.e.,* water utility, gas distribution utility,

etc.). Generally, financial risk is a function of the amount of debt in an entity's capital structure used for cost of capital purposes. When there is more debt, there is more risk.

Q. How does your recommended capital structure compare with ratios employed by other investor-owned companies?

A. The capital structure I recommend for VWPA reflects a common equity ratio of 54% which is similar to the range of the ratios employed by other investor-owned water companies as shown on pages 1 and 2 of Schedule 2. A comparison of my recommendation for VWPA's capital structure ratios to those recently employed by the Comparison Group is shown in Table 2.

Comparison of Capital Structure Ratios

	VWPA	Water Group	
	Pro Forma at 10/31/2025	At 6/30/2023	Projected 2027
Debt	46.0	50.4	47.7
Preferred Stock	0.0	0.1	0.0
Common Equity	54.0	49.5	52.3
	100.0	100.0	100.0

Table 2

VWPA's rate making capital structure ratios are reasonable based upon the above information.

EMBEDDED COST RATE

Q. What embedded cost rates do you recommend be used to calculate VWPA's overall rate of return?

A. Consistent with my recommended capital structure ratios I recommend using VUR's projected embedded debt cost rate of 4.60%, at October 31, 2025, for VWPA as reflected in Schedule 1. This embedded debt cost rate of 4.60% is detailed in the Company's Exhibit No. GRH-2 Schedule 1.2. The determination of an embedded cost rate is a relatively simple arithmetic exercise because a company has contracted for this capital for a specific period of time and at a specific cost, including issuance expenses and coupon rate.

The Company's projected embedded debt cost rate, at October 31, 2025, reflects a projected debt issuance in November 2024. The projected debt issuance in November 2024 reflects the same terms (e.g., coupon, net proceeds, etc.) as the Company's most recent debt issuance in November 2023.

FINANCIAL ANALYSIS

Q. Have you reviewed historical financial information of VWPA as part of your analysis?

A. Yes. On page 1 of Schedule 3, I developed a five-year analysis, ending in 2022, detailing various financial ratios for VWPA. On Schedule 4, I performed a similar five-year analysis for the Water Group. Schedule 5

reveals the results of operations for a large broad-based group of utilities known as the Standard & Poor's ("S&P") Utilities for the five years ending 2022. This information is useful in determining relative risk differences between different types of utilities.

Comparing VWPA, the Comparable Group and the S&P Utilities' coverage of fixed charges and the various cash flow coverage proves that the Comparable Group has experienced a lower level of coverage than the S&P Utilities. Reviewing VWPA's various cash flow coverages shows VWPA has had higher levels of coverage than the Comparable Group.

Q. What do you conclude from the comparison of all the information shown on Schedules 3 through 5?

A. Taken together, these comparisons show that VWPA is exposed to risk that is similar in nature but greater in degree compared with the Comparable Groups. This is evident in particular when one considers the size and diversification of VWPA, or lack thereof, as compared to the Comparable Companies. Moreover, the evidence from the various financial ratios shows VWPA's risks as being similar to the Comparable Companies' but less than the larger S&P Utilities. Prospectively, VWPA's future construction

expenditures will place downward pressure on VWPA's financial ratios as measured by interest coverage and cash generation.

Q. What information is shown on Schedule 6?

A. Schedule 6 lists the names, issuer credit ratings, common stock rankings, betas and market values of the companies contained in the Comparable Group and the S&P Utilities. As is evident from the information shown on Table 3, the Comparable Group and the S&P Utilities are similar to each other in risk.

	S&P Issuer Credit Rating	S&P Quality Ranking	Value Line Beta	Recent Market Value (Mill $)	Market Quartile Name
Water Group	A	High (A)	0.82	2,918.445	Mid-Cap
S&P Utilities	BBB+	Average (B+)	0.92	23,571.752	Large-Cap

Table 3

The Water Group's average issuer credit ratings and common stock rankings are higher than the S&P Utilities. The average beta of the Comparable Group, 0.82, is less than the average beta of the S&P Utilities, 0.92. Beta is a measure of volatility or market risk; the higher the beta, the higher the market risk. The market values provide an indication of the

relative size of each group. As a generalization, the smaller the average size of a group, the greater the risk.

Page 2 of Schedule 6 shows that VWPA has generally experienced the lowest return on equity ("ROE") when compared to the Comparable Companies. Further, VWPA's dividend payout ratio is lower than the Comparable Companies' dividend payout ratio.

S&P, the predominant bond rating agency, considers profit to be a fundamental determinant of credit protection. S&P states that a firm's profit level:

> Whether generated by the regulated or deregulated side of the business, profitability is critical for utilities because of the need to fund investment-generating capacity, maintain access to external debt and equity capital, and make acquisitions. Profit potential and stability is a critical determinant of credit protection. A company that generates higher operating margins and returns on capital also has a greater ability to fund growth internally, attract capital externally, and withstand business adversity. Earnings power ultimately attests to the value of the company's assets, as well. In fact, a company's profit performance offers a litmus test of its fundamental health and competitive position.
>
> Accordingly, the conclusions about profitability should confirm the assessment of business risk, including the degree of advantage provided by the regulatory environment.[8]

[8]Standard & Poor's Ratings Services, *Criteria, Utilities: Key Credit Factors: Business And Financial Risks In The Investor-Owned Utilities Industry*, Nov. 26, 2008, pps. 8-9.

Q. What information is shown on Schedule 7?

A. Schedule 7 reveals the capital intensity and capital recovery for VWPA, the Comparable Companies and the S&P Utilities. Based upon the 2022 capital intensity ratio of plant to revenues, VWPA ($8.16) is more capital intensive as compared to the Water Group ($6.63) and more than the S&P Utilities ($4.45). From a purely financial point of view, based on current accounting practices, the rate of capital recovery or depreciation rate is an indication of risk because it represents cash flow and the return of an investment. VWPA's average rate of capital recovery is lower than the Comparable Group's, suggesting more risk.

The return on equity and depreciation expense provides the margin for coverage of construction expenditures. For a utility company, depreciation expense is the single largest generator of cash flow. From a financial analyst's point of view, cash flow is the life blood of a utility company. Without it, a utility cannot access capital markets, it cannot construct plant, and therefore, it cannot provide service to its customers.

RISK ANALYSIS

Q. Please explain the information shown on Schedule 8.

A. Schedule 8 details the size difference between VWPA and the Comparable Group. Company size is an indicator of business risk and is summarized in Table 4.

Number of Times Larger Than VWPA	
	Water Group
Capitalization	18.6x
Revenues	20.3x
Number of Customers	14.6x

Table 4

As shown in Table 4, VWPA is smaller than the Water Group. The size of a company affects risk. A smaller company requires the employment of proportionately less financial leverage (*i.e.,* debt and preferred capital) than a larger company to balance out investment risk. If investment risk is not balanced out, then a higher cost of capital is required.

Q. Why is size significant to your analysis?

A. The size of a company can be likened to ships on the ocean, since a large ship has a much better chance of weathering a storm than a small ship. The loss of a large customer will impact a small company much more than a large company because a large customer of a small company usually accounts for a larger percentage of the small company's sales.

Moreover, a larger company is likely to have a more diverse geographic operation than a smaller company, which enables it to sustain earnings fluctuations caused by abnormal weather in one portion of its service territory. A larger company operating in more than one regulatory

jurisdiction enjoys "regulatory diversification" which makes it less susceptible to adverse regulatory developments or eminent domain claims in any single jurisdiction. Further, a larger company with a more diverse customer base is less susceptible to downturns associated with regional economic conditions than a small company. For example, on average, the average company in the Water Group provides water/sewer service in multiple states for about 963,400 customers. The average population of the communities served by the average company in the Water Group is about 3.5 million people. These wide-ranging operations provide the Water Group substantial geographic, economic, regulatory, weather and customer diversification. VWPA provides regulated water and wastewater service to about 66,000 customers (2022). The concentration of VWPA's business in east-central Pennsylvania makes it very susceptible to any adverse development in local regulatory, economic, demographic, competitive and weather conditions.

Further, S&P, a major credit rating agency, recognizes the importance that diversification and size play in credit ratings. S&P believes some of the critical factors include: regional and cross-border market diversification (mitigates economic, demographic, and political risk

concentration); customer diversification; and regulatory regime diversification.[9]

The size of a company can be a barrier to fluid access to capital markets (*i.e.,* liquidity risk). Investors require compensation for the lack of marketability and liquidity of their investments. If no compensation is provided, then investors, or at least sophisticated investors, shy away.

Q. Is the impact of size commonly recognized?

A. Yes, the National Association of Regulatory Utility Commissioners ("NARUC"), and the majority of acclaimed financial texts, recognize that size affects relative business risk. Liquidity risk and the existence of the small firm effect relating to business risk of small firms are well-documented in financial literature.[10] Investors' expectations reflect the highly-publicized existence of the small firm effect. For example, many mutual funds classify their investment strategy as small capitalization in an attempt to profit from the existence of the small firm effect.

As previously discussed, S&P recognizes that size plays a role in credit ratings.

> Standard & Poor's has no minimum size criterion for any given rating level. However, size turns out to be significantly correlated to ratings. The reason: size

[9]Standard & Poor's, Corporate Ratings Criteria, Utilities: Key Credit Factors: Business and Financial Risks in The Investor-Owned Utilities Industry, Nov. 26, 2008.

[10]Banz, Rolf, W. "The Relationship Between Return and Market Value of Common Stocks," Journal of Financial Economics, 9:3-18 1981. For subsequent studies see Fama and French, etc.

> often provides a measure of diversification, and/or affects competitive position. . . . Small companies are, almost by definition, more concentrated in terms of product, number of customers, or geography. In effect, they lack some elements of diversification that can benefit larger companies. To the extent that markets and regional economies change, a broader scope of business affords protection. This consideration is balanced against the performance and prospects of a given business. . . . In addition, lack of financial flexibility is usually an important negative factor in the case of very small companies. Adverse developments that would simply be a setback for companies with greater resources could spell the end for companies with limited access to funds.[11]

As shown on Schedule 9, size plays a role in the composition of investors, and hence liquidity. In 2022, about 123% of the Water Group's shares traded while the larger companies comprising the S&P Utilities had a much higher trading volume of 169%. Insiders[12] hold more than ten times more, as a percent to total, of the Water Group's shares than the S&P Utilities. Currently, only about 77% of the Water Group shares are held by institutions[13] while the larger companies comprising the S&P Utilities had much higher institutional holdings of 84%. Due to small size and less interest by financial institutions, fewer security analysts follow the Comparable Group and none follow VWPA.

[11] *Standard & Poor's*, Corporate Ratings Criteria 2006; p. 22.
[12] An insider is a director or an officer who has a policy-making role or a person who is directly or indirectly the beneficial owner of more than 10% of a certain company's stock.
[13] Institutional holders are those investment managers having a fair market value of equity assets under management of $100 million or more. Certain banks, insurance companies, investment advisers, investment companies, foundations and pension funds are included in this category.

The lack of trading activity may affect the cost of equity estimates for small entities such as VWPA and the Water Group. When stock prices do not change because of inactive trading activity, estimates of dividend yield for use in a dividend cash flow model and beta estimates for use in the capital asset pricing model are affected. In a stock market that is generally up, the beta estimates for the Comparable Companies may be understated due to thin trading.

Q. Do VWPA and the Comparable Companies have similar operating risks?

A. Yes. From an operations standpoint, VWPA and the Comparable Companies have similar risks and are indistinguishable. Both are required to meet Clean Water Act and Safe Drinking Water Act requirements and are also required to provide safe and reliable services to their customers and comply with Commission regulations.

Q. Is there any single measure that best shows investment risk from a common stockholder's perspective?

A. No. However, from a creditor's viewpoint, the best measure of investment risk is debt rating. The debt rating process generally provides a good measure of investment risk for common stockholders because the factors considered in the debt rating process are usually relevant factors that a

common stock investor would consider in assessing the risk of an investment. Credit rating agencies, such as S&P, assess the risk of an investment into two categories based on: fundamental business analysis; and financial analysis.[14] The business risk analysis includes assessing: Country risk; industry risk; competitive position; and profitability/peer group comparisons. The financial risk analysis includes assessing: accounting; financial governance and policies/risk tolerance; cash flow adequacy; capital structure/asset protection; and liquidity/short-term factors.

Q. What is the bond rating of VWPA and the Comparable Group?

A. Page 1 of Schedule 10 shows the average bond/credit rating Comparable Group. The Comparable Group has an A credit profile and VWPA does not have bonds rated. VUR has an A credit profile. The major bond rating/credit rating agencies append modifiers, such as +, - for S&P and 1, 2, and 3 for Moody's Investors Service ("Moody's") to each generic rating classification. For example, an "A" credit profile is comprised of three subsets such as A+, A, A- for S&P or A1, A2 or A3 for Moody's. The modifier of either "+" or "1" indicates that the obligation ranks in the higher end of its generic rating category; the modifier "2" indicates a mid-range ranking; and the modifier of "-" or "3" indicates a ranking in the lower end of that generic rating category.

[14] *Standard & Poor's*, Corporate Ratings Criteria, General: Criteria Methodology: Business Risk/Financial Risk Matrix Expanded, May 27, 2009 and *Standard & Poor's*, Criteria Corporates General: Corporate Methodology, November 19, 2013.

S&P and Moody's publish financial benchmark criteria necessary to obtain a bond rating for different types of utilities. As a generalization, the higher the perceived business risk, the more stringent the financial criteria so the sum of the two, business risk and financial criteria, remains the same.

Q. What are some financial benchmarks applied by credit rating agencies for rating public utility debt?

A. S&P describes its range of financial benchmarks as

> Risk-adjusted ratio guidelines depict the role that financial ratios play in Standard & Poor's rating process, since financial ratios are viewed in the context of a firm's business risk. A company with a stronger competitive position, more favorable business prospects, and more predictable cash flows can afford to undertake added financial risk while maintaining the same credit rating. The guidelines displayed in the matrices make explicit the linkage between financial ratios and levels of business risk.[15]

Q. What other information is shown on Schedule 10?

A. Page 2 of Schedule 10 summarizes the application of S&P's and Moody's measures of financial risk for VWPA and the Comparable Group. S&P's and Moody's measures of financial risk are broader than the traditional measure of financial risk (i.e., leverage). Besides reviewing amounts of leverage employed, S&P and Moody's also focus on earnings protection and cash flow adequacy.

[15]Standard & Poor's Corporate Rating Criteria, 2000.

As is evident from the information shown on page 2 of Schedule 10, for the five years ending in 2022 and for the year 2022, VWPA's cash flow adequacy ratios were generally higher than the Comparable Companies in most instances. Comparing the VWPA and the Water Group's measures of cash flow adequacy shows that the VWPA has experienced a higher level of cash flow adequacy than Water Group, indicating that VWPA is a lower investment risk than the Water Group. Prospectively, based upon the Company's construction program, the Company's ratios are likely to be strained. Based solely upon VWPA's historical ratios, it is my opinion that VWPA's credit profile is similar but higher to the Comparable Companies.

Further, based solely upon VWPA's size, it is my opinion that VWPA's credit profile is similar but lower than the Comparable Groups'. Based on VWPA's smaller size, it is highly likely that VWPA's credit profile is below BBB (i.e., BB), based solely upon size. An analysis of corporate credit ratings, shown on page 4 of Schedule 10, indicates that there is an 86% (100%-0%-1%-4%-9%=86%) chance that VWPA's credit profile falls below BBB based on its small size alone.[16] As S&P has stated, size is significantly correlated to credit ratings.

An analysis of corporate credit ratings, summarized on page 4 of Schedule 10, found The Berkshire Gas Company ("Berkshire") to be the

[16] Additionally, using VWPA's $295.336 million capitalization as a midpoint, I found only 15 companies which had capitalization of between $195.336 million to $395.336 million with a S&P bond or credit rating. Of these 15 companies, only 40% had bonds rated BBB or higher.

smallest utility with a credit rating. Berkshire's credit rating is only BBB+ despite having a capitalization comprised of about $204 million and a common equity ratio of 71%. According to this analysis of corporate credit ratings, the smallest rated water utility is The York Water Company ("York"). York's credit rating is only A- notwithstanding having a capitalization of about $347 million and a common equity ratio of 60%.

Q. Have you reviewed the Company's large construction program?

A. Yes, the Company estimates its construction program to total $223 million from 2023 through 2026. At year end 2022 the Company's total capital outstanding was $295 million indicating the need for a 76% increase ($223 million ÷ $295 million) in capital through 2026.

Q. How does the magnitude of the Company's large construction program compare to the Comparable Group's construction program?

A. The Company is forecasted to require 76% of additional capital to finance its construction program while the Comparable Group is projected by Value Line to require 46% of additional capital to finance their construction programs. Accordingly, VWPA's capital requirements are about 65% higher than the Comparable Group's construction programs through 2026 indicating greater risk for VWPA.

In order to compete with the Comparable Group for capital, in the future, it will be necessary for VWPA to achieve higher returns on equity, and increased cash flow just to maintain a similar credit quality.

S&P has stated:

> ... low authorized returns may affect the industry's ability to attract necessary capital to develop new water supplies and upgrade the quality of existing supplies . . . Traditional ratemaking policy has not provided sufficient credit support during the construction cycle of the electric industry over the past 15 years. To avoid a repeat in the water industry, regulators must be aware of the increased challenges the industry faces.[17]

Investors will not provide the equity capital necessary for increasing the amount of common equity in a capital structure unless the regulatory authority allows an adequate rate of return on the equity.[18]

Q. What do you conclude from the various measures of investment risk information you have testified to?

A. A summary of my conclusions regarding the risk analyses discussed previously is shown in Table 5. Overall, the information summarized in Table 5 indicates that VWPA has similar investment risk as the Water Group.

[17]Standard & Poor's CreditWeek, May 25, 1992 (emphasis added).
[18]National Association of Regulatory Utility Commissioners, loc. cit.

Summary of Risk Analyses

	VWPA	Water Group Followed by Analysts
1. Business Risk:		
2. Country Risk	Similar Risk Level	
3. Industry Risk	Similar Risk Level	
4. Competitive Position	Similar Risk Level	
5. Profitability/Peer Group Comparisons	Higher Risk Level	
6. Capitalization Ratios & Financial Risk (Leverage)*	Similar Risk Level	
7. Debt Cost Rate*	Similar Risk Level	
8. Relative Size:		
9. Regulatory Diversification	Higher Risk Level	
10. Economic Diversification	Higher Risk Level	
11. Demographic Diversification	Higher Risk Level	
12. Diversification of Weather Conditions	Higher Risk Level	
13. Customer Concentration of Revenues	Higher Risk Level	
14. Capital Intensity	Higher Risk Level	
15. Capital Recovery	Higher Risk Level	
16. Lower Liquidity:		
17. Institutional Holdings	Higher Risk Level	
18. Insider Holdings	Higher Risk Level	
19. Percentage of Shares Traded	Higher Risk Level	
20. Required To Meet Clean Water Acts and Safe Drinking Water Act	Similar Risk Level	
21. Credit Market Financial Risk Metrics		Higher Risk Level
22. Cash Flow Adequacy		Higher Risk Level
23. Credit Rating / Credit Profile	Similar Risk Level	

* - Based on recommended capital structure for rate making purposes.
Comment: The terms "Similar Level " indicates same amount of risk and the terms "Higher Level " indicates greater risk.

Table 5

CAPITAL COST RATES

Q. What information is shown on Schedule 11?

A. Schedule 11 reviews long-term and short-term interest rate trends. Long-term and short-term interest rate trends are reviewed to ascertain the "sub-flooring" or "basement" upon which the Comparable Companies' common equity market capitalization rate is built. Based upon the settled yields

implied in the Treasury Bond future contracts and the long-term and recent trends in spreads between long-term government bonds and A-rated public utility bonds available to me at the time Schedule 11 was prepared, I conclude that the market believes that if the Comparable Companies issued new long-term bonds near term, they would be priced to yield about 5.6% based upon a credit profile of "A." Further, it is reasonable to conclude the market anticipates that long-term government bonds will be priced to yield about 4.1%, near term.

Since October 2008, the Federal Reserve ("FED") has been monetizing US Treasury debt to artificially suppress interest rates through expansionary money policies (i.e., quantitative easing). The Federal Reserve, with effectively unlimited money at its disposal, intervenes at any time it wishes, in whatever volume it wishes, to make sure that Treasury bond and bill prices and yields are exactly what the Federal Reserve wants them to be. The U.S. Treasury bond market, and mortgage market, has become an artificial market with no connection to objective risk and interest rates.

In August 2011, the Federal Reserve began "Operation Twist." Under "Operation Twist," the Federal Reserve began buying $400 billion of long-dated or long-term US Treasury debt, financed by selling short-term US Treasury debt with three years to go or less. The goal of "Operation Twist" was to try to drive long-term rates lower, which the Federal Reserve

thought would help the mortgage market. This process has created an artificial demand for the US Treasury debt themselves, and easily drives interest rates artificially lower and deceives investors into believing U.S. Treasury debt is safe with wide demand. This has resulted in the entire capital system being impacted by the Federal Reserve's distortion of the price of risk.

> In the real world of economics, the borrower pays an interest rate to a lender, who makes money (interest) by taking on the risk of lending and deferring gratification. The lender is willing to not spend his money now. In a free market economy, interest rates are essentially a price put on money, and they reflect the time preference of people. Higher interest rates reflect a high demand for borrowing and lower savings. But the higher rates automatically correct this situation by encouraging savings and discouraging borrowing. Lower interest rates will work the opposite way. When the government/central bank tampers with interest rates, savings and lending are distorted, and resources are misallocated. This is evident in looking back on the housing bubble. The artificially low interest rates signaled that there was a high amount of savings. But it was a false signal. There was also a signal for people to borrow more. Again, it was a false signal. As these false signals were revealed, the housing boom turned into a bust.[19]

More recently, in response to COVID-19, the Federal Reserve provided monetary and fiscal stimulus to increase liquidity in the form of new fiscal stimulus programs and rate cuts. "For context, new fiscal stimulus and total fiscal deficits in the US are roughly double the levels seen in 2008-

[19]Pike, Geoffrey "The Threat of Negative Interest Rates," Wealth Daily, May 30, 2014, http://www.wealthdaily.com/articles/the-threat-of-negative-interest-rates/5185, (6/03/2014)

2009, and the US fiscal deficit we project for 2020 of 15%-18% is only matched by deficits seen at the height of WWII in 1942-1943."[20] The combined result of these actions by the Federal Reserve and investors' flight to quality resulted in artificial and historically low risk-free rates as measured by the 30-year treasury bond yield.

Q. What are some of the results from the FED's monetary and fiscal stimulus?

A. The FED's quantitative easing of expanding its own balance sheet, by buying bonds, and therefore injecting money into the economy, floods the economy with additional cash, keeping interest rates low and impacts equity markets. Additionally, the FED's uninterrupted and aggressive monetary expansion policy necessarily puts pressure on inflation. The FED's monetary and fiscal stimulus, which included artificial and historically low interest rates, have produced some of the highest inflation rates in the last 40 years according to CNBC.

> Inflation rose 9.1% in June, even more than expected, as consumer pressures intensify.
>
> Shoppers paid sharply higher prices for a variety of goods in June as inflation kept its hold on a slowing U.S. economy, the Bureau of Labor Statistics reported Wednesday.
>
> The consumer price index, a broad measure of everyday goods and services related to the cost of living, soared 9.1% from a year ago, above the 8.8% Dow Jones estimate. That

[20] https://www.jpmorgan.com/jpmpdf/1320748588999.pdf, (5/29/20).

marked the fastest pace for inflation going back to November 1981.[21]

In response to the recent level of inflation rates, the Federal Reserve announced its goal of increasing interest rates as high as needed to get inflation back to 2%.

> Americans are headed for a painful period of slow economic growth and possibly rising joblessness as the Federal Reserve raises interest rates to fight high inflation, U.S. central bank chief Jerome Powell warned on Friday in his bluntest language yet about what is in store for the world's biggest economy.
>
> In a speech kicking off the Jackson Hole central banking conference in Wyoming, Powell said the Fed will raise rates as high as needed to restrict growth, and would keep them there "for some time" to bring down inflation that is running at more than three times the Fed's 2% goal.
>
> "Reducing inflation is likely to require a sustained period of below-trend growth," Powell said. "While higher interest rates, slower growth, and softer labor market conditions will bring down inflation, they will also bring some pain to households and businesses. These are the unfortunate costs of reducing inflation. But a failure to restore price stability would mean far greater pain."
>
> As that pain increases, Powell said, people should not expect the Fed to dial back its monetary policy quickly until the inflation problem is fixed.[22]

[21] Cox, J. (2022, July 13). Inflation rose 9.1% in June, even more than expected, as consumer pressures intensify. *CNBC*. Retrieved from https://www.cnbc.com/2022/07/13/inflation-rose-9point1percent-in-june-even-more-than-expected-as-price-pressures-intensify.html, (7/13/22).
[22] Schneider, H and Saphir, A (2022, August 26). Powell sees pain ahead as Fed sticks to the fast lane to beat inflation. *REUTERS*. Retrieved from https://www.reuters.com/markets/us/feds-powell-pain-tight-policy-slow-growth-needed-for-some-time-beat-inflation-2022-08-26/, (8/27/22).

More recently the Chairman of the Federal Reserve reiterated its goal of increasing interest rates as high as needed to get inflation back to 2%.

> It is the Fed's job to bring inflation down to our 2 percent goal, and we will do so. **We have tightened policy significantly over the past year**. Although inflation has moved down from its peak—a welcome development—it remains too high. **We are prepared to raise rates further if appropriate**, and intend to hold policy at a restrictive level until we are confident that inflation is moving sustainably down toward our objective. . . .
>
> Restrictive monetary policy has tightened financial conditions, supporting the expectation of below-trend growth. **Since last year's symposium, the two-year real yield is up about 250 basis points, and longer-term real yields are higher as well—by nearly 150 basis points.** Beyond changes in interest rates, bank lending standards have tightened, and loan growth has slowed sharply. . . .
>
> But we are attentive to signs that the economy may not be cooling as expected. So far this year, GDP (gross domestic product) growth has come in above expectations and above its longer-run trend, and recent readings on consumer spending have been especially robust. In addition, after decelerating sharply over the past 18 months, the housing sector is showing signs of picking back up. Additional evidence of persistently above-trend growth could put further progress on inflation at risk and **could warrant further tightening of monetary policy**.[23]

Prospectively the capital markets will be affected by the upcoming unprecedented large Treasury financings coupled with increased interest rates. Investors provide capital based upon risk and return opportunities

[23] Jerome H. Powell, "Inflation: Progress and the Path Ahead" ("Structural Shifts in the Global Economy," an economic policy symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming, August 25, 2023). *(Emphasis added and footnotes omitted*)

and investors will not provide common equity capital when higher risk-adjusted returns are available.

COMMON EQUITY COST RATE ESTIMATE

Q. What is the best method of estimating common equity cost rates?

A. There is no single method (model) suitable for estimating the cost rate for common equity. While a single investor may rely solely upon one model in evaluating investment opportunities, other investors rely on different models. Most sophisticated investors who use an equity valuation model rely on many models in evaluating their common equity investment alternatives. Therefore, the average price of an equity security reflects the results of the application of many equity models used by investors in determining their investment decisions.

The application of any single model to estimate common equity cost rates is not appropriate because the security price for which the equity cost rate is being estimated reflects the application of many models used in the valuation of the investment. That is, the price of any security reflects the collective application of many models. Accordingly, if only one model is used to estimate common equity cost rates, that cost rate will most likely be different from the collective market's cost rates because the collective valuation in the market reflects more than one method.

Noted financial texts, investor organizations and professional societies all endorse the use of more than one valuation method. "We endorse the dividend discount model, particularly when used for established companies with consistent earnings power and when used along with other valuation models. It is our view that, in any case, an investor should employ more than one model."[24]

The American Association of Individual Investors states, "No one area of investment is suitable for all investors and no single method of evaluating investment opportunities has been proven successful all of the time."[25]

In its study guide, the National Society of Rate of Return Analysts states, "No cost of equity model or other concept is recommended or emphasized, nor is any procedure for employing any model recommended . . . it remains important to recognize that alternative methods exist and have merit in cost of capital estimation. To this end, analysts should be knowledgeable of a broad spectrum of cost of capital techniques and issues."[26]

Several different models should be employed to measure accurately the market-required cost of equity reflected in the price of stock. Therefore,

[24]Sidney Cottle, Roger F. Murray and Frank E. Block, Graham and Dodd's Securities Analysis 5th Edition, McGraw-Hill, Inc., 1988, p. 568 (emphasis added).
[25]Editorial Policy, AAII Journal, American Association of Individual Investors, Volume 18, No. 1, January 1996, p. 1.
[26]David C. Parcell, The Cost of Capital - A Practitioners Guide, National Society of Rate of Return Analysts, 1995 Edition.

I used three recognized methods: the DCF shown on Schedule 12, the CAPM shown on Schedule 17, and the RP shown on Schedule 18.

DISCOUNTED CASH FLOW

Q. Please explain the discounted cash flow model.

A. The DCF is based upon the assumption that the price of a share of stock is equal to a future stream of cash flows to which the holder is entitled. The stream of cash flows is discounted at the investor-required cost rate (cost of capital).

Although the traditional DCF assumes a stream of cash flow into perpetuity, a termination, or sale price can be calculated at any point in time. Therefore, the return rate to the stockholder consists of cash flow (earnings or dividends) received and the change in the price of a share of stock. The cost of equity is defined as:

> ...the minimum rate of return that must be earned on equity finance and investments to keep the value of existing common equity unchanged. This return rate is the rate of return that investors expect to receive on the Company's common stock . . . the dividend yield plus the capital gains yield . . . [27]

[27] J. Fred Weston and Eugene F. Brigham, Essentials of Managerial Finance, 3rd ed. (The Dryden Press), 1974, p. 504 (emphasis added).

Q. Please explain how you calculated your dividend yield in the DCF shown on Schedule 12.

A. As shown on page 1 of Schedule 12, I used the average dividend yield of 2.3% for the Water Group. The individual dividend yields are shown on page 2 of Schedule 12 and are based upon the most recent months' yield, November 2023, and the twelve-month average yield, ending November 2023. The second input to a market DCF calculation is the determination of an appropriate share price growth rate.

Q. What sources of growth rates did you review?

A. I reviewed both historical and projected growth rates. Schedule 13 shows the array of projected growth rates for the Comparable Companies that are published. Specific historical growth rates are shown for informational purposes because I believe the meaningful historical growth rates are already considered when analysts arrive at their projected growth rates. Nonetheless, some investors may still rely on historical growth rates.

Q. Please explain the sources of the projected growth rates shown on Schedule 13.

A. I relied upon four sources for projected growth rates, First Call, S&P, Zacks Investment Research and Value Line.

Q. Did you review any other growth rates besides those shown on Schedule 13?

A. Yes. I reviewed EPS growth rates reflecting changes in return rates on book common equity (ROE) over time. I summarized recent ROEs on page 1 of Schedule 14 and compared those to the Water Group's higher levels projected to be achieved by Value Line, as shown on page 2 of Schedule 14. ROEs increase when EPS grows at much higher/faster rates than book value.

I also reviewed industry specific average projected growth rates that are published by Zacks for the industries in which the Comparable Companies operate. According to Zacks, the Water Group's industry is projected to have EPS growth rates that average 10.5% over the next five years.

Q. What do you conclude from the growth rates you have reviewed?

A. Table 6 summarizes some of the various growth rates reviewed.

Summary of Growth Rates

	Water Group
Projected 5 Year Growth in EPS	6.3
Actual 5 Year Growth in EPS	5.8
Projected 5 Year Growth in DPS	7.2
Projected 5 Year Growth in EPS for the industry	10.5

Table 6

Academic studies suggest that growth rate conclusions should be tested for reasonableness against long-term interest rate levels. Further, the minimum growth rate must at least exceed expected inflation levels. Otherwise, investors would experience decreases in the purchasing power of their investment. Finally, the combined result of adding the growth rate to the market value dividend yield must provide a sufficient margin over yields of public utility debt.

Q. What method did you use to arrive at your growth rate conclusion?

A. No single method is necessarily the correct method of estimating share value growth. It is reasonable to assume that investors anticipate that the Water Group's current ROE will expand to higher levels. The published historical earnings growth rates for the Water Group averages 5.8%. Because there is not necessarily any single means of estimating share value growth, I considered all of this information in determining a growth rate conclusion for the Comparable Companies.

Moreover, while some rate of return practitioners would advocate that mathematical precision should be followed when selecting a growth rate, the fact is that investors do not behave in the same manner when establishing the market price for a stock. Rather, investors consider both company-specific variables and overall market sentiment such as inflation rates, interest rates and economic conditions when formulating their capital

gains expectations. This is especially true when one considers the relatively meaningless negative growth rates. That is, use of a negative growth rate in a DCF implies that investors invest with the expectation of losing money.

The range of growth rates previously summarized supports the reasonableness of an expected 6.3% growth rate for the Water Group based primarily on the projected five-year growth rates and considering the Water Group's industry projected EPS growth rates of 10.5%. Like the projected growth rates, this investor-expected growth rate of 6.3% is based on a survey of projected and historical growth rates published by established entities, including First Call, S&P, Zacks Investment Research and Value Line. Use of information from these unbiased professional organizations provides an objective estimation of investor's expectations of growth. Based on the aforesaid, all growth rates for the Comparison Companies have been considered and have been given weight in determining a 6.3% growth rate for the Water Group.

Q. What is your market value DCF estimate for the Comparable Companies?

A. The market value DCF cost rate estimate for the Water Group is 8.7%, as detailed on page 1 of Schedule 12.

Q. Are there other considerations that should be taken into account in reviewing a market value capitalization DCF cost rate estimate?

A. Yes. It should be noted that although I recommend specific dividend yields for the Comparable Group, I recommend that less weight be given to the resultant market value DCF cost rate due to the market's current market capitalization ratios and the impact that the market-to-book ratio has on the DCF results.[28] The Comparable Companies' current market-to-book ratios of 287% and low dividend yields are being affected by the aforementioned policy of the Federal Reserve that has resulted in the mispricing of capital due to artificial interest rates, not DCF fundamentals.

Although the DCF cost for common equity appears to be based upon mathematical precision, the derived result does not reflect the reality of the marketplace since the model proceeds from unconnected assumptions. The traditional DCF derived cost rate for common equity will continuously understate or overstate investors' return requirements as long as stock prices continually sell above or below book value. A traditional DCF model implicitly assumes that stock price will be driven to book value over time. However, such a proposition is not rational when viewed in the context of an investor purchasing stock above book value. It is <u>not</u> rational to assume

[28] The impact of the market's current market capitalization ratios on the resultant market value DCF cost rate is especially evidenced when the DCF result for individual companies in the Comparable Group is considered. For example, the resultant market value DCF cost rate for one of the individual companies in the Comparable Group is <u>below its current long-term debt cost</u> rate while a second company's cost is only slightly above.

that an investor would expect share price to decrease 60% (100%÷249%=40%-100%=60%) in value to equal book value.

Utility stocks do not trade in a vacuum. Utility stock prices, whether they are above or below book value, reflect worldwide market sentiment and are not reflective of only one element.

Q. What do you mean by your statement that utility stocks are not traded in a vacuum?

A. Utility stocks cannot be viewed solely by themselves. They must be viewed in the context of the market environment. Table 7 summarizes recent market-to-book ratios ("M/B") for well-known measures of market value reported in the December 18, 2023 issue of Barron's and the Water Group's average M/B as shown on page 1 of Schedule 14.

	M/B Ratios(%)
Dow Jones Industrials	487
Dow Jones Transportation	456
Dow Jones Utilities	196
S&P 500	461
S&P Industrials	616
Vs.	
Water Group	249

Table 7

Utility stock investors view their investment decisions compared with other investment alternatives, including those of the various market measures shown in Table 7.

Q. How does a traditional DCF implicitly assume that market price will equal book value?

A. Under traditional DCF theory, price will equal book value (M/B=1.00) only when a company is earning its cost of capital. Traditional DCF theory maintains that a company is under-earning its cost of capital when the market price is below book value (M/B<1.00), while a company over-earning its cost of capital will have a market price above its book value (M/B>1.00). If this were true, it would imply that the capitalistic free-market is not efficient because the overwhelming majority of stocks would currently be earning more than their cost of capital. Table 7 shows that most stocks sell at an M/B that is greater than 1.0.

Q. Please explain why such a phenomenon would show that the capitalistic free-market is not efficient.

A. Historically, the S&P 500, which represented the largest 500 companies listed on exchanges in the United States, have not sold at an M/B of 1.0 during the last 24-years, 1999-2022. Based upon the traditional DCF assumption, which suggests that companies with M/Bs greater than 1.0

earn more than their cost of capital, this data would suggest that the S&P 500 companies have earned more than their cost of capital while competing in a competitive environment over the 24-year period. In a competitive market, new companies would continually enter the market up to the point that the earnings rate was at least equal to their cost of capital.

During this period the S&P 500 sold at an average M/B of 306% while experiencing a ROE of 18.0% over a period in which interest rates averaged 3.9%. It is important to note that during this period the S&P 500 M/B ranged from 192% to 490%, all while competing in competitive markets.

Q. What is the significance of S&P 500 M/B and the cost of capital for a water utility?

A. As stated previously, utility stocks do not trade in a vacuum. They must compete for capital with other firms including the S&P 500 stocks. Over time, there has been a relationship between M/Bs of S&P 500 stocks and utility stocks. Although S&P 500 stocks have generally sold at a higher multiple of book value than utility stocks, both have tracked in similar directions. Because utility and S&P 500 stock prices relative to book values move in similar directions, it is irrational to conclude that stock prices that are different from book value, either higher or lower, suggests that a firm is over-or under-earning its cost of capital when competitive, free-markets exist.

Q. Does the market value DCF provide a reasonable estimate of the Water Group's common equity cost rate?

A. No, the DCF only provides a reasonable estimate of the Comparable Group's common equity cost rate when their market price and book value are similar (M/B=100%).[29] A DCF will overstate a common equity cost rate when M/Bs are below 100% and understate when they are above 100%. Since the Comparable Group's current M/Bs average 287%, the DCF understates their common equity cost rate. Schedule 15 provides a numerical illustration of the impact of M/Bs on investors' market returns and DCF returns. The reason that DCF understates or overstates investors' return requirements depending upon M/B levels is because a DCF-derived equity cost rate is applied to a book value rate base while investors' returns are measured relative to stock price levels. Based upon this, I recommend that less weight be given to the market value DCF cost rate unless the increased financial risk, resulting from applying a market value cost rate to a book value, is accounted for.

[29]Roger A Morin, Regulatory Finance - Utilities' Cost of Capital, Public Utility Reports, Inc., 1994, pp. 236-237.

Q. How do you resolve the financial risk difference between market value cost rates and book value cost rates?

A. The basic proposition of financial theory regarding the economic value of a company is based on market value. That is, a company's value is based on its **market value** weighted average cost of capital.[30] The American Society of Appraisers, ASA Business Valuation Standards, 2009, and the National Association of Certified Valuation Analysts, Professional Standards, 2007, use the same definition:

> Weighted Average Cost of Capital (WACC). The cost of capital (discount rate) determined by the weighted average, **at market values**, of the cost of all financing sources in the business enterprise's capital structure. (Emphasis added)

Accordingly, the market value derived cost rate reflects the financial risk or leverage associated with **capitalization ratios based on market value**, not book value.

As shown on page 1 of Schedule 16, for the Water Group there is a large difference in leverage as a result of the average $3.683 **billion** difference in market value common equity and book value common equity. This difference in market values and book values results in debt/equity ratios based on market value of 30.3%/69.7% (debt/equity) versus

[30]For other examples, see http://www.investinganswers.com/financial-dictionary/financial-statement-analysis/weighted-average-cost-capital-wacc-2905. Also see http://www.wallstreetmojo.com/weighted-average-cost-capital-wacc/ , or http://accountingexplained.com/misc/corporate-finance/wacc .

50.4%/49.6% (debt/equity) based on book value as shown on page 1 of Schedule 16. The larger the difference between market values and book values the less reliable the models' results are because **the models provide an estimate of the cost of capital of market value**, not book value.

Financial theory concludes that capital structure and firm value are related. Since capital structure and firm value are related, an adjustment is required when a cost of common equity model is based on market value and if its results are then applied to book value. As explained previously, the market value derived cost rate reflects the financial risk or leverage associated with **capitalization ratios based on market value**, not book value. The authors Brealey, Myers and Allen provide a similar definition of the cost of capital being based on market capitalization, not book value,

> The values of debt and equity add up to overall firm value (D + E = V) and firm value V equals asset value. **These figures are all market values, not book (accounting) values**. The market value of equity is often much larger than the book value, so the market debt ratio D/V is often much lower than a debt ratio computed from the book balance sheet.[31]

The work of Modigliani and Miller concludes that the market value of any firm is independent of its capital structure and this is precisely the reason why an adjustment is appropriate. The only way for the market value of a firm to remain independent of its capital structure is if the capital cost

[31]Brealey, Myers and Allen, Principles of Corporate Finance, 10th edition, page 216 (emphasis added).

rates change to offset changes in the capital structure. If the capital cost rates do not change to offset changes in the capital structure, then the value of the firm will change. Clearly an adjustment is required when a cost of common equity model is based on **market value** and if its results are then applied to **book value** because the capital structure is changed from **market value** capitalization to **book value** capitalization.

Differences in the amount of leverage employed can be quantified based upon the Comparable Group's leveraged beta being "unleveraged" through the application of the "Hamada Model."

> The Hamada equation is a fundamental analysis method of analyzing a firm's cost of capital as it uses additional financial leverage, and how that relates to the overall riskiness of the firm. The measure is used to summarize the effects this type of leverage has on a firm's cost of capital—over and above the cost of capital as if the firm had no debt.[32]

The Hamada Model combines two financial theorems: the Modigliani-Miller Theorem and the CAPM.[33] On page 2 of Schedule 16 I used two Hamada Models including the original Hamada formula and the Harris-Pringle formula to account for the 20.2 percentage point (69.7% - 49.5% = 20.2%) change in common equity ratio that results from changing from market value capitalization to book value capitalization. The results of the application of the original Hamada formula and the Harris-Pringle formula determine a

[32] Hargrave, Marshall. "Hamada Equation Definition, Formula, Example," *Investopedia*. Accessed 3/14/23. https://www.investopedia.com/terms/h/hamadaequation.asp.
[33] "Hamada's Equation," Corporate Finance Institute. Accessed 3/14/23. https://corporatefinanceinstitute.com/resources/valuation/hamadas-equation/.

range of adjustment of 0.73% to 1.15%, and average 0.94%. The details of the application of the two Hamada models are shown on page 2 of Schedule 16.

For example, the inputs to the original Hamada formula for the Water Group market value capitalization consist of their raw leveraged beta of 0.7, debt ratio of 30.3%, preferred stock ratio of 0.0%, common equity ratio of 69.7% and combined tax rate of 26.14%. The group's unleveraged beta is determined to be 0.53 through the use of the following original Hamada formula:

$$Bl = Bu\ (1 + (1 - t)\ D/E + P/E)$$

where:

Bl = observed, leveraged beta
Bu = calculated, unleveraged beta
t = income tax rate
D = debt ratio
P = preferred stock ratio
E = common equity ratio

Applying the unleveraged beta of 0.53 along with the Water Group's book value capitalization ratios of 50.4% long-term debt, 0.1% preferred stock and 49.5% common equity and combined tax rate of 26.14% results in a leveraged beta of 0.93 applicable to the group's book value capitalization. Based upon the Water Group's risk premium of 5.0% and the difference between Water Group's market value leveraged beta, their book value leveraged beta of 0.23 (0.93 - 0.70) indicates that the Water Group's

common equity cost rate must be increased by 1.15 (0.23 x 5.0 = 1.15) in recognition of their book value's exposure to more financial risk.

The inputs to the Harris-Pringle formula for the Water Group market value capitalization consist of their raw leveraged beta of 0.7, debt ratio of 30.3%, preferred stock ratio of 0.0%, common equity ratio of 69.7% and debt beta of 0.34. The group's unleveraged beta is determined to be 0.59 through the use of the following Harris-Pringle formula:

$$Bl = Bu + (Bu - Bd)(D/E)$$

where:

Bl = observed, leveraged beta
Bu = calculated, unleveraged beta
Bd = debt beta
D = debt ratio
P = preferred stock ratio
E = common equity ratio

Applying the unleveraged beta of 0.59 along with the Water Group's book value capitalization ratios of 50.4% long-term debt, 0.1% preferred stock and 49.5% common equity and debt beta of 0.34 results in a leveraged beta of 0.85 applicable to the group's book value capitalization. Based upon the Water Group's risk premium of 5.0% and the difference between Water Group's market value leveraged beta, their book value leveraged beta of 0.15 (0.85 - 0.70) indicates that the Water Group's common equity cost rate must be increased by 0.73 (0.15 x 5.0 = 0.73) in recognition of their book value's exposure to more financial risk.

Q. Is there another way to reflect the financial risk difference that exists as a result of market capitalization ratios being significantly different from book value capitalization ratios?

A. Yes, generally speaking. Although it is possible to know the direction of a financial risk adjustment on common equity cost rate, a specific quantification of financial risk differences is very difficult. Although the end result of a financial risk adjustment is very subjective and specific quantification very difficult, the direction of the adjustment is clearly known. However, hypothetically if the Comparable Group's debt were rated based on market value debt ratios they would command an Aaa rating. The Comparison Group currently has bonds rated A based upon their book value debt ratios. The yield spread on a bond rated Aaa versus A rated bonds averages about 54 basis points or 0.54% as shown on page 3 of Schedule 16.

The end result of the application of the Hamada Model and the bond yield spread indicates that the Water Group market value common equity cost rate equity cost rate should be adjusted upward by at least 0.75% (0.94% hamada est. + 0.54% yield spread = 1.48% ÷ 2 = 0.74%) since it is going to be applied to a book value.

Accounting for the increased amount of leverage between market value derived DCF cost rates and book value cost rates indicates a book value DCF cost rate of 9.45% for the Water Group (8.7% + 0.75% = 9.45%).

CAPITAL ASSET PRICING MODEL

Q. Please briefly describe the theory of the capital asset pricing model.

A. The CAPM is based upon the assumption that investors hold diversified portfolios and that the market only recognizes or rewards non-diversifiable (or systematic) risk when determining the price of a security because company-specific risk (or non-systematic) is removed through diversification. Further, investors are assumed to require additional or higher returns for assuming additional or higher risk. This assumption is captured by using a beta that provides an incremental cost of additional risk above the base risk-free rate available to investors. The beta of a security reflects the market risk or systematic risk of the security relative to the market. The beta for the market is always equal to 1.00; therefore, a company whose stock has a beta greater than 1.00 is considered riskier than the market, and a company with a beta less than 1.00 is considered less risky than the market. The base risk-free rate is assumed to be a U.S. Government treasury security because they are assumed to be free of default risk.

Q. What risk-free rate and beta have you used in your CAPM calculation?

A. The risk-free rate used in CAPM should have approximately the same maturity as the life of the asset for which the cost rate is being determined. Because utility assets are long-lived, a long-term Treasury Bond yield

serves as an appropriate proxy. Previously, I estimated an appropriate risk-free rate of 4.1% based upon the recent and forward long-term Treasury yields. I used the average beta of 0.82 for the Water Group as shown on page 1 of Schedule 17. However, as stated previously, the Comparable Group's betas are understated due to their small size which affects their stock price changes.

Q. After developing an appropriate beta and risk-free rate, what else is necessary to calculate a CAPM derived cost rate?

A. A market premium is necessary to determine a traditional CAPM derived cost rate. The market return rate is the return expected for the entire market. The market premium is then multiplied by the company specific beta to capture the incremental cost of additional risk (market premium) above the base risk-free rate (long-term treasury securities) to develop a risk adjusted market premium. For example, if you conclude that the expected return on the market as a whole is 15% and further assume that the risk-free rate is 8%, then the market premium is shown to be 7% (15% - 8% = 7%).

Further, assume there are two companies, one of which is considered less risky than the market, and therefore has a beta of less than 1.00 or 0.80. The second company has a beta that is greater than 1.00 or 1.20, and is therefore considered riskier than the market. By multiplying the

hypothetical 7.0% market premium by the respective betas of 0.80 and 1.20, risk adjusted market premiums of 5.6% (7.0% x 0.80) and 8.4% (7.0% x 1.20) are shown for the company considered less risky than the market and for the company considered riskier than the market, respectively.

Adding the assumed risk-free rate of 8% to the risk adjusted market premiums results in the CAPM derived cost rates of 13.6% (5.6% + 8.0%) for the less risky company and 16.4% (8.4% + 8.0%) for the company considered of greater risk than the market. In fact, the result of this hypothetical CAPM calculation shows that: (1) the least risky company, with the beta of 0.80, has a cost rate of 13.6%; (2) the market, with the beta of 1.00, has a cost rate of 15.0%; and (3) that the higher risk company, with a beta of 1.20, has a cost rate of 16.4%.

Q. How did you develop a market premium for your CAPM?

A. The average projected market premium of 10.72% is developed on page 2 of Schedule 17. It is based upon Value Line's average projected total market return for the next three to five years of 15.70% less the risk free rate of 4.1% and the S&P 500's average projected total market return for the next three to five years of 13.94% less the risk free rate of 4.1% from S&P Global Market Intelligence. I also reviewed market premiums derived from Ibbotson Associates' most recent publication concerning asset returns that show a market premium of 7.5%. The Ibbotson Associates' market

premium may be on the low side reflective of the higher interest rate environment found during their study (*i.e.,* 5.0%). The Value Line market premium reflects the Federal Reserve's current artificial interest rate levels while the Ibbotson Associates' market premiums reflect a higher interest rate environment.

Q. How did you adjust for the impact that size has on the Comparable Group's beta?

A. The adjustment is reflected in the CAPM size premium. The CAPM size premium is developed on page 4 of Schedule 17. The size premium reflects the risks associated with the Comparable Group's small size and its impact on the determination of their beta. This adjustment is necessary because beta (systematic risk) does not capture or reflect the Comparable Group's small size. I reduced the size premium by the ratio of the Comparison Group's beta to their respective market quartile's beta and estimated credit spreads for the comparison companies and the quartile companies.

Q. What is the comparison group's market cost of equity based upon your CAPM calculation?

A. The CAPM based on Ibbotson Associates' historical market returns shows a market cost rate of 11.0% for the Water Group. The CAPM based on projected market returns shows a 13.6% for the Water Group, as shown on

page 1 of Schedule 17. The Comparable Group's market value CAPM of 11.0% is based 100% on the results of the historical market returns and 0% on the projected market returns. Adjusting the market value CAPM based upon the end result of the application of the Hamada Model and the bond yield spread to account for the difference in leverage between market value capitalization ratios and book value ratios discussed previously indicates a cost rate of 11.75% for the Water Group applicable to book value (11.0% + 0.75% = 11.75%).

RISK PREMIUM

Q. What is a risk premium?

A. A risk premium is the common equity investors' required premium over the long-term debt cost rate for the same company, in recognition of the added risk to which the common stockholder is exposed versus long-term debtholders. Long-term debtholders have a stated contract concerning the receipt of dividend and principal repayment whereas common stock investors do not. Further, long-term debtholders have the first claim on assets in case of bankruptcy. A risk premium recognizes the higher risk to which a common stock investor is exposed. The risk premium-derived cost rate for common equity is the simplest form of deriving the cost rate for common equity because it is nothing more than a premium above the prospective level of long-term corporate debt.

Q. What is the appropriate estimated future long-term borrowing rate for the Comparable Companies?

A. The estimated near term long-term borrowing rate for the Comparable Companies is 5.6% based upon their credit profile that supports an A bond rating

Q. What is the appropriate risk premium to be added to the future long-term borrowing rate?

A. To determine a common equity cost rate, it is necessary to estimate a risk premium to be added to the Comparable Group's prospective long-term debt rate. Investors may rely upon published projected premiums; they also rely upon their experiences of investing in ultimately determining a probabilistic forecasted risk premium.

Projections of total market returns of 14.82% are shown on page 9 of Schedule 18. A projected risk premium for the market can be derived by subtracting the debt cost rate from the projected market return as shown on page 9 of Schedule 18. However, the derived risk premium for the market is not directly applicable to the Comparable Companies because they are less risky than the market. The use of 90% of the market's risk is a conservative estimation of their level of risk as compared to the market. Based on this, a reasonable estimate of a longer term projected risk premium is 8.2% as shown on page 9 of Schedule 18.

Q. How do investors' experiences affect their determination of a risk premium?

A. Returns on various assets are studied to determine a probabilistic risk premium. The most noted asset return studies and resultant risk premium studies are those performed by Ibbotson Associates. However, Ibbotson Associates has not performed asset return studies concerning public utility common stocks. Based upon Ibbotson Associates' methodology of computing asset returns, I calculated annual returns for the S&P utilities and bonds for the period 1928-2022. The resultant annual returns were then compared to determine a recent risk premium from a recent 20-year period, 2003-2022 and subsequent periods that were each increased by ten years until the entire study period was reviewed (pages 2 and 3 of Schedule 18).

A long-term analysis of rates of return is necessary because it assumes that investors' expectations are, on average, equal to realized long-run rates of return and resultant risk premium. Observing a single year's risk premium, either high or low, may not be consistent with investors' requirements. Further, studies show a mean reversion in risk premiums. In other words, over time, risk premiums revert to a longer-term average premium. Moreover, since the expected rate of return is defined as "the rate of return expected to be realized from an investment; the mean value

of the probability distribution of possible results,"[34] a long-term analysis of annual returns is appropriate.

Q. What do you conclude from the information shown on pages 2 and 3 of Schedule 18?

A. The average of the absolute range of the S&P Utilities' appropriate average risk premium (i.e., bonds rated AAA to A) was 4.9% during the seven periods studied, as calculated from page 2 of Schedule 18. The credit adjusted longer term risk premiums (i.e., bonds rated A), 1928-2022, averages 4.6%. The appropriate average (i.e., bonds rated AAA to A) longer term risk premiums, 1928-2022, have an absolute range of 4.6% to 5.2%, and averages 4.8%.

The aforementioned premiums are based on total returns for bonds; and reflect their price risk. A bond's price risk is not related to its credit quality and is eliminated when a bond is held to maturity from time of purchase. Using the income returns, page 4 of Schedule 18, for bonds eliminates price risk and better measures an investor's required return based on credit quality. The appropriate average risk premium (i.e., bonds rated AAA to A) based on income returns was 5.7% during the seven periods studied. The credit adjusted longer term risk premiums (i.e., bonds

[34]Eugene F. Brigham, Fundamentals of Financial Management, Fifth Edition, The Dryden Press, 1989, p. 106.

rated A), 1928-2022, averages 4.9%. The appropriate average (i.e., bonds rated AAA to A) longer term risk premiums, 1928-2022, have an absolute range of 4.9% to 5.2%, and averages 5.1%.

Q. What information is shown on page 4 of Schedule 18?

A. Page 4 of Schedule 18 proves and measures the negative relationship between interest rate levels and the resulting risk premium. That is, risk premiums are generally higher when interest rates are low and risk premiums are generally lower when interest rates are high. This was proven by sorting the 95-year period, 1928 to 2022, annual returns based on interest rate level from lowest interest rate to highest interest rate and distributing the results into two groups, a 47-year low interest rate environment group and a 48-year high interest rate environment group.

During the period 1928-2022, the 47 years with the lowest interest rates had an average interest rate of 2.8% and reflected a range of interest rates from 1.4% to 4.0%. This period resembles the current interest rate environment of 4.1% discussed previously regarding the CAPM's risk free rate. The risk premium based on total returns during this low interest rate environment produced the appropriate average (i.e., bonds rated AAA to A) longer term risk premium of 6.9% and a credit adjusted longer term risk premium (i.e., bonds rated A) of 6.3%. The annual income return based risk premium during this low interest rate environment produced the

appropriate average (i.e., bonds rated AAA to A) longer term risk premium of 7.5% and a credit adjusted longer term risk premium (i.e., bonds rated A) of 7.2%.

However, during the period 1928-2022, the 48 years with the highest interest rates had an average interest rate of 7.1% and reflected a range of interest rates from 4.1% to 13.5%. This period is far different from the current interest rate environment of 4.1%. The risk premium based on total returns during the highest interest rate environment produced an average longer term risk premium of 2.9% over bonds rated AAA to A and a credit adjusted longer term risk premium (i.e., bonds rated A) of only 2.9%. The annual income return based risk premium during the highest interest rate environment produced an average longer term risk premium of 2.8% over bonds rated AAA to A and a credit adjusted longer term risk premium (i.e., bonds rated A) of only 2.7%.

Over time, risk premiums are mean reverting. They constantly move toward a long-term average reflecting a long-term level of interest rates. That is, an above-average risk premium will decrease toward a long-term average while a below-average risk premium will increase toward a long-term average. In any single year, of course, investor-required rates of return may not be realized and in certain instances, a single year's risk premiums may be negative. Negative risk premiums are not indicative of investors' expectations and violate the basic premise of finance concerning risk and

return. Negative risk premiums usually occur only in the stock market's down years (*i.e.,* the years in which the stock markets' return was negative).

When interest rate levels are not considered the credit adjusted longer term risk premium (i.e., bonds rated A), 1928-2022, averages 4.9%, discussed previously regarding page 4 of Schedule 18. However, the annual income return based risk premium during the low interest rate environment produced a credit adjusted longer term risk premium (i.e., bonds rated A) of 7.2%. Since this period resembles the current interest rate environment of 4.1%, a reasonable estimate of investors risk premium based on historical returns is based on a 50% weighting on the results of the entire 1928-2022 historical market returns and a 50% weighting on the results of the low interest rate environment to produce a 6.0% historical risk premium. However, I recognize that the current interest rate environment of 4.1% is close to the upper end of the low interest rate environment, which ranged from 1.4% to 4.0%, and have lowered my estimate of the risk premium to 5.0%.

Adding the risk premium of 5.0% for the Comparable Group to the prospective cost of newly-issued long-term debt of 5.6% results in a market value risk premium derived cost rate for common equity of 10.6% as reflected on page 1 of Schedule 18. Adjusting the market value risk premium based upon the end result of the application of the Hamada Model and the bond yield spread to account for the difference in leverage between

market value capitalization and book value ratios discussed previously indicates a cost rate of 11.35% applicable to book value (10.6% + 0.75% = 11.35%).

SUMMARY OF COMMON EQUITY COST RATE

Q. What is your Comparable Group's common equity cost rate?

A. Based upon the results of the models employed, the Water Group's common equity cost rate is in the range of 9.45% to 11.75% as reflected on Schedule 19. Based upon this data, the common equity cost rate for the Water Group is at least 10.80%. My recommendation is based upon the Water Group's 10.80% common equity cost rate.

Q. Do you recommend a cost of common equity of 10.80% for VWPA?

A. Yes. Based upon the financial analysis and risk analysis, I conclude that VWPA is exposed to overall similar investment risk as the Comparable Group. This is evidenced by the factors summarized in Table 5 discussed previously.

The results of the three models employed for the Water Group show a current range of common equity cost applicable to book value of VWPA of 9.45% (DCF), 11.75% (CAPM), and 11.35% (RP) as shown in Table 8.

Summary of the VWPA's Equity Cost Rates	
DCF	9.45
CAPM	11.75
RP	11.35

Table 8

Q. What is your common equity cost rate recommendation for VWPA?

A. As discussed above and as shown in Schedule 19, I recommend a 10.80% common equity cost rate for VWPA.

Q. Have you checked the reasonableness of your recommended common equity rate for VWPA?

A. Yes. Page 2 of Schedule 14 reflects the average projected earned return on average book common equity for the companies in the Comparable Group for the period 2026-2028, which is shown to average 10.7% and have median of 10.3%. Given the large degree to which regulatory lag and attrition impacts water utilities' earning, the range of the comparable utilities' projected earned returns suggests that my recommendation that VWPA be permitted an opportunity to earn 10.80% is reasonable, if not conservative.

OVERALL RATE OF RETURN RECOMMENDATION

Q. What is your overall fair rate of return recommendation for the VWPA?

A. Based upon the recommended capital structure and my estimate of the VWPA's common equity cost rate, I recommend an overall fair rate of return of 7.95%.[35] The details of my recommendation are shown on Schedule 1.

Q. Have you tested the reasonableness of your overall fair rate of return recommendation?

A. Yes. If my recommended overall rate of return is actually earned, it will give VWPA ratios that will allow VWPA to present a financial profile that will enable it to attract capital necessary to provide safe and reliable water service, at reasonable terms.

Q. Does that conclude your direct testimony concerning rate of return?

A. Yes, it does.

[35] It should be noted that my current analysis contained in Exhibit HW-1 supports a cost of common equity of 10.80% for the Company. The Company's filing includes an overall rate of return of 7.95% and a 10.80% of common equity for filing purposes to minimize the requested revenue increase.

PRINCIPLES OF CASH WORKING CAPITAL

Q. WOULD YOU PLEASE EXPLAIN THE RATEMAKING PRINCIPLES CONCERNING THE INCLUSION OF WORKING CAPITAL AS AN ELEMENT OF RATE BASE?

A. Yes. The working capital allowance is a component of rate base. A utility's need for working capital was first recognized in the noted United States Supreme Court case, *Smyth v. Ames*.[36] Among the many benchmarks established in the case was the "property devoted to public use" doctrine as a basis for fixing rates. The case recognized that among the matters to be considered in determining the value of property used was "the sum required to meet operating expenses."[37] Since that time, working capital has generally been recognized as a proper item to be included in the rate base on which a utility is entitled to earn a return.

Q. WHAT IS CASH WORKING CAPITAL?

A. Cash working capital is a component of working capital, representing the amount of funds necessary to finance the day-to-day operations of the Company. For ratemaking purposes, cash working capital is included as a

36 *Smyth v. Ames*, 169 U.S. 466 (1898), overruled on other grounds by *Fed Power Comm'n v. Nat. Gas Pipeline Co. of Am.*, 315 U.S. 575, 586 (1942). Specifically, *Fed. Power Comm'n* departed from the holding in *Smyth* that fair market value in cost of service ratemaking must be used and instead concluded that "[t]he Constitution does not bind rate-making bodies to the service of any single formula or combination of formulas."
37 *Id*. at 547.

component of a utility's rate base.

Q. WHY IS CASH WORKING CAPITAL INCLUDED AS AN ELEMENT OF RATE BASE?

A. Working capital is included in rate base to compensate investors for the use of their funds over and above their investment in plant, and to provide investors with a return on the funds required by the Company for daily operations. Cash working capital bridges the gap between the time when funds are provided to the Company by investors to allow the Company to provide service to customers, and the time revenues are received from customers as reimbursement for these services.

OVERVIEW OF A LEAD-LAG STUDY

Q. HOW WAS THE CASH WORKING CAPITAL REQUIREMENT DETERMINED?

A. I conducted a lead-lag study to determine VWPA's cash working capital requirement. The lead-lag study in this case measured the level of funding required to operate on a day-to-day basis in a sufficient amount to cover VWPA's operating expenses (O&M and Taxes). This was measured by calculating the net lag between: (1) the amount of time elapsed between the provision of the cost of service and the receipt of the revenue requirement from the Company's customers (known as the revenue lag); and (2) the

amount of time elapsed between when the Company receives goods and services used by the Company to provide service and the payment by the Company for those operating expense items (known as the expense lead). The difference between these two elapsed periods of time is known as the "net lag." The net lag was multiplied by the average daily operating expenses (or revenue requirement) to determine the Company's cash working capital requirement.

Q. PLEASE DESCRIBE THE COMPONENTS OF A CASH WORKING CAPITAL ANALYSIS.

A. The two primary components of a cash working capital analysis are revenue lags and expense leads. The revenue lag is the elapsed time between when the delivery of a company's product, or provision of service, to its customers occurs and when a company receives payment for the delivery of the product. Investor-provided funds are required to keep a company running during the revenue lag time period, when the revenue stream is temporarily insufficient to finance daily operational needs.

As mentioned above, the expense lead is the elapsed time between when a good or service is provided to a company and when a company pays its supplier, or vendor, for the good or service. During the expense lead time period, cash received from customers may temporarily exceed a

company's payments to its suppliers for goods or services, and the excess may be used to repay investor-provided funds.

The net difference between the revenue lag and expense lead determines a company's cash working capital requirement. Additional details of the revenue lag and the expense lead calculations are provided below.

Q. GENERALLY SPEAKING, HOW DID YOU CALCULATE THE REVENUE LAG?

A. The revenue lag is the sum of three distinct components: the service period lag, the billing lag, and the collection lag.

Q. WHAT IS THE SERVICE PERIOD LAG?

A. The service period lag is the average time between meter readings. The average, or mid-point, between meter readings, based on monthly meter readings, is roughly 15 days. The mid-point service period lag is produced by dividing the service period of roughly 30 days by two.

Q. WHAT IS THE BILLING LAG?

A. The billing lag is the time from the meter reading date to the date the customer is billed. On the customer billing date, the bill is mailed to the

customer, and the total billing amount for the cycle is recorded to VWPA's accounts receivable. The bills are recorded to accounts receivable virtually the same day meters are read.[38]

Q. WHAT IS THE COLLECTION LAG?

A. The collection lag is the average number of days from the date the bills are mailed to customers to the date payments are received by VWPA. This was determined by dividing the average monthly accounts receivable balance during the twelve months ended September 30, 2023, by the average daily billed revenue for the same period.

Q. GENERALLY SPEAKING, HOW DID YOU CALCULATE THE EXPENSE LEAD?

A. In a lead-lag study, the cost of service, or expense, lead days are calculated for each invoice or account by subtracting the midpoints of the service periods (the service lead) from the date the Company paid the invoices or accounts (the payment lead) and then summing these two data points.

The service lead is the average time that a service or good was provided to the Company. If a service or good was provided for 20 days,

38 Only about 0.04% of bills are not posted to accounts receivable on the same day meters are read. This results in the actual billing lag being only 0.0020 days.

the 20-day service period is divided by two to produce a midpoint of ten days for the service period lead.

The payment lead is the number of days from the midpoint of the service period to the payment date for the service or good. If payment for the service or good was provided on the 30th day and the midpoint of the service period was the 10th day, the payment lead is 20 days (30 days – ten days).

Q. WHY ARE MIDPOINTS USED IN THE CASH WORKING CAPITAL ANALYSIS?

A. Midpoints are used to determine the weighted average period during which a service or good is rendered or provided during the service period, or between meter reads. The midpoint assumes that, on average, service is provided evenly over the service period. For example, if a service is provided over a 30-day period, then on average, 30 days of service was provided evenly for 15 days (30÷2) of the service period. Mathematically, the midpoint is the weighted average number of days that the full service period number of days (*e.g.,* 30 days) was provided.

VWPA'S LEAD-LAG STUDY

Q. DID YOU CONSIDER VWPA'S OVERALL COST OF SERVICE IN YOUR LEAD-LAG STUDY?

A. No. I considered only a portion of VWPA's cost of service items in my lead-lag study to be consistent with the lead-lag methodology used in Pennsylvania. In Pennsylvania, lead-lag studies do not include non-cash expense items.

A lead-lag study based on O&M and Taxes likely understates the full cash working capital requirement and affords the minimum cash working capital requirement. A lead-lag study based on the entire revenue requirement and cost of service provides a more accurate measure of the cash working capital requirement.

Q. WHAT DATA SET DID YOU UTILIZE IN YOUR LEAD-LAG STUDY?

A. The data sets were selected after developing an understanding of the Company's collections, payment policies, and procedures. To inform my understanding of these items, I requested representative data sets from the Company. Once the requested raw data had been provided, data validation was performed by comparing an actual invoice or a bill with data from the utility's systems to ensure accuracy.

The revenue lag data set for the Company was based on an accounts receivable analysis of the beginning balance, the monthly charges

to this balance as bills were processed and mailed, and the daily receipts for 365 days of the year during the 12 months ended September 30, 2023. The revenue lag data set for the Company also included an analysis of the cycle billing, the beginning and ending service dates (meter read dates), and the date bills were mailed (or posted).

The expense lead data set was based on information generated from the Company's central accounts payable system. The expense lead data sets for the 12 months ended September 30, 2023, were analyzed to develop the service beginning and ending dates, the amount purchased, and the date of payment for each invoice or account sampled.[39]

Q. WHAT TIME PERIOD DOES YOUR LEAD-LAG STUDY ENCOMPASS?

A. The lead-lag study in this case analyzed the net revenues and the associated net cost of service during the 12 months ended September 30, 2023, to derive the lag (lead) days for the revenue requirement and the related cost of service line items.

39 The sampling for the total expense and tax dollars paid totaled 92%.

Q. HOW WERE THE REVENUE LAG DAYS AND EXPENSE LEAD DAYS USED TO CALCULATE VWPA'S CASH WORKING CAPITAL REQUIREMENT?

A. For each cost of service line item, the lead days (expense) were subtracted from the lag days (revenue) to determine the net lag days for that cost of service line item. Next, the net lag days for that cost of service line item was multiplied by the average O&M and Taxes expense per day (expenses / 365 days) line item to produce the cash working capital required for each cost of service line item. This process was followed for each cost of service line item. Finally, the cash working capital requirement of each cost of service line item were totaled (summed) to calculate VWPA's total cash working capital requirement.

RESULTS OF THE LEAD-LAG STUDY

Q. WHAT ARE THE RESULTS OF THE LEAD-LAG STUDY?

A. The lead-lag schedules are set forth in Schedule HW-1 through Schedule HW-28 provided in my Exhibit HW-1. Schedule HW-1 summarizes VWPA's cash working capital requirements. As shown on page 1 of Schedule HW-1, I determine the Company's working capital for the future test year ("FTY"), the fully projected year ("FPY"), and the fully projected future test year ("FPFTY"). The cash working capital for FTY is $779,156. The cash

working capital requirement for FPY is $782,997 and the cash working capital requirement for FPFTY is $819,040.

Additionally, pages 2 through 5 of Schedule HW-1 summarize the cash working capital requirements of VWPA's Main and Bethel Water Operations, VPWA's Main Sewer Operations, VWPA's Mahoning Water Operations, and VWPA's Mahoning Sewer Operations, respectively. VWPA's Main and Bethel Water Operations' cash working capital for FTY is $756,807, $760,848 for FPY and is $795,083 for FPFTY, as shown on page 2. VWPA's Main Sewer Operations' cash working capital for FTY is $3,386, $3,404 for FPY and is $3,438 for FPFTY, as shown on page 3. VWPA's Mahoning Water Operations' cash working capital for FTY is $5,167, $4,741 for FPY and is $5,223 for FPFTY, as shown on page 4. VWPA's Mahoning Sewer Operations' cash working capital for FTY is $13,797, $13,998 for FPY and is $15,292 for FPFTY, as shown on page 5.

Q. PLEASE DESCRIBE SCHEDULE HW-1.

A. As shown on Schedule HW-1, the cash working capital requirement is based on the net lag days required to finance each cost of service line item. The net lag day calculations are a result of subtracting their respective expense lead days from the revenue lag days to determine the appropriate net lag days, which was multiplied by the average O&M and Taxes expense per day (expenses / 365 days) line item. The lag days for the receipt of the

revenue requirement is developed on Schedule HW-2. The lead days for the cost of service line items are developed on Schedules HW-4 through HW-28, and the schedule references for the lead days for the cost of service line items is shown on the Index to Schedules of Exhibit HW-2.

Q. PLEASE EXPLAIN THE PROCEDURES USED TO DETERMINE VWPA'S CASH WORKING CAPITAL REQUIREMENT SHOWN ON SCHEDULE HW-1.

A. The process used to determine VWPA's cash working capital requirement, shown on page 1 of Schedule HW-1, is generally the same for each line item shown. Because the process is generally the same, I will discuss the purchased power expense line item (first line item) as a means of explaining the methodology used for each line item.[40]

The labor expense line item amount of $7,273,930 (FTY) was divided by 365 days to determine a daily labor expense, which was multiplied by the 23.1 net lag days to determine the FTY cash working capital required amount, $460,350 ($7,273,930 ÷ 365 = $19,928.58 × 23.1 = $460,350). The net lag days of 23.1 were determined by subtracting the labor expense lead days of 11.4 from the 34.5-day revenue lag (34.5 lag days – 11.4 lead days = 23.1 net lag days).

40 All cost of service expense line items were handled in an identical manner.

A similar process was followed for each cost of service line item. The cash working capital requirement of all line items were totaled (summed) to calculate VWPA's $779,156 total FTY cash working capital requirement. A similar procedure was followed to calculate VWPA's FPY cash working capital requirement and FPFTY cash working capital requirement.

Q. PLEASE EXPLAIN THE PROCEDURES USED TO DETERMINE THE REVENUE LAG.

A. Schedule HW-2 shows the development of the 34.5-day lag for the Company's revenue requirement. The revenue requirement lag reflects the Company's service, billings, and collections frequencies.

Q. PLEASE EXPLAIN THE PROCEDURES USED TO DETERMINE THE SERVICE PERIOD AND THE BILLING LAG DAYS FOR CUSTOMER REVENUES.

A. The lag days for the service period and the billing lag are developed on Schedule HW-2. As mentioned previously, the service period lag was measured from the midpoint of the service period to the meter reading date, and the billing lag was measured from the meter reading date to the billing date, or date recorded to accounts receivables.

VWPA's service period, 30.4 days, was divided by two to produce the average service period lag of 15.2 days, as shown on Schedule HW-2.

VWPA's bills are prepared, mailed, and recorded to accounts receivable virtually the same day meters are read (0.002 days). Adding the average service period lag to the billing lag produces a combined 15.2-day service period and billing lag (15.2 days + 0.0 days = 15.2 days) as shown on Schedule HW-2.

Q. PLEASE DESCRIBE THE PROCEDURE USED TO CALCULATE THE COLLECTION LAG.

A. As mentioned previously, the collection lag is the average number of days from the date the bills posted to accounts receivables to the date payments are received. This was determined by dividing the average monthly accounts receivable balance during the test year by the test year's average daily billed revenue. This results in an average collection lag of 19.3 days as shown on Schedule HW-2.

Q. PLEASE SUMMARIZE THE TOTAL REVENUE LAG.

A. The total revenue lag of 34.5 lag days is the result of adding the 15.2-day service period and billing lag and an average collection lag of 19.3 days as shown on Schedule HW-2.

Q. PLEASE EXPLAIN THE CALCULATION OF LEAD DAYS FOR THE O&M AND TAXES EXPENSES SHOWN ON SCHEDULE HW-1.

A. The lead days for O&M and Taxes expenses shown on Schedule HW-1 are comprised of three major sub-accounts including: O&M expenses; taxes other than income taxes; and income taxes. For the cost of service expense items shown, the lead days were calculated for each invoice or account based on the midpoints of the service periods to the dates the Company paid the invoices or accounts based on varying levels of sampling of data.[41]

Q. HOW WERE THE LEAD DAYS DETERMINED FOR THE O&M EXPENSES SUB-ACCOUNT LINE ITEMS SHOWN ON SCHEDULE HW-1?

A. For the O&M expense sub-accounts line items shown, the lead days were determined for each invoice or account sampled based on the midpoints of the service periods to the dates the Company paid the invoices or accounts based on varying levels of sampling of data.[42]

For example, the weighted average lead days for labor expense is 11.4-days (see Schedule HW-3). The lead days for labor expense were

41 As was the case with the revenue service period, a mid-point is used for the service lead because it is assumed service is provided evenly over the service period.
42 The sampling for the total expense and tax dollars paid totaled 92% and reflected a range of sampling from 2% to over 100% of the total line-item dollars (or expenses). Sampling of total line-item dollars greater than 100% of the expense occurred for those line items which included capitalized line items, and/or cash payment versus accrual expense amounts.

calculated for each invoice examined based on the midpoints of the service periods to the dates the Company paid the invoices. In total, 100% of the labor expense were sampled. Similar analyses were conducted for labor expense lead days (see Schedule HW-3), employee group health & life lead days (see Schedule HW-4), employee pension benefits lead days (see Schedule HW-5), other employee benefits lead days (see Schedule HW-6), purchased water lead days (see Schedule HW-7), purchased power lead days (see Schedule HW-8), fuel for power production lead days (see Schedule HW-9), chemicals lead days (see Schedule HW-10), materials and supplies lead days (see Schedule HW-11), management and service fees lead days (see Schedule HW-12), lab testing fees lead days (see Schedule HW-13), outside contractors lead days (see Schedule HW-14), outside professional services lead days (see Schedule HW-15), rental of building/real property lead days (see Schedule HW-16), rental of equipment lead days (see Schedule HW-17), transportation expense lead days (see Schedule HW-18), property & general liability insurance lead days (see Schedule HW-19), worker compensation lead days (see Schedule HW-20), regulatory commission expense lead days (see Schedule HW-21), office expense and utilities lead days (see Schedule HW-22), postage and air freight expense lead days (see Schedule HW-23), and other O&M lead days (see Schedule HW-24).

Q. HOW WERE THE LEAD DAYS DETERMINED FOR THE TAXES OTHER THAN INCOME SUB-ACCOUNT AND INCOME TAXES SUB-ACCOUNT LINE ITEMS SHOWN ON SCHEDULE HW-1?

A. For most of the taxes other than income taxes sub-account and income taxes sub-account line items shown, the lead days were calculated based on the midpoint of the tax liability period to the payment date, weighted by the actual amount paid. The exception to this was income taxes, where the lead days were calculated based on the midpoint of the tax period to the payment date, weighted by the percent of the payment required. The taxes other than income taxes and income taxes sub-account line sub-accounts are shown on Schedule HW-25 through Schedule HW-28. These taxes include real estate tax lead days (see Schedule HW-25), payroll tax lead days (see Schedule HW-26), federal income taxes lead days (see Schedule HW-27), and state income taxes lead days (see Schedule HW-28).

LEAD-LAG STUDY CONCLUSION

Q. WHAT ARE THE RESULTS OF THE LEAD-LAG STUDY?

A. The results of the lead-lag study are shown on Schedule HW-1. The results of the lead-lag study shown on Schedule HW-1 show the required cash working capital to bridge the gap between the time when funds are provided to the Company by investors to allow the Company to provide service to customers, and the time revenues are received from customers as reimbursement for these services. VWPA's cash working capital for FTY is

$779,156. The cash working capital requirement for FPY is $782,997 and the cash working capital requirement for FPFTY is $819,040. VWPA's Main and Bethel Water Operations' cash working capital for FTY is $756,807, $760,848 for FPY and is $795,083 for FPFTY, as shown on page 2. VWPA's Main Sewer Operations' cash working capital for FTY is $3,386, $3,404 for FPY and is $3,438 for FPFTY, as shown on page 3. VWPA's Mahoning Water Operations' cash working capital for FTY is $5,167, $4,741 for FPY and is $5,223 for FPFTY, as shown on page 4. VWPA's Mahoning Sewer Operations' cash working capital for FTY is $13,797, $13,998 for FPY and is $15,292 for FPFTY, as shown on page 5.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does. However, I reserve the right to supplement my testimony as additional issues and facts arise during the course of the proceeding.

APPENDIX A

Professional Qualifications
of
Harold Walker, III
Manager, Financial Studies
Gannett Fleming Valuation and Rate Consultants, LLC.

EDUCATION

Mr. Walker graduated from Pennsylvania State University in 1984 with a Bachelor of Science Degree in Finance. His studies concentrated on securities analysis and portfolio management with an emphasis on economics and quantitative business analysis. He has also completed the regulation and the rate-making process courses presented by the College of Business Administration and Economics Center for Public Utilities at New Mexico State University. Additionally, he has attended programs presented by The Institute of Chartered Financial Analysts (CFA).

Mr. Walker was awarded the professional designation "Certified Rate of Return Analyst" (CRRA) by the Society of Utility and Regulatory Financial Analysts. This designation is based upon education, experience and the successful completion of a comprehensive examination. He is also a member of the Society of Utility and Regulatory Financial Analysts (SURFA) and has attended numerous financial forums sponsored by the Society. The SURFA forums are recognized by the Association for Investment Management and Research (AIMR) and the National Association of State Boards of Accountancy for continuing education credits.

Mr. Walker obtained a license as a Municipal Advisor Representative (Series 50) by Municipal Securities Rulemaking Board (MSRB) and Financial Industry Regulatory Authority (FINRA).

BUSINESS EXPERIENCE

Prior to joining Gannett Fleming Valuation and Rate Consultants, LLC., Mr. Walker was employed by AUS Consultants - Utility Services. He held various positions during his eleven years with AUS, concluding his employment there as a Vice President. His duties included providing and supervising financial and economic studies on behalf of investor owned and municipally owned water, wastewater, electric, natural gas distribution and transmission, oil pipeline and telephone utilities as well as resource recovery companies.

In 1996, Mr. Walker joined Gannett Fleming Valuation and Rate Consultants, LLC. In his capacity as Manager, Financial Studies and for the past twenty years, he has continuously studied rates of return requirements for regulated firms. In this regard, he supervised the preparation of rate of return studies in connection with his testimony and in the past, for other individuals. He also assisted and/or developed dividend policy studies, nuclear prudence studies, calculated fixed charge rates for avoided costs involving cogeneration projects, financial decision studies for capital budgeting purposes and developed financial models for determining future capital requirements and the effect of those requirements on investors and ratepayers, valued utility property and common stock for acquisition and divestiture, and assisted in the private placement of fixed capital securities for public utilities.

Head, Gannett Fleming GASB 34 Task Force responsible for developing Governmental Accounting Standards Board (GASB) 34 services and educating Gannett Fleming personnel and Gannett Fleming clients on GASB 34 and how it may affect them. The GASB 34 related services include inventory of assets, valuation of assets, salvage estimation, annual depreciation rate determination, estimation of depreciation reserve, asset service life determination, asset condition assessment, condition assessment documentation, maintenance estimate for asset preservation, establishment of condition level index, geographic information system (GIS) and data management services, management discussion and analysis (MD&A) reporting, required supplemental information (RSI) reporting, auditor interface, and GASB 34 compliance review.

In 2004, Mr. Walker was elected to serve on the Board of Directors of SURFA. Previously, he served as an ex-officio directors as an advisor to SURFA's existing President. In 2000, Mr. Walker was elected President of SURFA for the 2001-2002 term. Prior to that, he was elected to serve on the Board of Directors of SURFA during the period 1997-1998 and 1999-2000. He also served on the Pennsylvania Municipal Authorities Association, Electric Deregulation Committee.

EXPERT TESTIMONY

Mr. Walker has submitted testimony or been deposed on various topics before regulatory commissions and courts in 27 states including: Alaska, Arizona, California, Colorado, Connecticut, Delaware, Hawaii, Idaho, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Michigan, Missouri, New Hampshire, Nevada, New Jersey, New York, North Carolina, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Vermont, Virginia, and West Virginia. His testimonies covered various subjects including lead-lag studies, fair rate of return, fair market value, the taking of natural resources, benchmarking, appropriate capital structure and fixed capital cost rates, depreciation, purchased water adjustments, synchronization of interest charges for income tax purposes, valuation, cash working capital, financial analyses of investment alternatives, and fair value. The following tabulation provides a listing of the electric power, natural

gas distribution, telephone, wastewater, and water service utility cases in which he has been involved as a witness.

Client	Docket No.
Alpena Power Company	U-10020
Armstrong Telephone Company - Northern Division	92-0884-T-42T
Armstrong Telephone Company - Northern Division	95-0571-T-42T
Artesian Water Company, Inc.	90 10
Artesian Water Company, Inc.	06 158
Aqua Illinois Consolidated Water Divisions and Consolidated Sewer Divisions	11-0436
Aqua Illinois Hawthorn Woods Wastewater Division	07 0620/07 0621/08 0067
Aqua Illinois Hawthorn Woods Water Division	07 0620/07 0621/08 0067
Aqua Illinois Kankakee Water Division	10-0194
Aqua Illinois Kankakee Water Division	14-0419
Aqua Illinois Vermilion Division	07 0620/07 0621/08 0067
Aqua Illinois Willowbrook Wastewater Division	07 0620/07 0621/08 0067
Aqua Illinois Willowbrook Water Division	07 0620/07 0621/08 0067
Aqua Pennsylvania, Inc	A-2022-3034143
Aqua Pennsylvania Wastewater Inc	A-2016-2580061
Aqua Pennsylvania Wastewater Inc	A-2017-2605434
Aqua Pennsylvania Wastewater Inc	A-2018-3001582
Aqua Pennsylvania Wastewater Inc	A-2019-3008491
Aqua Pennsylvania Wastewater Inc	A-2019-3009052
Aqua Pennsylvania Wastewater Inc	A-2019-3015173
Aqua Pennsylvania Wastewater Inc	A-2021-3024267
Aqua Pennsylvania Wastewater Inc	A-2021-3026132
Aqua Pennsylvania Wastewater Inc	A-2021-3027268

Aqua Pennsylvania Wastewater Inc	A-2023-3041695
Aqua Virginia - Alpha Water Corporation	Pue-2009-00059
Aqua Virginia - Blue Ridge Utility Company, Inc.	Pue-2009-00059
Aqua Virginia - Caroline Utilities, Inc. (Wastewater)	Pue-2009-00059
Aqua Virginia - Caroline Utilities, Inc. (Water)	Pue-2009-00059
Aqua Virginia - Earlysville Forest Water Company	Pue-2009-00059
Aqua Virginia - Heritage Homes of Virginia	Pue-2009-00059
Aqua Virginia - Indian River Water Company	Pue-2009-00059
Aqua Virginia - James River Service Corp.	Pue-2009-00059
Aqua Virginia - Lake Holiday Utilities, Inc. (Wastewater)	Pue-2009-00059
Aqua Virginia - Lake Holiday Utilities, Inc. (Water)	Pue-2009-00059
Aqua Virginia - Lake Monticello Services Co. (Wastewater)	Pue-2009-00059
Aqua Virginia - Lake Monticello Services Co. (Water)	Pue-2009-00059
Aqua Virginia - Lake Shawnee	Pue-2009-00059
Aqua Virginia - Land'or Utility Company (Wastewater)	Pue-2009-00059
Aqua Virginia - Land'or Utility Company (Water)	Pue-2009-00059
Aqua Virginia - Mountainview Water Company, Inc.	Pue-2009-00059
Aqua Virginia - Powhatan Water Works, Inc.	Pue-2009-00059
Aqua Virginia - Rainbow Forest Water Corporation	Pue-2009-00059
Aqua Virginia - Shawnee Land	Pue-2009-00059
Aqua Virginia - Sydnor Water Corporation	Pue-2009-00059
Aqua Virginia - Water Distributors, Inc.	Pue-2009-00059
Atlantic City Sewerage Company	WR21071006
Berkshire Gas Company	18-40
Berkshire Gas Company	22-20
Bermuda Water Company, Inc	W-01812A-22-0256
Borough of Brentwood	A-2021-3024058
Borough of Hanover	R-2009-2106908
Borough of Hanover	R-2012-2311725

Borough of Hanover	R-2014-242830
Borough of Hanover	R-2021-3026116
Borough of Hanover	P-2021-3026854
Borough of Royersford	A-2020-3019634
Butler Area Sewer Authority	A-2020-3019634
Chaparral City Water Company	W 02113a 04 0616
California-American Water Company	CIVCV156413
Connecticut-American Water Company	99-08-32
Connecticut Water Company	06 07 08
Citizens Utilities Company	
Colorado Gas Division	-
Citizens Utilities Company	
Vermont Electric Division	5426
Citizens Utilities Home Water Company	R 901664
Citizens Utilities Water Company	
of Pennsylvania	R 901663
City of Beaver Falls	A-2022-3033138
City of Bethlehem - Bureau of Water	R-00984375
City of Bethlehem - Bureau of Water	R 00072492
City of Bethlehem - Bureau of Water	R-2013-2390244
City of Bethlehem - Bureau of Water	R-2020-3020256
City of Dubois – Bureau of Water	R-2013-2350509
City of Dubois – Bureau of Water	R-2016-2554150
City of Lancaster Sewer Fund	R-00005109
City of Lancaster Sewer Fund	R-00049862
City of Lancaster Sewer Fund	R-2012-2310366
City of Lancaster Sewer Fund	R-2019-3010955
City of Lancaster Sewer Fund	R-2019-3010955
City of Lancaster Water Fund	R-00984567
City of Lancaster Water Fund	R-00016114
City of Lancaster Water Fund	R 00051167
City of Lancaster Water Fund	R-2010-2179103
City of Lancaster Water Fund	R-2014-2418872
City of Lancaster Water Fund	R-2021-3026682
City of Lancaster Water Fund	P-2022-3035591

Coastland Corporation	15-cvs-216
Consumers Pennsylvania Water Company Roaring Creek Division	R-00973869
Consumers Pennsylvania Water Company Shenango Valley Division	R-00973972
Country Knolls Water Works, Inc.	90 W 0458
East Resources, Inc. - West Virginia Utility	06 0445 G 42T
Elizabethtown Water Company	WR06030257
ENSTAR Natural Gas Company	U-22-081
Falls Water Company, Inc.	FLS-W-23-01
Forest Park, Inc.	19-W-0168 & 19-W-0269
Hampton Water Works Company	DW 99-057
Hidden Valley Utility Services, LP	R-2018-3001306
Hidden Valley Utility Services, LP	R-2018-3001307
Illinois American Water Company	16-0093
Illinois American Water Company	22-0210
Indian Rock Water Company	R-911971
Indiana Natural Gas Corporation	38891
Jamaica Water Supply Company	-
Kane Borough Authority	A-2019-3014248
Kentucky American Water Company, Inc.	2007 00134
Kentucky American Water Company, Inc.	2023-00191
Middlesex Water Company	WR 89030266J
Millcreek Township Water Authority	55 198 Y 00021 11
Missouri-American Water Company	WR 2000-281
Missouri-American Water Company	SR 2000-282
Missouri-American Water Company	WR-2022-0303
Mount Holly Water Company	WR06030257
Nevada Power Company d/b/a NV Energy	20-06003
Nevada Power Company d/b/a NV Energy	23-06007
New Jersey American Water Company	WR 89080702J
New Jersey American Water Company	WR 90090950J
New Jersey American Water Company	WR 03070511
New Jersey American Water Company	WR-06030257
New Jersey American Water Company	WR08010020

New Jersey American Water Company	WR10040260
New Jersey American Water Company	WR11070460
New Jersey American Water Company	WR15010035
New Jersey American Water Company	WR17090985
New Jersey American Water Company	WR19121516
New Jersey American Water Company	WR22010019
New Jersey Natural Gas Company	GR19030420
New Jersey Natural Gas Company	GR21030679
Newtown Artesian Water Company	R-911977
Newtown Artesian Water Company	R-00943157
Newtown Artesian Water Company	R-2009-2117550
Newtown Artesian Water Company	R-2011-2230259
Newtown Artesian Water Company	R-2017-2624240
Newtown Artesian Water Company	R-2019-3006904
North Maine Utilities	14-0396
Northern Indiana Fuel & Light Company	38770
Oklahoma Natural Gas Company	PUD-940000477
Palmetto Utilities, Inc.	2020-281-S
Palmetto Wastewater Reclamation, LLC	2018-82-S
Pennichuck Water Works, Inc.	DW 04 048
Pennichuck Water Works, Inc.	DW 06 073
Pennichuck Water Works, Inc.	DW 08 073
Pennsylvania-American Water Company	A-2023-3039900
Pennsylvania Gas & Water Company (Gas)	R-891261
Pennsylvania Gas & Water Co. (Water)	R 901726
Pennsylvania Gas & Water Co. (Water)	R-911966
Pennsylvania Gas & Water Co. (Water)	R-22404
Pennsylvania Gas & Water Co. (Water)	R-00922482
Pennsylvania Gas & Water Co. (Water)	R-00932667
Philadelphia Gas Works	R-2020-3017206
Philadelphia Gas Works	R-2023-3037933
Public Service Company of North Carolina, Inc.	G-5, Sub 565
Public Service Electric and Gas Company	ER181010029
Public Service Electric and Gas Company	GR18010030
Presque Isle Harbor Water Company	U-9702

Sierra Pacific Power Company d/b/a NV Energy	19-06002
Sierra Pacific Power Company d/b/a NV Energy	22-06014
St. Louis County Water Company	WR-2000-844
Suez Water Delaware, Inc.	19-0615
Suez Water Idaho, Inc.	SUZ-W-20-02
Suez Water New Jersey, Inc.	WR18050593
Suez Water New Jersey, Inc.	WR20110729
Suez Water Owego-Nichols, Inc.	17-W-0528
Suez Water Pennsylvania, Inc.	R-2018-3000834
Suez Water Pennsylvania, Inc.	A-2018-3003519
Suez Water Pennsylvania, Inc.	A-2018-3003517
Suez Water Rhode Island, Inc.	Docket No. 4800
Suez Water Owego-Nichols, Inc.	19-W-0168 & 19-W-0269
Suez Water New York, Inc.	19-W-0168 & 19-W-0269
Suez Westchester, Inc.	19-W-0168 & 19-W-0269
Town of North East Water Fund	9190
Township of Exeter	A-2018-3004933
United Water New Rochelle	W-95-W-1168
United Water Toms River	WR-95050219
Upper Pottsgrove Township	A-2020-3021460
Valley Township (water)	A-2020-3019859
Valley Township (wastewater)	A-2020-3020178
Valley Water Systems, Inc.	06 10 07
Veolia Water Idaho, Inc.	VEO-W-22-02
Veolia Water Delaware, Inc.	23-0598
Veolia Water New York, Inc.	23-W-0111
Virginia American Water Company	PUR-2018-00175
Virginia American Water Company	PUR-2021-00255
Virginia American Water Company	PUR-2023-00194
West Virginia-American Water Company	15-0676-W-42T
West Virginia-American Water Company	15-0675-S-42T
Wilmington Suburban Water Corporation	94-149
York Water Company	R-901813
York Water Company	R-922168

York Water Company	R-943053
York Water Company	R-963619
York Water Company	R-994605
York Water Company	R-00016236
Young Brothers, LLC	2019-0117

VERIFICATION

I, Harold Walker III, hereby state that the facts set forth above are true and correct to the best of my knowledge, information and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: 6/25/24

Harold Walker III

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

EXHIBITS TO ACCOMPANY DIRECT TESTIMONY

OF

HERBERT WALKER

GANNETT FLEMING

VALUATION AND RATE CONSULTANTS, LLC

VEOLIA WATER PENNSYLVANIA, INC.

February 2024

Exhibit HW-1

VEOLIA WATER PENNSYLVANIA, INC.
HARRISBURG, PENNSYLVANIA

RATE OF RETURN

EXHIBIT

TO ACCOMPANY THE

DIRECT TESTIMONY

JANUARY 2024

Prepared by:

GANNETT FLEMING

Veolia Pennsylvania, Inc.
Cost of Capital and Fair Rate of Return
Projected at October 31, 2025

Type of Capital	Ratios*	Cost Rate* (%)	Weighted Cost Rate (%)
Debt	46.00%	4.60	2.12%
Preferred Stock	0.00	0.00	0.00
Common Equity	54.00	10.80	5.83
Overall Cost of Capital	100.00%		7.95%
Before Income Tax Interest Coverage (x) (Based on effective income tax rate of 21.00%.)		4.5x	

* Ratios and embedded cost rates are from Exhibit GRH-2, Sch 1.2 The capital structure ratios are those of Veolia Water Resources, Inc.

Capital Structure Ratios for
The Water Group Followed by Analysts
At 6/30/2023 and Estimated for 2027

	6/30/2023	Est.(1) 2027
Water Group Followed by Analysts		
Long-term Debt	50.4 %	47.7 %
Preferred Stock	0.1	0.0
Common Equity	49.5	52.3
Total	100.0 %	100.0 %

Notes: (1) Project by Value Line for the period 2026 to 2028.

Source of Information: Value Line Investment Survey, 10/6/23, and S&P Capital IQ

Capital Structure Ratios for
The Water Group Followed by Analysts
At 6/30/2023 and Estimated for 2027

	Actual at 6/30/23		
	Long-term Debt	Preferred Stock	Common Equity
Water Group Followed by Analysts			
American States Water Co	52.3	0.0	47.7
American Water Works Co Inc	55.8	0.0	44.2
California Water Service Gp	43.1	0.0	56.9
Essential Utilities, Inc.	55.0	0.0	45.0
Middlesex Water Co	47.3	0.3	52.4
SJW Corp	56.9	0.0	43.1
York Water Co	42.7	0.0	57.3
Average	50.4	0.1	49.5

	Estimated at 2027		
	Long-term Debt	Preferred Stock	Common Equity
Water Group Followed by Analysts			
American States Water Co	50.0	0.0	50.0
American Water Works Co Inc	57.5	0.0	42.5
California Water Service Gp	38.0	0.0	62.0
Essential Utilities, Inc.	56.0	0.0	44.0
Middlesex Water Co	40.5	0.0	59.5
SJW Corp	44.0	0.0	56.0
York Water Co	NA	NA	NA
Average	47.7	0.0	52.3

Source of Information: Value Line Investment Survey, 10/6/23, and S&P Capital IQ

Veolia Water Pennsylvania, Inc
Five Year Analysis
2018 - 2022 (1)

Ln #		2022	2021	2020	2019	2018	Average Ann. Chg(%)	
				(Millions of $)				
	Investor Provided Capital($)							
1	Permanent Capital	295.336	279.576	265.000	236.158	206.255	9.5	
2	Short-Term Debt	0.000	0.000	0.000	0.000	0.000		
3	Total Capital	295.336	279.576	265.000	236.158	206.255	9.5	
4	Total Revenue($)	58.218	55.772	54.086	52.698	45.804	6.3	
5	Construction($)	27.189	20.260	33.513	44.958	25.611	11.2	
							Five Year Average	Average Central Values(9)
6	Effective Income Tax Rate(%)	19.5	22.5	6.5	30.5	29.2	21.6	23.7
	Capitalization Ratios(%)							
7	Long-Term Debt	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	Preferred Stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	Common Equity	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Total	100.0	100.0	100.0	100.0	100.0		
10	Total Debt	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	Preferred Stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	Common Equity	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Total	100.0	100.0	100.0	100.0	100.0		
	Rates on Average Capital(2)(%)							
13	Total Debt	NA	NA	NA	NA	NA	NA	NA
14	Long-Term Debt	NA	NA	NA	NA	NA	NA	NA
15	Preferred Stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Coverage - Including AFC(3)(x)							
16	PreTax Interest	5.5	5.6	5.2	5.7	4.2	5.2	5.4
17	PreTax Interest + Pref. Div	5.5	5.6	5.2	5.7	4.2	5.2	5.4
18	PostTax Interest + Pref. Div	4.6	4.5	5.0	4.3	3.3	4.3	4.5
	Coverage - Excluding AFC(3)(x)							
19	PreTax Interest	5.5	5.6	5.2	5.7	4.2	5.2	5.4
20	PreTax Interest + Pref. Div	5.5	5.6	5.2	5.7	4.2	5.2	5.4
21	PostTax Interest + Pref. Div	4.6	4.5	5.0	4.3	3.3	4.3	4.5
22	GCF / Interest Coverage(4)(x)	6.9	6.4	6.1	5.9	5.5	6.2	6.1
23	Coverage of Common Dividends(5)(x)	7.4	6.5	0.0	566.2	193.2	154.7	69.0
24	Construction / Avg. Tot. Capital(%)	9.5	7.4	13.4	20.3	13.0	12.7	12.0
25	NCF / Construction(6)(%)	100.6	108.9	77.1	49.2	76.8	82.5	84.8
26	AFC / Income for Common Stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	GCF / Avg. Tot. Debt(7)(%)	NA	NA	NA	NA	NA	NA	NA
28	GCF / Permanent Capital(8)(%)	10.7	9.3	9.7	9.4	9.6	9.7	9.6

See page 2 of this Schedule for notes.

Veolia Water Pennsylvania, Inc.
Five Year Analysis
2018-2022

Notes:

(1) Based upon the achieved results as originally reported.

(2) Computed by relating total debt interest, long-term debt interest and preferred dividend expense to average of beginning and ending balance of the respective capital outstanding.

(3) The coverage calculations, both including and excluding AFC, represent the number of times available earnings cover the various fixed charges.

(4) GCF or gross cash flow (sum of net income, depreciation, amortization, net deferred income taxes and investment tax credits, less AFC), plus interest charges, divided by interest charges.

(5) GCF (see note 4) less all preferred dividends which cover common dividends.

(6) The percent of GCF (see note 4) less all cash dividends which cover gross construction expenditures.

(7) GCF (see note 4) as a percentage of Permanent Capital (long-term debt, current maturities and preferred, preference and common equity).

(8) GCF (see note 4) as a percentage of average total debt.

(9) Average of the second, third and fourth quintile values.

Source of Information: Annual Reports filed with the PUC

Water Group Followed by Analysts
Five Year Analysis
2018 - 2022 (1)

Ln #		2022	2021	2020	2019	2018	Average Ann. Chg(%)	
				(Millions of $)				
	Investor Provided Capital($)							
1	Permanent Capital	5,153.338	4,667.439	3,933.051	3,230.128	2,836.135	16.2	
2	Short-Term Debt	120.245	278.756	162.140	171.857	188.340		
3	Total Capital	5,273.584	4,946.196	4,095.190	3,401.985	3,024.475	15.1	
4	Total Revenue($)	1,124.265	1,040.317	899.254	856.759	835.976	7.8	
5	Construction($)	511.706	488.708	414.853	386.422	357.285	9.5	
							Five Year Average	Average Central Values(9)
6	Effective Income Tax Rate(%)	7.1	8.9	13.4	14.4	32.2	15.2	13.4
	Book Capitalization Ratios(%)							
7	Long-Term Debt	51.9	51.5	49.3	46.2	45.6	48.9	49.3
8	Preferred Stock	0.0	0.0	0.1	0.1	0.1	0.1	0.1
9	Common Equity	48.1	48.4	50.6	53.7	54.3	51.0	50.6
	Total	100.0	100.0	100.0	100.0	100.0		
10	Total Debt	52.6	53.8	50.9	48.5	49.0	51.0	50.9
11	Preferred Stock	0.0	0.0	0.1	0.1	0.1	0.1	0.1
12	Common Equity	47.4	46.1	49.0	51.4	50.9	49.0	49.0
	Total	100.0	100.0	100.0	100.0	100.0		
	Rates on Average Capital(2)(%)							
13	Total Debt	3.5	3.8	4.4	5.1	4.9	4.4	4.4
14	Long-Term Debt	3.5	3.6	4.2	5.1	5.1	4.3	4.2
15	Preferred Stock	5.8	5.8	5.8	5.9	5.9	5.8	5.8
	Coverage - Including AFC(3)(x)							
16	PreTax Interest	4.2	4.0	3.6	3.7	4.8	4.1	4.0
17	PreTax Interest + Pref. Div	4.2	4.0	3.6	3.7	4.8	4.1	4.0
18	PostTax Interest + Pref. Div	3.9	3.7	3.3	3.3	3.6	3.6	3.6
	Coverage - Excluding AFC(3)(x)							
19	PreTax Interest	4.1	3.9	3.5	3.6	4.7	4.0	3.9
20	PreTax Interest + Pref. Div	4.1	3.9	3.5	3.6	4.7	4.0	3.9
21	PostTax Interest + Pref. Div	3.8	3.6	3.2	3.2	3.5	3.5	3.5
22	GCF / Interest Coverage(4)(x)	6.0	5.5	5.1	5.0	6.1	5.5	5.5
23	Coverage of Common Dividends(5)(x)	3.5	3.3	3.0	3.2	4.0	3.4	3.3
24	Construction / Avg. Tot. Capital(%)	12.0	12.9	12.8	13.6	14.4	13.1	12.9
25	NCF / Construction(6)(%)	55.5	48.9	46.7	49.2	62.0	52.5	49.2
26	AFC / Income for Common Stock	3.7	4.3	6.5	3.6	3.7	4.4	3.7
27	GCF / Avg. Tot. Debt(7)(%)	17.2	16.9	17.7	19.3	23.9	19.0	17.7
28	GCF / Permanent Capital(8)(%)	8.8	8.6	8.3	9.1	11.9	9.3	8.8

See page 2 of this Schedule for notes.

Water Group Followed by Analysts
Five Year Analysis
2018-2022

Notes:

(1) Average of the achieved results for each individual company based upon the financials as originally reported.

(2) Computed by relating total debt interest, long-term debt interest and preferred dividend expense to average of beginning and ending balance of the respective capital outstanding.

(3) The coverage calculations, both including and excluding AFC, represent the number of times available earnings cover the various fixed charges.

(4) GCF or gross cash flow (sum of net income, depreciation, amortization, net deferred income taxes and investment tax credits, less AFC), plus interest charges, divided by interest charges.

(5) GCF (see note 4) less all preferred dividends which cover common dividends.

(6) The percent of GCF (see note 4) less all cash dividends which cover gross construction expenditures.

(7) GCF (see note 4) as a percentage of Permanent Capital (long-term debt, current maturities and preferred, preference and common equity).

(8) GCF (see note 4) as a percentage of average total debt.

(9) Average of the second, third and fourth quintile values.

Source of Information: Standard & Poor's and Annual Reports

S&P Utilities
Five Year Analysis
2018 - 2022 (1)

Ln #		2022	2021	2020	2019	2018	Average Ann. Chg(%)	
				(Millions of $)				
	Investor Provided Capital($)							
1	Permanent Capital	62,000.528	58,853.544	54,469.994	50,527.640	44,720.496	8.5	
2	Short-Term Debt	2,255.578	1,719.597	1,471.710	1,620.368	2,253.561		
3	Total Capital	64,256.107	60,573.140	55,941.704	52,148.008	46,974.058	8.2	
4	Total Revenue($)	17,246.567	14,450.899	13,253.661	14,495.267	14,333.991	5.2	
5	Construction($)	7,597.502	6,837.594	6,376.706	6,234.422	5,492.199	8.5	
							Five Year Average	Average Central Values(9)
6	Effective Income Tax Rate(%)	3.5	10.3	1.4	9.0	29.8	10.8	9.0
	Book Capitalization Ratios(%)							
7	Long-Term Debt	58.2	57.3	57.1	55.9	55.9	56.9	57.1
8	Preferred Stock	0.7	0.7	0.9	0.9	0.5	0.7	0.9
9	Common Equity	41.1	41.9	42.0	43.2	43.6	42.4	42.0
	Total	100.0	100.0	100.0	100.0	100.0		
10	Total Debt	59.9	58.7	58.3	57.4	58.1	58.5	58.3
11	Preferred Stock	0.6	0.7	0.9	0.8	0.5	0.7	0.9
12	Common Equity	39.5	40.6	40.8	41.8	41.4	40.8	40.8
	Total	100.0	100.0	100.0	100.0	100.0		
	Rates on Average Capital(2)(%)							
13	Total Debt	3.1	3.4	3.8	4.3	4.2	3.8	3.8
14	Long-Term Debt	4.3	NA	NA	NA	NA	4.3	0.0
15	Preferred Stock	3.4	3.5	1.9	3.7	46.9	11.9	3.5
	Coverage - Including AFC(3)(x)							
16	PreTax Interest	3.8	3.1	2.7	3.0	2.9	3.1	3.0
17	PreTax Interest + Pref. Div	3.8	3.1	2.7	3.0	2.9	3.1	3.0
18	PostTax Interest + Pref. Div	3.4	2.8	2.5	2.8	2.7	2.9	2.8
	Coverage - Excluding AFC(3)(x)							
19	PreTax Interest	3.7	3.0	2.6	2.9	2.9	3.0	2.9
20	PreTax Interest + Pref. Div	3.7	3.0	2.6	2.9	2.9	3.0	2.9
21	PostTax Interest + Pref. Div	3.3	2.8	2.4	2.8	2.6	2.8	2.8
22	GCF / Interest Coverage(4)(x)	6.9	5.5	4.9	5.0	5.0	5.5	5.0
23	Coverage of Common Dividends(5)(x)	3.2	3.2	3.1	4.1	3.9	3.5	3.2
24	Construction / Avg. Tot. Capital(%)	12.1	11.5	12.1	12.6	12.7	12.2	12.1
25	NCF / Construction(6)(%)	54.2	62.4	52.9	65.8	56.0	58.3	56.0
26	AFC / Income for Common Stock	2.6	0.5	12.7	5.3	3.4	4.9	3.4
27	GCF / Avg. Tot. Debt(7)(%)	13.9	14.5	14.3	16.5	16.1	15.1	14.5
28	GCF / Permanent Capital(8)(%)	8.1	8.4	8.1	9.1	9.2	8.6	8.4

See page 2 of this Schedule for notes.

S&P Public Utilities
Five Year Analysis
2018-2022

Notes:

(1) Market value weighted achieved results for each individual company based upon the financials as originally reported.

(2) Computed by relating total debt interest, long-term debt interest and preferred dividend expense to average of beginning and ending balance of the respective capital outstanding.

(3) The coverage calculations, both including and excluding AFC, represent the number of times available earnings cover the various fixed charges.

(4) GCF or gross cash flow (sum of net income, depreciation, amortization, net deferred income taxes and investment tax credits, less AFC), plus interest charges, divided by interest charges.

(5) GCF (see note 4) less all preferred dividends which cover common dividends.

(6) The percent of GCF (see note 4) less all cash dividends which cover gross construction expenditures.

(7) GCF (see note 4) as a percentage of Permanent Capital (long-term debt, current maturities and preferred, preference and common equity).

(8) GCF (see note 4) as a percentage of average total debt.

(9) Average of the second, third and fourth quintile values.

Source of Information: Standard & Poor's, Moody's and Annual Reports

Risk Measures for the Common Stock of
The Water Group Followed by Analysts and the S&P Utilities

	Recent S&P Issuer Credit Rating	Stock Exchange	Recent S&P Quality Ranking	Value Line Beta	Recent Market Value 11/30/23 (Mill $)	Market Quartile	Market Quartile Name
Water Group Followed by Analysts							
American States Water Co	A	NYSE	High (A)	0.70	2,954.749	2	Mid-Cap
American Water Works Co Inc	A	NYSE	High (A)	0.95	25,669.907	1	Large-Cap
California Water Service Gp	A+	NYSE	Above Average (A-)	0.70	2,918.445	2	Mid-Cap
Essential Utilities, Inc.	A	NYSE	High (A)	1.00	9,727.435	2	Mid-Cap
Middlesex Water Co	A	NasdaqGS	High (A)	0.75	1,137.848	3	Low-Cap
SJW Corp	A-	NYSE	Average (B+)	0.85	2,096.082	3	Low-Cap
York Water Co	A-	NasdaqGS	High (A)	0.80	545.373	3	Low-Cap
Average	A		High (A)	0.82	2,918.445	2	Mid-Cap
S&P Public Utilities							
AES Corporation (The)	BBB-	NYSE	Lower (B-)	1.15	11,524.316	2	Mid-Cap
Alliant Energy Corporation	A-	NasdaqGS	High (A)	0.85	12,904.406	2	Mid-Cap
Ameren Corporation	BBB+	NYSE	High (A)	0.85	20,401.906	1	Large-Cap
American Electric Power Company, Inc	A-	NasdaqGS	Above Average (A-)	0.75	41,833.407	1	Large-Cap
American Water Works Company, Inc.	A	NYSE	High (A)	0.80	25,669.907	1	Large-Cap
Atmos Energy Corporation	A-	NYSE	High (A)	0.85	16,900.342	1	Large-Cap
CenterPoint Energy, Inc.	BBB+	NYSE	Average (B+)	1.10	17,844.690	1	Large-Cap
CMS Energy Corporation	BBB+	NYSE	High (A)	0.80	16,560.500	1	Large-Cap
Consolidated Edison, Inc.	A-	NYSE	Average (B+)	0.80	31,107.754	1	Large-Cap
Constellation Energy Corporation	-	NasdaqGS	NA	NMF	38,657.959	1	Large-Cap
Dominion Energy, Inc.	BBB+	NYSE	Below Average (B)	0.85	37,940.366	1	Large-Cap
DTE Energy Company	BBB+	NYSE	Above Average (A-)	0.95	21,473.596	1	Large-Cap
Duke Energy Corporation	BBB+	NYSE	Average (B+)	0.85	71,121.278	1	Large-Cap
Edison International	BBB	NYSE	Below Average (B)	1.00	25,695.268	1	Large-Cap
Entergy Corporation	BBB+	NYSE	Below Average (B)	0.95	21,445.484	1	Large-Cap
Evergy, Inc.	BBB+	NasdaqGS	Above Average (A-)	0.90	11,724.947	2	Mid-Cap
Eversource Energy	A-	NYSE	High (A)	0.90	20,753.470	1	Large-Cap
Exelon Corporation	BBB+	NasdaqGS	Below Average (B)	NMF	38,334.295	1	Large-Cap
FirstEnergy Corp.	BBB-	NYSE	Below Average (B)	0.85	21,196.720	1	Large-Cap
NextEra Energy, Inc.	A-	NYSE	Above Average (A-)	0.95	120,045.420	1	Large-Cap
NiSource Inc.	BBB+	NYSE	Below Average (B)	0.90	10,599.972	2	Mid-Cap
NRG Energy, Inc.	BB	NYSE	Below Average (B)	1.10	10,800.571	2	Mid-Cap
PG&E Corporation	BB-	NYSE	In Reorganization (D)	1.10	36,632.335	1	Large-Cap
Pinnacle West Capital Corporation	BBB+	NYSE	Above Average (A-)	0.90	8,498.072	2	Mid-Cap
PPL Corporation	A-	NYSE	Below Average (B)	1.10	19,253.689	1	Large-Cap
Public Service Enterprise Group Incorpo	BBB+	NYSE	Average (B+)	0.95	31,109.762	1	Large-Cap
Sempra Energy	BBB+	NYSE	Average (B+)	1.00	45,859.136	1	Large-Cap
Southern Co (The)	BBB+	NYSE	Average (B+)	0.90	77,412.161	1	Large-Cap
WEC Energy Group, Inc.	A-	NYSE	High (A)	0.80	26,376.635	1	Large-Cap
Xcel Energy Inc.	A-	NasdaqGS	High (A)	0.85	33,572.505	1	Large-Cap
Average	BBB+		Average (B+)	0.92	23,571.752	1	Large-Cap

Comparative Ratios
For Veolia Water Pennsylvania, Inc,
For the Water Group Followed by Analysts,
S&P Utilities, and S&P 500
For the Years 2018-2022(1)

	2022	2021	2020	2019	2018	Five Year Average
Return on Common Equity(2)						
Veolia Water Pennsylvania, Inc	6.8	6.3	8.0	6.7	5.1	6.6
Water Group Followed by Analysts	9.6	11.3	10.5	9.5	10.1	10.2
S&P Utilities	8.2	8.5	7.5	29.0	10.1	12.7
S&P 500	17.1	20.5	10.3	15.8	15.9	15.9
Market/Book Multiple(3)						
Water Group Followed by Analysts	3.3	3.6	3.3	3.4	3.1	3.3
S&P Utilities	2.6	2.6	2.2	2.6	1.8	2.4
S&P 500	4.1	4.4	3.3	3.2	3.2	3.2
Earnings/Price Ratio(4)						
Water Group Followed by Analysts	3.0	3.1	3.2	2.7	3.3	3.1
S&P Utilities	3.9	3.8	3.5	4.0	4.0	3.8
S&P 500	4.1	4.7	3.2	4.9	5.1	4.4
Dividend Payout Ratio(5)						
Veolia Water Pennsylvania, Inc	21.8	23.6	0.0	0.3	1.0	9.3
Water Group Followed by Analysts	58.9	53.7	57.4	73.2	60.5	60.7
S&P Utilities	80.2	221.2	104.4	100.4	58.4	112.9
S&P 500	38.2	30.2	60.4	42.0	40.4	42.2
Dividend Yield(6)						
Water Group Followed by Analysts	1.8	1.7	1.8	1.8	2.0	1.8
S&P Utilities	3.0	3.1	3.4	3.3	3.6	3.3
S&P 500	1.6	1.4	1.9	2.1	2.0	1.8

See next page for Notes.

Comparative Ratios For
Veolia Water Pennsylvania, Inc.,
The Water Group Followed by Analysts,
The S&P Utilities, and the S&P 500
For the Years 2018-2022 (1)

Notes:

(1) The average of achieved results for the companies in each group. The information for the S&P Public Utilities is market weighted. The information for the S&P 500 is based upon per share information adjusted to price index level.

(2) Rate of Return on Average Book Common Equity - income available for common equity divided by average beginning and ending year's balance of book common equity.

(3) Market/Book Ratio - average of yearly high-low market price divided by the average of beginning and ending year's book value per share.

(4) Earnings/Price Ratio - reported earnings per share yearly divided by the average of yearly high-low market price.

(5) Dividend Payout Ratio is computed by dividing the yearly reported dividends paid by the yearly income available for common equity.

(6) Dividend Yield - yearly dividend per share divided by the average yearly high-low market price.

Source of Information: Standard & Poor's and Annual Reports

Capital Intensity and Capital Recovery
Veolia Water Pennsylvania, Inc
The Water Group Followed by Analysts, and S&P Utilities
For the Year 2022

	Capital Intensity	Rate of Capital Recovery	Capital Recovery Years
Veolia Water Pennsylvania, Inc	$8.16	1.86%	53.8
Water Group Followed by Analysts	$6.63	2.19%	46.7
S&P Utilities	$4.45	3.61%	32.1

Relative Size of
Veolia Water Pennsylvania, Inc
Versus the Water Group Followed by Analysts
For the Year 2022

	Veolia Water Pennsylvania, Inc	Water Group Followed by Analysts	Water Group Followed by Analysts Vs. Veolia Water Pennsylvania, Inc
Total Capitalization (000's)	$295,336	$5,498,000	18.6 x
Total Operating Revenues (000's)	$58,218	$1,180,000	20.3 x
Number of Customers	66,016	963,355	14.6 x

Institutional Holdings, Insider Holdings and Percentage of Shares Traded Annually for
The Water Group Followed by Analysts, and the S&P Utilities

	Water Group Followed by Analysts	S&P Public Utilities
Percentage of common shares held by insiders (1)	2.1%	0.2%
Percentage of common shares held by institutions (2)	77%	84%
Percentage of Common Shares Traded in 2021	112%	156%
Percentage of Common Shares Traded in 2022	123%	169%
Average Number of Months For All Common Shares to Turnover (3)	10.6	7.2

Notes: (1) An insider is a director or an officer who has a policy-making role or a person who is directly or indirectly the beneficial owner of more than 10% of a certain company's stock. An insider may be either an individual or a corporation. Insiders are required to disclose their purchase/sale transactions to the SEC in which a change in beneficial ownership has occurred. The filings must be submitted before the end of the second business day following the day on which the transaction had been executed.

(2) Institutional holders are those investment managers having a fair market value of equity assets under management of $100 million or more. Certain banks, insurance companies, investment advisers, investment companies, foundations and pension funds are included in this category.

(3) Based on average turnover (shares traded) over the past five years.

Bond and Credit Ratings for
Veolia Water Pennsylvania, Inc., Veolia Utility Resources LLC and
The Water Group Followed by Analysts

	S&P Credit Rating
Veolia Water Pennsylvania, Inc	NA
Veolia Utility Resources LLC	A
Water Group Followed by Analysts	
American States Water Co	A+
American Water Works Co Inc	A
California Water Service Gp *	A+
Essential Utilities, Inc.	A
Middlesex Water Co	A
SJW Corp	A-
York Water Co	A-
Average	A

* - The A+ bond rating is that for California Water Service, Inc.

Comparison of Credit Measures of Financial Risk
Veolia Water Pennsylvania, Inc and
For the Water Group Followed by Analysts(1)

		Spot in Credit Measures of Financial Risk (For the Year 2022)			Trend in Credit Measures of Financial Risk (Five-Year Average 2018-22)		
		Credit Implication	Subject Company	Water Group Followed by Analysts	Credit Implication	Subject Company	Water Group Followed by Analysts
1.	Base Credit Metrics						
2.	PreTax Interest Coverage(2)(x)	Higher	5.5x	3.8x	Higher	5.2x	3.8x
3.	Total Debt/Total Capital(%)	NA	NA	51.9%	NA	NA	51.5%
4.	GCF / Interest Coverage(3)(x)	Higher	6.9x	5.5x	Higher	6.2x	5.4x
5.	GCF / Average Total Debt(4)(%)	NA	NA	15.9%	NA	NA	17.4%
6.	NCF / Construction(5)(%)	Higher	100.6%	45.9%	Higher	82.5%	49.2%
7.	Construction / Average Total Capital(6)(%)	Higher	9.5%	12.0%	Lower	12.7%	12.2%
8.	Standard & Poor's Credit Metrics						
9.	Funds from Operation / Average Total Debt(7)(%)	NA	NA	15.5%	NA	NA	17.1%
10.	Average Total Debt / EBITDA(8)(x)	NA	NA	5.3x	NA	NA	4.9x
11.	FFO / Interest Coverage(9)(x)	Higher	6.9x	5.4x	Higher	6.2x	5.3x
12.	EBITDA / Interest(10)(x)	Higher	7.1x	5.5x	Higher	7.0x	5.5x
13.	CFO / Average Total Debt(11)(%)	NA	NA	15.9%	NA	NA	17.4%
14.	FOCF / Average Total Debt(12)(%)	NA	NA	-7.9%	NA	NA	-7.0%
15.	DCF / Average Total Debt(13)(%)	NA	NA	-13.3%	NA	NA	-12.8%
16.	Moody's Credit Metrics						
17.	Cash Flow Interest Coverage(3) (x)	Higher	6.9x	5.5x	Higher	6.2x	5.4x
18.	Cash Flow / Average Total Debt(4)(%)	NA	NA	15.9%	NA	NA	17.4%
19.	Retained Cash Flow / Average Total Debt(14)(%)	NA	NA	10.6%	NA	NA	11.6%
20.	Average Total Debt / Average Adjusted Total Capital(15)(%)	NA	NA	46.9%	NA	NA	45.8%
21.	Capital Credit Metrics						
22.	Standard & Poor's Credit Metrics - Adjusted to Total Capital						
23.	Funds from Operation / Average Total Capital(16)(%)	Higher	11.0%	7.9%	Higher	10.2%	8.5%
24.	Average Total Capital / EBITDA(17)(x)	Higher	7.5x	10.0x	Higher	7.3x	9.4x
25.	CFO / Average Total Capital(18)(%)	Higher	13.4%	8.1%	Higher	13.9%	8.7%
26.	FOCF / Average Total Capital(19)(%)	Higher	3.9%	-3.9%	Higher	1.2%	-3.5%
27.	DCF / Average Total Capital(20)(%)	Higher	2.5%	-6.7%	Higher	0.5%	-6.3%
28.	Moody's Credit Metrics - Adjusted to Total Capital						
29.	Cash Flow / Average Total Capital(21)(%)	Higher	11.0%	8.1%	Higher	10.2%	8.7%
30.	Retained Cash Flow / Average Total Capital(22)(%)	Higher	9.5%	5.4%	Higher	9.6%	5.9%

See the next page for notes.

Comparison of Credit Market Financial Risk Metrics
For Veolia Water Pennsylvania, Inc. and
The Water Group Followed by Analysts
2018 - 2022

Notes:

(1) Average of the achieved results for each individual company based upon the financials as originally reported.
(2) Represents the number of times available pretax earnings ("EBIT"), excluding AFC, cover all interest charges.
(3) GCF or gross cash flow (sum of net income, depreciation, amortization, net deferred income taxes and investment tax credits, less AFC), plus interest charges, divided by interest charges.
(4) GCF (see note 3) as a percentage of average total debt.
(5) The percent of GCF (see note 3) less all cash dividends which cover gross construction expenditures.
(6) Construction expenditures as a percentage of average total capital.
(7) Funds from operations ("FFO"), revenue minus operating expenses, plus depreciation and amortization expenses ("EBITDA") less net interest expense less current tax expense, as a percentage of average total debt.
(8) Average total debt divided by EBITDA (see note 7).
(9) FFO (see note 7) plus interest charges, divided by interest charges.
(10) EBITDA (see note 7) divided by interest charges.
(11) Cash flow from operations ("CFO"), GCF (see note 3) plus changes in operating assets and liabilities (working capital), as a percentage of average total debt.
(12) Free operating cash flow ("FOCF"), CFO (see note 11) minus capital expenditures, as a percentage of average total debt.
(13) Discretionary cash flow ("DCF"), FOCF (see note 12) minus cash dividends as a percentage of average total debt.
(14) The percent of GCF (see note 3) less all cash dividends as a percentage of average total debt.
(15) Average total debt divided by average of total capital plus deferred taxes (balance sheet).
(16) Funds from operations ("FFO"), revenue minus operating expenses, plus depreciation and amortization expenses ("EBITDA") less net interest expense less current tax expense, as a percentage of average total capital.
(17) Average total capital divided by EBITDA (see note 7).
(18) Cash flow from operations ("CFO"), GCF (see note 3) plus changes in operating assets and liabilities (working capital), as a percentage of average total capital.
(19) Free operating cash flow ("FOCF"), CFO (see note 11) minus capital expenditures, as a percentage of average total capital.
(20) Discretionary cash flow ("DCF"), FOCF (see note 12) minus cash dividends as a percentage of average total capital.
(21) GCF (see note 3) as a percentage of average total capital.
(22) The percent of GCF (see note 3) less all cash dividends as a percentage of average total capital.

Source of Information: Standard & Poor's, Moody's and Annual Reports

Distribution of Bond and Credit Ratings for
All Companies Contained in S&P's *Capital IQ* Database (1)

Number of Companies In Each Grouping	S&P Bond and Credit Ratings				Range of Reported Permanent Capital By Groupings (Million $)		
	Average	Median	Maximum	Minimum	Smallest	Average	Largest
100	B+	B	AA-	CCC	61.500	624.227	967.900
100	BB-	BB-	AA-	CCC+	969.300	1,293.474	1,602.000
100	BB	BB	AA-	CCC-	1,605.200	1,921.847	2,218.000
100	BB	BB-	AA	CCC-	2,218.000	2,517.606	2,901.400
100	BB+	BB	AA	CCC+	2,910.200	3,354.548	3,896.300
100	BBB-	BB+	AA+	B-	3,896.500	4,442.875	4,969.000
100	BB+	BB+	AA-	CCC-	4,993.900	5,506.942	6,168.400
100	BBB-	BBB-	AA-	CCC+	6,171.000	7,002.326	7,971.400
100	BBB-	BBB-	AA+	CCC+	7,985.300	9,022.162	10,196.200
100	BBB	BBB	AA-	CCC+	10,263.000	11,665.665	13,367.300
100	BBB	BBB	AA-	CCC	13,460.300	16,799.992	20,092.000
100	BBB+	BBB+	AA	CCC	20,099.600	24,277.878	29,527.500
100	BBB+	BBB+	AA+	CCC+	29,553.300	40,818.568	61,369.000
86	A-	A-	AAA	BB-	61,599.200	118,973.266	307,981.000
Total 1,386							

Number of Companies In Each Grouping	Range of Reported Permanent Capital By Groupings (Million $)			Distribution of S&P Bond and Credit Ratings By Size Grouping							
	Smallest	Average	Largest	AAA	AA	A	BBB	BB	B	CCC	CC
100	61.500	624.227	967.900	0%	1%	6%	8%	12%	58%	15%	0%
100	969.300	1,293.474	1,602.000	0%	1%	4%	9%	37%	45%	4%	0%
100	1,605.200	1,921.847	2,218.000	0%	1%	9%	18%	39%	28%	5%	0%
100	2,218.000	2,517.606	2,901.400	0%	1%	5%	21%	40%	29%	4%	0%
100	2,910.200	3,354.548	3,896.300	0%	3%	8%	25%	39%	24%	1%	0%
100	3,896.500	4,442.875	4,969.000	0%	2%	15%	33%	37%	13%	0%	0%
100	4,993.900	5,506.942	6,168.400	0%	1%	11%	36%	37%	14%	1%	0%
100	6,171.000	7,002.326	7,971.400	0%	1%	18%	44%	23%	12%	2%	0%
100	7,985.300	9,022.162	10,196.200	0%	2%	16%	47%	28%	5%	2%	0%
100	10,263.000	11,665.665	13,367.300	0%	1%	25%	51%	21%	1%	1%	0%
100	13,460.300	16,799.992	20,092.000	0%	2%	24%	55%	14%	2%	3%	0%
100	20,099.600	24,277.878	29,527.500	0%	5%	36%	48%	4%	6%	1%	0%
100	29,553.300	40,818.568	61,369.000	0%	7%	34%	47%	6%	4%	2%	0%
86	61,599.200	118,973.266	307,981.000	2%	17%	41%	31%	8%	0%	0%	0%
1,386											

Note: (1) Includes all non-financial public and private companies located in the US that are contained in S&P's *Capital IQ* Database that have a S&P bond or credit ratings of CC or higher and reported permanent capital for the year 2022 (as of 8/13/23). Companies were sorted based on amount of reported permanent capital and then separated into groups of 100 companies from smallest to largest.

Interest Rate Trends for
Investor-Owned Public Utility Bonds
Yearly for 2017-2021, Monthly for the Years 2022 and 2023

	Years	Aaa Rated	Aa Rated	A Rated	Baa Rated
	2017	NA	3.82	4.00	4.38
	2018	NA	4.09	4.25	4.67
	2019	NA	3.61	3.77	4.19
	2020	NA	2.79	3.02	3.39
	2021	NA	2.97	3.11	3.36
	Average	NA	3.46	3.63	4.00
Jan	2022	NA	3.19	3.33	3.57
Feb	2022	NA	3.56	3.68	3.95
Mar	2022	NA	3.81	3.98	4.28
Apr	2022	NA	4.10	4.32	4.61
May	2022	NA	4.55	4.75	5.07
Jun	2022	NA	4.65	4.86	5.22
Jul	2022	NA	4.57	4.78	5.15
Aug	2022	NA	4.54	4.76	5.09
Sep	2022	NA	5.08	5.28	5.61
Oct	2022	NA	5.68	5.88	6.18
Nov	2022	NA	5.54	5.75	6.05
Dec	2022	NA	5.06	5.28	5.57
Avg	2022	NA	4.53	4.72	5.03
Jan	2023	NA	4.98	5.20	5.49
Feb	2023	NA	5.12	5.29	5.54
Mar	2023	NA	5.24	5.39	5.68
Apr	2023	NA	5.00	5.13	5.47
May	2023	NA	5.24	5.36	5.71
Jun	2023	NA	5.26	5.38	5.73
Jul	2023	NA	5.30	5.41	5.73
Aug	2023	NA	5.58	5.71	6.01
Sep	2023	NA	5.72	5.86	6.15
Oct	2023	NA	6.19	6.34	6.61
Nov	2023	NA	5.90	6.05	6.29

Source of Information: MERGENT BOND RECORD

Credit Risk Spreads of
Investor-Owned Public Utility Bonds
Yearly for 2017-2021, Monthly for the Years 2022 and 2023

	Years	Aa Over Aaa	A Over Aa	Baa Over A	Baa Over Aaa
	2017	NA	0.18	0.38	NA
	2018	NA	0.16	0.42	NA
	2019	NA	0.16	0.42	NA
	2020	NA	0.23	0.37	NA
	2021	NA	0.14	0.25	NA
	Average	NA	0.17	0.37	NA
Jan	2022	NA	0.14	0.24	NA
Feb	2022	NA	0.12	0.27	NA
Mar	2022	NA	0.17	0.30	NA
Apr	2022	NA	0.22	0.29	NA
May	2022	NA	0.20	0.32	NA
Jun	2022	NA	0.21	0.36	NA
Jul	2022	NA	0.21	0.37	NA
Aug	2022	NA	0.22	0.33	NA
Sep	2022	NA	0.20	0.33	NA
Oct	2022	NA	0.20	0.30	NA
Nov	2022	NA	0.21	0.30	NA
Dec	2022	NA	0.22	0.29	NA
Avg	2022	NA	0.19	0.31	NA
Jan	2023	NA	0.22	0.29	NA
Feb	2023	NA	0.17	0.25	NA
Mar	2023	NA	0.15	0.29	NA
Apr	2023	NA	0.13	0.34	NA
May	2023	NA	0.12	0.35	NA
Jun	2023	NA	0.12	0.35	NA
Jul	2023	NA	0.11	0.32	NA
Aug	2023	NA	0.13	0.30	NA
Sep	2023	NA	0.14	0.29	NA
Oct	2023	NA	0.15	0.27	NA
Nov	2023	NA	0.15	0.24	NA

Source of Information: MERGENT BOND RECORD

Interest Rate Trends
Of Long-Term Treasury Constant
Yearly for 2017-2021, Monthly for the Years 2022 and 2023

Years		10-Year T-Bond	20-Year T-Bond	30-Year T-Bond	Long-term T-Bond Yield
	2017	2.33	2.65	2.90	2.63
	2018	2.91	3.02	3.11	3.01
	2019	2.14	2.40	2.58	2.37
	2020	0.89	1.35	1.56	1.27
	2021	1.44	1.98	2.05	1.98
	Average	1.94	2.28	2.44	2.25
Jan	2022	1.76	2.15	2.10	2.13
Feb	2022	1.93	2.31	2.25	2.28
Mar	2022	2.13	2.51	2.41	2.46
Apr	2022	2.75	2.99	2.81	2.90
May	2022	2.90	3.26	3.07	3.17
Jun	2022	3.14	3.48	3.25	3.37
Jul	2022	2.90	3.35	3.10	3.23
Aug	2022	2.90	3.35	3.13	3.24
Sep	2022	3.52	3.82	3.56	3.69
Oct	2022	3.98	4.28	4.04	4.16
Nov	2022	3.89	4.22	4.00	4.11
Dec	2022	3.62	3.87	3.66	3.77
Avg	2022	2.95	3.30	3.12	3.21
Jan	2023	3.53	3.81	3.66	3.74
Feb	2023	3.75	3.95	3.80	3.88
Mar	2023	3.66	3.94	3.77	3.86
Apr	2023	3.46	3.80	3.68	3.74
May	2023	3.57	3.96	3.86	3.91
Jun	2023	3.75	4.04	3.87	3.96
Jul	2023	3.90	4.15	3.96	4.06
Aug	2023	4.17	4.46	4.28	4.37
Sep	2023	4.38	4.65	4.47	4.56
Oct	2023	4.80	5.13	4.95	5.04
Nov	2023	4.50	4.84	4.66	4.75

Source of Information: Federal Reserve Bulletin

Spread in Average Long-Term Bond Yields
Versus Public Utility Bond Yields
Yearly for 2017-2021, Monthly for the Years 2022 and 2023

Spread in Average Long-Term T-Bond Yields Versus Public Utility Bonds:

	Years	Aaa Rated	Aa Rated	A Rated	Baa Rated
	2017	NA	1.19	1.37	1.75
	2018	NA	1.08	1.24	1.66
	2019	NA	1.24	1.40	1.82
	2020	NA	1.52	1.75	2.12
	2021	NA	0.99	1.13	1.38
Average		NA	1.20	1.38	1.75
Jan	2022	NA	1.07	1.21	1.45
Feb	2022	NA	1.28	1.40	1.67
Mar	2022	NA	1.35	1.52	1.82
Apr	2022	NA	1.20	1.42	1.71
May	2022	NA	1.39	1.59	1.91
Jun	2022	NA	1.29	1.50	1.86
Jul	2022	NA	1.35	1.56	1.93
Aug	2022	NA	1.30	1.52	1.85
Sep	2022	NA	1.39	1.59	1.92
Oct	2022	NA	1.52	1.72	2.02
Nov	2022	NA	1.43	1.64	1.94
Dec	2022	NA	1.30	1.52	1.81
Avg	2022	NA	1.32	1.52	1.82
Jan	2023	NA	1.25	1.47	1.76
Feb	2023	NA	1.25	1.42	1.67
Mar	2023	NA	1.39	1.54	1.83
Apr	2023	NA	1.26	1.39	1.73
May	2023	NA	1.33	1.45	1.80
Jun	2023	NA	1.31	1.43	1.78
Jul	2023	NA	1.25	1.36	1.68
Aug	2023	NA	1.21	1.34	1.64
Sep	2023	NA	1.16	1.30	1.59
Oct	2023	NA	1.15	1.30	1.57
Nov	2023	NA	1.15	1.30	1.54

Comment: Derived from the information on pages 1 and 3 of this Schedule.

Interest Rate Trends for
Federal Funds Rate and Prime Rate
Yearly for 2017-2021, Monthly for the Years 2022 and 2023

	Years	Fed Funds Rate	Prime Rate
	2017	1.00	4.10
	2018	1.83	4.90
	2019	2.16	5.28
	2020	0.38	3.54
	2021	0.08	3.25
Average		1.09	4.21
Jan	2022	0.08	3.25
Feb	2022	0.08	3.25
Mar	2022	0.20	3.37
Apr	2022	0.33	3.50
May	2022	0.77	3.94
Jun	2022	1.21	4.38
Jul	2022	1.68	4.85
Aug	2022	2.33	5.50
Sep	2022	2.56	5.73
Oct	2022	3.08	6.25
Nov	2022	3.78	6.95
Dec	2022	4.10	7.27
Avg	2022	1.68	4.85
Jan	2023	4.33	7.50
Feb	2023	4.57	7.74
Mar	2023	4.65	7.83
Apr	2023	4.83	8.00
May	2023	5.05	8.22
Jun	2023	5.08	8.25
Jul	2023	5.12	8.29
Aug	2023	5.33	8.50
Sep	2023	5.33	8.50
Oct	2023	5.33	8.50
Nov	2023	5.33	8.50

Source of Information: Federal Reserve Bulletin

Blue Chip Financial Forecasts - December 1, 2023

	Third Quarter 2023	Fourth Quarter 2023	First Quarter 2024	Second Quarter 2024	Third Quarter 2024	Five Quarter Average
Prime Rate						
Top Ten Average	8.5 %	8.5 %	8.5 %	8.4 %	8.2 %	8.4 %
Group Average	8.5	8.5	8.3	8.1	7.7	8.2
Bottom Ten Average	8.5	8.4	8.0	7.6	7.2	7.9
Three-Month Treasury Bills						
Top Ten Average	5.6	5.5	5.5	5.3	5.0	5.4
Group Average	5.5	5.4	5.1	4.8	4.5	5.1
Bottom Ten Average	5.4	5.2	4.7	4.1	3.7	4.6
Ten Year Treasury Notes						
Top Ten Average	4.8	4.7	4.6	4.6	4.5	4.6
Group Average	4.6	4.5	4.3	4.2	4.1	4.3
Bottom Ten Average	4.4	4.3	4.0	3.8	3.7	4.0
Thirty Year Treasury Bonds						
Top Ten Average	4.9	4.8	4.8	4.8	4.8	4.8
Group Average	4.8	4.7	4.5	4.5	4.4	4.6
Bottom Ten Average	4.6	4.5	4.3	4.1	4.0	4.3
Aaa-Rated Corporate Bonds						
Top Ten Average	5.7	5.6	5.6	5.6	5.5	5.6
Group Average	5.5	5.5	5.3	5.3	5.1	5.3
Bottom Ten Average	5.3	5.3	5.1	4.9	4.7	5.1
Baa-Rated Corporate Bonds						
Top Ten Average	5.1	5.1	5.1	5.1	5.1	5.1
Group Average	6.4	6.4	6.4	6.3	6.2	6.3
Bottom Ten Average	4.6	4.6	4.6	4.6	4.6	4.6

Derived Public Utility Bond Yield Forecasts Based on Aaa and Baa Corporate Yields

Aa-Rated Public Utility Bonds						
Top Ten Average	5.5	5.4	5.4	5.4	5.4	5.4
Group Average	6.0	6.0	5.9	5.9	5.7	5.9
Bottom Ten Average	5.0	5.0	4.9	4.8	4.7	4.9
A-Rated Public Utility Bonds						
Top Ten Average	5.6	5.6	5.6	5.6	5.5	5.6
Group Average	6.2	6.2	6.1	6.0	5.9	6.1
Bottom Ten Average	5.2	5.2	5.1	5.0	4.9	5.1
Baa-Rated Public Utility Bonds						
Top Ten Average	5.9	5.9	5.9	5.9	5.8	5.9
Group Average	6.5	6.5	6.4	6.3	6.2	6.4
Bottom Ten Average	5.5	5.5	5.4	5.3	5.2	5.4

Settled Yields on Treasury Bond
Future Contracts
Traded on the Chicago Board of Trade
at the Close of December 18, 2023

Delivery Date	Treasury Bonds (CBOT)	
Dec-23	4.143	%
Mar-24	4.113	
Jun-24	4.057	
Average	4.105	%

Source of Information: Chicago Board of Trade

Market Value Discounted Cash Flow for
The Water Group Followed by Analysts

	Water Group Followed by Analysts
Dividend Yield(1)	2.3 %
Growth in Dividends(2)	0.1
Adjusted Dividend Yield	2.4
Stock Appreciation(3)	6.3
Market Value DCF Cost Rate	8.7 %

Notes: (1) Developed on page 2 of this Schedule.
(2) Equal to one-half the assumed growth in value.
(3) As explained in the direct testimony, the growth in value is supported by the information shown on Schedules 13 and 14.

Market Value Dividend Yield for
the Water Group Followed by Analysts
For the Twelve Months Ended November 2023

	Recent Dividend Yields(1)	Longer Term Dividend Yields(2)	Average Yields
Water Group Followed by Analysts			
American States Water Co	2.1 %	1.9 %	
American Water Works Co Inc	2.3	2.0	
California Water Service Gp	2.1	1.9	
Essential Utilities, Inc.	3.5	2.9	
Middlesex Water Co	2.0	1.7	
SJW Corp	2.4	2.1	
York Water Co	2.2	1.9	
Average	2.4 %	2.1 %	2.3 %

Notes: (1) Average of the high and the low dividend yield for the month of November 2023.
(2) Average of the high and the low dividend yield for each of the twelve months ended November 2023.

Source of Information: S&P Capital IQ

Development of Long Term Projected Growth in Value
Based Upon Growth Over The Next Five Years
For the Water Group Followed by Analysts

	A	B	C	D	E	F	G	H
	Analysts' Projected Growth in EPS				Other Projected Growth			
	First Call EPS Growth	S&P EPS Growth	ZACK's EPS Growth	Value Line EPS Growth	Value Line DPS Growth	Value Line Cash Flow Growth	Average EPS Growth	Average All Growth
Water Group Followed by Analysts								
American States Water Co	4.2 %	14.0 %	6.3 %	6.5 %	8.5 %	7.0 %	7.8 %	7.8 %
American Water Works Co Inc	7.8	7.8	7.8	3.0	8.5	3.0	6.6	6.3
California Water Service Gp	10.8	8.0	NA	6.5	6.5	2.0	8.4	6.8
Essential Utilities, Inc.	5.2	5.9	5.6	7.5	8.0	6.0	6.0	6.4
Middlesex Water Co	2.7	NA	NA	5.0	6.5	3.0	3.9	4.3
SJW Corp	6.1	7.0	NA	6.5	5.0	-1.5	6.5	4.6
York Water Co	4.9	NA	NA	NA	NA	NA	4.9	4.9
Average	6.0 %	8.5 %	6.6 %	5.8 %	7.2 %	3.3 %	6.3 %	5.9 %

	Historical 5-Year Growth in EPS			
	First Call EPS Growth	ZACK's EPS Growth	Value Line EPS Growth	Average EPS Growth
Water Group Followed by Analysts				
American States Water Co	10.5 %	6.2 %	6.5 %	7.7 %
American Water Works Co Inc	8.3	8.0	15.0	10.4
California Water Service Gp	-7.6	7.1	11.0	3.5
Essential Utilities, Inc.	1.6	5.3	3.5	3.5
Middlesex Water Co	-0.4	8.7	11.0	6.4
SJW Corp	14.1	0.2	-2.0	4.1
York Water Co	8.2	7.1	0.0	5.1
Average	5.0 %	6.1 %	6.4 %	5.8 %

Source of Information: Value Line Investment Survey, 10/6/23; S&P Capital IQ 12/20/23;
FirstCall 12/20/23; and
Zacks Investment Research 12/20/23

Recent Payout Ratios,
ROEs, P-E Multiples, Market/Book Multiples, and Market Value
For the Water Group Followed by Analysts

	Current Dividend Payout	Current Return on Equity	PE Mult	Market to Book Mult	Current Market Value (Mill $)
Water Group Followed by Analysts					
American States Water Co	50	16.1	25.3	3.91	2,954.749
American Water Works Co Inc	56	10.5	27.4	2.65	25,669.907
California Water Service Gp	90	4.9	44.7	2.10	2,918.445
Essential Utilities, Inc.	65	8.5	20.1	1.68	9,727.435
Middlesex Water Co	58	9.3	30.4	2.75	1,137.848
SJW Corp	52	8.0	22.9	1.76	2,096.082
York Water Co	55	10.1	26.0	2.56	545.373
Average	61	9.6	28.1	2.49	6,435.691

Source of Information: S&P Capital IQ, spot date of 11/30/2023

Value Line Projected ROE Based on Year-End and Average,
Dividend Payout Ratio, and Common Equity Ratio for
The Water Group Followed by Analysts for 2026 - 2028

	Value Line Projected ROE	Projected Average ROE (1)	Value Line Projected Dividend Payout	Value Line Projected Common Equity Ratio
Water Group Followed by Analysts				
American States Water Co	14.0 %	14.4 %	67.6 %	50.0 %
American Water Works Co Inc	10.5	10.9	62.3	42.5
California Water Service Gp	9.5	9.6	49.1	62.0
Essential Utilities, Inc.	9.0	9.3	70.2	44.0
Middlesex Water Co	12.5	12.6	53.3	59.5
SJW Corp	7.5	7.6	55.4	56.0
York Water Co	NA	NA	NA	NA
Average	10.5 %	10.7 %	59.7 %	52.3 %
Median		10.3 %		

Notes: (1) Value Line ROE, which is a year-end ROE, is converted to average ROE by the factor derived from the following formula: 2((1+g)/(2+g)), where "g" is the rate of growth in common equity.

Source of Information: Value Line Investment Survey, 10/6/23

Illustration of the
Effect of Market-To-Book Ratio on Market Return

Ln #		Situation 1	Situation 2	Situation 3
1	M/B Ratio	50%	100%	200%
2	Market Purchase Price	$25.00	$50.00	$100.00
3	Book Value	$50.00	$50.00	$50.00
4	DCF Return	10.0%	10.0%	10.0%
5	DCF Dollar Return	$5.00	$5.00	$5.00
6	Dividend Yield	5.0%	5.0%	5.0%
7	DPS	$1.25	$2.50	$5.00
8	Dollar Growth in Value	$3.75	$2.50	$0.00
9	Market Sale Price	$28.75	$52.50	$100.00
10	Total Market Return	20.0%	10.0%	5.0%

"The simple numerical illustration....demonstrates the impact of market-to-book ratios on the DCF market return....The DCF cost rate of 10%, made up of a 5% dividend yield and a 5% growth rate, is applied to the book value rate base of $50 to produce $5.00 of earnings. Of the $5.00 of earnings, the full $5.00 are required for dividends to produce a dividend yield of 5.0% on a stock price of $100.00, and no dollars are available for growth. The investor's return is therefore only 5% versus his required return of 10%. A DCF cost rate of 10%, which implies $10.00 of earnings, translates to only $5.00 of earnings on book value, or a 5% return.....Therefore, the DCF cost rate understates the investor's required return when stock prices are well above book, as is the case presently."

The above illustration is taken from Roger A Morin, Regulatory Finance - Utilities' Cost of Capital, Public Utility Reports, Inc., 1994, pp. 236-237.

Differences in Book Value and Market Values for the
Water Group Followed by Analysts

	Recent Book Value Capitalization Ratios (6/30/23)	Recent Market Value Capitalization Ratios (11/30/23)	Average Book Value of Common Equity (Millions)	Average Market Value of Common Equity (Millions)	Difference in Market Value and Book Value Common Equity
Water Group Followed by Analysts:					
Long Term Debt	50.4 %	30.3 %			
Preferred Stock	0.1	0.0			
Common Equity	49.5	69.7	$2,752.431	$6,435.691	$3,683.260
Total	100.0 %	100.0 %			
			Differnce in Common Equity Ratio		20.2%

Water Group Followed by Analysts
Financial Risk Adjustment Using the "Hamada Models"

Original Hamada Formulas

Market Value @ (11/30/23)

Line No.	DEBT (D)	PREF (P)	CE (E)	TAX (t)	BETA (Bl)
2.	30.3%	0.0%	69.7%	26.14%	0.70

3. Bl = Bu (1+(1-t)D/E+P/E)

4.	1-t =	0.7386	
5.	D/E =	0.4347	
6.	P/E =	0.0000	
7.	Bl =	Bu *	1.3211
8.	Bu =	0.53	
9.			

Book Value @ (6/30/23)

Line No.	DEBT (D)	PREF (P)	CE (E)	TAX (t)	BETA UNLEVERED (Bu)
12.	50.40%	0.10%	49.50%	26.140%	0.53

13. Bl = Bu (1+(1-t)D/E+P/E)

14.	1-t =	0.7386	
15.	D/E =	1.0182	
16.	P/E =	0.0020	
17.	Bl =	Bu *	1.7540
18.	Bl =	0.93	

Cost Adjustment Based on Original *Hamada*

19.	Book Beta (Raw)	=	0.93
20.	Market Beta (Raw)	=	0.70
21.	Beta difference	=	0.23
22.	Risk premium	=	5.0
23.	Risk adjustment	=	1.15

Harris-Pringle Formulas

Market Value @ (11/30/23)

Line No.	DEBT (D)	PREF (P)	CE (E)	TAX (t)	BETA (Bl)	DEBT BETA (Bd)
2.	30.3%	0.0%	69.7%	26.14%	0.70	0.34

3. Bl = Bu + (Bu - Bd)(D/E)

4.	Bl =	0.70
5.	Bd =	0.34
6.	D/E =	0.4347
7.	Bl + Bd(D/E) =	0.8478
8.	1 + D/E =	1.4347
9.	Bu =	0.59

Book Value @ (6/30/23)

Line No.	DEBT (D)	PREF (P)	CE (E)	BETA UNLEVERED (Bu)
12.	50.40%	0.10%	49.50%	0.59

13. Bl = Bu + (Bu - Bd)(D/E)

14.	Bu =	0.59
15.	Bd =	0.34
16.	Bu - Bd =	0.2509
17.	D/E =	1.0182
18.	Bl =	0.85

Cost Adjustment Based on *Harris-Pringle*

19.	Book Beta (Raw)	=	0.85
20.	Market Beta (Raw)	=	0.70
21.	Beta difference	=	0.15
22.	Risk premium	=	5.0
23.	Risk adjustment	=	0.73

Default Spread for
Aaa Rated Corporate Bonds and A Rated Investor-Owned Public Utility Bonds
Yearly for 2017-2021, Monthly for the Years 2022 and 2023

	Years	Corporate Aaa Rated	Public Utility A Rated	A Over Aaa
	2017	3.74	4.00	0.25
	2018	3.93	4.25	0.32
	2019	3.39	3.77	0.38
	2020	2.50	3.02	0.52
	2021	2.71	3.11	0.40
	Average	3.25	3.63	0.37
Jan	2022	3.07	3.33	0.26
Feb	2022	3.25	3.68	0.43
Mar	2022	3.43	3.98	0.55
Apr	2022	3.76	4.32	0.56
May	2022	4.13	4.75	0.62
Jun	2022	4.24	4.86	0.62
Jul	2022	4.06	4.78	0.72
Aug	2022	4.07	4.76	0.69
Sep	2022	4.59	5.28	0.69
Oct	2022	5.10	5.88	0.78
Nov	2022	4.90	5.75	0.85
Dec	2022	4.43	5.28	0.85
Avg	2022	4.09	4.72	0.63
Jan	2023	4.40	5.20	0.80
Feb	2023	4.56	5.29	0.73
Mar	2023	4.60	5.39	0.79
Apr	2023	4.47	5.13	0.66
May	2023	4.67	5.36	0.69
Jun	2023	4.65	5.38	0.73
Jul	2023	4.66	5.41	0.75
Aug	2023	4.95	5.71	0.76
Sep	2023	5.13	5.86	0.73
Oct	2023	5.61	6.34	0.73
Nov	2023	5.28	6.05	0.77

Source of Information: MERGENT BOND RECORD

Market Value CAPM for
The Water Group Followed by Analysts

	Water Group Followed by Analysts
Estimation Based Upon Historical Information	
Market Premium(1)	7.5 %
x Beta(2)	0.82
Risk Adjusted Market Premium	6.2
Size Adjustment Premium(2)	0.7
Plus Risk Free Rate(1)	4.1
Market Value CAPM Cost Rate	11.0 %
Estimation Based Upon Projected Information	
Market Premium(1)	10.7 %
x Beta(2)	0.82
Risk Adjusted Market Premium	8.8
Size Adjustment Premium(2)	0.7
Plus Risk Free Rate(1)	4.1
Market Value CAPM Cost Rate	13.6 %

Market Value CAPM is: 11.0%

Notes: (1) Developed on page 2 of this Schedule.
(2) Developed on page 4 of this Schedule.

Development of Market Premiums for Use in a CAPM Model

Estimated Based Upon Projected Information

Value Line Summary and Index Project Return

Date	11/17/23	
Market's Price Appreciation Next 3-5 Years (1)	65	%
Annual Price Appreciation (1)	13.30	%
Forecasted Market Dividend Yield (1)	2.40	
Value Line's Annual Total Return (1)	15.70	%

S&P 500 Projected Market Return

S&P 500's Dividend Yield (2)	1.52	%
S&P 500's Projected Growth Rate in EPS (3)	12.33	
S&P 500 Projected Market Return (4)	13.94	%

Average Projected Total Market Return (5)	14.82	%
Less Risk Free Rate (6)	4.10	
Estimated Market Premium Based Upon Projected Information	10.72	%

Estimated Based Upon Historical Information

Estimated Market Premium Based Upon Historical Information (7)	7.50	%

See next page of this Schedule for Notes.

CAPM
The Water Group Followed by Analysts

Notes: (1) A projected market premium is based upon the projected market return rate derived from the Value Line Summary and Index for the various dates shown. For example, Value Line projects (Nov-23) that the market will appreciate in price 65% over the next three to five years. Using a four-year midpoint estimate, Value Line's appreciation potential equates to 13.3% annually ([1.65]^.25). Additionally, Value Line estimates the market will have a dividend yield of 2.4%. Combining the market dividend yield of 2.4% with the market appreciation results in a projected market return rate of 15.7% (13.3% + 2.4%).

(2) Barron's Market Lab (Aug. 7, 2023) reports S&P 500's dividend yield of 1.52%.

(3) S&P Global Market Intelligence, S&P Capital IQ (Aug. 9, 2023) reports projected 5-year EPS growth rate for the S&P 500 of 12.33%.

(4) Equal to S&P 500 dividend yield adjusted for one-half the assumed growth in value, plus the assumed growth in value (i.e., $[D_0 \times (1 + (0.5 \times g))] + g$).

(5) Average of Value Line 's projected total market return and projected total market return for the S&P

(6) As discussed in the direct testimony, the risk-free rate is 4.1%.

(7) The historical market premium is based upon studies conducted by Ibbotson Associates concerning asset returns. Ibbotson Associates' asset return studies are the most noted asset return rate studies available today. The results are widely disseminated throughout the investment public. Ibbotson Associates' long-term common stock total market return is 12.33% which, when reduced by the long-term historic risk-free rate of 4.87% results in a market premium of 7.5% (12.33% - 4.87%).

Recent Market Values and
Beta Adjusted Ibbotson Associates Size Premiums For
The Water Group Followed by Analysts

	1	2	3	4	5	6	7	8
	Recent Market Value 11/30/23 (Mill $)	Market Quartile Name	Market Quartile	Quartile Size Premium	Quartile Beta	Value Line Beta	Size Premium Ratio *	Adjusted Quartile Size Premium
Water Group Followed by Analysts								
American States Water Co	$2,954.749	Mid-Cap	2	2.48	1.13	0.70	25%	0.62
American Water Works Co Inc	25,669.907	Large-Cap	1	0.00	1.00	0.95	0%	0.00
California Water Service Gp	2,918.445	Mid-Cap	2	2.48	1.13	0.70	25%	0.62
Essential Utilities, Inc.	9,727.435	Mid-Cap	2	2.48	1.13	1.00	25%	0.62
Middlesex Water Co	1,137.848	Low-Cap	3	3.95	1.23	0.75	25%	0.99
SJW Corp	2,096.082	Low-Cap	3	3.95	1.23	0.85	25%	0.99
York Water Co	545.373	Low-Cap	3	3.95	1.23	0.80	25%	0.99
Average		Mid-Cap	2	2.48	1.13	0.82	21%	0.69

* - Estmated based on diffences in raw betas and credit spreads for the comparison companies and the quartile companies.

Source of Information: 2022 SBBI Yearbook, Stocks, Bonds, Bills, and Inflation, and Value Line

Market Value Risk Premium
For the Water Group Followed by Analysts

	Water Group Followed by Analysts	
Prospective Public Utility Bond Yields(1)	5.6	%
Estimated Risk Premium(2)	5.0	
Market Value Risk Premium Indicated Cost Rate	10.6	%

Notes: (1) Based upon the current and prospective long-term debt cost rates, it is reasonable to expect that if the comparable group (i.e., Water Group) issued new long-term bonds, it would both be priced to yield about 5.6% based upon credit profiles of A for the Water Group.

(2) A 5% risk premium is concluded for the Group after reviewing the tabulation of risk spreads shown on pages 2, 3, 4 and 5 of this Schedule.

Annual Total Returns and Risk Premiums of
S&P Public Utility Stocks and Bonds
for the Years 2003-2022, 1993-2022, 1983-2022, 1973-2022,1963-2022, 1953-2022 and 1928-2022

	Annual Total Returns						
			Public Utility Bonds				
Periods	Public Utility Stock	L-Term T-Bonds	AAA	AAA & AA	AA	A	BBB
			Average Annual Rates of Return				
2003 to 2022	0.1370	0.0519	0.0000	0.0650	0.0650	0.0638	0.0745
1993 to 2022	0.1169	0.0693	0.0877	0.0760	0.0764	0.0747	0.0809
1983 to 2022	0.1358	0.0861	0.1225	0.0941	0.0946	0.0957	0.1021
1973 to 2022	0.1297	0.0793	0.1003	0.0878	0.0886	0.0891	0.0952
1963 to 2022	0.1170	0.0702	0.0799	0.0767	0.0775	0.0782	0.0838
1953 to 2022	0.1219	0.0625	0.0674	0.0685	0.0692	0.0702	0.0757
1928 to 2022	0.1112	0.0542	0.0594	0.0625	0.0635	0.0656	0.0725
			Average Risk Premiums				
2003 to 2022		0.0851	0.1370	0.0720	0.0720	0.0732	0.0625
1993 to 2022		0.0476	0.0292	0.0410	0.0405	0.0422	0.0361
1983 to 2022		0.0497	0.0133	0.0417	0.0412	0.0400	0.0337
1973 to 2022		0.0468	0.0372	0.0403	0.0395	0.0389	0.0332
1963 to 2022		0.0468	0.0372	0.0403	0.0395	0.0389	0.0332
1953 to 2022		0.0594	0.0544	0.0534	0.0527	0.0517	0.0461
1928 to 2022		0.0570	0.0518	0.0487	0.0477	0.0456	0.0387

Annual Total Returns, Annual Income Returns and Risk Premiums of
S&P Public Utility Stocks and Bonds
for the Years 2003-2022, 1993-2022, 1983-2022, 1973-2022,1963-2022, 1953-2022 and 1928-2022

Periods	Annual Total Returns Public Utility Stock	Annual Income Returns					
			Public Utility Bonds				
		L-Term T-Bonds	AAA	AAA & AA	AA	A	BBB
Average Rates of Return							
2003 to 2022	0.1370	0.0345	0.0000	0.0468	0.0468	0.0486	0.0535
1993 to 2022	0.1169	0.0441	0.0748	0.0564	0.0565	0.0582	0.0626
1983 to 2022	0.1358	0.0563	0.0890	0.0681	0.0684	0.0704	0.0745
1973 to 2022	0.1297	0.0639	0.0930	0.0749	0.0755	0.0778	0.0822
1963 to 2022	0.1170	0.0621	0.0847	0.0726	0.0732	0.0753	0.0795
1953 to 2022	0.1219	0.0582	0.0752	0.0677	0.0682	0.0703	0.0742
1928 to 2022	0.1112	0.0499	0.0609	0.0589	0.0595	0.0621	0.0668
Average Risk Premiums							
2003 to 2022		0.1025	0.1370	0.0902	0.0902	0.0884	0.0835
1993 to 2022		0.0728	0.0421	0.0605	0.0604	0.0587	0.0544
1983 to 2022		0.0794	0.0468	0.0677	0.0674	0.0654	0.0613
1973 to 2022		0.0550	0.0323	0.0444	0.0439	0.0417	0.0375
1963 to 2022		0.0550	0.0323	0.0444	0.0439	0.0417	0.0375
1953 to 2022		0.0637	0.0467	0.0541	0.0536	0.0515	0.0476
1928 to 2022		0.0613	0.0503	0.0523	0.0517	0.0491	0.0444

Annual Total Returns, Annual Income Returns and Risk Premiums of
S&P Public Utility Stocks and Bonds
For the 47 Years of the Lowest Interest Rate Environment and the 48 Years of the Highest Interest Rate Environment
For The Years 1928-2022

Current Interest Rate Environment: 4.1%

			Public Utility Bonds				
Periods	Public Utility Stock	L-Term T-Bonds	AAA	AAA & AA	AA	A	BBB
Annual Total Returns							
Low Interest Rate Environment:							
47 Years of the Lowest Interest Rates, Ranging from 1.4% to 4.0% with an Average Rate of 2.8%							
Average Rates of Return	0.1120	0.0257	0.0366	0.0431	0.0442	0.0490	0.0607
Average Risk Premiums		0.0862	0.0754	0.0689	0.0677	0.0630	0.0513
High Interest Rate Environment:							
48 Years of the Highest Interest Rates, Ranging from 4.1% to 13.5% with an Average Rate of 7.1%							
Average Risk Premiums	0.1104	0.0821	0.0788	0.0815	0.0823	0.0819	0.0840
Average Risk Premiums		0.0284	0.0317	0.0289	0.0281	0.0285	0.0264
Annual Income Returns							
Low Interest Rate Environment:							
47 Years of the Lowest Interest Rates, Ranging from 1.4% to 4.0% with an Average Rate of 2.8%							
Average Rates of Return	0.1120	0.0283	0.0340	0.0364	0.0370	0.0399	0.0457
Average Risk Premiums		0.0837	0.0780	0.0756	0.0749	0.0721	0.0663
High Interest Rate Environment:							
48 Years of the Highest Interest Rates, Ranging from 4.1% to 13.5% with an Average Rate of 7.1%							
Average Risk Premiums	0.1104	0.0709	0.0837	0.0808	0.0815	0.0838	0.0875
Average Risk Premiums		0.0395	0.0267	0.0296	0.0289	0.0267	0.0229

Annual Total Returns of
S&P Public Utility Stocks and Bonds
for the Years 1928-2022

	Annual Total Returns						
			Public Utility Bonds				
Years	Public Utility Stocks	L-Term T-Bonds	AAA	AAA & AA	AA	A	BBB
1928	0.5431	-0.0030	0.0370	0.0388	0.0406	0.0372	0.0392
1929	0.1376	0.0410	0.0209	0.0193	0.0178	0.0163	-0.0076
1930	-0.2149	0.0509	0.0917	0.0892	0.0869	0.0820	0.0378
1931	-0.3193	-0.0782	0.0058	-0.0059	-0.0171	-0.0608	-0.1089
1932	-0.0724	0.1736	0.1073	0.1037	0.1003	0.0685	0.0570
1933	-0.2170	0.0090	0.0142	-0.0145	-0.0401	-0.0686	-0.0601
1934	-0.1743	0.0962	0.1712	0.2000	0.2272	0.3264	0.4593
1935	0.6914	0.0610	0.1053	0.1243	0.1427	0.1760	0.2885
1936	0.2357	0.0691	0.0783	0.0916	0.1046	0.1079	0.1078
1937	-0.3337	-0.0091	0.0290	0.0323	0.0357	0.0272	-0.0626
1938	0.1020	0.0662	0.0720	0.0773	0.0825	0.0884	0.1505
1939	0.1538	0.0692	0.0435	0.0473	0.0510	0.0851	0.0923
1940	-0.1643	0.0910	0.0480	0.0506	0.0532	0.0949	0.1359
1941	-0.3050	0.0234	0.0255	0.0291	0.0327	0.0428	0.0681
1942	0.1079	-0.0735	0.0261	0.0287	0.0313	0.0314	0.0590
1943	0.4750	0.0228	0.0312	0.0346	0.0380	0.0405	0.0564
1944	0.1879	0.0268	0.0343	0.0353	0.0362	0.0303	0.0459
1945	0.5665	0.1075	0.0298	0.0349	0.0383	0.0683	0.0805
1946	-0.0130	-0.0006	0.0233	0.0238	0.0242	0.0267	0.0377
1947	-0.1236	-0.0165	-0.0139	-0.0187	-0.0234	-0.0213	-0.0105
1948	0.0451	0.0202	0.0287	0.0317	0.0347	0.0225	0.0073
1949	0.3074	0.0760	0.0718	0.0746	0.0773	0.0892	0.0757
1950	0.0152	-0.0034	0.0126	0.0131	0.0135	0.0107	0.0233
1951	0.2075	-0.0541	-0.0393	-0.0393	-0.0393	-0.0468	-0.0268
1952	0.1947	0.0101	0.0373	0.0390	0.0407	0.0442	0.0399
1953	0.0918	0.0062	0.0078	0.0063	0.0048	0.0107	0.0037
1954	0.2269	0.0676	0.0668	0.0701	0.0733	0.0745	0.0909
1955	0.1357	-0.0264	-0.0107	-0.0127	-0.0147	-0.0100	0.0146
1956	0.0416	-0.0484	-0.0703	-0.0703	-0.0703	-0.0714	-0.0816
1957	0.0541	0.0472	0.0246	0.0229	0.0213	0.0054	-0.0131
1958	0.3827	-0.0439	-0.0081	-0.0032	0.0017	0.0123	0.0339
1959	0.0958	-0.0320	-0.0231	-0.0234	-0.0237	-0.0120	-0.0102
1960	0.1680	0.1106	0.0764	0.0735	0.0705	0.0791	0.0994
1961	0.3646	0.0135	0.0432	0.0448	0.0464	0.0502	0.0442
1962	-0.0519	0.0650	0.0831	0.0829	0.0828	0.0852	0.0891
1963	0.1261	-0.0022	0.0171	0.0202	0.0232	0.0294	0.0329
1964	0.1685	0.0439	0.0394	0.0391	0.0387	0.0409	0.0396
1965	0.0489	-0.0064	-0.0010	-0.0014	-0.0018	-0.0044	0.0050
1966	-0.0504	0.0085	-0.0501	-0.0509	-0.0518	-0.0602	-0.0990
1967	-0.0216	-0.0650	-0.0525	-0.0539	-0.0553	-0.0592	-0.0271
1968	0.1419	0.0149	0.0268	0.0224	0.0181	0.0286	0.0243
1969	-0.1769	-0.0640	-0.0792	-0.0839	-0.0885	-0.0960	-0.0892
1970	0.1494	0.1537	0.0970	0.0978	0.0987	0.0952	0.0761
1971	0.0050	0.0999	0.1168	0.1241	0.1313	0.1510	0.1681
1972	0.1464	0.0661	0.0912	0.0980	0.1047	0.1103	0.1387
1973	-0.2106	-0.0893	0.0158	0.0138	0.0118	0.0156	0.0150
1974	-0.2135	0.0092	-0.0315	-0.0360	-0.0405	-0.0683	-0.1033

Annual Total Returns of
S&P Public Utility Stocks and Bonds
for the Years 1928-2022

	Annual Total Returns						
			Public Utility Bonds				
Years	Public Utility Stocks	L-Term T-Bonds	AAA	AAA & AA	AA	A	BBB
1975	0.4364	0.0465	0.0915	0.0863	0.0813	0.0872	0.0940
1976	0.3245	0.1955	0.1976	0.2017	0.2058	0.2475	0.2806
1977	0.1076	0.0074	0.0459	0.0545	0.0629	0.0683	0.0903
1978	-0.0174	-0.0189	-0.0083	-0.0055	-0.0027	-0.0026	0.0000
1979	0.1221	-0.0289	-0.0424	-0.0509	-0.0590	-0.0655	-0.0823
1980	0.1275	-0.0804	-0.0782	-0.0778	-0.0773	-0.0702	-0.0649
1981	0.1464	0.0472	0.0616	0.0674	0.0730	0.0416	0.0674
1982	0.2292	0.4323	0.3294	0.3750	0.3942	0.3708	0.3808
1983	0.2372	-0.0049	0.0721	0.0691	0.0763	0.1406	0.1347
1984	0.2219	0.1611	0.1770	0.1796	0.1768	0.1783	0.2075
1985	0.3232	0.3143	0.3473	0.3276	0.3259	0.3143	0.3098
1986	0.3575	0.3692	0.2994	0.2720	0.2698	0.2835	0.2933
1987	-0.0544	-0.1013	-0.1132	-0.0637	-0.0566	-0.0435	-0.0505
1988	0.1849	0.1026	0.2027	0.1615	0.1594	0.1643	0.1919
1989	0.4351	0.2176	0.1770	0.1743	0.1715	0.1692	0.1781
1990	0.0069	0.0482	0.0685	0.0689	0.0722	0.0738	0.0728
1991	0.0931	0.1472	0.1813	0.1647	0.1624	0.1715	0.1878
1992	0.1183	0.1093	0.1264	0.1312	0.1324	0.1355	0.1315
1993	0.1661	0.2162	0.1926	0.2126	0.2190	0.1429	0.1590
1994	-0.0825	-0.1075	-0.0802	-0.0656	-0.0657	0.0065	-0.0351
1995	0.3772	0.3268	0.2860	0.3074	0.3089	0.2164	0.2442
1996	0.0550	0.0020	0.0279	0.0211	0.0214	0.0279	0.0415
1997	0.1959	0.1454	0.1181	0.1157	0.1169	0.1238	0.1496
1998	0.1896	0.1786	0.1431	0.0365	0.0289	0.1074	0.0981
1999	-0.0998	-0.1062	-0.0792	-0.0275	-0.0237	-0.0921	-0.0684
2000	0.5475	0.1922	0.1076	0.1150	0.1146	0.1101	0.1196
2001	-0.2877	0.0596	0.0734	0.0788	0.0873	0.0780	0.0534
2002	-0.2934	0.1362		0.1851	0.1851	0.2461	0.1746
2003	0.2509	0.0488		0.1678	0.1678	0.1529	0.2329
2004	0.2763	0.0861		0.1162	0.1162	0.0782	0.0919
2005	0.2151	0.0520		0.0869	0.0869	0.0732	0.0541
2006	0.2323	0.0421		0.0486	0.0486	0.0596	0.0759
2007	0.1434	0.0814		0.0043	0.0043	0.0143	0.0042
2008	-0.3160	0.2953		0.0733	0.0733	0.0132	-0.1109
2009	0.1801	-0.1460		0.1159	0.1159	0.1662	0.3279
2010	0.0795	0.0755		0.0809	0.0809	0.0871	0.0893
2011	0.2051	0.3271		0.2701	0.2701	0.2505	0.2019
2012	0.1272	0.0622		0.0801	0.0801	0.0955	0.1287
2013	0.1363	-0.1592		-0.0850	-0.0850	-0.0758	-0.0494
2014	0.3017	0.2419		0.1577	0.1577	0.1872	0.1333
2015	-0.0629	0.0115		-0.0031	-0.0031	-0.0227	-0.0682
2016	0.1834	-0.0224		0.0443	0.0443	0.0512	0.1625
2017	0.1966	0.0714		0.1224	0.1224	0.1211	0.1505
2018	0.0644	-0.0579		-0.0566	-0.0566	-0.0477	-0.0680
2019	0.2690	0.2127		0.2209	0.2209	0.2098	0.2471
2020	0.0301	0.1584		0.1505	0.1505	0.1465	0.1557
2021	0.1510	-0.0679		-0.0499	-0.0499	-0.0335	-0.0210
2022	0.0763	-0.2760		-0.2457	-0.2457	-0.2515	-0.2493

Annual Total Returns of S&P Public Utility Stocks
And Annual Income Returns of Bonds
for the Years 1928-2022

	Annual Total Returns	Income Returns					
			Public Utility Bonds				
Years	Public Utility Stocks	L-Term T-Bonds	AAA	AAA & AA	AA	A	BBB
1928	0.5431	0.0329	0.0451	0.0460	0.0470	0.0499	0.0541
1929	0.1376	0.0361	0.0468	0.0479	0.0490	0.0522	0.0578
1930	-0.2149	0.0332	0.0458	0.0470	0.0482	0.0514	0.0591
1931	-0.3193	0.0338	0.0434	0.0449	0.0463	0.0511	0.0635
1932	-0.0724	0.0350	0.0474	0.0504	0.0535	0.0640	0.0815
1933	-0.2170	0.0315	0.0436	0.0468	0.0499	0.0604	0.0833
1934	-0.1743	0.0306	0.0402	0.0436	0.0471	0.0559	0.0713
1935	0.6914	0.0278	0.0351	0.0376	0.0402	0.0466	0.0544
1936	0.2357	0.0273	0.0324	0.0343	0.0362	0.0415	0.0465
1937	-0.3337	0.0275	0.0320	0.0334	0.0347	0.0395	0.0486
1938	0.1020	0.0263	0.0303	0.0316	0.0329	0.0392	0.0510
1939	0.1538	0.0239	0.0286	0.0296	0.0305	0.0360	0.0448
1940	-0.1643	0.0224	0.0277	0.0285	0.0293	0.0331	0.0410
1941	-0.3050	0.0197	0.0269	0.0276	0.0283	0.0304	0.0366
1942	0.1079	0.0239	0.0272	0.0279	0.0287	0.0305	0.0358
1943	0.4750	0.0246	0.0264	0.0269	0.0273	0.0296	0.0338
1944	0.1879	0.0248	0.0265	0.0268	0.0272	0.0294	0.0333
1945	0.5665	0.0229	0.0256	0.0261	0.0266	0.0285	0.0318
1946	-0.0130	0.0208	0.0250	0.0254	0.0257	0.0268	0.0293
1947	-0.1236	0.0215	0.0257	0.0261	0.0264	0.0273	0.0297
1948	0.0451	0.0240	0.0282	0.0287	0.0292	0.0301	0.0327
1949	0.3074	0.0223	0.0270	0.0274	0.0277	0.0291	0.0324
1950	0.0152	0.0216	0.0262	0.0264	0.0267	0.0276	0.0312
1951	0.2075	0.0244	0.0285	0.0288	0.0291	0.0307	0.0334
1952	0.1947	0.0265	0.0300	0.0303	0.0305	0.0324	0.0351
1953	0.0918	0.0300	0.0325	0.0328	0.0331	0.0347	0.0371
1954	0.2269	0.0266	0.0296	0.0298	0.0301	0.0317	0.0348
1955	0.1357	0.0287	0.0307	0.0309	0.0311	0.0324	0.0341
1956	0.0416	0.0310	0.0335	0.0337	0.0340	0.0357	0.0374
1957	0.0541	0.0355	0.0397	0.0400	0.0403	0.0428	0.0452
1958	0.3827	0.0344	0.0384	0.0386	0.0389	0.0414	0.0447
1959	0.0958	0.0409	0.0445	0.0448	0.0451	0.0470	0.0494
1960	0.1680	0.0409	0.0450	0.0453	0.0455	0.0473	0.0489
1961	0.3646	0.0391	0.0442	0.0445	0.0449	0.0462	0.0476
1962	-0.0519	0.0401	0.0434	0.0437	0.0439	0.0450	0.0466
1963	0.1261	0.0403	0.0427	0.0429	0.0431	0.0437	0.0456
1964	0.1685	0.0419	0.0441	0.0442	0.0443	0.0450	0.0466
1965	0.0489	0.0424	0.0448	0.0450	0.0451	0.0458	0.0475
1966	-0.0504	0.0475	0.0513	0.0515	0.0518	0.0531	0.0552
1967	-0.0216	0.0494	0.0553	0.0556	0.0559	0.0576	0.0605
1968	0.1419	0.0543	0.0621	0.0627	0.0633	0.0651	0.0684
1969	-0.1769	0.0624	0.0706	0.0716	0.0725	0.0743	0.0778
1970	0.1494	0.0692	0.0822	0.0833	0.0844	0.0870	0.0913
1971	0.0050	0.0614	0.0766	0.0777	0.0789	0.0825	0.0868
1972	0.1464	0.0601	0.0744	0.0751	0.0758	0.0778	0.0815
1973	-0.2106	0.0701	0.0762	0.0767	0.0773	0.0789	0.0812
1974	-0.2135	0.0800	0.0849	0.0861	0.0873	0.0899	0.0929

Annual Total Returns of S&P Public Utility Stocks
And Annual Income Returns of Bonds
for the Years 1928-2022

	Annual Total Returns	Income Returns					
			Public Utility Bonds				
Years	Public Utility Stocks	L-Term T-Bonds	AAA	AAA & AA	AA	A	BBB
1975	0.4364	0.0817	0.0894	0.0912	0.0929	0.0978	0.1057
1976	0.3245	0.0794	0.0864	0.0880	0.0895	0.0928	0.0987
1977	0.1076	0.0765	0.0814	0.0829	0.0845	0.0859	0.0896
1978	-0.0174	0.0840	0.0877	0.0888	0.0900	0.0917	0.0947
1979	0.1221	0.0921	0.0962	0.0978	0.0995	0.1017	0.1064
1980	0.1275	0.1115	0.1182	0.1211	0.1241	0.1271	0.1352
1981	0.1464	0.1349	0.1427	0.1458	0.1489	0.1529	0.1616
1982	0.2292	0.1309	0.1439	0.1448	0.1464	0.1532	0.1610
1983	0.2372	0.1115	0.1247	0.1229	0.1237	0.1298	0.1350
1984	0.2219	0.1247	0.1297	0.1339	0.1341	0.1374	0.1434
1985	0.3232	0.1104	0.1187	0.1179	0.1189	0.1228	0.1270
1986	0.3575	0.0802	0.0908	0.0930	0.0940	0.0973	0.1015
1987	-0.0544	0.0843	0.0934	0.0946	0.0953	0.0985	0.1027
1988	0.1849	0.0897	0.1013	0.1009	0.1014	0.1040	0.1083
1989	0.4351	0.0854	0.0938	0.0949	0.0955	0.0980	0.1001
1990	0.0069	0.0858	0.0943	0.0959	0.0964	0.0985	0.1009
1991	0.0931	0.0818	0.0891	0.0915	0.0921	0.0943	0.0961
1992	0.1183	0.0769	0.0822	0.0860	0.0869	0.0887	0.0897
1993	0.1661	0.0671	0.0737	0.0776	0.0780	0.0805	0.0816
1994	-0.0825	0.0730	0.0794	0.0799	0.0802	0.0826	0.0868
1995	0.3772	0.0708	0.0781	0.0774	0.0776	0.0813	0.0857
1996	0.0550	0.0672	0.0745	0.0742	0.0745	0.0762	0.0805
1997	0.1959	0.0670	0.0746	0.0743	0.0746	0.0747	0.0782
1998	0.1896	0.0572	0.0682	0.0674	0.0677	0.0687	0.0710
1999	-0.0998	0.0592	0.0710	0.0740	0.0748	0.0743	0.0766
2000	0.5475	0.0607	0.0790	0.0817	0.0821	0.0830	0.0839
2001	-0.2877	0.0557	0.0747	0.0777	0.0780	0.0787	0.0810
2002	-0.2934	0.0542		0.0730	0.0730	0.0754	0.0818
2003	0.2509	0.0496		0.0646	0.0646	0.0623	0.0673
2004	0.2763	0.0505		0.0608	0.0608	0.0617	0.0641
2005	0.2151	0.0465		0.0546	0.0546	0.0566	0.0592
2006	0.2323	0.0499		0.0583	0.0583	0.0607	0.0632
2007	0.1434	0.0493		0.0591	0.0591	0.0605	0.0629
2008	-0.3160	0.0448		0.0619	0.0619	0.0650	0.0711
2009	0.1801	0.0401		0.0579	0.0579	0.0610	0.0721
2010	0.0795	0.0405		0.0525	0.0525	0.0548	0.0598
2011	0.2051	0.0375		0.0489	0.0489	0.0514	0.0565
2012	0.1272	0.0256		0.0385	0.0385	0.0416	0.0490
2013	0.1363	0.0302		0.0417	0.0417	0.0441	0.0492
2014	0.3017	0.0316		0.0424	0.0424	0.0435	0.0485
2015	-0.0629	0.0254		0.0397	0.0397	0.0408	0.0496
2016	0.1834	0.0221		0.0373	0.0373	0.0394	0.0474
2017	0.1966	0.0267		0.0386	0.0386	0.0404	0.0443
2018	0.0644	0.0307		0.0404	0.0404	0.0420	0.0460
2019	0.2690	0.0248		0.0369	0.0369	0.0385	0.0429
2020	0.0301	0.0141		0.0285	0.0285	0.0307	0.0345
2021	0.1510	0.0194		0.0293	0.0293	0.0308	0.0334
2022	0.0763	0.0314		0.0436	0.0436	0.0454	0.0485

Development of the Projected Risk Premium

Value Line Summary and Index Project Return		
Date	11/17/23	
Market's Price Appreciation Next 3-5 Years	65	%
Annual Price Appreciation	13.30	%
Forecasted Market Dividend Yield	2.40	
Value Line's Annual Total Return	15.70	%
S&P 500 Projected Market Return		
S&P 500's Dividend Yield	1.52	%
S&P 500's Projected Growth Rate in EPS	12.33	
S&P 500 Projected Market Return	13.94	%
Average Projected Total Market Return	14.82	%
Less Yield of Moody's A Rated Industrial Bonds	5.69	
Forecasted Equity Premium	9.13	%
Estimated Risk Adjustment	90%	
Forecasted Risk Premium	8.20	%

Veolia Water Pennsylvania, Inc.
Common Equity Cost Rate Summary

	Water Group Followed by Analysts		
	DCF(1)	CAPM(2)	RP(3)
Common Equity Cost Rate Range	9.45 %	11.75 %	11.35 %
Investment Risk Adjustments (4)	0.00	0.00	0.00
Veolia Water Pennsylvania, Inc. Adjusted Common Equity Cost Rate Range:	9.45	11.75	11.35
Veolia Water Pennsylvania, Inc. Recommended Common Equity Cost Rate (5)		10.80 %	
Check of Reasonableness of Common Equity Cost Rate (6)		10.3 % to 10.7 %	

Notes: (1) From Schedule 12 and explained in the Direct Testimony.
(2) From Schedule 17 and explained in the Direct Testimony.
(3) From Schedule 18 and explained in the Direct Testimony.
(4) As explained in the Direct Testimony.
(5) As explained in the Direct Testimony, the recommendation is only applicable to a rate making common equity ratio of 54%. (~54.00%)
(6) See page 2 of Schedule 14.

Exhibit HW-2

VEOLIA WATER PENNSYLVANIA, INC.
HARRISBURG, PENNSYLVANIA

CASH WORKING CAPITAL
BASED ON A
LEAD-LAG STUDY

EXHIBIT

LEAD-LAG SCHEDULES

SCHEDULE HW-1 THROUGH SCHEDULE HW-28

TO ACCOMPANY THE

DIRECT TESTIMONY

DECEMBER 2023

Prepared by:

GANNETT FLEMING

VEOLIA WATER PENNSYLVANIA, INC.

CASH WORKING CAPITAL REQUIREMENTS
BASED ON A LEAD-LAG STUDY
FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

INDEX TO SCHEDULES

VEOLIA WATER PENNSYLVANIA, INC. - WATER & SEWER OPERATIONS (Main, Bethel & Mahoning)

SUMMARY OF CASH WORKING CAPITAL REQUIREMENTS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim 12-Months Ending 9/30/2023	12-Months Ending 9/30/2023 CWC	Expense Claim Future Test Year 9/30/2024	Future Test Year 9/30/2024 CWC	Expense Claim Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 5,860,476	$ 370,896	$ 7,273,930	$ 460,350	$ 7,473,963	$ 473,010	$ 7,473,963	$ 473,010
Employee Group Health & Life	34.5	10.1	24.4	927,846	62,026	1,570,924	105,015	1,605,485	107,326	1,605,485	107,326
Employee Pension Benefits	34.5	29.3	5.2	369,408	5,263	621,192	8,850	634,858	9,045	634,858	9,045
Other Employee Benefits	34.5	276.0	(241.5)	370,926	(245,421)	433,856	(287,058)	446,073	(295,141)	446,073	(295,141)
Purchased Water	34.5	26.6	7.9	1,825,613	39,513	1,953,061	42,272	1,996,029	43,202	1,996,029	43,202
Purchased Power	34.5	57.1	(22.6)	2,245,114	(139,013)	2,588,843	(160,296)	2,988,823	(185,061)	2,988,823	(185,061)
Fuel for Power Production	34.5	38.8	(4.3)	2,000	(24)	2,048	(24)	2,093	(25)	2,093	(25)
Chemicals	34.5	27.9	6.6	987,158	17,850	1,326,708	23,990	1,355,895	24,518	1,355,895	24,518
Materials and Supplies	34.5	29.1	5.4	399,824	5,915	409,759	6,062	418,774	6,196	418,774	6,196
Management and Service Fees	34.5	14.7	19.8	4,076,177	221,119	4,513,925	244,865	4,680,176	253,883	4,680,176	253,883
Lab Testing Fees	34.5	26.2	8.3	371,267	8,443	317,388	7,217	324,371	7,376	324,371	7,376
Outside Contractors	34.5	30.9	3.6	2,587,505	25,521	2,564,797	25,297	2,621,222	25,853	2,621,222	25,853
Outside Professional Services	34.5	45.0	(10.5)	243,942	(7,018)	133,338	(3,836)	136,272	(3,920)	136,272	(3,920)
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-	-	-	-	-	-	-
Rental of Equipment	34.5	7.9	26.6	119,512	8,710	122,350	8,916	125,042	9,113	125,042	9,113
Transportation Expense	34.5	38.1	(3.6)	564,982	(5,572)	646,465	(6,376)	754,003	(7,437)	754,003	(7,437)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	(374)	(169)	-	-	-	-	-	-
Worker Compensation	34.5	(130.5)	165.0	19,183	8,672	46,818	21,164	48,207	21,792	48,207	21,792
Regulatory Commission Expense	34.5	(101.5)	136.0	355,283	132,379	344,794	128,471	370,839	138,176	469,487	174,932
Office Expense and Utilities	34.5	8.9	25.6	846,564	59,375	884,514	62,037	875,473	61,403	875,473	61,403
Postage and Air Freight Expense	34.5	40.3	(5.8)	422,855	(6,719)	408,953	(6,498)	421,346	(6,695)	421,346	(6,695)
Other O&M	34.5	30.3	4.2	146,049	1,681	161,503	1,858	165,056	1,899	165,056	1,899
Real Estate Tax	34.5	(26.9)	61.4	447,173	75,223	342,489	57,613	350,024	58,881	350,024	58,881
Payroll	34.5	18.5	16.0	705,028	30,905	896,038	39,278	918,735	40,273	918,735	40,273
Federal Income Taxes	34.5	37.0	(2.5)	2,286,735	(15,663)	1,494,710	(10,238)	1,383,237	(9,474)	4,447,663	(30,463)
State Income Taxes	34.5	28.8	5.8	632,282	9,961	649,164	10,227	558,854	8,804	1,845,958	29,080
Total					**$ 663,853**		**$ 779,156**		**$ 782,997**		**$ 819,040**

Schedule HW-1

Page 1 of 5

VEOLIA WATER PENNSYLVANIA, INC. - MAIN & BETHEL WATER OPERATIONS

SUMMARY OF CASH WORKING CAPITAL REQUIREMENTS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim 12-Months Ending 9/30/2023	12-Months Ending 9/30/2023 CWC	Expense Claim Future Test Year 9/30/2024	Future Test Year 9/30/2024 CWC	Expense Claim Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 5,808,021	$ 367,576	$ 7,219,980	$ 456,936	$ 7,418,529	$ 469,501	$ 7,418,529	$ 469,501
Employee Group Health & Life	34.5	10.1	24.4	920,056	61,505	1,562,536	104,454	1,596,912	106,752	1,596,912	106,752
Employee Pension Benefits	34.5	29.3	5.2	367,110	5,230	618,677	8,814	632,288	9,008	632,288	9,008
Other Employee Benefits	34.5	276.0	(241.5)	369,900	(244,742)	432,701	(286,294)	444,895	(294,362)	444,895	(294,362)
Purchased Water	34.5	26.6	7.9	1,674,806	36,249	1,798,673	38,930	1,838,244	39,787	1,838,244	39,787
Purchased Power	34.5	57.1	(22.6)	2,168,330	(134,258)	2,500,304	(154,813)	2,886,605	(178,732)	2,886,605	(178,732)
Fuel for Power Production	34.5	38.8	(4.3)	2,000	(24)	2,048	(24)	2,093	(25)	2,093	(25)
Chemicals	34.5	27.9	6.6	978,820	17,699	1,315,615	23,789	1,344,558	24,313	1,344,558	24,313
Materials and Supplies	34.5	29.1	5.4	390,107	5,771	398,664	5,898	407,435	6,028	407,435	6,028
Management and Service Fees	34.5	14.7	19.8	4,016,221	217,866	4,447,530	241,263	4,611,336	250,149	4,611,336	250,149
Lab Testing Fees	34.5	26.2	8.3	247,303	5,624	207,763	4,724	212,334	4,828	212,334	4,828
Outside Contractors	34.5	30.9	3.6	1,723,551	16,999	1,674,549	16,516	1,711,389	16,879	1,711,389	16,879
Outside Professional Services	34.5	45.0	(10.5)	162,491	(4,674)	86,676	(2,493)	88,583	(2,548)	88,583	(2,548)
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-	-	-	-	-	-	-
Rental of Equipment	34.5	7.9	26.6	119,376	8,700	122,211	8,906	124,900	9,102	124,900	9,102
Transportation Expense	34.5	38.1	(3.6)	559,556	(5,519)	640,920	(6,321)	748,343	(7,381)	748,343	(7,381)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	(307)	(139)	-	-	-	-	-	-
Worker Compensation	34.5	(130.5)	165.0	19,062	8,617	46,710	21,115	48,098	21,743	48,098	21,743
Regulatory Commission Expense	34.5	(101.5)	136.0	339,644	126,552	329,377	122,727	355,109	132,315	448,734	167,200
Office Expense and Utilities	34.5	8.9	25.6	833,156	58,435	870,001	61,019	861,668	60,435	861,668	60,435
Postage and Air Freight Expense	34.5	40.3	(5.8)	385,250	(6,122)	372,584	(5,921)	383,875	(6,100)	383,875	(6,100)
Other O&M	34.5	30.3	4.2	145,258	1,671	160,628	1,848	164,161	1,889	164,161	1,889
Real Estate Tax	34.5	(26.9)	61.4	440,481	74,097	335,638	56,461	343,022	57,703	343,022	57,703
Payroll	34.5	18.5	16.0	704,519	30,883	895,525	39,256	918,219	40,251	918,219	40,251
Federal Income Taxes	34.5	37.0	(2.5)	2,252,155	(15,426)	1,548,222	(10,604)	1,525,244	(10,447)	4,316,438	(29,565)
State Income Taxes	34.5	28.8	5.8	622,646	9,809	674,206	10,621	619,541	9,760	1,791,883	28,228
Total					**$ 642,379**		**$ 756,807**		**$ 760,848**		**$ 795,083**

VEOLIA WATER PENNSYLVANIA, INC. - MAIN SEWER OPERATIONS

SUMMARY OF CASH WORKING CAPITAL REQUIREMENTS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim 12-Months Ending 9/30/2023	12-Months Ending 9/30/2023 CWC	Expense Claim Future Test Year 9/30/2024	Future Test Year 9/30/2024 CWC	Expense Claim Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 44,741	$ 2,832	$ 46,017	$ 2,912	$ 47,282	$ 2,992	$ 47,282	$ 2,992
Employee Group Health & Life	34.5	10.1	24.4	6,609	442	6,766	452	6,915	462	6,915	462
Employee Pension Benefits	34.5	29.3	5.2	1,892	27	1,937	28	1,979	28	1,979	28
Other Employee Benefits	34.5	276.0	(241.5)	718	(475)	802	(531)	823	(544)	823	(544)
Purchased Water	34.5	26.6	7.9	-	-	-	-	-	-	-	-
Purchased Power	34.5	57.1	(22.6)	-	-	-	-	-	-	-	-
Fuel for Power Production	34.5	38.8	(4.3)	-	-	-	-	-	-	-	-
Chemicals	34.5	27.9	6.6	929	17	1,134	21	1,159	21	1,159	21
Materials and Supplies	34.5	29.1	5.4	107	2	142	2	145	2	145	2
Management and Service Fees	34.5	14.7	19.8	-	-	-	-	-	-	-	-
Lab Testing Fees	34.5	26.2	8.3	4,060	92	3,590	82	3,669	83	3,669	83
Outside Contractors	34.5	30.9	3.6	28,292	279	29,154	288	29,795	294	29,795	294
Outside Professional Services	34.5	45.0	(10.5)	2,667	(77)	1,528	(44)	1,562	(45)	1,562	(45)
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-	-	-	-	-	-	-
Rental of Equipment	34.5	7.9	26.6	-	-	-	-	-	-	-	-
Transportation Expense	34.5	38.1	(3.6)	4,653	(46)	4,763	(47)	4,868	(48)	4,868	(48)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	(2)	(1)	-	-	-	-	-	-
Worker Compensation	34.5	(130.5)	165.0	100	45	95	43	96	43	96	43
Regulatory Commission Expense	34.5	(101.5)	136.0	298	111	296	110	294	109	396	148
Office Expense and Utilities	34.5	8.9	25.6	30	2	1,034	73	30	2	30	2
Postage and Air Freight Expense	34.5	40.3	(5.8)	-	-	-	-	-	-	-	-
Other O&M	34.5	30.3	4.2	-	-	-	-	-	-	-	-
Real Estate Tax	34.5	(26.9)	61.4	-	-	-	-	-	-	-	-
Payroll	34.5	18.5	16.0	38	2	41	2	44	2	44	2
Federal Income Taxes	34.5	37.0	(2.5)	-	-	(18,545)	127	(23,919)	164	(2,792)	19
State Income Taxes	34.5	28.8	5.8	-	-	(8,405)	(132)	(10,225)	(161)	(1,352)	(21)
Total					**$ 3,252**		**$ 3,386**		**$ 3,404**		**$ 3,438**

VEOLIA WATER PENNSYLVANIA, INC. - MAHONING WATER OPERATIONS

SUMMARY OF CASH WORKING CAPITAL REQUIREMENTS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim 12-Months Ending 9/30/2023	12-Months Ending 9/30/2023 CWC	Expense Claim Future Test Year 9/30/2024	Future Test Year 9/30/2024 CWC	Expense Claim Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 3,857	$ 244	$ 3,967	$ 251	$ 4,076	$ 258	$ 4,076	$ 258
Employee Group Health & Life	34.5	10.1	24.4	611	41	1,038	69	1,061	71	1,061	71
Employee Pension Benefits	34.5	29.3	5.2	244	3	411	6	420	6	420	6
Other Employee Benefits	34.5	276.0	(241.5)	246	(163)	288	(190)	288	(190)	288	(190)
Purchased Water	34.5	26.6	7.9	150,807	3,264	154,389	3,342	157,785	3,415	157,785	3,415
Purchased Power	34.5	57.1	(22.6)	76,783	(4,754)	88,539	(5,482)	102,218	(6,329)	102,218	(6,329)
Fuel for Power Production	34.5	38.8	(4.3)	-	-	-	-	-	-	-	-
Chemicals	34.5	27.9	6.6	7,409	134	9,959	180	10,178	184	10,178	184
Materials and Supplies	34.5	29.1	5.4	5,916	88	6,046	89	6,179	91	6,179	91
Management and Service Fees	34.5	14.7	19.8	59,956	3,252	66,395	3,602	68,840	3,734	68,840	3,734
Lab Testing Fees	34.5	26.2	8.3	-	-	-	-	-	-	-	-
Outside Contractors	34.5	30.9	3.6	-	-	-	-	-	-	-	-
Outside Professional Services	34.5	45.0	(10.5)	-	-	-	-	-	-	-	-
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-	-	-	-	-	-	-
Rental of Equipment	34.5	7.9	26.6	136	10	139	10	142	10	142	10
Transportation Expense	34.5	38.1	(3.6)	372	(4)	372	(4)	372	(4)	372	(4)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	(5)	(2)	-	-	-	-	-	-
Worker Compensation	34.5	(130.5)	165.0	13	6	13	6	13	6	13	6
Regulatory Commission Expense	34.5	(101.5)	136.0	5,053	1,883	4,900	1,826	5,283	1,968	6,676	2,487
Office Expense and Utilities	34.5	8.9	25.6	12,326	865	12,474	875	12,748	894	12,748	894
Postage and Air Freight Expense	34.5	40.3	(5.8)	37,605	(598)	36,369	(578)	37,471	(595)	37,471	(595)
Other O&M	34.5	30.3	4.2	791	9	875	10	894	10	894	10
Real Estate Tax	34.5	(26.9)	61.4	6,692	1,126	6,851	1,152	7,001	1,178	7,001	1,178
Payroll	34.5	18.5	16.0	468	21	468	21	468	21	468	21
Federal Income Taxes	34.5	37.0	(2.5)	34,579	(237)	(49,656)	340	(87,671)	600	76,535	(524)
State Income Taxes	34.5	28.8	5.8	9,635	152	(22,736)	(358)	(37,230)	(587)	31,739	500
Total					**$ 5,340**		**$ 5,167**		**$ 4,741**		**$ 5,223**

Schedule HW-1

Page 4 of 5

VEOLIA WATER PENNSYLVANIA, INC. - MAHONING SEWER OPERATIONS

SUMMARY OF CASH WORKING CAPITAL REQUIREMENTS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim 12-Months Ending 9/30/2023	12-Months Ending 9/30/2023 CWC	Expense Claim Future Test Year 9/30/2024	Future Test Year 9/30/2024 CWC	Expense Claim Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 3,857	$ 244	$ 3,967	$ 251	$ 4,076	$ 258	$ 4,076	$ 258
Employee Group Health & Life	34.5	10.1	24.4	570	38	583	39	596	40	596	40
Employee Pension Benefits	34.5	29.3	5.2	163	2	167	2	171	2	171	2
Other Employee Benefits	34.5	276.0	(241.5)	62	(41)	65	(43)	67	(44)	67	(44)
Purchased Water	34.5	26.6	7.9	-	-	-	-	-	-	-	-
Purchased Power	34.5	57.1	(22.6)	-	-	-	-	-	-	-	-
Fuel for Power Production	34.5	38.8	(4.3)	-	-	-	-	-	-	-	-
Chemicals	34.5	27.9	6.6	-	-	-	-	-	-	-	-
Materials and Supplies	34.5	29.1	5.4	3,694	55	4,907	73	5,015	74	5,015	74
Management and Service Fees	34.5	14.7	19.8	-	-	-	-	-	-	-	-
Lab Testing Fees	34.5	26.2	8.3	119,905	2,727	106,035	2,411	108,368	2,464	108,368	2,464
Outside Contractors	34.5	30.9	3.6	835,662	8,242	861,094	8,493	880,038	8,680	880,038	8,680
Outside Professional Services	34.5	45.0	(10.5)	78,784	(2,266)	45,134	(1,298)	46,127	(1,327)	46,127	(1,327)
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-	-	-	-	-	-	-
Rental of Equipment	34.5	7.9	26.6	-	-	-	-	-	-	-	-
Transportation Expense	34.5	38.1	(3.6)	401	(4)	411	(4)	420	(4)	420	(4)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	(60)	(27)	-	-	-	-	-	-
Worker Compensation	34.5	(130.5)	165.0	9	4	1	-	1	-	1	-
Regulatory Commission Expense	34.5	(101.5)	136.0	10,288	3,833	10,221	3,808	10,153	3,783	13,682	5,098
Office Expense and Utilities	34.5	8.9	25.6	1,052	74	1,005	70	1,027	72	1,027	72
Postage and Air Freight Expense	34.5	40.3	(5.8)	-	-	-	-	-	-	-	-
Other O&M	34.5	30.3	4.2	-	-	-	-	-	-	-	-
Real Estate Tax	34.5	(26.9)	61.4	-	-	-	-	-	-	-	-
Payroll	34.5	18.5	16.0	3	-	4	-	4	-	4	-
Federal Income Taxes	34.5	37.0	(2.5)	-	-	14,689	(101)	(30,418)	208	57,482	(394)
State Income Taxes	34.5	28.8	5.8	-	-	6,100	96	(13,232)	(208)	23,688	373
Total					**$ 12,881**		**$ 13,797**		**$ 13,998**		**$ 15,292**

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF TOTAL REVENUE LAG DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Period	Billing Type	Service & Billing Lag	Revenue Billed	Weighted Days	Days/Mo	Average Billing	Adjusted Average A/R Balance	Collection Lag	Weighted Collection Lag	Total Revenue Lag
(a)	(b)	(c)	(d)	(e)	(g)	(h)	(i)	(j)	(k)	(l)
Oct-22	Monthly	15.2	$4,882,408	1.3	31	$157,497	$3,285,878	20.86	1.9	
Nov-22	Monthly	15.2	4,563,966	1.2	30	$152,132	3,091,811	20.32	1.8	
Dec-22	Monthly	15.2	4,529,946	1.2	31	$146,127	2,933,716	20.08	1.6	
Jan-23	Monthly	15.2	4,657,342	1.2	31	$150,237	2,945,719	19.61	1.6	
Feb-23	Monthly	15.2	4,467,326	1.2	28	$159,547	3,008,305	18.86	1.6	
Mar-23	Monthly	15.2	4,510,058	1.2	31	$145,486	2,931,452	20.15	1.6	
Apr-23	Monthly	15.2	4,621,924	1.2	30	$154,064	3,055,673	19.83	1.7	
May-23	Monthly	15.2	4,621,866	1.2	31	$149,092	3,106,886	20.84	1.8	
Jun-23	Monthly	15.2	4,984,269	1.3	30	$166,142	2,977,968	17.92	1.5	
Jul-23	Monthly	15.2	5,081,467	1.4	31	$163,918	2,956,453	18.04	1.5	
Aug-23	Monthly	15.2	4,904,463	1.3	31	$158,208	2,797,700	17.68	1.4	
Sep-23	Monthly	15.2	5,098,869	1.4	30	$169,962	2,772,309	16.31	1.3	
Total			$56,923,904	15.2			$35,863,870		19.3	34.5

Average Number Of Days Covered In A Bill	30.417
Divided By	2
Mid-point of Service Period Based On Monthly Billing	15.209
Average Billing Lag of the A/R Post Date From Meter Read	0.0020
Total Service Period & Billing Lag	15.211

2023 CS DATA

Total bills 836,280

Estimated 17,803 were held for 5 days.

		Days Between Read To Posting		
835,951	x	0 days	0	
329	x	5 days	1,645	
			1,645	Weighted days

Weighted days	1,645
Total bills	836,280
Average Billing Lag of the A/R Post Date From Meter Read	0.0020

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF LABOR EXPENSE LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
October-22	11.5	$402,092.66	$4,624,065.59
November-22	11.5	640,326.86	7,363,758.89
December-22	11.5	412,840.67	4,747,667.71
January-23	11.5	423,084.76	4,865,474.74
February-23	11.5	411,035.69	4,726,910.44
March-23	10.9	769,666.79	8,352,178.76
April-23	11.0	408,509.21	4,489,762.85
May-23	11.5	604,320.27	6,949,683.11
June-23	11.5	423,834.29	4,874,094.34
July-23	11.5	438,913.11	5,047,500.77
August-23	11.6	451,950.05	5,244,915.96
September-23	11.5	457,174.74	5,257,509.51
Total Labor Expense Lead Days	11.4	$5,843,749.10	$66,543,522.64

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF EMPLOYEE GROUP HEALTH & LIFE LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
October-22	3.0	$16,311.19	$48,933.57
November-22	(0.0)	16,634.34	-165.84
December-22	0.9	16,314.12	14,620.13
January-23	4.4	9,614.20	42,081.58
February-23	11.4	20,390.65	232,960.38
March-23	6.4	14,688.16	93,487.19
April-23	5.8	15,036.46	86,890.08
May-23	7.9	10,647.86	83,824.07
June-23	10.5	7,181.37	75,404.39
July-23	8.3	13,215.40	109,058.41
August-23	17.0	2,145.58	36,474.86
September-23	27.8	34,445.72	958,436.95
Total Employee Group Health & Life Lead Days	10.1	$176,625.05	$1,782,005.77

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF EMPLOYEE PENSION BENEFITS LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
December-22	29.5	$186,472.00	$5,500,924.00
March-23	29.5	123,752.00	3,650,684.00
June-23	28.5	123,752.00	3,526,932.00
September-23	29.5	123,752.00	3,650,684.00
Total Employee Pension Benefits Lead Days	29.3	$557,728.00	$16,329,224.00

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF OTHER EMPLOYEE BENEFITS LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
April-23	276.0	$123,283.52	$34,026,251.52
Total Other Employee Benefits Lead Days	276.0	$123,283.52	$34,026,251.52

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF PURCHASED WATER LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
October-22	25.7	$118,531.63	$3,041,270.18
November-22	22.9	147,714.99	3,377,255.67
December-22	27.8	87,268.28	2,424,333.48
January-23	12.2	52,908.82	647,214.38
February-23	42.1	226,715.38	9,534,635.79
March-23	25.9	132,725.98	3,443,169.93
April-23	30.1	113,047.87	3,405,504.05
May-23	21.0	128,573.57	2,704,383.44
June-23	25.3	139,098.86	3,519,747.31
July-23	19.8	138,517.05	2,747,611.38
August-23	23.5	146,775.07	3,449,829.16
September-23	24.7	138,959.19	3,437,261.09
Total Purchased Water Lead Days	26.6	$1,570,836.69	$41,732,215.84

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF PURCHASED POWER LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
October-22	30.0	$34,872.49	$1,047,713.90
November-22	40.2	137,640.33	5,531,943.82
December-22	41.6	128,429.34	5,344,995.25
January-23	36.0	106,753.88	3,847,550.27
February-23	34.7	80,814.03	2,801,627.62
March-23	47.4	167,610.51	7,946,416.97
April-23	41.0	193,355.36	7,931,141.79
May-23	45.0	225,361.78	10,135,457.08
June-23	85.0	277,561.43	23,605,532.25
July-23	72.5	222,934.18	16,163,555.14
August-23	85.2	331,201.00	28,232,167.61
September-23	35.9	176,823.29	6,340,986.95
Total Purchased Power Lead Days	57.1	$2,083,357.62	$118,929,088.62

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF FUEL FOR POWER PRODUCTION LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
April-23	29.0	$62.79	$1,820.91
July-23	22.5	91.00	2,047.50
August-23	27.8	1,983.06	55,085.15
September-23	161.0	195.57	31,486.77
Total Fuel For Power Production Lead Days	38.8	$2,332.42	$90,440.33

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF CHEMICALS LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
October-22	20.0	$104,971.77	$2,096,977.79
November-22	24.2	57,453.95	1,391,664.58
December-22	30.9	98,600.72	3,044,880.18
January-23	(8.8)	46,520.79	-407,191.31
February-23	20.9	81,111.93	1,693,067.18
March-23	52.0	80,931.06	4,204,541.21
April-23	23.3	69,916.32	1,629,443.72
May-23	47.7	95,918.83	4,576,206.95
June-23	21.9	117,104.93	2,567,247.00
July-23	53.2	120,651.90	6,424,405.51
August-23	15.1	102,336.53	1,549,352.64
September-23	14.5	116,547.62	1,686,498.42
Total Chemicals Lead Days	27.9	$1,092,066.35	$30,457,093.87

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF MATERIALS AND SUPPLIES LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
October-22	30.0	$666.20	$19,986.00
November-22	33.9	3,258.82	110,469.28
December-22	30.0	273.50	8,205.00
January-23	39.8	848.95	33,804.51
February-23	29.6	2,789.56	82,572.55
March-23	29.6	5,266.02	155,853.43
April-23	30.0	9,841.48	295,115.04
May-23	40.8	6,458.10	263,203.68
June-23	33.0	3,168.92	104,571.37
July-23	23.2	9,318.88	216,417.37
August-23	30.5	2,809.62	85,636.49
September-23	23.0	12,221.89	280,649.95
Total Materials And Supplies Lead Days	29.1	$56,921.94	$1,656,484.67

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF MANAGEMENT AND SERVICE FEES LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
October-22	15.0	$320,657.90	$4,809,868.50
November-22	14.5	362,352.41	5,254,109.95
December-22	15.0	346,651.44	5,199,771.60
January-23	15.0	393,632.38	5,904,485.70
February-23	13.5	328,172.36	4,430,326.86
March-23	15.0	377,795.21	5,666,928.15
April-23	14.5	355,645.61	5,156,861.35
May-23	15.0	371,099.98	5,566,499.70
June-23	14.5	266,510.21	3,864,398.05
July-23	15.0	323,119.54	4,846,793.10
August-23	15.0	257,589.14	3,863,837.10
September-23	14.5	303,316.72	4,398,092.44
Total Management And Service Fees Lead Days	14.7	$4,006,542.90	$58,961,972.49

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF LAB TESTING FEES LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
October-22	28.0	$5,647.50	$158,130.00
November-22	39.6	28,142.20	1,113,326.06
December-22	29.5	2,335.00	68,970.00
January-23	31.2	33,065.22	1,032,706.09
February-23	16.2	11,786.25	190,972.50
March-23	30.1	43,030.58	1,296,978.40
April-23	28.9	37,054.00	1,070,081.00
May-23	28.1	19,266.25	540,894.50
June-23	29.5	57,373.50	1,692,099.00
July-23	31.1	28,038.00	872,469.00
August-23	(34.6)	20,074.48	-694,923.78
September-23	29.5	43,593.75	1,285,824.00
Total Lab Testing Fees Lead Days	26.2	$329,406.73	$8,627,526.77

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF OUTSIDE CONTRACTORS LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
October-22	25.6	$69,229.44	$1,775,646.77
November-22	30.0	293,673.67	8,804,291.84
December-22	26.6	29,234.51	778,667.26
January-23	39.2	438,332.23	17,202,026.26
February-23	50.8	152,170.15	7,725,608.13
March-23	22.5	315,147.98	7,097,823.32
April-23	39.2	152,302.78	5,964,973.77
May-23	30.5	313,164.45	9,566,414.48
June-23	32.2	331,948.13	10,683,775.55
July-23	20.3	309,861.75	6,277,822.30
August-23	24.1	246,342.32	5,940,548.33
September-23	31.8	163,579.89	5,205,931.93
Total Outside Contractors Lead Days	30.9	$2,814,987.30	$87,023,529.94

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF OUTSIDE PROFESSIONAL SERVICES LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
October-22	50.0	$38,507.32	$1,926,838.84
November-22	53.6	12,423.79	666,380.13
December-22	57.1	8,110.22	462,983.60
January-23	29.0	24,787.12	719,422.13
February-23	24.4	6,142.24	149,765.22
March-23	61.4	104,177.98	6,397,172.48
April-23	35.2	41,503.27	1,459,407.46
May-23	27.2	9,598.45	261,482.23
June-23	30.7	29,793.57	915,714.06
July-23	31.1	9,107.81	283,072.92
August-23	33.1	12,744.97	421,232.64
September-23	40.8	71,182.74	2,902,741.79
Total Outside Professional Services Lead Days	45.0	$368,079.48	$16,566,213.50

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF RENTAL - BUILDING/REAL PROPERTY LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
October-22	(12.0)	$12,681.00	-$152,172.00
November-22	(13.5)	12,681.00	-171,193.50
December-22	(14.0)	12,681.00	-177,534.00
January-23	(12.0)	12,681.00	-152,172.00
February-23	(12.5)	13,061.00	-163,262.50
March-23	(14.0)	13,061.00	-182,854.00
April-23	(11.5)	13,061.00	-150,201.50
May-23	(14.0)	13,061.00	-182,854.00
June-23	(13.5)	13,061.00	-176,323.50
July-23	(13.0)	13,061.00	-169,793.00
August-23	(14.0)	13,061.00	-182,854.00
September-23	(14.5)	13,061.00	-189,384.50
Total Rental - Building/Real Property Lead Days	(13.2)	$155,212.00	-$2,050,598.50

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF RENTAL OF EQUIPMENT LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
October-22	(11.5)	$201.11	-$2,304.60
November-22	17.0	354.67	6,029.39
December-22	(14.0)	486.52	-6,811.28
January-23	18.7	1,140.00	21,285.88
February-23	18.0	280.73	5,053.14
March-23	15.0	347.20	5,208.00
April-23	(0.2)	1,312.28	-215.82
May-23	14.4	980.17	14,099.68
June-23	(2.6)	953.06	-2,470.94
July-23	9.0	760.16	6,838.88
August-23	21.2	1,313.18	27,809.75
September-23	0.8	1,439.21	1,165.67
Total Rental Of Equipment Lead Days	7.9	$9,568.29	$75,687.76

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF TRANSPORTATION EXPENSE LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
October-22	(206.5)	$3,404.72	-$703,074.68
November-22	43.1	51,815.09	2,232,960.12
December-22	41.7	1,492.73	62,181.28
January-23	38.9	92,862.18	3,613,557.14
February-23	27.5	14,305.64	393,600.09
March-23	38.7	88,464.00	3,421,103.17
April-23	38.0	81,719.40	3,108,980.16
May-23	27.8	8,291.44	230,694.41
June-23	38.3	44,394.76	1,701,105.73
July-23	42.8	65,052.45	2,786,530.16
August-23	43.2	70,825.44	3,061,960.06
September-23	38.2	61,323.95	2,341,647.31
Total Transportation Expense Lead Days	38.1	$583,951.80	$22,251,244.93

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF PROP& GEN LIAB. INSURANCE LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
February-23	(130.5)	$960,810.00	-$125,385,705.00
Total Prop& Gen Liab. Insurance Lead Days	(130.5)	$960,810.00	-$125,385,705.00

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF WORKER COMPENSATION LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
February-23	(130.5)	$277,677.00	-36,236,848.50
Total Worker Compensation Lead Days	(130.5)	$277,677.00	-$36,236,848.50

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF REGULATORY COMMISSION EXPENSE LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
September-23	(101.5)	$331,952.00	-$33,693,128.00
Total Regulatory Commission Expense Lead Days	(101.5)	$331,952.00	-$33,693,128.00

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF OFFICE EXPENSE AND UTILITIES LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
October-22	28.3	$27,887.53	$788,465.82
November-22	23.9	36,968.90	882,416.38
December-22	35.0	26,226.46	919,002.36
January-23	33.5	92,620.42	3,104,620.17
February-23	37.1	143,408.88	5,326,542.02
March-23	21.3	44,846.02	956,943.39
April-23	33.4	52,201.04	1,741,423.76
May-23	(78.1)	82,732.11	-6,458,734.41
June-23	(46.3)	45,321.63	-2,098,041.01
July-23	6.4	43,016.12	273,648.25
August-23	(0.1)	54,670.22	-6,304.65
September-23	25.0	22,318.90	557,536.79
Total Office Expense And Utilities Lead Days	8.9	$672,218.23	$5,987,518.87

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF POSTAGE AND AIR FREIGHT EXPENSE LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
October-22	13.5	$55.43	$748.31
November-22	24.6	419.16	10,300.63
December-22	30.0	387.02	11,610.60
January-23	31.7	1,095.94	34,698.14
February-23	28.1	694.61	19,519.00
March-23	24.6	1,771.58	43,556.52
April-23	29.0	62.57	1,814.53
May-23	29.8	101.35	3,016.73
June-23	88.8	1,129.07	100,278.25
July-23	68.8	1,523.94	104,817.92
August-23	17.0	1,598.48	27,174.16
September-23	29.6	86.06	2,543.28
Total Postage And Air Freight Expense Lead Days	40.3	$8,925.21	$360,078.06

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF OTHER O&M LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
October-22	14.7	$6,250.61	$91,938.38
November-22	21.3	4,561.94	96,984.41
December-22	(13.0)	4,056.48	-52,856.57
January-23	17.2	2,793.30	48,010.61
February-23	10.3	4,348.43	44,838.48
March-23	34.8	7,671.02	266,992.02
April-23	13.2	2,608.10	34,344.86
May-23	19.7	1,258.45	24,794.71
June-23	18.6	1,980.87	36,805.38
July-23	21.0	1,734.44	36,457.85
August-23	35.9	1,376.81	49,359.71
September-23	89.6	8,298.19	743,272.49
Total Other O&M Lead Days	30.3	$46,938.64	$1,420,942.32

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF REAL ESTATE TAX LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
October-22	(154.0)	$31,797.55	-$4,896,488.40
November-22	(20.6)	31,896.49	-657,319.13
December-22	(15.0)	31,896.65	-477,491.80
January-23	(12.3)	31,873.18	-393,608.04
February-23	(8.2)	31,873.17	-260,912.16
March-23	(3.0)	31,873.15	-96,343.55
April-23	(13.0)	32,002.68	-417,209.04
May-23	(1.0)	32,016.81	-32,016.81
June-23	(0.5)	5,016.76	-2,508.38
July-23	(1.0)	5,016.85	-5,016.85
August-23	(31.0)	5,016.74	-155,518.94
September-23	(1.0)	5,016.75	-5,016.75
Total Real Estate Tax Lead Days	(26.9)	$275,296.78	-$7,399,449.85

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF PAYROLL TAX LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Month of Payment	(Lead)/ Lag Days	Amount	Weighted Amount
(1)	(2)	(3)	(4)
October-22	18.5	$26,577.55	$491,684.68
November-22	18.5	27,830.91	514,871.84
December-22	18.5	28,222.27	522,112.00
January-23	18.5	28,061.45	519,136.83
February-23	18.5	27,018.95	499,850.58
March-23	18.7	64,709.91	1,208,985.55
April-23	18.5	27,001.67	499,530.90
May-23	18.5	26,719.98	494,319.63
June-23	18.5	27,313.86	505,306.41
July-23	18.5	28,343.10	524,347.35
August-23	18.6	44,466.46	825,768.59
September-23	18.5	30,218.38	559,040.03
Total Payroll Tax Lead Days	18.5	$386,484.49	$7,164,954.36

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF FEDERAL INCOME TAXES LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Service Period		Payment	(Lead)/		Weighted
From	To	Date	Lag Days	Amount	Amount
(1)	(2)	(3)	(4)	(5)	(6)
Federal Income Taxes					
1/1/22	12/31/22	12/15/22	166.0	25%	41.5
1/1/23	12/31/23	4/17/23	(76.0)	25%	(19.0)
1/1/23	12/31/23	6/15/23	(17.0)	25%	(4.3)
1/1/23	12/31/23	9/15/23	75.0	25%	18.8
Total Federal Income Taxes			37.0	100%	37.0

VEOLIA WATER PENNSYLVANIA, INC.

CALCULATION OF STATE INCOME TAXES LEAD DAYS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Service Period		Payment	(Lead)/		Weighted
From	To	Date	Lag Days	Amount	Amount
(1)	(2)	(3)	(4)	(5)	(6)
State Income Taxes					
1/1/22	12/31/22	12/15/22	166.0	25%	41.5
1/1/23	12/31/23	3/15/23	(109.0)	25%	(27.3)
1/1/23	12/31/23	6/15/23	(17.0)	25%	(4.3)
1/1/23	12/31/23	9/15/23	75.0	25%	18.8
Total State Income Taxes			28.8	100%	28.8

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

PREPARED REBUTTAL TESTIMONY

OF

HAROLD WALKER, III

REGARDING

RATE OF RETURN AND CASH WORKING CAPITAL

VEOLIA WATER PENNSYLVANIA, INC.

June 7, 2024

VWPA STATEMENT NO. 4R
REBUTTAL TESTIMONY OF HAROLD WALKER
REGARDING RATE OF RETURN AND CASH WORKING CAPITAL

TABLE OF CONTENTS

VWPA STATEMENT NO. 4R
REBUTTAL TESTIMONY OF HAROLD WALKER
REGARDING RATE OF RETURN AND CASH WORKING CAPITAL

INTRODUCTION

Q. Please state your name. occupation and business address.

A. My name is Harold Walker, III. I am employed by Gannett Fleming Valuation and Rate Consultants, LLC as Manager, Financial Studies. My business address is 1010 Adams Avenue, Audubon, Pennsylvania 19403.

Q. Are you the same Harold Walker who previously submitted testimony in this proceeding?

A. Yes.

SCOPE OF TESTIMONY

Q. What is the purpose of your testimony?

A. Veolia Water Pennsylvania, Inc. ("VWPA" or the "Company") asked me to respond to and comment on the direct testimony submitted by Bureau of Investigation and Enforcement ("I&E") witness D. C. Patel and the direct testimony submitted by Office of Consumer Advocate ("OCA") witness David J. Garrett concerning rate of return. Additionally, the Company asked me to respond to and comment on the direct testimony submitted by I&E witness Vanessa Okum and the direct testimony submitted by OCA witness Lafayette K. Morgan, Jr. concerning the cash working capital allowance that VWPA should be afforded an opportunity to earn on as part of its rate base claim.

My rebuttal testimony regarding rate of return is supported by Exhibit HW-1R, which is composed of 4 Schedules. I have also prepared Exhibit HW-2R which is composed of 1 Schedule relating to cash working capital.

Therefore, when discussing rate of return and I refer to a schedule, I am referring to the schedules contained in Exhibit HW-1R unless noted otherwise. Conversely, when discussing the Company's cash working capital requirement and I refer to a schedule, I am referring to the schedule contained in Exhibit HW-2R unless noted otherwise.

SUMMARY OF RATE OF RETURN RECOMMENDATIONS

Q. What is your recommended overall rate of return and cost of equity?

A. My recommendation is that VWPA be permitted an overall rate of return of 7.95%, including a 10.80% cost of common equity, based upon the Company's capital structure projected at October 31, 2025 consisting of 46% debt and 54% equity. My recommended cost of common equity reflects VWPA's unique risk characteristics. A review of more recent measurable capital cost rates since I prepared my original study suggests similar results and indicates my recommendation for VWPA is reasonable.

Q. What overall rate of return and cost of equity do I&E and OCA recommend?

A. Mr. Patel recommends an overall rate of return of 7.16% and a 9.34% cost of common equity applicable to the Company's capital structure consisting of 46%

debt and 54% equity.[1] Mr. Garrett recommends an overall rate of return of 6.85% and a 9.1% cost of common equity applicable to a hypothetical capital structure consisting of 50% debt and 50% equity.[2]

Q. Please summarize your comments on I&E's and OCA's testimonies.

A. I respectfully disagree with Mr. Patel's proposed return on equity ("ROE") of 9.34% and Mr. Garrett's proposed ROE of 9.1% for VWPA. I also disagree with Mr. Patel's proposed overall rate of return ("ROR") of 7.16% and Mr. Garrett's proposed ROR of 6.85% for VWPA.

Specifically, the Pennsylvania Public Utility Commission ("Commission" or "PUC") should not accept Mr. Patel's and Mr. Garrett's proposals because:

- Mr. Garrett's recommended hypothetical capital structure is not supported by financial theory and/or regulatory practice for utilities;
- Mr. Patel's and Mr. Garrett's recommended returns on equity and related overall rates of return do not afford VWPA the opportunity to earn a fair rate of return;
- Mr. Patel's and Mr. Garrett's recommended returns on equity are not consistent with current and recently authorized return rates on common equity by the Commission;
- Mr. Patel's and Mr. Garrett's recommended returns on equity and related overall rates of return do not reflect current capital cost rates;
- Mr. Patel's and Mr. Garrett's recommended returns on equity are below the returns their own proxy group companies will earn;

[1] I&E Statement No. 2, D. C. Patel Direct, p. 6. Mr. Garrett also recommends an alternative common equity cost rate of 8.6% applicable to the Company's capital structure consisting of 46% debt and 54% equity.
[2] OCA St. 3, David Garrett Direct, pp. 3-4.

- Mr. Patel's and Mr. Garrett's proposals show a lack of understanding of the precepts of a fair rate of return, including the comparable earnings standard, capital attraction standard, and the financial integrity standard.

Finally, my testimony examines and refutes Mr. Patel's and Mr. Garrett's alleged criticisms of my recommendations. As I describe later in this testimony, these claims are baseless and should be rejected.

INITIAL COMMENTS

Q. Do you have any initial general comments concerning the cost of equity that I&E and OCA recommend?

A. Yes. Schedule 1 shows the average projected earned ROE for Mr. Patel's and Mr. Garrett's proxy group companies will be 10.6% during the period 2027-2029.[3] Mr. Patel's proxy group's average projected ROE of 10.6% is 1.28-percentage points higher than Mr. Patel's recommended cost of equity of 9.34% and highlights the inadequacy of Mr. Patel's recommendation.[4] Similarly, Mr. Garrett's proxy group's average projected ROE of 10.6% is 1.52-percentage points higher than Mr. Garrett's recommended cost of equity of 9.1% and highlights the inadequacy of Mr. Garrett's recommendation.[5]

[3] The projected earned return on equity shown are published by Value Line Investment Survey ("Value Line"). Value Line is relied upon by many investors and is the only investment advisory service of which I am aware that projects earned return on equity.

[4] A percentage point is a common unit of measure for interest rates and other percentages in finance. A percentage point is the unit for the arithmetic difference between two percentages. For example, a bond yield that increased from 3.00% to 4.25% has increased by 1.25-percentage points (4.25% - 3.00% = 1.25%).

[5] Mr. Garrett's alternative common equity cost rate of 8.6% is 2.00-percentage points below his proxy group's average projected ROE of 10.6%.

Q. Is there a difference between earned returns, or "accounting ROEs" and the ROE to be determined in this case?

A. No, not really. I agree there is a distinction between a market return and an accounting return. The ROE that the Commission will determine in this case will become VWPA's accounting ROE benchmark by which under-earning and over-earning will be measured. If Mr. Patel's and Mr. Garrett's proxy groups are earning an accounting return of 10.6% while VWPA earns only 9.34% or 9.1% based on their recommendations, respectively, it places VWPA at a competitive disadvantage in the competition to attract capital.

Q. Why are I&E's and OCA's recommended cost of equity for VWPA so much lower than their proxy groups' comparable returns?

A. Mr. Patel's and Mr. Garrett's recommended cost of equity are based on the result of only one model, the Discounted Cash Flow ("DCF"). Although they provide comparative cost rates with another model, the Capital Asset Pricing Model ("CAPM"), their recommendations are based on the result of only one model.[6]

Q. Is it important to use more than one market model?

A. Yes. It is necessary to estimate common equity cost rates using a number of different models. At any given time, a particular model may understate or overstate the cost of equity. While any single investor may rely solely upon one model,

[6] "Additionally, I provide a CAPM analysis to be used as a comparison, not as a check, to the DCF results." (I&E Statement No. 2, D. C. Patel Direct, p. 16)

different investors rely on different models and many investors use multiple models. Therefore, because the price of common stock reflects a number of valuation models, it is appropriate to estimate the market-required common equity cost rate by applying a broad range of analytical models.

Q. How did you determine your recommended common equity cost rate?

A. I used several models to help me in formulating my recommended common equity cost rate including the DCF, the CAPM and Risk Premium ("RP"). On pages 41 and 42 of my direct testimony (VWPA Statement No. 4), I explained the importance and rationale necessitating the use of more than one model when determining the cost of equity and cited three authoritative sources. Furthermore, the Commission has stated, "where evidence based on other methods suggests that the DCF-only results may understate the utility's ROE, we will consider those other methods."[7] Clearly, there is evidence based on the comparison of returns that proves the DCF-only results recommended by Mr. Patel and Mr. Garrett understate VWPA's cost of equity. Additionally, the current unusual and extremely high inflation rate has resulted in increases in interest rates and capital costs rates.

Q. What proof do you have that the current unusual and extremely high inflation rate has resulted in higher capital cost rates?

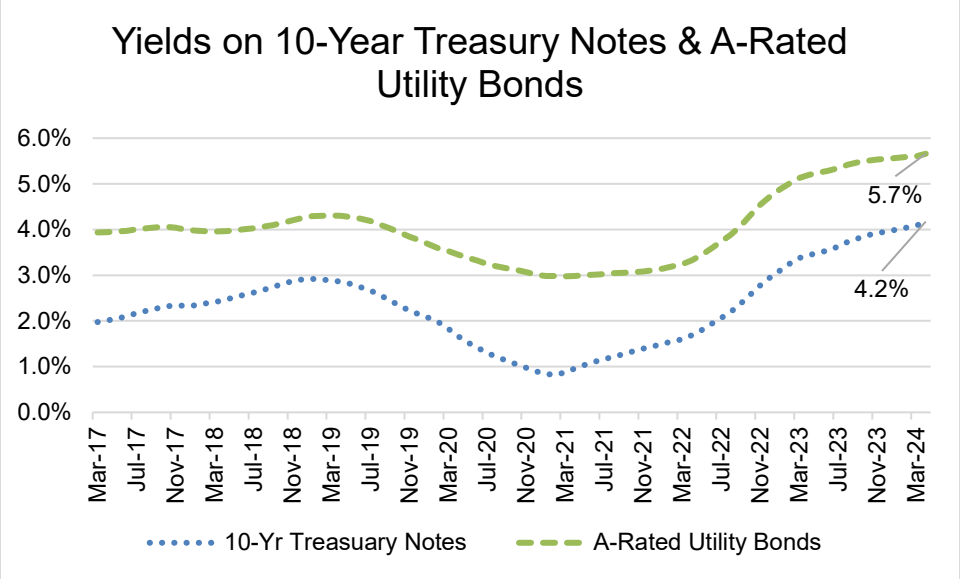
A. The current yield on 5/23/24 of 10-year treasury notes was 4.47%. The last month the yield on 10-year treasury notes exceeded the recent period's 4.47% yield was

[7] *Pa. PUC v. Aqua Pennsylvania, Inc.*, Docket Nos. R-2021-3027385 & R-2021-3027386, pp. 154-155 (Order entered May 16, 2022).

October 2007, or about 17 years ago.[8] The current yield on 10-year treasury notes is 0.51-percentage points higher than it was for 2023, 1.52-percentage points higher than it was for 2022, 3.03-percentage points higher than it was for 2021, and 3.58-percentage points higher than it was for 2020.

Further, the current yield on 5/23/24 of A rated public utility bonds was 5.72%. The current yield on A rated public utility bonds is 0.18-percentage points higher than it was for 2023, 1.00-percentage points higher than it was for 2022, 2.61-percentage points higher than it was for 2021, and 2.71-percentage points higher than it was for 2020. Figure 1 depicts the trailing 12-month rolling average yield on 10-year treasury notes and A rated public utility bonds from March 2017 through April 2024.

Figure 1



[8] Within the recent period, the monthly yield in April 2024 of 4.54%, November 2023 of 4.50% and October 2023 of 4.80% exceeded the current 4.47% yield.

The increased capital cost rates for 10-year treasury notes and A rated public utility bonds shown in Figure 1 have similarly resulted in higher common equity cost rates today, than existed over the last several years.

Q. I&E witness Patel stated, on pages 24 and 25 of his testimony, that on March 6, 2024, the Federal Reserve indicated that interest rate cuts are likely "at some point" in 2024. Has the Federal Reserve reversed its March 6, 2024 optimistic statement?

A. Yes. More recently, on May 1, 2024, the Federal Reserve announced "interest rates will stay high until inflation further cools" according to the Associated Press,

> The Federal Reserve on Wednesday emphasized that inflation has remained stubbornly high in recent months and said it doesn't plan to cut interest rates until it has "greater confidence" that price increases are slowing sustainably to its 2% target.
> The Fed issued its decision in a statement after its latest meeting, at which it kept its key rate at a two-decade high of roughly 5.3%. Several hotter-than-expected reports on prices and economic growth have recently undercut the Fed's belief that inflation was steadily easing. The combination of high interest rates and persistent inflation has also emerged as a potential threat to President Joe Biden's re-election bid.
>
> "In recent months," Chair Jerome Powell said at a news conference, "inflation has shown a lack of further progress toward our 2% objective."
>
> "It is likely that gaining greater confidence," he added, "will take longer than previously expected."[9]

[9] The Associated Press, "Federal Reserve Says Interest Rates Will Stay At Two-Decade High Until Inflation Further Cools," by Christopher Rugaber, May 1, 2024, https://apnews.com/article/federal-reserve-inflation-prices-interest-rates-cuts-348e4db8a6c91f108268713d181d6a17, 5/25/24.

Moreover, Table 1 shows a comparison between the current, 5/23/24, interest rate yield curve and the yield curve from March 6, 2024.[10] The comparison shown in Table 1 proves that investors' expectations have not been influenced by the Federal Reserve's March 6, 2024 optimistic statement as is evidenced by the increase in yields along the yield curve.

	Treasury Bills, Notes and Bonds Yields				
	1-Year	2-Year	5-Year	10-Year	30-Year
3/6/2024	4.95	4.55	4.12	4.11	4.24
5/23/2024	5.20	4.91	4.52	4.47	4.58
Percentage Point Change	0.25	0.36	0.40	0.36	0.34

Table 1

Q. I&E witness Patel stated, on page 25 of his testimony, that the April 1, 2024 Blue Chip Financial Forecasts projected inflation "to be slightly over 2%" over the next six quarters, through the third quarter 2025, to buttress his assertion of an interest rate reduction. Do you agree with his conclusion?

A. No, for three reasons. First, the Federal Reserve's inflation target warranting a reduction in interest rates is 2%, not "slightly over 2%." Second, Mr. Patel provided no evidence that the Federal Reserve considers the Blue Chip Financial Forecasts in making any of their decisions. Third, the market has not reacted consistent with expectations of reduced interest rates as demonstrated by the information shown in Table 2.

[10] A yield curve is a line that compares interest rates of bonds that have equal credit quality but differing maturity dates.

	Treasury Bills, Notes and Bonds Yields				
	1-Year	2-Year	5-Year	10-Year	30-Year
4/1/2024	5.06	4.72	4.34	4.33	4.47
5/23/2024	5.20	4.91	4.52	4.47	4.58
Percentage Point Change	0.14	0.19	0.18	0.14	0.11

Table 2

Table 2 shows a comparison between the current, 5/23/24, interest rate yield curve and the yield curve from April 1, 2024, the date of the Blue Chip Financial Forecasts' publication date. The comparison shown in Table 2 proves that investors' expectations have not been influenced by the inflation rates shown in the Blue Chip Financial Forecasts' April 1, 2024 publication as is evidenced by the increase in yields along the yield curve.

Q. Mr. Patel cited eight Commission orders on pages 17, 21, and 22 of his testimony. Do the authorized ROEs determined by the Commission in the eight orders cited by Mr. Patel highlight the inadequacy of I&E's and OCA's recommended ROE for VWPA?

A. Yes. Table 3 shows the authorized ROE determined by the Commission in the eight orders cited by I&E and compares the authorized ROEs to Mr. Patel's and

Mr. Garrett's recommended ROE for VWPA to show the unreasonableness of their recommendations.[11]

Utility and Order Date	Authorized ROE	Recommended ROE For VWPA I&E	Recommended ROE For VWPA OCA	Recommended ROE Less Authorized ROE I&E	Recommended ROE Less Authorized ROE OCA
City of DuBois – March 2017	9.30% *	9.34%	9.10%	0.04%	-0.20%
UGI Utilities, Inc. (Electric Div) – October 2018	9.85%	9.34%	9.10%	-0.51%	-0.75%
Wellsboro Electric Co. – April 2020	9.31%	9.34%	9.10%	0.03%	-0.21%
Citizens Electric Co. – April 2020	9.54%	9.34%	9.10%	-0.20%	-0.44%
Columbia Gas of PA – February 2021	9.86%	9.34%	9.10%	-0.52%	-0.76%
PECO Energy Co. (Gas Div.) – June 2021	10.24%	9.34%	9.10%	-0.90%	-1.14%
Aqua Pennsylvania – May 2022	10.00%	9.34%	9.10%	-0.66%	-0.90%
Columbia Water Co. – January 2024	9.75%	9.34%	9.10%	-0.41%	-0.65%
Average	9.73%	9.34%	9.10%	-0.39%	-0.63%

* - City's ROE before income tax adjustment.

Table 3

As shown in Table 3, Mr. Patel's recommended ROE for VWPA averages 0.39-percentage points **below** the authorized returns found for other Pennsylvania utilities. Mr. Garrett's recommended 9.1% ROE for VWPA averages 0.63-percentage points **below** the authorized returns found for other Pennsylvania utilities. Further, Mr. Patel's recommended ROE for VWPA is 0.66-percentage points **below** the authorized return found in *Aqua 2022* and 0.41-percentage points **below** the authorized return found in *Columbia Water 2024*, while Mr. Garrett's

[11] *Pa. PUC v. City of DuBois – Bureau of Water*, Docket No. R-2016-2554150 (Order Entered March 28, 2017), p. 97; *Pa. PUC v. UGI Utilities, Inc. - Electric Division*, Docket No. R-2017-2640058 (Order Entered October 25, 2018), p. 121; *Pa. PUC v. Wellsboro Electric Company*, Docket No. R-2019-3008208 (Order Entered April 29, 2020), p. 87; *Pa. PUC v. Citizens Electric Company of Lewisburg, PA*, Docket No. R-2019-3008212 (Order Entered April 27, 2020), p. 114; *Pa. PUC v. Columbia Gas of Pennsylvania, Inc.*, Docket No. R-2020-3018835 (Order Entered February 19, 2021), p. 143; *Pa. PUC v. PECO Energy Company – Gas Division*, Docket No. R-2020-3018929 (Order Entered June 22, 2021), p. 173; *Pa. PUC v. Aqua Pennsylvania, Inc.*, Docket Nos. R-2021-3027385 & R-2021-3027386 (Order Entered May 16, 2022), p. 181; and *Pa. PUC v. Columbia Water Company*, Docket No. R-2023-3040258 (Order Entered January 18, 2024), p.113.

recommended 9.1% ROE for VWPA is 0.90-percentage points **below** the authorized return found in *Aqua 2022* and 0.65-percentage points **below** the authorized return found in *Columbia Water 2024*.[12]

The inadequacy of Mr. Patel's and Mr. Garrett's recommended ROE for VWPA is further apparent after the change in measurable capital cost rates since the authorized returns were determined, is considered. I previously discussed the change in measurable capital cost rates when I explained Figure 1, shown on page 8. Table 4 shows the trailing 12-month rolling average yield on 10-year treasury notes and A rated public utility bonds for the month each Commission order was entered. The trailing 12-month rolling average yield for the month each Commission order was entered was then compared to the most recent trailing 12-month rolling average yield for April 2024 to measure changes in capital cost rates.

[12] Mr. Garrett's alternative 8.6% ROE averages 1.13-percentage points below the authorized returns found for other Pennsylvania utilities, is 1.40-percentage points below the authorized return found in *Aqua 2022* and 1.15-percentage points below the authorized return found for *Columbia Water 2024*.

Utility and Order Date	Trailing 12-Month Average Yield of Month of Order: 10-Year Treasury Notes	Trailing 12-Month Average Yield of Month of Order: A Rated Public Utility Bonds	Current Trailing 12-Month Average Yield: 10-Year Treasury Notes	Current Trailing 12-Month Average Yield: A Rated Public Utility Bonds	Change in Average Yield: 10-Year Treasury Notes	Change in Average Yield: A Rated Public Utility Bonds
City of DuBois – March 2017	1.97%	3.93%	4.18%	5.66%	2.20%	1.73%
UGI Utilities, Inc. (Electric Div) – October 2018	2.81%	4.14%	4.18%	5.66%	1.37%	1.52%
Wellsboro Electric Co. – April 2020	1.67%	3.46%	4.18%	5.66%	2.51%	2.20%
Citizens Electric Co. – April 2020	1.67%	3.46%	4.18%	5.66%	2.51%	2.20%
Columbia Gas of PA – February 2021	0.82%	2.98%	4.18%	5.66%	3.36%	2.68%
PECO Energy Co. (Gas Div.) – June 2021	1.11%	3.01%	4.18%	5.66%	3.07%	2.65%
Aqua Pennsylvania – May 2022	1.80%	3.44%	4.18%	5.66%	2.38%	2.22%
Columbia Water Co. – January 2024	4.00%	5.57%	4.18%	5.66%	0.17%	0.09%
Average	1.98%	3.75%	4.18%	5.66%	2.20%	1.91%

Table 4

As shown in Table 4, the trailing 12-month rolling average yield on 10-year treasury notes averages 2.20-percentage points **below** the April 2024 trailing 12-month rolling average yield. Similarly, the trailing 12-month rolling average yield on A rated public utility bonds averages 1.91-percentage points **below** the April 2024 trailing 12-month rolling average yield. Further, the measurable capital cost rates related to the *Aqua 2022* order are 2.38-percentage points and 2.22-percentage points **below** the April 2024 trailing 12-month rolling average yields. In every instance since the authorized returns shown in Table 3 were determined the measurable capital cost rates have increased, further showing the inadequacy of Mr. Patel's and Mr. Garrett's recommended ROE for VWPA. That is, not only does Mr. Patel's recommended ROE for VWPA average 0.39-percentage points **below** the authorized returns found for other Pennsylvania utilities and Mr. Garrett's recommended ROE for VWPA average 0.63-percentage points **below**

the authorized returns found for other Pennsylvania utilities, but the **measurable capital cost rates have increased** 1.91-percentage points to 2.20-percentage points as well.[13]

Looking at *Aqua 2022*, Mr. Patel's recommendation for VWPA is 0.66-percentage points **below** the authorized ROE found, plus **measurable capital cost rates have increased** 2.22-percentage points to 2.38-percentage points since the month of the decision. Still looking at *Aqua 2022*, Mr. Garrett's recommendation for VWPA is 0.90-percentage points **below** the authorized ROE found, plus **measurable capital cost rates have increased** 2.22-percentage points to 2.38-percentage points since the month of the decision. Mr. Patel's recommendation for VWPA is 0.41-percentage points **below** the authorized ROE found in *Columbia Water 2024*, plus **measurable capital cost rates have increased** 0.09-percentage points to 0.17-percentage points since the month of the decision. Similarly, Mr. Garrett's recommendation for VWPA is 0.65-percentage points **below** the authorized ROE found in *Columbia Water 2024*, plus **measurable capital cost rates have increased** 0.09-percentage points to 0.17-percentage points since the month of the decision.[14]

Schedule 3 shows a similar comparison of changes in measurable capital cost rates since the Commission's orders were entered but instead of using trailing 12-month rolling average yields, the measurable capital cost rates for the month

[13] Mr. Garrett's alternative 8.6% ROE averages 1.13-percentage points below the authorized returns found for other Pennsylvania utilities.
[14] Mr. Garrett's alternative 8.6% ROE is 1.40-percentage points below the authorized return found in *Aqua 2022* and 1.15-percentage points below the authorized return found in *Columbia Water 2024*.

the orders were entered is compared to the measurable capital cost rates on 5/23/24. This comparison shows a similar conclusion that measurable capital cost rates have increased substantially since the Commission's orders were entered. The information shown on Schedule 3 proves increased inflation has led to increases in interest rates and capital costs.

Q. Please explain why I&E's and OCA's recommendations understate VWPA's cost of equity.

A. Yes. First, as mentioned previously, the current unusual and extremely high inflation rate has resulted in increases in interest rates and capital costs rates. Second, the models, especially the DCF, used to estimate the cost of equity are less reliable the larger the difference between the market values and book values are. Schedule 4 shows the difference between the market values and book values for Mr. Patel's and Mr. Garrett's proxy groups.

Q. Please explain why the models, especially the DCF, are less reliable the larger the difference between market values and book values are.

A. Yes. The basic proposition of financial theory regarding the economic value of a company is based on market value. That is, a company's value is based on its **market value** weighted average cost of capital.[15] The American Society of Appraisers, ASA Business Valuation Standards, 2009, and the National

[15] For other examples, *see* http://www.investinganswers.com/financial-dictionary/financial-statement-analysis/weighted-average-cost-capital-wacc-2905. *Also see* http://www.wallstreetmojo.com/weighted-average-cost-capital-wacc/ , or http://accountingexplained.com/misc/corporate-finance/wacc .

Association of Certified Valuation Analysts, Professional Standards, 2007, use the same definition:

> Weighted Average Cost of Capital (WACC). The cost of capital (discount rate) determined by the weighted average, **at market values**, of the cost of all financing sources in the business enterprise's capital structure. (Emphasis added)

Accordingly, the market value derived cost rate reflects the financial risk or leverage associated with **capitalization ratios based on market value**, not book value.

As shown in Schedule 4, there is a large difference in both Mr. Patel's proxy group and Mr. Garrett's proxy group's market capitalization ratios and their proxy group's book capitalization ratios. This difference in market values and book values results in debt/equity ratios based on **market value of 35%/65% (debt/equity)** versus book value of 51%/49% (debt/equity) for Mr. Patel's proxy group and **market value of 34%/66% (debt/equity)** versus book value of 50%/50% (debt/equity) for Mr. Garrett's proxy group as shown on Schedule 4. The larger the difference between market values and book values, the less reliable the models' results are since **the models provide an estimate of the cost of capital of market value**, not book value.

Financial theory concludes capital structure and firm value are related. Since capital structure and firm value are related, a leverage adjustment (*e.g.*, Hamada adjustment) is required when a cost of common equity model is based on market value and if its results are then applied to book value. As explained previously, the market value derived cost rate reflects the financial risk or leverage

associated with **capitalization ratios based on market value**, not book value. The authors Brealey, Myers and Allen provide a similar definition of the cost of capital being based on market capitalization, not book value,

> The values of debt and equity add up to overall firm value (D + E = V) and firm value V equals asset value. **These figures are all market values, not book (accounting) values**. The market value of equity is often much larger than the book value, so the market debt ratio D/V is often much lower than a debt ratio computed from the book balance sheet.[16]

The work of Modigliani and Miller concludes that the market value of any firm is independent of its capital structure, and this is precisely the reason why the leverage adjustment (*e.g.*, Hamada adjustment) is appropriate.[17] The only way for the market value of a firm to remain independent of its capital structure is if the capital cost rates change to offset changes in the capital structure. If the capital cost rates do not change to offset changes in the capital structure, then the value of the firm will change. Clearly a leverage adjustment (*e.g.*, Hamada adjustment) is required when a cost of common equity model is based on **market value** and if its results are then applied to **book value** because the capital structure is changed from **market value** capitalization to **book value** capitalization.

Referring to Schedule 4, Mr. Patel's proxy group and Mr. Garrett's proxy group's cost of capital is based on debt/equity ratios based on **market value of 35%/65% (debt/equity) and 34%/66% (debt/equity)**, respectively. Therefore, Mr. Patel's proxy group and Mr. Garrett's proxy group's market value equity cost rates

[16] Brealey, Myers and Allen, Principles of Corporate Finance, 10th edition, at 216 (emphasis added).
[17] The Nobel Prize winning professors Franco Modigliani and Merton Miller's proposition on firm value and capital structure is well-established in academic literature and common knowledge among finance practitioners.

reflect an equity ratio of between 65% and 66%, respectively. That is not just my opinion, but it is a cornerstone of financial theory.[18] Mr. Patel's proxy group and Mr. Garrett's proxy group's market value DCF cost rates of 9.34% to 9.1%, respectively, reflect a 65% and 66% market value equity ratio and yet they recommend their 9.34% to 9.1% cost of equity be applied to the recommended VWPA 54% or 50% equity ratio based on book value. Even if Mr. Patel's proxy group's 9.34% or Mr. Garrett's proxy group's 9.1% cost of equity were appropriate for a 66% or 65% market value equity ratio, respectively, it cannot simultaneously be appropriate for their recommended VWPA 54% or 50% book value equity ratio without violation of Modigliani and Miller's precept. Accounting for the increased amount of leverage between Mr. Patel's and Mr. Garrett's market value derived DCF cost rates and book value cost rates indicate a book value DCF cost rate of 10.07% for Mr. Patel, and 9.9% for Mr. Garrett.

Q. Mr. Patel discussed the Distribution System Improvement Charge, or DSIC rate authorized by the Commission for water and wastewater utilities on pages 22, 51, and 52 of his testimony. Do you have any comments regarding this testimony?

A. Yes. The Distribution System Improvement Charge ("DSIC") rate is a guaranteed return since DSIC recoveries are reconciled annually and therefore there are no under (over) recoveries. A guaranteed return is different than an opportunity return

[18] *Id*.

related to a fair rate of return determination. As such, the DSIC rate is a less risky return and I believe investors view the DSIC rate as a foundation or sub-floor of a likely fair rate of return determination since a fair rate of return provides only an opportunity and not a guarantee.

Another aspect of the DSIC rate is its determination which indicates the Commission does not rely on a single model's results in reaching its conclusion of the rate. For example, the DSIC rate is usually set well above the cost of equity indicated by the DCF model alone. Rather, the Commission relies on informed judgment and information provided by other models, especially in a rising interest rate environment as is currently the case.

Q. Both I&E, at pages 15-16, and OCA, at pages 12-19, discuss unsystematic risk and systematic risk in their Direct Testimonies. Do you agree with their conclusions regarding unsystematic risk and systematic risk?

A. No. I believe Mr. Patel's and Mr. Garrett's testimonies are misleading or vague in these areas because systematic risk (non-diversifiable) is the only risk germane under CAPM and portfolio theory. The CAPM is based upon the assumption that investors hold diversified portfolios and that the market only recognizes or rewards systematic risk (non-diversifiable) when determining the price of a security because unsystematic risk (company-specific) is removed through diversification. However, both systematic risk (non-diversifiable) and unsystematic risk (company-specific) are relevant under the DCF, risk premium, comparable earnings, credit analyses, bond ratings, etc. and both are precepts of a fair rate of return and must

be considered. Mr. Patel's and Mr. Garrett's testimonies suggest company-specific risk is irrelevant because unsystematic risk is removed through diversification. A real-life example involving Enron Corporation proves the fallacies of assuming company-specific risk is irrelevant.

> The story of Enron Corporation depicts a company that reached dramatic heights only to face a dizzying fall. The fated company's collapse **affected thousands of employees** and **shook Wall Street to its core**. **At Enron's peak**, its **shares were worth $90.75;** just **prior to declaring bankruptcy** on Dec. 2, 2001, **they were trading at $0.26.**
>
> When the recession hit in 2000, Enron had significant exposure to the most volatile parts of the market. As a result, many trusting investors and creditors found themselves on the losing end of a vanishing market cap.
>
> At the time, Enron's collapse was the biggest corporate bankruptcy to ever hit the financial world (since then, the failures of WorldCom, Lehman Brothers, and Washington Mutual have surpassed it). The Enron scandal drew attention to accounting and corporate fraud as its **shareholders lost $74 billion in the four years** leading up to its bankruptcy, and its **employees lost billions in pension benefits**.[19]

Enron Corporation's story proves company-specific risk is pertinent. Equity investors and bond holders can lose capital, as did every investor who held Enron Corporation stock during its collapse, regardless of whether their portfolio was diversified or not. Mr. Garrett contradicts his own testimony (page 30) regarding the sole importance of systematic risk (non-diversifiable) when he cites the U.S. Supreme Court first addressing the meaning of a fair rate of return for public utilities in *Wilcox v. Consolidated Gas Co. of New York* even as he stated, "the court found

[19] Excerpts taken from Troy Segal, "Enron Scandal: The Fall of a Wall Street Darling," Investopedia (2021), https://www.investopedia.com/updates/enron-scandal-summary/ (10/12/21) (emphasis added).

that '**the amount of risk in the business is a most important factor**' in determining the appropriate allowed rate of return."[20]

Q. Do you have any final initial general comments concerning the testimonies of I&E and OCA?

A. Yes. Mr. Patel's and Mr. Garrett's testimonies quantify the impact on revenue requirement and ratepayers regarding equity ratios and equity cost rates as a means of justifying their selections of lower ratios and lower cost rates.[21] This type of testimony presents a myopic view because their quantifications also represent revenue losses for investors of VWPA if Mr. Patel's and Mr. Garrett's recommendations are adopted by the Commission.

Further, their testimonies double count issues already considered by this Commission and other commissions regarding ROE and equity ratios. For example, the Commission already considered the impact on revenue requirement and ratepayers when they decided DSIC rates, *Aqua 2012* or *Columbia Water 2024*.

AREAS OF AGREEMENT

Q. Are there any areas of agreement in the fair rate of return testimonies presented in these proceedings?

A. Yes. Mr. Patel, Mr. Garrett, and I agree regarding the appropriate debt cost rate. We all recommend an embedded debt cost rate of 4.60% for VWPA.

[20] *Wilcox v. Consolidated Gas Co. of New York*, 212 U.S. 19 (1909) (emphasis added).
[21] *See* I&E Statement No. 2, D. C. Patel Direct, pp. 33-36, 44-45, and 52; and OCA St. 3, David Garrett Direct, pp. 3-4.

PROXY GROUPS

Q. What companies did I&E and OCA use to estimate the cost of common equity for VWPA?

A. Mr. Garrett included the same seven water utility comparison companies or proxy group that I used. Mr. Patel used six of the seven water utility comparison companies that Mr. Garrett and I used.[22] Mr. Patel did not include The York Water Company in his six company water comparison group. The York Water Company is the only company in the proxy group used by Mr. Garrett that operates entirely in the Commonwealth of Pennsylvania. Moreover, financial information is readily available for The York Water Company and investors view The York Water Company as a comparable company to the other six water utility proxy group companies that are included in Mr. Patel's proxy group as is evident by the typical default stock ticker comparable screener that is provided by internet financial resource services when entering stock ticker symbols.

Q. Do you have any other comments regarding Mr. Patel's and Mr. Garrett's proxy groups?

A. Yes. In addition to using a comparison group (or proxy group) to estimate the cost of equity, proxy groups are used as a benchmark to satisfy the long-established guideline of providing a utility the opportunity to earn a return equal to that of similar

[22] Note that the phrases "proxy group," "comparison group," and "comparison companies" are used interchangeably, and to refer to the group of water utility companies utilized by each witness.

risk enterprises. However, neither Mr. Patel nor Mr. Garrett presented any evidence regarding the similarity, or dissimilarity, of risk between their proxy groups and VWPA. A risk analysis of VWPA and my proxy group companies was discussed in my Direct Testimony in the sections titled "Financial Analysis" and "Risk Analysis." A risk analysis of VWPA and the proxy groups is essential in determining a fair rate of return because risk and return counterbalance one another. That is, the greater the risk, the higher the required return and vice versa. However, as stated, neither Mr. Patel nor Mr. Garrett provided any risk analyses of their proxy groups and VWPA. In a sense, Mr. Patel's and Mr. Garrett's common equity cost rate recommendation reflect a "one size fits all" approach since no risk reconciliation was done between their proxy groups and VWPA. Accordingly, I do not believe the Commission can or should rely upon either Mr. Patel's or Mr. Garrett's recommendations.

CAPITAL STRUCTURE

Q. Does VWPA directly raise or issue its own debt capital?

A. No, prospectively VWPA does not raise its own capital; rather Veolia Utility Resources LLC ("VUR") is the sole source of VWPA's external capital.

Q. What capital structure ratios are appropriate to be used to develop VWPA's overall rate of return?

A. Consistent with settled rate setting principles, I believe it is necessary to evaluate VWPA's current cost of capital based on VUR's projected October 31, 2025 capital structure, which includes 46% debt and 54% common equity.

Q. What capital structure ratios do I&E and OCA recommend be used to develop VWPA's overall rate of return?

A. Mr. Patel recommends the same capital structure ratios that I do. Mr. Garrett recommends a hypothetical structure for VWPA based on his proxy group's average capital structure ratio of 50% debt and 50% common equity.

The problem with using a proxy group's average capital structure ratios is the average capital structure is comprised of an average capitalization too. In the case of Mr. Garrett's proxy group, their average capitalization is $5.5 billion (2022), while VWPA's capitalization is only $0.3 billion (2022).[23] Accordingly, Mr. Garrett's recommended 50% common equity for VWPA is based on an average capitalization of $5.5 billion (2022). Within the water industry there is a relationship between size and common equity ratio because larger companies typically have a lower equity ratio than smaller companies as can be demonstrated from Mr. Garrett's own data.

Mr. Garrett does not show the book capitalization for his proxy group in his Exhibits, but he does show his proxy group's market capital on Exhibit DJG-2 and their equity ratios on Exhibit DJG-13 which are shown below in Table 5. The

[23] VWPA Statement No. 4, Exhibit HW-1, Schedule 8.

amount of market capital of the companies which comprise Mr. Garrett's proxy group ranged from $560 million to $22,800 million as shown in Table 5 below.

	Market Cap. ($ millions)	Grouped	Equity Ratio
American States Water Co	$2,600	Middle 3	47%
American Water Works	22,800	Largest 2	46%
California Water Service Group	2,600	Middle 3	58%
Essential Utilities	9,900	Largest 2	46%
Middlesex Water Co	900	Smallest 2	54%
SJW Group	1,800	Middle 3	45%
The York Water Company	560	Smallest 2	55%
Average - Largest 2, market capital bewteen $9,000 mill. to $22,800 mill.	**$16,350**		**46%**
Average Middle 3, market capital bewteen $1,800 mill. to $2,600 mill.	**$2,333**		**50%**
Average Smallest 2, market capital bewteen $500 mill. to $900 mill.	**$730**		**55%**

Table 5

The two largest companies in Mr. Garrett's proxy group, or those companies with an average market capital of $16,350 million (*i.e.*, $16 billion) have an average equity ratio of 46%, the three mid-sized companies, or those companies with an average market capital of $2,333 million (*i.e.*, $2 billion) have an average equity ratio of 50%, while the two smallest companies in Mr. Garrett's proxy group have an average equity ratio of 55% and an average market capital of $730 million.

Further, it is my understanding that there is longstanding Commission precedent that the choice of capital structure is within the discretion of the specific

utility's management and is not to be changed absent proof that the capital structure is atypical or heavily weighted to one side.[24] VWPA's claimed capital structure falls within the range of the companies in Mr. Garret's proxy group, which he has determined to be the companies that are most representative of VWPA.[25] Based on the aforesaid, I believe the Commission should not accept Mr. Garrett's recommendation, and instead should adopt the use of VWPA's proposed capital structure.

REVIEW OF I&E'S RECOMMENDED COST OF EQUITY

Q. What is I&E's recommended cost of equity for VWPA?

A. Mr. Patel's recommended 9.34% cost of equity for VWPA is based on the result of only one model, the DCF. Although he provided a "comparative" cost rate using another model, the CAPM, his recommendation is based on the result of only one model, the DCF.[26]

Q. Have you reviewed I&E's growth rates used in the DCF?

A. Yes. Mr. Patel recommends a 6.61% growth rate to be used in his DCF. However, Mr. Patel's average growth rate shown on I&E Exhibit No. 2 Schedule 5, should be

[24] *See Pa. PUC v. PPL Electric Utilities Corporation*, Docket No. R-2012-2290597 (Order entered December 28, 2012), pp. 68-69; *Aqua 2022*, pp. 138-139; and *Columbia Water 2024*, pp. 83-86.
[25] VWPA's proposed common equity ratio is equal to or below three of the companies in Mr. Garret's proxy group (*i.e.*, California Water Serv. Group, Middlesex Water Co., and The York Water Co.), whose common equity ratios range from 54% to 58%. Further, only two of the companies in Mr. Garret's proxy group (*i.e.*, American States Water Co., and Essential Utilities) are projected to have a common equity ratio below VWPA's proposed common equity by Value Line.
[26] "Additionally, I provide a CAPM analysis to be used as a comparison, not as a check, to the DCF results." (I&E Statement No. 2, D. C. Patel Direct, p. 16)

6.68%, not 6.61%. That is, the mathematical average of his "average" growth column shown on I&E Exhibit No. 2 Schedule 5 is 6.68%. If Mr. Patel used the mathematically correct growth rate in his DCF model, his DCF model's results would be 9.41%, not 9.34%. This would result in his recommended cost of equity for VWPA being 9.41%, not 9.34%.

Q. Do you have any other comments regarding I&E's DCF recommendation?

A. Yes. Mr. Patel's recommended market value DCF of 9.34% is significantly impacted by one company's result, Middlesex Water Company ("Middlesex"). Mr. Patel's recommended market value DCF for Middlesex is just 7.09%. A 7.09% cost of equity for a water utility is clearly below the zone of reasonableness. Since Mr. Patel's recommended cost of equity is based entirely on the result of his market value DCF, it is imperative that his recommended market value DCF be precise and not heavily impacted by the results of just one company, Middlesex. Had Mr. Patel's recommended cost of equity been based on multiple common equity models instead of just his DCF, his inclusion of the results for Middlesex would not be as significant.[27]

Mr. Patel's recommended market value DCF for Middlesex of 7.09% is **24% below his overall recommended market value DCF** result of 9.34%. Further, his overall market value DCF excluding Middlesex, 9.87%, is 39% higher than his recommended market value DCF for Middlesex.

[27] *See* pages 5-6 of this testimony for the reasons and support for the use of multiple models.

Mr. Patel has presented no evidence which supports the conclusion that Middlesex's cost of equity is only 72% that of his other proxy group companies. Mr. Patel's recommended market value **DCF for Middlesex**, of 7.09%, **is 2.25-percentage points below** his **overall** recommended market value **DCF** result, of 9.34%, and **is 2.78-percentage points below his** overall recommended market value **DCF for his other proxy group companies**, of 9.87%.

Although Middlesex is also included in my market value DCF result, I ameliorated its impact on my overall recommendation by recognizing the proper leverage adjustment (*e.g.*, Hamada adjustment) and through the use of multiple models to estimate the cost of equity for VWPA.

Q. What is the indicated cost of equity based on I&E's CAPM?

A. Mr. Patel calculated a cost of equity using his CAPM of 10.62%. However, Mr. Patel stated, on page 16, that he provided "a CAPM analysis to be used as a comparison, not as a check, to the DCF results determined."

Q. Do you agree with I&E Witness Patel's CAPM methodology?

A. No. The two areas of disagreement I have with Mr. Patel's CAPM relate to his risk-free rate and the market risk premium. Mr. Patel's risk-free rate is based on the 10-year Treasury note. However, financial theory indicates the term matching of the risk-free rate should be based on the life of the asset, not the time horizon of the investor. In this case, water assets have a much longer life than the 10 years that results from using 10-year notes. Besides matching the life of the asset,

another mistake of using 10-year Treasury notes is that they are more sensitive to monetary policy activities taken by the Federal Open Market Committee, whereas the 30-year Treasury bonds are more of an indication of investor sentiment of their required returns. Additionally, Mr. Patel's analysis significantly understates the risk-free rate of return because he incorrectly gave 100% weighting to Blue Chip Financial Forecasts' projections of 10-year Treasury notes which have been shown to underestimate actual money cost rates (*see* discussion regarding Table 2). For example, Mr. Patel's CAPM only reflects a 3.88% yield on 10-year Treasury notes while the actual yield on 10-year Treasury notes was 4.47% on 5/24/24. Therefore, Mr. Patel's 3.88% yield on 10-year Treasury notes is **0.59-percentage points below** their actual yield of 4.47%. Mr. Patel should have considered the actual yields on 10-year Treasury notes of 4.47% in his CAPM, not just Blue Chip Financial Forecasts. If Mr. Patel used the actual yields on 10-year Treasury notes of 4.47% in his CAPM, his CAPM result would be 10.72%, not 10.62%.

The other area of disagreement I have with Mr. Patel's CAPM is he did not reflect the required CAPM size premium. The size premium reflects the risks associated with Mr. Patel's proxy group's small size and its impact on the determination of their beta. This adjustment is necessary because beta (systematic risk) does not capture or reflect the proxy group's small size. According to Brealey, Myers, and Allen, "the relationship among stock returns and firm size and book-to-market ratio has been well documented."[28] Brealey, Myers,

[28] Brealey, Myers and Allen, Principles of Corporate Finance, 10th edition, page 198.

and Allen also state, that "between 1926 and 2008 the difference between the annual returns on small and large capitalization stocks averaged 3.6%"[29] which should be included in Mr. Patel's CAPM.

Additionally, on page 20 of his Direct Testimony, Mr. Patel cites to an article by Eric Berg and to a second article/study by Fama and French.[30] Page 3 of the article by Eric Berg states, "[t]he professors theorize that investors view smaller companies as more vulnerable to economic downturns and therefore demand higher returns." Page 20 (*Journal of Economic Perspectives* page 44) of the article/study by Fama and French states, "[a]s a result, CAPM estimates of the cost of equity for high beta stocks are too high (relative to historical average returns) and estimates for low beta stocks are too low (Friend and Blume, 1970)." Both articles/studies conclude that the CAPM understated the return for **small companies** and for **companies with betas below 1.0**. Most water utilities are considered small companies relative to other publicly traded stocks, and all have betas below 1.0. My CAPM reflects these factors. However, Mr. Patel's CAPM does not reflect the findings of the two article/studies he cited. Accordingly, Mr. Patel's CAPM cost rate is understated.

Investors prefer liquidity to lack of liquidity. Accordingly, a share in a business is worth more if it is easily marketable or, conversely, worth less if it is not. Privately held water utilities such as VWPA are worth less than publicly traded

[29] *Id.* at 202.
[30] The articles/study cited by I&E are: Berg, Eric N. "Market Place; A Study Shakes Confidence in the Volatile-Stock Theory," *The New York Times*, February 18, 1992, *nytimes.com*, March 23, 2016; and Fama, Eugene F. and French, Kenneth R., "The Capital Asset Pricing Model: Theory and Evidence." *Journal of Economic Perspectives* (2004): Volume 18, Number 3, pp. 25-46.

water utilities. Further, publicly traded water utilities are not as marketable as the large companies which comprise the S&P 500. The size premium used in the CAPM accounts for some of these differences.

Q. Do you have any more comments regarding the articles that Mr. Patel referenced on page 20 of his Direct Testimony concerning the CAPM?

A. Yes. The articles support the widely held point of view that the return for small companies, such as VWPA, should include a premium for the additional risk associated with their small size. Investors' expectations reflect the highly publicized existence of the small firm effect. For example, many mutual funds classify their investment strategy as small capitalization to profit from the existence of the small firm effect. Because firm size plays a role in the pricing of securities in the unregulated financial markets, it is necessary to reflect this fact when determining capital cost rates for utilities. Otherwise, a small utility is at a competitive disadvantage in the money market when competing for capital.

On page 20 of his Direct Testimony, Mr. Patel quotes from one of the articles and then states, "[a]s a result, I conclude that the CAPM's relevance to the investment decision making process does not carry over into the regulatory rate setting process." Mr. Patel's conclusion is contrary to the Commission's position, authoritative sources, and practitioners' viewpoints. In *Columbia Water 2024*, at page 107-108, the Commission stated,

> Based on the record, **we agree with the ALJs that it is appropriate to consider the CAPM results** to account for economic changes such as those occurring currently, in addition to the DCF results, to

determine Columbia's ROE. As the ALJs noted, **the CAPM is more responsive to changes in interest rates**. R.D. at 59-60. While I&E did use its CAPM as a comparison to its DCF result, I&E made no CAPM based adjustment to its final ROE recommendation. I&E M.B. at 23. Additionally, we agree with the ALJs' comparison to *Aqua 2022*, wherein we stated, as follows:

> We are persuaded by the arguments of Aqua that the ALJ erred by concluding I&E used its DCF *and* CAPM results to determine Aqua's ROE. I&E did use its CAPM as a comparison to its DCF result, however I&E made no CAPM based adjustment to its final ROE recommendation. I&E M.B. at 47. As Aqua points out, the U.S. economy is in a period of high inflation. To help control rising inflation, the Federal Open Market Committee has signaled that it is ending its policies designed to maintain low interest rates. Aqua Exc. at 9. **The DCF model does not directly account for interest rates, consequently it is slow to respond to interest rate changes**. However, I&E's CAPM model uses forecasted yields on 10-year Treasury bonds, accordingly its methodology captures forward looking changes in interest rates.

In *Aqua 2022*, the Commission **determined the ROE by using informed judgement based on** I&E's DCF and **CAPM** methodologies. We conclude that methodologies other than the DCF can be used as a check upon the reasonableness of the DCF derived ROE calculation. We historically have primarily relied upon the DCF methodology in arriving at ROE determinations and utilized the results of the CAPM, as a check upon the reasonableness of the DCF derived equity return. As such, where evidence based on other methods suggests that the DCF-only results may understate the utility's ROE, we will consider those other methods, to some degree, in determining the appropriate range of reasonableness for our ROE determination. Considering the above, **we shall determine an appropriate ROE** for Columbia using informed judgement **based on** I&E's DCF and **CAPM** methodologies. (*Emphasis added*.)

Finance literature chronicles the CAPM as widely used by practitioners. Shannon Pratt and Roger Grabowski state in their book *Cost of Capital*,

> The **CAPM is the most widely used method for estimating the cost of equity capital**. For example, one survey found that 75% of

> firms use the CAPM to estimate the cost of equity, 34% of firms use the CAPM with additional adjustment factors (with common adjustments being adding additional premiums for such added risks as the risks of operating in developing economies), 39% of firms use historical average returns (which in essence combines systematic and unique risk), and 16% of firms impute the cost of equity (*see* Chapter 17). The survey also found that many firms use multiple methods.[31]

According to the website of the Chartered Financial Analysts ("CFA") Institute,

> Survey evidence tells us that the CAPM method is the most popular method used by companies in estimating the cost of equity. The CAPM method is more popular with larger, publicly traded companies, which is understandable considering the additional analyses and assumptions required in estimating systematic risk for a private company or project.[32]

Additionally, surveys of chief financial officers ("CFO") found, **"[w]idespread reliance on the CAPM, even in the face of evidence of the model's empirical shortcomings**, suggests that firms rely on straightforward, simple and familiar techniques. The enduring popularity of the CAPM may also reflect teaching emphasis."[33] The surveyor asked CFOs the question, *How do you determine your firm's cost of equity capital?* The surveyor then compared the results he found in his 2001 survey to his 2022 survey's results for participants who responded, "Always or Almost Always," and reported findings that are shown

[31] Shannon P. Pratt, Roger J. Grabowski. Cost of Capital: Applications and Examples, 4th ed. (Wiley), 2010, at 103. (*Emphasis added and footnotes omitted*)
[32] "Refresher Reading: Cost of Capital," CFA Institute, accessed May 28, 2024, https://www.cfainstitute.org/en/membership/professional-development/refresher-readings/cost-capital.

[33] Graham, John. 2022. "Presidential Address: Corporate Finance And Reality." NBER Working Paper 29841, National Bureau of Economic Research, Cambridge, MA., p17. (*Emphasis added*) http://www.nber.org/papers/w29841.

in Table 6.[34]

CFOs' Survey Response to the Question:
How Do You Determine Your Firm's Cost of Equity Capital?

Response	Responses from Firms With Revenue Greater Than $1 Billion		Responses from Firms With Revenue Less Than $1 Billion	
	2001	2022	2001	2022
CAPM	83.1%	82.6%	61.9%	26.6%
Historical Average	38.0%	32.6%	41.1%	17.3%
DCF model	15.7%	17.5%	15.8%	13.3%
Market Return ('22 only)	-	16.7%	-	20.5%
Regulatory Decisions	8.6%	14.3%	5.3%	18.7%

Table 6

Mr. Patel's conclusion regarding the usefulness of the CAPM is clearly divergent from the Commission's position, authoritative sources, and practitioners' views.

Q. You previously explained that Mr. Patel gave no weight to the result of his CAPM in determining his recommended cost of equity for VWPA. What recommended cost of equity would be indicated if Mr. Patel had given weight to his CAPM result?

A. Depending on the weight given to Mr. Patel's CAPM result, his recommended cost of equity would range from 9.34%, with no weight given to CAPM, up to 10.62%, if 100% weight were given to CAPM. Table 7 shows a range of recommended cost of equity that result from giving alternative weightings to Mr. Patel's DCF and

[34] *Id.* at 64.

CAPM models' results.

	Mr Patel's Model Results	Mr Patel's Actual Weighting of Models	Alternative Weighting of Models' Results				
DCF	9.34%	100%	2/3	1/2	1/3	1/4	0%
CAPM	10.62%	0%	1/3	1/2	2/3	3/4	100%
Recommendations	9.34%		9.77%	9.98%	10.19%	10.30%	10.62%

Table 7

As shown in Table 7, if 2/3rd weight was given to the DCF result and 1/3rd weight was given to the CAPM, the recommended cost of equity would be 9.77%. If equal weight were given to both models, the recommended cost of equity would be 9.98%. Since the CAPM is more responsive to changes in interest rates than the DCF, it is imperative, given today' high interest rate environment, that the Commission consider models that directly measure interest rate levels (*e.g.*, CAPM and RP) when determining VWPA cost of equity.

REVIEW OF OCA'S RECOMMENDED COST OF EQUITY

Q. What is OCA's recommended cost of equity for VWPA?

A. Mr. Garrett's recommended 9.1% cost of equity for VWPA based on the result of only one model, the DCF. Mr. Garrett used the DCF model and determined two results, each reflecting different growth rates, and a CAPM model. Mr. Garrett adjusted the result of his CAPM model, using a formula incorrectly, to develop an alternative equity cost rate of 8.6% applicable to alternative capital structure ratios

than the capital structure ratios he recommended.[35] Through this process, Mr. Garrett developed an initial range of common equity cost rates of 6.5% to 9.1%. Mr. Garrett recognized that the 6.5% common equity cost rate at the low end of his initial range did not "indicate an accurate cost of equity estimate for the Company."[36] After disregarding the low end of his original range of common equity cost (*i.e.*, 6.5%) Mr. Garrett's revised range of common equity cost rates became 8.6% to 9.1%.[37] Then, Mr. Garrett selected the upper end of his revised range of common equity cost rates *(i.e.*, 9.1%) for his recommended common equity cost rate for VWPA "assuming that the Commission accepts a 50/50 capital structure" that he recommended.[38] However, Mr. Garrett also stated, "if the Commission accepts the Company's proposed capital structure, then I recommend the Commission grant only the 8.6% ROE supported by my models." [39]

Q. Please explain how Mr. Garrett determined two results for his DCF model.

A. Yes. Mr. Garrett calculated two results for his DCF model by using two different growth rates. First, Mr. Garrett used projected dividend growth rates in his DCF model and calculated a 9.1% cost rate. His recommended 9.1% cost of equity for VWPA is based on his use of projected dividend growth rates in his DCF model.

[35] Mr. Garrett recommends hypothetical capital structure ratios of 50%/50% (debt/equity) for VWPA. Mr. Garrett proposes a lower common equity cost of 8.6% if the Company's capital structure ratios of 46%/54% (debt/equity) are adopted by the Commission.
[36] OCA St. 3, David Garrett Direct, p. 55, lines 11-13; "However, in this particular case I do not believe the results of the sustainable growth variation of the DCF Model indicate an accurate cost of equity estimate for the Company."
[37] *Id.* at 55, line 14.
[38] *Id.* at 56, lines 4-5.
[39] *Id.* at 3, lines 13-15.

Second, Mr. Garrett also used what he termed "sustainable growth" in his DCF model and calculated a 6.5% cost rate ("Sustainable Growth Model"). The low end of his initial common equity cost rate range of 6.5% to 9.1%, discussed previously, was produced by his Sustainable Growth Model's result of 6.5%. He subsequently concluded his Sustainable Growth Model's result of 6.5% was not "an accurate cost of equity estimate for the Company."

Since Mr. Garrett testified that his Sustainable Growth Model's result of 6.5% was not "an accurate cost of equity estimate for the Company" I conclude there is no need to comment on the Sustainable Growth Model's result of 6.5% nor the growth rate used in this model. Furthermore, when I refer to Mr. Garrett's DCF, or I am responding to a question about Mr. Garrett's DCF, I am referring to his DCF model which used projected dividend growth rates.

Q. Do you believe it is appropriate to only use projected dividend growth rates in a DCF model?

A. No. Both Mr. Patel and I used projected earnings growth rates in our DCF models while Mr. Garrett used projected dividend growth rates. I believe Mr. Garrett improperly relied upon only growth in dividends and subjectively ignored the investor influencing earnings growth rates of security analysts. Published projected earnings growth rates are used primarily by investors. Further, academic studies[40] verify the superiority of analysts' earnings growth forecasts over other

[40] Gordon, David, A., Gordon, Myron, J., and Gould, Lawrence, I.A Choice Among Methods of Estimating Share Yield, The Journal of Portfolio Management, 50-55, Spring 1989.

growth rates in predicting stock prices. Mr. Garrett developed an unrealistically low DCF using projected dividend growth. The market-required cost of equity represents what the market will pay for a stock based on investors' expectations of expected future earnings growth, which are not based upon Mr. Garrett's unique growth rate, they are based on investors' expectations of expected future growth. For this reason, analysts' projections of future growth prospects for water utilities are required because analysts' forecasts are relied upon by investors when they price utility stocks.

Q. Do you have any other comments regarding OCA's DCF 9.1% recommendation?

A. Yes. Mr. Garrett's recommended market value DCF of 9.1% is significantly impacted by two companies' result, SJW Corp ("SJW") and The York Water Company ("York"). Mr. Garrett's recommended market value DCF for SJW is just 6.7% and 6.5% for York. Mr. Garrett's inclusion of 6.5% and 6.7% cost rates in his DCF is at odds with his testimony on page 55 where he concluded that his 6.5% common equity cost rate at the low end of his initial range did not "indicate an accurate cost of equity estimate for the Company." [41]

A 6.5% to 6.7% cost of equity for a water utility is clearly below the zone of reasonableness. Since Mr. Garrett's recommended cost of equity is based entirely on the result of his market value DCF of 9.1%, it is imperative that his

[41] OCA St. 3, David Garrett Direct, p. 55, lines 11-13.

recommended market value DCF be precise and not heavily impacted by the results of just one or two companies, SJW and York. Had Mr. Garrett's recommended cost of equity been based on multiple common equity models instead of just his DCF, his inclusion of the results for SJW and York would not be as significant.

Mr. Garrett's recommended market value DCF for SJW of 6.7% is **26% below his recommended market value DCF** result of 9.1% and his market value DCF for York of 6.5% is **29% below his recommended market value DCF** result of 9.1%. Further, his market value DCF excluding SJW's, and York's results is 10.1%, or 51% higher than his 6.7% result for SJW and 56% higher than his 6.5% result for York. Mr. Garret has presented no evidence which supports the conclusion that SJW's and York's cost of equity is a fraction of that of his other proxy group companies.

Q. What market value CAPM estimate does OCA recommend?

A. Mr. Garrett recommends a market value CAPM of 8.9% based on his recommended capital structure ratios (*i.e.*, 50% debt and 50% equity). Mr. Garrett also recommends an alternative market value CAPM of 8.6% ("Alternative CAPM") based on the Company's capital structure ratios (*i.e.*, 46% debt and 54% equity).

Q. Is there a large difference between the market value CAPM estimates of I&E and OCA?

A. Yes. Mr. Patel's market value CAPM is 10.62% and Mr. Garrett's market value CAPM is 8.9%. The 1.72-percentage point difference between Mr. Patel's market

value CAPM of 10.62% and Mr. Garrett's market value CAPM of 8.9% is a result of Mr. Garrett's reliance on unique market premium projections which have substantially underestimated market performance and investors' returns. Mr. Garrett's 8.6% Alternative CAPM is 2.02-percentage points below Mr. Patel's market value CAPM of 10.62%.

Mr. Garrett's proxy group's projected accounting return of 10.6% is 1.70-percentage points higher than his recommended market value CAPM of 8.9% and 2.00-percentage points higher than his Alternative CAPM of 8.6%. Further, Mr. Garrett's market value CAPM of 8.9% and his Alternative CAPM of 8.6% are both substantially below the authorized ROEs determined by the Commission in the eight orders cited by I&E that were discussed previously and that are shown in Table 3 (page 11).

Q. On page 53 of his Direct Testimony, Mr. Garrett presents the Hamada formula. Do you agree with Mr. Garrett's presentation of the Hamada formula shown on page 53?

A. No. The Hamada formula presented by Mr. Garrett is incorrect according to his own cited source of information, Dr. Damodaran.[42] Specifically, the Hamada formula presented by Mr. Garrett on page 53 incorrectly states "D = book value of debt" and "E = book value of equity" while his cited source of information, Dr. Damodaran, states the **"D" and the "E" are based on market value, not**

42 Aswath Damodaran, *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset* 197 (3rd ed., John Wiley & Sons, Inc. 2012).

book value as used by Mr. Garrett (*see* Figure 2). Further, Dr. Damodaran's presentation of the Hamada formula is consistent with the formula I used in my Direct Testimony. Had Mr. Garrett used the correct Hamada formula based on **market value**, his Alternative CAPM of 8.6% would have been 10.1%.

Figure 2

Copy from Dr. Damodaran's 2012 Textbook

Degree of Financial Leverage

Other things remaining equal, an increase in financial leverage will increase the beta of the equity in a firm. Intuitively, we would expect that the fixed interest payments on debt result in increasing income in good times and decreasing income in bad times. Higher leverage increases the variance in net income and makes equity investment in the firm riskier. If all the firm's risk is borne by the stockholders (i.e., the beta of debt is zero),[7] and debt has a tax benefit to the firm, then,

$\beta_L = \beta_u[1 + (1 - t)(D/E)]$

where β_L = Levered beta for equity in the firm
β_u = Unlevered beta of the firm (i.e., the beta of the firm without any debt)
t = Marginal tax rate
D/E = Debt-to-equity ratio (market value) ⟵

[7] This formula was originally developed by Hamada in 1972. There are two common modifications. One is to ignore the tax effects and compute the levered beta as:
$\beta_l = \beta_u(1 + D/E)$

If debt has market risk (i.e., its beta is greater than zero), the original formula can be modified to take this into account. If the beta of debt is β_D, the beta of equity can be written as:
$\beta_l = \beta_u[1 + (1 - t)(D/E)] - \beta_D(1 - t)D/E$

Q. Do you agree with OCA's CAPM methodology?

A. No, I disagree with Mr. Garrett's CAPM methodology for two reasons. First, Mr. Garrett's CAPM reflects market premiums he gathered from three articles published and updated multiple times since at least 2015. During this period the projections made in his sourced articles have substantially underestimated the actual market premium earned from investing and yet, the projections made by his

sourced articles have only varied slightly with each publication.

This can be proven from the information shown on Mr. Patel's Schedule 9 page 2, (I&E Exhibit No. 2) by subtracting a risk-free rate from Mr. Patel's actual market return to produce the annual market premium for each year from 2015 to date of 10.7% and 18.1% over the last five years. The actual average annual market premiums have been substantially higher than Mr. Garrett's projected 4.6% to 5.5% market premium from his sourced articles, shown on DJG-10, which Mr. Garrett incorporated in his CAPM. The irrationality of Mr. Garrett's projected market premium can further be shown by comparing Mr. Garrett's projected 4.6% to 5.5% to Mr. Patel's forecasted market premium of 7.95% to 8.28%. Based on the aforesaid, I conclude that investors in the market have not relied upon the cited authors used by Mr. Garrett since the projected market premiums of the cited authors are considerably below the returns earned from investing in the market.

The second area of disagreement I have with Mr. Garrett's CAPM is he did not reflect the required CAPM size premium, which I believe should be included in his CAPM for the same reasons I articulated when I discussed Mr. Patel's failure to reflect a CAPM size premium above. Contrary to Mr. Patel's and Mr. Garrett's contention, the required CAPM size premium has nothing to do with the size of VWPA but rather, the size of the proxy group companies relative to the market and its impact on the determination of their betas.

Finally, accounting for the increased amount of leverage between Mr. Garrett's market value CAPM cost rate and his book value cost rate indicates a book value CAPM cost rate of 9.7% for Mr. Garrett.

RESPONSE TO I&E'S AND OCA'S CRITICISMS OF MR. WALKER'S TESTIMONY

Q. I&E, at page 50, and OCA, at pages 42 to 44, contend size is not an indicator of risk. Is risk due to the size of a company widely accepted by the academic community and the financial community?

A. Yes. Size is a recognized and meaningful element of risk, and it is appropriate to reflect that risk in a company's cost of equity. Credit rating agencies recognize that size impacts credit rating. Valuation professionals and courts recognize the use of a size premium. The finance literature supports the fact that, as the size of a firm decreases, its risk and, hence, its required return increases.

> When scholars have tried to explain actual security returns, several anomalies (*i.e.*, deviations from what is considered normal) have become evident. One is a *small-firm*, or *size*, *effect*. It has been found that common stocks of firms with small market capitalizations (price per share times the number of shares outstanding) provide higher returns than common stocks of firms with high capitalizations, holding other things constant.[43]

Further, since size is a recognized and meaningful element of risk, it is appropriate to reflect that risk in a company's cost of equity.

> Recent studies have provided strong evidence that the degree of risk and corresponding cost of capital increase with decreasing size of company. The studies show that this addition to the equity risk premium is over and above the amount that would be warranted just as a result from a company's systematic risk.[44]
>
> Two independent sets of empirical studies provide strong support for the proposition that cost of capital tends to increase with decreasing size. Users of cost of capital data should make themselves aware of updates of these and possibly other similar studies in order to

[43] James C. Van Horne, John M. Wachowicz. Fundamentals of Financial Management, 13th ed. (Pearson Education Limited), 2008, at 114.
[44] Shannon P. Pratt. Cost of Capital: Estimation and Applications, (Wiley), 1998, at 64.

> incorporate the latest current size effect data in cost of capital estimates, whether using build-up models, CAPM, or other cost of capital models.[45]

Dr. Thomas Zepp presented research on **water utilities** that support a small firm effect in the utility industry.[46] Moreover, Professor Brigham has indicated that smaller firms have higher capital costs than otherwise similar larger firms.[47] The credit rating agency, Standard & Poor's, documents that relationship between size and credit rating,

> Company size and diversification often plays role. While we have no minimum size criterion for any given rating level, company size tends to be significantly correlated to rating levels. This is because larger companies often benefit from economies of scale and/or diversification, translating into a stronger competitive position. Small companies are, almost by definition, -more concentrated in terms of product, number of customers, and geography. To the extent that markets and regional economies change, a broader scope of business affords protection.[48] (Underline added.)
>
> While we have no minimum size criterion for any given rating level, size and ratings do end up being correlated, given that size often provides a measure of diversification, and/or affects competitive positioning.[49] (Underline added.)

On page 50, Mr. Patel cites a 1993 article by *Wong* to support his assertion that the size premium is not applicable to utilities. However, *Wong's* conclusion is specifically rebutted by a 2002 article by T. M. Zepp.[50] In the *Zepp* article he explains that size premium does exist and presented research on water utilities

[45] *Id*. at 95.
[46] *See* Zepp (2002), "Utility Stocks and the Size Effect: Revisited", Economics and Finance Quarterly, 43, 578-582.
[47] *See* Fundamentals of Financial Management, 5th Edition, page 623.
[48] *Standard & Poor's*, Corporate Ratings Criteria 2008; pg. 22.
[49] *Id*. at 23.

50 *See* Zepp (2002), at 578-582.

that support a small firm effect. Additional support for the use of the size premium for utilities is also found in a 1995 article by M. Annin.[51]

Q. I&E, on pages 41 to 44, and OCA, on page 29, claim your leverage adjustment is a market-to-book ratio adjustment. Are they correct?

A. No. My proxy group's market-to-book ratio was 249% when my Direct Testimony was prepared. I did not, and I do not recommend adjusting the proxy group's market value cost of equity by 249%. Mr. Patel's and Mr. Garrett's testimonies are false and misleading because a market-to-book ratio is a stock price metric and is not part of the leverage adjustment contrary to Mr. Patel's and Mr. Garrett's testimonies.

I previously explained the foundation for the required leverage adjustment, and I will not repeat it here. However, both Mr. Patel and Mr. Garrett face a similar quandary as they did not account for the risk difference between the 35%/65% (debt/equity) market value ratios used to calculate their returns which they advocate be applied to 46%/54% (debt/equity) book value ratios of VWPA.

I recommend a 10.80% fair and reasonable return for VWPA, reflecting the required leverage adjustment. My recommended return for VWPA is similar to the average 10.6% return on equity projected for proxy groups, and thus is fair and reasonable. However, neither Mr. Patel nor Mr. Garrett have shown how their recommended 9.34% or 9.1% return for VWPA would be fair and reasonable when

51 *See* Annin (1995), "Equity and the Small Stock Effect", Public Utilities Fortnightly, October 15, 1995, at 42-43.

their proxy group companies are earning 10.6%.

Q. Does that conclude your rebuttal testimony concerning rate of return?

A. Yes, it does.

CASH WORKING CAPITAL

Q. Are there any areas of agreement in the working capital testimonies presented in these proceedings?

A. Yes, all parties have adopted my recommended net lag days (revenue lag days less expense lead days) presented in my direct testimony. Accordingly, the only issue regarding the Company's working capital is the amount of O&M and Taxes to be applied to the net lag days.[52]

Q. What are the company's updated working capital claims?

A. The results of the updated lead-lag study are shown on Schedule HW-1R. The results of the lead-lag study shown on Schedule HW-1R show the required cash working capital to bridge the gap between the time when funds are provided to the Company by investors to allow the Company to provide service to customers, and the time revenues are received from customers as reimbursement for these services. VWPA's cash working capital for FTY is $774,653. The cash working capital requirement for FPY is $778,976 and the cash working capital requirement

[52] I&E Statement No. 1 at pp. 46-48; and OCA Statement 2 at p. 9.

for FPFTY is $815,129. VWPA's Main and Bethel Water Operations' cash working capital for FTY is $752,299, $756,822 for FPY and is $791,165 for FPFTY, as shown on page 2. VWPA's Main Sewer Operations' cash working capital for FTY is $3,386, $3,404 for FPY and is $3,438 for FPFTY, as shown on page 3. VWPA's Mahoning Water Operations' cash working capital for FTY is $5,172, $4,747 for FPY and is $5,230 for FPFTY, as shown on page 4. VWPA's Mahoning Sewer Operations' cash working capital for FTY is $13,797, $13,998 for FPY and is $15,292 for FPFTY, as shown on page 5.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

VERIFICATION

I, Harold Walker III, hereby state that the facts set forth above are true and correct to the best of my knowledge, information and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: 6/25/24

Harold Walker III

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

EXHIBITS TO ACCOMPANY REBUTTAL TESTIMONY

OF

HAROLD WALKER, III

REGARDING

RATE OF RETURN AND CASH WORKING CAPITAL

VEOLIA WATER PENNSYLVANIA, INC.

June 2024

Exhibit HW-1R

VEOLIA WATER PENNSYLVANIA, INC.
HARRISBURG, PENNSYLVANIA

RATE OF RETURN

EXHIBIT

TO ACCOMPANY

REBUTTAL TESTIMONY

JUNE 2024

Prepared by:

GANNETT FLEMING

Schedule 1

Value Line Projected ROE Based on Year-End and Average Equity,
For I&E and OCA Proxy Groups, for 2027 - 2029

	Value Line Projected ROE	Projected Average ROE (1)
I&E and OCA Proxy Group Companies		
American States Water Co	12.0 %	12.5 %
American Water Works Co Inc	11.0	11.7
California Water Service Gp	9.0	9.1
Essential Utilities, Inc.	9.5	9.8
Middlesex Water Co	12.5	12.5
SJW Corp	8.0	8.1
York Water Co	NA	NA
Averages:		
I&E's Proxy Goup	10.3 %	10.6 %
OCA's Proxy Group	10.3 %	10.6 %

Notes: (1) Value Line ROE, which is a year-end ROE, is converted to average ROE by the factor derived from the following formula: 2((1+g)/(2+g)), where "g" is the rate of growth in common equity.

Source of Information: Value Line Investment Survey, 4/5/24

Schedule 2
Page 1 of 3

Yields on 10-Year Treasury Notes and A-Rated Utility Bonds

	Monthly		Trailing 12-Month Average	
Months & Years	10-Year Treasury Notes	A Rated Public Utility Bonds	10-Year Treasury Notes	A Rated Public Utility Bonds
Apr 2016	1.81	4.00		
May 2016	1.81	3.93		
Jun 2016	1.64	3.78		
Jul 2016	1.50	3.57		
Aug 2016	1.56	3.59		
Sep 2016	1.63	3.66		
Oct 2016	1.76	3.77		
Nov 2016	2.14	4.08		
Dec 2016	2.49	4.27		
Jan 2017	2.43	4.14		
Feb 2017	2.42	4.18		
Mar 2017	2.48	4.23	1.97	3.93
Apr 2017	2.30	4.12	2.01	3.94
May 2017	2.30	4.12	2.05	3.96
Jun 2017	2.19	3.94	2.10	3.97
Jul 2017	2.32	3.99	2.17	4.01
Aug 2017	2.21	3.86	2.22	4.03
Sep 2017	2.20	3.87	2.27	4.05
Oct 2017	2.36	3.91	2.32	4.06
Nov 2017	2.35	3.83	2.34	4.04
Dec 2017	2.40	3.79	2.33	4.00
Jan 2018	2.58	3.86	2.34	3.98
Feb 2018	2.86	4.09	2.38	3.97
Mar 2018	2.84	4.13	2.41	3.96
Apr 2018	2.87	4.17	2.46	3.96
May 2018	2.98	4.28	2.51	3.98
Jun 2018	2.91	4.27	2.57	4.00
Jul 2018	2.89	4.27	2.62	4.03
Aug 2018	2.89	4.26	2.68	4.06
Sep 2018	3.00	4.32	2.74	4.10
Oct 2018	3.15	4.45	2.81	4.14
Nov 2018	3.12	4.52	2.87	4.20
Dec 2018	2.83	4.37	2.91	4.25
Jan 2019	2.71	4.35	2.92	4.29
Feb 2019	2.68	4.25	2.91	4.30
Mar 2019	2.57	4.16	2.88	4.31

Schedule 2
Page 2 of 3

Yields on 10-Year Treasury Notes and A-Rated Utility Bonds

	Monthly		Trailing 12-Month Average	
Months & Years	10-Year Treasury Notes	A Rated Public Utility Bonds	10-Year Treasury Notes	A Rated Public Utility Bonds
Apr 2019	2.53	4.08	2.86	4.30
May 2019	2.40	3.98	2.81	4.27
Jun 2019	2.07	3.82	2.74	4.24
Jul 2019	2.06	3.69	2.67	4.19
Aug 2019	1.63	3.29	2.56	4.11
Sep 2019	1.70	3.37	2.45	4.03
Oct 2019	1.71	3.39	2.33	3.94
Nov 2019	1.81	3.43	2.23	3.85
Dec 2019	1.86	3.40	2.14	3.77
Jan 2020	1.76	3.29	2.07	3.68
Feb 2020	1.50	3.11	1.97	3.58
Mar 2020	0.87	3.50	1.83	3.53
Apr 2020	0.66	3.19	1.67	3.46
May 2020	0.67	3.14	1.53	3.39
Jun 2020	0.73	3.07	1.41	3.32
Jul 2020	0.62	2.74	1.29	3.24
Aug 2020	0.65	2.73	1.21	3.20
Sep 2020	0.68	2.84	1.13	3.15
Oct 2020	0.79	2.95	1.05	3.12
Nov 2020	0.87	2.85	0.97	3.07
Dec 2020	0.93	2.77	0.89	3.02
Jan 2021	1.08	2.91	0.84	2.98
Feb 2021	1.26	3.09	0.82	2.98
Mar 2021	1.61	3.44	0.88	2.98
Apr 2021	1.64	3.30	0.96	2.99
May 2021	1.62	3.33	1.04	3.00
Jun 2021	1.52	3.16	1.11	3.01
Jul 2021	1.32	2.95	1.16	3.03
Aug 2021	1.28	2.95	1.22	3.05
Sep 2021	1.37	2.96	1.27	3.06
Oct 2021	1.58	3.09	1.34	3.07
Nov 2021	1.56	3.02	1.40	3.08
Dec 2021	1.47	3.13	1.44	3.11
Jan 2022	1.76	3.33	1.50	3.15
Feb 2022	1.93	3.68	1.56	3.20
Mar 2022	2.13	3.98	1.60	3.24

Schedule 2
Page 3 of 3

Yields on 10-Year Treasury Notes and A-Rated Utility Bonds

	Monthly		Trailing 12-Month Average	
Months & Years	10-Year Treasury Notes	A Rated Public Utility Bonds	10-Year Treasury Notes	A Rated Public Utility Bonds
Apr 2022	2.75	4.32	1.69	3.33
May 2022	2.90	4.75	1.80	3.44
Jun 2022	3.14	4.86	1.93	3.59
Jul 2022	2.90	4.78	2.06	3.74
Aug 2022	2.90	4.76	2.20	3.89
Sep 2022	3.52	5.28	2.38	4.08
Oct 2022	3.98	5.88	2.58	4.31
Nov 2022	3.89	5.75	2.77	4.54
Dec 2022	3.62	5.28	2.95	4.72
Jan 2023	3.53	5.20	3.10	4.88
Feb 2023	3.75	5.29	3.25	5.01
Mar 2023	3.66	5.39	3.38	5.13
Apr 2023	3.46	5.13	3.44	5.20
May 2023	3.57	5.36	3.49	5.25
Jun 2023	3.75	5.38	3.54	5.29
Jul 2023	3.90	5.41	3.63	5.34
Aug 2023	4.17	5.71	3.73	5.42
Sep 2023	4.38	5.86	3.81	5.47
Oct 2023	4.80	6.34	3.87	5.51
Nov 2023	4.50	6.05	3.92	5.53
Dec 2023	4.02	5.42	3.96	5.55
Jan 2024	4.06	5.48	4.00	5.57
Feb 2024	4.21	5.56	4.04	5.59
Mar 2024	4.21	5.55	4.09	5.60
Apr 2024	4.54	5.79	4.18	5.66
May 2024	4.47 *	5.72 *	4.18 **	5.66 **

* - As of 5/23/24

** - 12-months of May 2023 through April 2024.

Schedule 3

Comparsion of ROEs and Comparison of Changes in Measure of Capital Cost Rates Since the Commission's Orders Were Entered

Comparsion of ROEs

Utility and Order Date	Authorized ROE	Recommended ROE For VWPA I&E	Recommended ROE For VWPA OCA	Recommended ROE Less Authorized ROE I&E	Recommended ROE Less Authorized ROE OCA
City of DuBois – March 2017	9.30% *	9.34%	9.10%	0.04%	-0.20%
UGI Utilities, Inc. (Electric Div) – October 2018	9.85%	9.34%	9.10%	-0.51%	-0.75%
Wellsboro Electric Co. – April 2020	9.31%	9.34%	9.10%	0.03%	-0.21%
Citizens Electric Co. – April 2020	9.54%	9.34%	9.10%	-0.20%	-0.44%
Columbia Gas of PA – February 2021	9.86%	9.34%	9.10%	-0.52%	-0.76%
PECO Energy Co. (Gas Div.) – June 2021	10.24%	9.34%	9.10%	-0.90%	-1.14%
Aqua Pennsylvania – May 2022	10.00%	9.34%	9.10%	-0.66%	-0.90%
Columbia Water Co. – January 2024	9.75%	9.34%	9.10%	-0.41%	-0.65%
Average	9.73%	9.34%	9.10%	-0.39%	-0.63%

* - City's ROE before income tax adjustment.

Comparsion of Changes in Measure of Capital Cost Rates Using Trailing 12-Month Rolling Average Yields

Utility and Order Date	Trailing 12-Month 10-Year Treasury Notes	Trailing 12-Month A Rated Public Utility Bonds	Current Trailing 12- 10-Year Treasury Notes	Current Trailing 12- A Rated Public Utility Bonds	Change in Average 10-Year Treasury Notes	Change in Average A Rated Public Utility Bonds
City of DuBois – March 2017	1.97%	3.93%	4.18%	5.66%	2.20%	1.73%
UGI Utilities, Inc. (Electric Div) – October 2018	2.81%	4.14%	4.18%	5.66%	1.37%	1.52%
Wellsboro Electric Co. – April 2020	1.67%	3.46%	4.18%	5.66%	2.51%	2.20%
Citizens Electric Co. – April 2020	1.67%	3.46%	4.18%	5.66%	2.51%	2.20%
Columbia Gas of PA – February 2021	0.82%	2.98%	4.18%	5.66%	3.36%	2.68%
PECO Energy Co. (Gas Div.) – June 2021	1.11%	3.01%	4.18%	5.66%	3.07%	2.65%
Aqua Pennsylvania – May 2022	1.80%	3.44%	4.18%	5.66%	2.38%	2.22%
Columbia Water Co. – January 2024	4.00%	5.57%	4.18%	5.66%	0.17%	0.09%
Average	1.98%	3.75%	4.18%	5.66%	2.20%	1.91%

Comparsion of Changes in Measure of Capital Cost Rates Using the Month the Orders Were Entered Compared to Rates on 5/23/24

Utility and Order Date	Average Yield of Month 10-Year Treasury Notes	Average Yield of Month A Rated Public Utility Bonds	Current Yield 10-Year Treasury Notes	Current Yield A Rated Public Utility Bonds	Change in Yield 10-Year Treasury Notes	Change in Yield A Rated Public Utility Bonds
City of DuBois – March 2017	2.48%	4.23%	4.47%	5.72%	1.99%	1.49%
UGI Utilities, Inc. (Electric Div) – October 2018	3.15%	4.45%	4.47%	5.72%	1.32%	1.27%
Wellsboro Electric Co. – April 2020	0.66%	3.19%	4.47%	5.72%	3.81%	2.53%
Citizens Electric Co. – April 2020	0.66%	3.19%	4.47%	5.72%	3.81%	2.53%
Columbia Gas of PA – February 2021	1.26%	3.09%	4.47%	5.72%	3.21%	2.63%
PECO Energy Co. (Gas Div.) – June 2021	1.52%	3.16%	4.47%	5.72%	2.95%	2.56%
Aqua Pennsylvania – May 2022	2.90%	4.75%	4.47%	5.72%	1.57%	0.97%
Columbia Water Co. – January 2024	4.06%	5.48%	4.47%	5.72%	0.41%	0.24%
Average	2.09%	3.94%	4.47%	5.72%	2.38%	1.78%

Schedule 4

Differences in Book Value and Market Values for the
Mr. Patel's and Mr. Garrett's Proxy Groups

	Recent Book Value Capitalization Ratios (1)	Recent Market Value Capitalization Ratios 4/5/2024
Mr. Patel's Proxy Group		
Long Term Debt	51%	35%
Preferred Stock	0%	0%
Common Equity	49%	65%
Total	100%	100%
Mr. Garrett's Proxy Group		
Long Term Debt	50%	34%
Preferred Stock	0%	0%
Common Equity	50%	66%
Total	100%	100%

Note: (1) See I&E Exhibit No. 2, Schedule 2, and Exhibit DJG-13.

Exhibit HW-2R

VEOLIA WATER PENNSYLVANIA, INC.
HARRISBURG, PENNSYLVANIA

CASH WORKING CAPITAL
BASED ON A
LEAD-LAG STUDY

EXHIBIT

LEAD-LAG SCHEDULE

SCHEDULE HW-1R

TO ACCOMPANY THE

REBUTTAL TESTIMONY

JUNE 2024

Prepared by:

GANNETT FLEMING

VEOLIA WATER PENNSYLVANIA, INC. - WATER & SEWER OPERATIONS (Main, Bethel & Mahoning)

SUMMARY OF CASH WORKING CAPITAL REQUIREMENTS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim 12-Months Ending 9/30/2023	12-Months Ending 9/30/2023 CWC	Expense Claim Future Test Year 9/30/2024	Future Test Year 9/30/2024 CWC	Expense Claim Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 5,860,476	$ 370,896	$ 7,143,508	$ 452,096	$ 7,339,954	$ 464,529	$ 7,339,954	$ 464,529
Employee Group Health & Life	34.5	10.1	24.4	927,846	62,026	1,470,084	98,274	1,511,417	101,037	1,511,417	101,037
Employee Pension Benefits	34.5	29.3	5.2	369,408	5,263	1,051,192	14,976	1,074,318	15,305	1,074,318	15,305
Other Employee Benefits	34.5	276.0	(241.5)	370,926	(245,421)	426,032	(281,882)	438,028	(289,819)	438,028	(289,819)
Purchased Water	34.5	26.6	7.9	1,825,613	39,513	1,953,061	42,272	1,996,029	43,202	1,996,029	43,202
Purchased Power	34.5	57.1	(22.6)	2,245,114	(139,013)	2,588,843	(160,296)	2,988,823	(185,061)	2,988,823	(185,061)
Fuel for Power Production	34.5	38.8	(4.3)	2,000	(24)	2,048	(24)	2,093	(25)	2,093	(25)
Chemicals	34.5	27.9	6.6	987,158	17,850	1,326,708	23,990	1,355,895	24,518	1,355,895	24,518
Materials and Supplies	34.5	29.1	5.4	399,824	5,915	409,759	6,062	418,774	6,196	418,774	6,196
Management and Service Fees	34.5	14.7	19.8	4,076,177	221,119	4,513,925	244,865	4,680,176	253,883	4,680,176	253,883
Lab Testing Fees	34.5	26.2	8.3	371,267	8,443	317,388	7,217	324,371	7,376	324,371	7,376
Outside Contractors	34.5	30.9	3.6	2,587,505	25,521	2,564,797	25,297	2,621,222	25,853	2,621,222	25,853
Outside Professional Services	34.5	45.0	(10.5)	243,942	(7,018)	133,338	(3,836)	136,272	(3,920)	136,272	(3,920)
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-	-	-	-	-	-	-
Rental of Equipment	34.5	7.9	26.6	119,512	8,710	122,350	8,916	125,042	9,113	125,042	9,113
Transportation Expense	34.5	38.1	(3.6)	564,982	(5,572)	646,465	(6,376)	754,003	(7,437)	754,003	(7,437)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	(374)	(169)	-	-	-	-	-	-
Worker Compensation	34.5	(130.5)	165.0	19,183	8,672	46,818	21,164	48,207	21,792	48,207	21,792
Regulatory Commission Expense	34.5	(101.5)	136.0	355,283	132,379	344,794	128,471	370,837	138,175	469,783	175,043
Office Expense and Utilities	34.5	8.9	25.6	844,939	59,262	884,876	62,063	875,780	61,425	875,780	61,425
Postage and Air Freight Expense	34.5	40.3	(5.8)	422,855	(6,719)	408,953	(6,498)	421,346	(6,695)	421,346	(6,695)
Other O&M	34.5	30.3	4.2	146,049	1,681	161,503	1,858	165,056	1,899	165,056	1,899
Real Estate Tax	34.5	(26.9)	61.4	447,173	75,223	342,489	57,613	350,024	58,881	350,024	58,881
Payroll	34.5	18.5	16.0	705,028	30,905	877,016	38,445	899,197	39,417	899,197	39,417
Federal Income Taxes	34.5	37.0	(2.5)	2,286,735	(15,663)	1,484,058	(10,165)	1,371,319	(9,393)	4,445,212	(30,447)
State Income Taxes	34.5	28.8	5.8	632,282	9,961	644,383	10,151	553,849	8,725	1,844,928	29,064
Total					**$ 663,740**		**$ 774,653**		**$ 778,976**		**$ 815,129**

VEOLIA WATER PENNSYLVANIA, INC. - MAIN & BETHEL WATER OPERATIONS

SUMMARY OF CASH WORKING CAPITAL REQUIREMENTS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim 12-Months Ending 9/30/2023	12-Months Ending 9/30/2023 CWC	Expense Claim Future Test Year 9/30/2024	Future Test Year 9/30/2024 CWC	Expense Claim Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 5,808,021	$ 367,576	$ 7,089,558	$ 448,682	$ 7,284,520	$ 461,020	$ 7,284,520	$ 461,020
Employee Group Health & Life	34.5	10.1	24.4	920,056	61,505	1,461,763	97,718	1,502,907	100,468	1,502,907	100,468
Employee Pension Benefits	34.5	29.3	5.2	367,110	5,230	1,048,391	14,936	1,071,456	15,265	1,071,456	15,265
Other Employee Benefits	34.5	276.0	(241.5)	369,900	(244,742)	424,882	(281,121)	436,856	(289,043)	436,856	(289,043)
Purchased Water	34.5	26.6	7.9	1,674,806	36,249	1,798,673	38,930	1,838,244	39,787	1,838,244	39,787
Purchased Power	34.5	57.1	(22.6)	2,168,330	(134,258)	2,500,304	(154,813)	2,886,605	(178,732)	2,886,605	(178,732)
Fuel for Power Production	34.5	38.8	(4.3)	2,000	(24)	2,048	(24)	2,093	(25)	2,093	(25)
Chemicals	34.5	27.9	6.6	978,820	17,699	1,315,615	23,789	1,344,558	24,313	1,344,558	24,313
Materials and Supplies	34.5	29.1	5.4	390,107	5,771	398,664	5,898	407,435	6,028	407,435	6,028
Management and Service Fees	34.5	14.7	19.8	4,016,221	217,866	4,447,530	241,263	4,611,336	250,149	4,611,336	250,149
Lab Testing Fees	34.5	26.2	8.3	247,303	5,624	207,763	4,724	212,334	4,828	212,334	4,828
Outside Contractors	34.5	30.9	3.6	1,723,551	16,999	1,674,549	16,516	1,711,389	16,879	1,711,389	16,879
Outside Professional Services	34.5	45.0	(10.5)	162,491	(4,674)	86,676	(2,493)	88,583	(2,548)	88,583	(2,548)
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-	-	-	-	-	-	-
Rental of Equipment	34.5	7.9	26.6	119,376	8,700	122,211	8,906	124,900	9,102	124,900	9,102
Transportation Expense	34.5	38.1	(3.6)	559,556	(5,519)	640,920	(6,321)	748,343	(7,381)	748,343	(7,381)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	(307)	(139)	-	-	-	-	-	-
Worker Compensation	34.5	(130.5)	165.0	19,062	8,617	46,710	21,115	48,098	21,743	48,098	21,743
Regulatory Commission Expense	34.5	(101.5)	136.0	339,644	126,552	329,377	122,727	355,107	132,314	449,026	167,308
Office Expense and Utilities	34.5	8.9	25.6	831,531	58,321	870,335	61,043	861,947	60,454	861,947	60,454
Postage and Air Freight Expense	34.5	40.3	(5.8)	385,250	(6,122)	372,584	(5,921)	383,875	(6,100)	383,875	(6,100)
Other O&M	34.5	30.3	4.2	145,258	1,671	160,628	1,848	164,161	1,889	164,161	1,889
Real Estate Tax	34.5	(26.9)	61.4	440,481	74,097	335,638	56,461	343,022	57,703	343,022	57,703
Payroll	34.5	18.5	16.0	704,519	30,883	876,503	38,422	898,680	39,394	898,680	39,394
Federal Income Taxes	34.5	37.0	(2.5)	2,252,155	(15,426)	1,537,950	(10,534)	1,513,684	(10,368)	4,314,039	(29,548)
State Income Taxes	34.5	28.8	5.8	622,646	9,809	669,594	10,548	614,686	9,683	1,790,875	28,212
Total					**$ 642,265**		**$ 752,299**		**$ 756,822**		**$ 791,165**

VEOLIA WATER PENNSYLVANIA, INC. - MAIN SEWER OPERATIONS

SUMMARY OF CASH WORKING CAPITAL REQUIREMENTS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim 12-Months Ending 9/30/2023	12-Months Ending 9/30/2023 CWC	Expense Claim Future Test Year 9/30/2024	Future Test Year 9/30/2024 CWC	Expense Claim Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 44,741	$ 2,832	$ 46,017	$ 2,912	$ 47,282	$ 2,992	$ 47,282	$ 2,992
Employee Group Health & Life	34.5	10.1	24.4	6,609	442	6,766	452	6,915	462	6,915	462
Employee Pension Benefits	34.5	29.3	5.2	1,892	27	1,937	28	1,979	28	1,979	28
Other Employee Benefits	34.5	276.0	(241.5)	718	(475)	802	(531)	823	(544)	823	(544)
Purchased Water	34.5	26.6	7.9	-	-	-	-	-	-	-	-
Purchased Power	34.5	57.1	(22.6)	-	-	-	-	-	-	-	-
Fuel for Power Production	34.5	38.8	(4.3)	-	-	-	-	-	-	-	-
Chemicals	34.5	27.9	6.6	929	17	1,134	21	1,159	21	1,159	21
Materials and Supplies	34.5	29.1	5.4	107	2	142	2	145	2	145	2
Management and Service Fees	34.5	14.7	19.8	-	-	-	-	-	-	-	-
Lab Testing Fees	34.5	26.2	8.3	4,060	92	3,590	82	3,669	83	3,669	83
Outside Contractors	34.5	30.9	3.6	28,292	279	29,154	288	29,795	294	29,795	294
Outside Professional Services	34.5	45.0	(10.5)	2,667	(77)	1,528	(44)	1,562	(45)	1,562	(45)
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-	-	-	-	-	-	-
Rental of Equipment	34.5	7.9	26.6	-	-	-	-	-	-	-	-
Transportation Expense	34.5	38.1	(3.6)	4,653	(46)	4,763	(47)	4,868	(48)	4,868	(48)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	(2)	(1)	-	-	-	-	-	-
Worker Compensation	34.5	(130.5)	165.0	100	45	95	43	96	43	96	43
Regulatory Commission Expense	34.5	(101.5)	136.0	298	111	296	110	294	109	396	148
Office Expense and Utilities	34.5	8.9	25.6	30	2	1,034	73	30	2	30	2
Postage and Air Freight Expense	34.5	40.3	(5.8)	-	-	-	-	-	-	-	-
Other O&M	34.5	30.3	4.2	-	-	-	-	-	-	-	-
Real Estate Tax	34.5	(26.9)	61.4	-	-	-	-	-	-	-	-
Payroll	34.5	18.5	16.0	38	2	41	2	44	2	44	2
Federal Income Taxes	34.5	37.0	(2.5)	-	-	(18,545)	127	(23,919)	164	(2,792)	19
State Income Taxes	34.5	28.8	5.8	-	-	(8,405)	(132)	(10,225)	(161)	(1,352)	(21)
Total					**$ 3,252**		**$ 3,386**		**$ 3,404**		**$ 3,438**

VEOLIA WATER PENNSYLVANIA, INC. - MAHONING WATER OPERATIONS

SUMMARY OF CASH WORKING CAPITAL REQUIREMENTS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim 12-Months Ending 9/30/2023	12-Months Ending 9/30/2023 CWC	Expense Claim Future Test Year 9/30/2024	Future Test Year 9/30/2024 CWC	Expense Claim Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 3,857	$ 244	$ 3,967	$ 251	$ 4,076	$ 258	$ 4,076	$ 258
Employee Group Health & Life	34.5	10.1	24.4	611	41	971	65	999	67	999	67
Employee Pension Benefits	34.5	29.3	5.2	244	3	697	10	712	10	712	10
Other Employee Benefits	34.5	276.0	(241.5)	246	(163)	282	(187)	282	(187)	282	(187)
Purchased Water	34.5	26.6	7.9	150,807	3,264	154,389	3,342	157,785	3,415	157,785	3,415
Purchased Power	34.5	57.1	(22.6)	76,783	(4,754)	88,539	(5,482)	102,218	(6,329)	102,218	(6,329)
Fuel for Power Production	34.5	38.8	(4.3)	-	-	-	-	-	-	-	-
Chemicals	34.5	27.9	6.6	7,409	134	9,959	180	10,178	184	10,178	184
Materials and Supplies	34.5	29.1	5.4	5,916	88	6,046	89	6,179	91	6,179	91
Management and Service Fees	34.5	14.7	19.8	59,956	3,252	66,395	3,602	68,840	3,734	68,840	3,734
Lab Testing Fees	34.5	26.2	8.3	-	-	-	-	-	-	-	-
Outside Contractors	34.5	30.9	3.6	-	-	-	-	-	-	-	-
Outside Professional Services	34.5	45.0	(10.5)	-	-	-	-	-	-	-	-
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-	-	-	-	-	-	-
Rental of Equipment	34.5	7.9	26.6	136	10	139	10	142	10	142	10
Transportation Expense	34.5	38.1	(3.6)	372	(4)	372	(4)	372	(4)	372	(4)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	(5)	(2)	-	-	-	-	-	-
Worker Compensation	34.5	(130.5)	165.0	13	6	13	6	13	6	13	6
Regulatory Commission Expense	34.5	(101.5)	136.0	5,053	1,883	4,900	1,826	5,283	1,968	6,680	2,489
Office Expense and Utilities	34.5	8.9	25.6	12,326	865	12,502	877	12,777	896	12,777	896
Postage and Air Freight Expense	34.5	40.3	(5.8)	37,605	(598)	36,369	(578)	37,471	(595)	37,471	(595)
Other O&M	34.5	30.3	4.2	791	9	875	10	894	10	894	10
Real Estate Tax	34.5	(26.9)	61.4	6,692	1,126	6,851	1,152	7,001	1,178	7,001	1,178
Payroll	34.5	18.5	16.0	468	21	468	21	468	21	468	21
Federal Income Taxes	34.5	37.0	(2.5)	34,579	(237)	(50,035)	343	(88,029)	603	76,483	(524)
State Income Taxes	34.5	28.8	5.8	9,635	152	(22,906)	(361)	(37,380)	(589)	31,717	500
Total					**$ 5,340**		**$ 5,172**		**$ 4,747**		**$ 5,230**

Schedule HW-2R

Page 4 of 5

VEOLIA WATER PENNSYLVANIA, INC. - MAHONING SEWER OPERATIONS

SUMMARY OF CASH WORKING CAPITAL REQUIREMENTS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim 12-Months Ending 9/30/2023	12-Months Ending 9/30/2023 CWC	Expense Claim Future Test Year 9/30/2024	Future Test Year 9/30/2024 CWC	Expense Claim Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 3,857	$ 244	$ 3,967	$ 251	$ 4,076	$ 258	$ 4,076	$ 258
Employee Group Health & Life	34.5	10.1	24.4	570	38	583	39	596	40	596	40
Employee Pension Benefits	34.5	29.3	5.2	163	2	167	2	171	2	171	2
Other Employee Benefits	34.5	276.0	(241.5)	62	(41)	65	(43)	67	(44)	67	(44)
Purchased Water	34.5	26.6	7.9	-	-	-	-	-	-	-	-
Purchased Power	34.5	57.1	(22.6)	-	-	-	-	-	-	-	-
Fuel for Power Production	34.5	38.8	(4.3)	-	-	-	-	-	-	-	-
Chemicals	34.5	27.9	6.6	-	-	-	-	-	-	-	-
Materials and Supplies	34.5	29.1	5.4	3,694	55	4,907	73	5,015	74	5,015	74
Management and Service Fees	34.5	14.7	19.8	-	-	-	-	-	-	-	-
Lab Testing Fees	34.5	26.2	8.3	119,905	2,727	106,035	2,411	108,368	2,464	108,368	2,464
Outside Contractors	34.5	30.9	3.6	835,662	8,242	861,094	8,493	880,038	8,680	880,038	8,680
Outside Professional Services	34.5	45.0	(10.5)	78,784	(2,266)	45,134	(1,298)	46,127	(1,327)	46,127	(1,327)
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-	-	-	-	-	-	-
Rental of Equipment	34.5	7.9	26.6	-	-	-	-	-	-	-	-
Transportation Expense	34.5	38.1	(3.6)	401	(4)	411	(4)	420	(4)	420	(4)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	(60)	(27)	-	-	-	-	-	-
Worker Compensation	34.5	(130.5)	165.0	9	4	1	-	1	-	1	-
Regulatory Commission Expense	34.5	(101.5)	136.0	10,288	3,833	10,221	3,808	10,153	3,783	13,682	5,098
Office Expense and Utilities	34.5	8.9	25.6	1,052	74	1,005	70	1,027	72	1,027	72
Postage and Air Freight Expense	34.5	40.3	(5.8)	-	-	-	-	-	-	-	-
Other O&M	34.5	30.3	4.2	-	-	-	-	-	-	-	-
Real Estate Tax	34.5	(26.9)	61.4	-	-	-	-	-	-	-	-
Payroll	34.5	18.5	16.0	3	-	4	-	4	-	4	-
Federal Income Taxes	34.5	37.0	(2.5)	-	-	14,689	(101)	(30,418)	208	57,482	(394)
State Income Taxes	34.5	28.8	5.8	-	-	6,100	96	(13,232)	(208)	23,688	373
Total					**$ 12,881**		**$ 13,797**		**$ 13,998**		**$ 15,292**

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

PREPARED DIRECT TESTIMONY

OF

DANE WATSON

REGARDING

DEPRECIATION STUDY

VEOLIA WATER PENNSYLVANIA, INC.

February 2024

Q. What is your name and business address?

A. A. My name is Dane A. Watson. My business address is 101 E. Park Blvd. Suite 220, Plano, Texas 75074.

Q. By whom are you employed and in what capacity?

A. I am a Partner in Alliance Consulting Group ("Alliance"). Alliance provides consulting and expert services to the utility industry.

Q . Please summarize your educational background and other qualifications.

A. I hold a Bachelor of Science degree in Electrical Engineering from the University of Arkansas at Fayetteville and a Master's Degree in Business Administration from Amberton University.

Q. Do you hold any special certification as a depreciation expert?

A. Yes. The Society of Depreciation Professionals ("the Society") has established national standards for depreciation professionals. The Society administers an examination and has certain required qualifications to become certified in this field. I have met all requirements and am a Certified Depreciation Professional ("CDP").

Q. Please outline your experience in the field of depreciation.

A. Since graduating from college in 1985, I have worked in the area of depreciation and valuation. I founded Alliance in 2004 and am responsible for conducting depreciation, valuation, and certain accounting-related studies for utilities in various industries. My duties related to depreciation studies include the assembly and analysis of historical and simulated data, conducting field reviews, determining service life and net salvage estimates, calculating annual depreciation, presenting recommended depreciation rates to utility management for its consideration, and supporting such rates before regulatory bodies.

My prior employment from 1985 to 2004 was with Texas Utilities ("TXU"). During my tenure with TXU, I was responsible for, among other things, conducting valuation and depreciation studies for the domestic TXU companies. During that time, I also served as Manager of Property Accounting Services and Records Management in addition to my depreciation responsibilities.

I have twice been Chair of the Edison Electric Institute ("EEI") Property Accounting and Valuation Committee and have been Chairman of EEI's Depreciation and Economic Issues Subcommittee. I am a Registered Professional Engineer in the State of Texas and a Certified Depreciation Professional. I am a Senior Member of the Institute of Electrical and Electronics Engineers ("IEEE") and served for several years as an officer of the Executive Board of the Dallas Section of IEEE as well as national and worldwide offices. I have served as President of the SDP twice.

Q. Have you previously provided testimony in regulatory proceedings?

A. Yes. In my 39-year career, I have conducted depreciation studies, filed written testimony and/or testified in more than 300 cases before more than thirty-five different state and regulatory agencies across the United States. I have also appeared in international proceedings in North America. I conducted deprecation studies for Veolia entities in different jurisdictions: Delaware in Docket 19-0615, Idaho in SUZ-W-20-02, New Jersey in WR20110729, and New York in Case No. 23-W-0111. A list of my appearances is shown in Exhibit (DAW-1). I have also appeared in Federal Energy Regulatory Commission Docket No. 02-7-00 as an industry panelist on asset retirement obligations. A listing of my testimony appearances is found in Exhibit (DAW-1).

PURPOSE OF DIRECT TESTIMONY

Q. What is the purpose of your testimony in this proceeding?

A. I sponsor and support the depreciation study performed for Veolia Water Pennsylvania, Inc. ("Veolia Water Pennsylvania" or the "Company") for water and wastewater assets ("Veolia Water Pennsylvania, Inc. Water and Waste Water Utility Depreciation Study"). The depreciation study, attached as Exhibit (DAW-2), produces the depreciation rates used to determine the depreciation expense for Veolia Water Pennsylvania assets included in this filing.

Q. Have your prepared any exhibits in connection with your testimony?

A. Yes. I have prepared or supervised the preparation of the following exhibits: Exhibit (DAW-1) is a listing of my appearances before various regulatory bodies; and Exhibit (DAW-2) is the depreciation study for Veolia Water Pennsylvania.

Q. What is the definition of depreciation used by public utilities?

A. The most widely recognized utility accounting definition of depreciation is that of the American Institute of Certified Public Accountants, which states:

> Depreciation accounting is a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, less salvage (if any), over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation, not of valuation.[1]

Depreciation expense is systematically allocated to accounting periods over the life of the properties. The amount allocated to any one accounting period does not necessarily represent the loss or decrease in value that will occur during a particular period. Thus, depreciation is considered an expense or cost to provide for the loss in service value, rather than a loss or decrease in market value. The utility accrues depreciation based on the original cost of all property included in each depreciable plant account.

Public utilities maintain the depreciation reserve (also known as accumulated depreciation) on a group basis, meaning that groups are created at a plant account level. Depreciation expense is charged on a monthly basis to each

[1] Accounting Research Bulletin No. 43, Chapter 9, Paragraph 5 (June 1953).

group's depreciation reserve using the depreciation accrual rates approved by the regulatory body. When an asset retires (before, after, or right at the average service life), the full cost of the retirement is subtracted from the depreciation reserve. Because the depreciation rate is based on an average life, the individual asset is assumed to be fully depreciated at retirement. Any gross salvage for an asset is added to the accumulated depreciation whereas any cost of removal is deducted from the depreciation reserve. This methodology has been approved by the Pennsylvania Public Utility Commission ("PUC") for Veolia Water Pennsylvania, Inc. as well as other regulated entities under its jurisdiction. Thus, in accounting for regulated entities, the full cost of depreciable property on retirement, less the net salvage amount, if any, is charged to the depreciation reserve.

Q. Is there a standard approach to conducting a depreciation study?

A. Yes. Generally, there are four phases in performing a depreciation study: data collection, analysis, evaluation and calculation. Data collection entails the gathering of historical investment and retirement activity including salvage and cost of removal experience. Analysis involves the determination of mortality characteristics using the data gathered in the first phase. Evaluation requires an understanding of history and accounting practices and gives consideration to the utility's plans and expectations. The calculation phase utilizes the information and

determinations made in the first three phases and results in the development of recommended depreciation rates.

Q. What are mortality characteristics?

A. Mortality characteristics are the basic parameters that determine depreciation rates. For this discussion, mortality characteristics include average service life, Iowa-type retirement dispersion curves, and net salvage allowance.

Q. What is a retirement dispersion?

A. Retirement dispersion merely recognizes that groups of assets have individual assets of different lives, i.e., different assets may retire at differing ages. Retirement dispersion is the spread of retirements by age around the average service life for each group of assets. Standard dispersion patterns (i.e. survivor curves, such as the standardized Iowa Curves) are useful because they make calculations of the remaining life of existing property possible and allow life characteristics to be compared.

Q. What is an observed survivor curve?

A. An observed survivor curve is a plot, or graph of the retirement dispersion for a specific company using its recorded retirement and survivor history as a function of age. This observed curve is essentially a graphical representation of the company's history.

Q. What is a standardized survivor curve?

A. The standardized survivor curves are various retirement (dispersion) patterns found across utilities and are useful in determining the life and remaining life for the Company's assets. The observed survivor curve derived from the Company history is matched to these known generalized curves, such as the Iowa-type curves, to provide an estimate of average service life.

Q. What are the Iowa-Type curves?

A. The Iowa-type curves were devised empirically by the Engineering Research Institute at what is now Iowa State University to provide a set of standard definitions of retirement dispersion. Through common usage, revalidation and regulatory acceptance, these curves have become a descriptive standard for the life characteristics of industrial property. The Engineering Research Institute collected dated retirement information on many types of industrial and utility property and devised empirical curves that matched the range of patterns found. A total of 18 curves were defined. There were six left-skewed, seven symmetrical and five right-skewed curves, varying from wide to narrow dispersion patterns. The Iowa-curve naming convention allows the analyst to relate easily to the patterns. The left-skewed curves are known as the "L series", the symmetrical as the "S series" and the right-skewed as the "R series." A number identifies the range of dispersion. A low number represents a wide pattern and a high number a narrow

pattern. The combination of one letter and one number defines a unique dispersion pattern.

Q. What analytical tool was used to help determine the life and dispersion curves in this study?

A. For types of property such as source of supply, pumping plant, mains, treatment facilities, and general plant assets, actuarial analysis (retirement rate method) was used based on the detailed accounting records. Actuarial analysis evaluates historical asset retirement experience where vintage data is available and sufficient retirement activity was present.

Q. Is there a standard system of calculating depreciation rates for a utility?

A. Yes. A depreciation system is comprised of a method, procedure and technique. The predominant method utilized in the utility industry is straight-line. There are two general procedures, average life group (broad) ("ALG") and equal life group ("ELG") approved by the appropriate regulatory agencies. The PUC has adopted the ELG procedure and remaining-life technique in recent cases and this procedure and technique is utilized in this depreciation study. This methodology was recently approved by the PUCP in Docket Number R-2018-3000834 for the Pennsylvania water and wastewater assets on plant at December 31, 2017. At the request of Veolia, this study uses the ELG depreciation procedure to group the assets within each account. After an average service life and dispersion were

selected for each account, those parameters were used to estimate what portion of the surviving investment of each vintage was expected to retire. The depreciation of the group continues until all investment in the vintage group is retired. ELG groups are defined by their respective account dispersion, life, and salvage estimates. A straight-line rate for each ELG group is computed and accumulated across each vintage. The resultant rate for each ELG group is designed to recover all retirements less net salvage as each vintage retires. The ELG procedure recovers net book cost over the life of each ELG group rather than averaging many components. It also closely matches the concept of component or item accounting found in accounting textbooks.

VEOLIA WATER PENNSYLVANIA DEPRECIATION STUDY

Q. Did you prepare the Veolia Water Pennsylvania Depreciation Study?

A. Yes. The study (shown as Exhibit (DAW-2)) analyzes the life for the property groups associated with Veolia Water Pennsylvania assets at December 31, 2021. Net salvage was incorporated using traditional net salvage, which will be discussed more later in this testimony.

Q. What property is included in the depreciation study?

A. For water, there are five general classes, or functional groups: Source of Supply Plant, Pumping Plant, Water Treatment Plant, Transmission and Distribution Plant, and General Plant used to treat and deliver water. For wastewater, there are two

general classes, or functional groups: Collection, Treatment and Disposal Plant and General Plant used to treat wastewater.

Q. What definition of "depreciation" have you used for the purposes of conducting a depreciation study and preparing your testimony?

A. The term "depreciation," as used herein, is considered in the accounting sense; that is, a system of accounting that distributes the cost of assets, less net salvage (if any), over the estimated useful life of the assets in a systematic and rational manner. Depreciation is a process of allocation, not valuation. Depreciation expense is systematically allocated to accounting periods over the life of the properties. The amount allocated to any one accounting period does not necessarily represent the loss or decrease in value that will occur during that particular period. Thus, depreciation is considered an expense or cost, rather than a loss or decrease in value. The Company accrues depreciation expense by applying approved depreciation rates to the original cost of all property included in each depreciable plant account. Upon retirement, the full cost of depreciable property, less the net salvage amount, if any, is charged to the depreciation reserve.

Q. Please describe your depreciation study approach.

A. I conducted the depreciation study in four phases for Veolia Water Pennsylvania as described in the Detailed Discussion portion in my Exhibit (DAW-2). The four

phases are: Data Collection, Analysis, Evaluation, and Calculation. During the initial phase of the study, I collected historical data to be used in the analysis. After the data was assembled, I performed analyses to determine the life and net salvage percentage for the different property groups being studied. As part of this process, I conferred with field personnel, engineers, and managers responsible for the installation, operation, and removal of the assets to gain their input into the operation, maintenance, and salvage of the assets. The information obtained from field personnel, engineers, and managerial personnel, combined with the study results, were then evaluated to determine how the results of the historical asset activity analysis, in conjunction with the utility's expected future plans, should be applied. Using all of these resources, I then calculated the depreciation rate for each account.

Q. What depreciation system did you use to calculate the proposed depreciation rates for Veolia Water Pennsylvania?

A. I used the straight-line depreciation method, equal life group (ELG) procedure, and remaining life technique to calculate the proposed depreciation and amortization accrual amounts and rates for Veolia Water Pennsylvania. In the ELG Remaining Life system, the annual depreciation rate for each group is computed by dividing (1 – Net Salvage Percentage) by the Average Service Life of the equal life group. The resulting annual accrual amounts of all depreciable property were computed by multiplying the original cost of all account level depreciable property by each

account-level depreciation rate. The computations of the annual depreciation rates are shown in Exhibit (DAW-2), Appendix A.

Q. Please summarize the results of your depreciation study.

A. The study results in a total increase of $0.6 million in annual depreciation expense compared to the depreciation rates currently in effect. Table 1 below summarizes the increase in annual accrual by utility function.

TABLE 1

Veolia Water Pennsylvania, Inc.
Comparison of Proposed Depreciation Rates
As of December 31, 2021

Water

Function	Plant at 12/31/21	Current Expense	Proposed Expense	Difference
Source of Supply	13,873,035	348,639	298,875	(49,764)
Pumping Equipment	17,109,183	600,205	862,587	262,382
Treatment Equipment	66,212,049	1,913,933	1,843,323	(70,611)
Transmission and Distribution	322,504,386	6,311,888	6,595,395	283,507
General	25,151,698	1,370,140	1,529,891	159,752
General Plant AR 15 Water Imbalance			180,571	180,571
	444,850,351	10,544,805	11,310,642	765,837

Sewer

Function	Plant at 12/31/21	Current Expense	Proposed Expense	Difference
Collection, Treatment and Disposal	5,499,333	427,078	254,631	(172,446)
General Plant	20,876	234	1,898	1,663
General Plant AR 15 Sewer Imbalance			538	538
Total Sewer	5,520,209	427,312	257,067	(170,245)
Total Veolia PA	450,370,560	10,972,117	11,567,709	595,592

Tables 2 and 3 show the depreciation rates in the study recommended for each account.

VEOLIA WATER PENNSYLVANIA, INC. DEPRECIATION RATES LIFE ONLY – TABLE 2		
Account	**Description**	**Proposed Rate**
304.2	Structures and Improvements Supply	2.20%
305.2	Collecting and Impounding Reservoirs	1.93%
306.2	Lake River and Other Intakes	1.95%
307.2	Wells and Springs	2.06%
308.2	Infiltration Galleries and Tunnels	4.84%
310.2	Power Generation Equipment	6.92%
311.2	Electric Pumping Equipment	4.74%
311.2	Diesel Pumping Equipment	3.39%
311.4	Other Pumping Equipment	7.00%
304.3	Purification Structures & Improv	2.66%
320.3	Water Treatment Equ	2.37%
320.3	Water Treat Painting	10.00%*
320.3	Chemical treatment	4.97%
	*New Additions Only	
304.4	Structures and Improvements T&D	2.50%
330.4	Distribution Reservoirs and Standpipes	2.71%
331.4	Transmission and Distribution Mains	1.42%
333.4	Services	1.78%
334.4	Meters and Meter Installations	5.63%
335.4	Hydrants	1.81%
304.5	General Plant Office Buildings	2.91%
341.5	Transportation Equipment	18.04%
345.5	Power Operated Equipment	10.00%
340.50	Computer Hardware	20.00%
340.50	Computer Software	20.00%
340.50	Office Furniture and Fixtures	6.67%
340.50	Computer Software Lighthouse	12.50%
342.50	Stores Equipment	5.56%
343.50	Shop and Garage	5.00%
344.50	Tools & Work Equip	5.00%
344.50	Laboratory Furniture & Equipment	6.67%

VEOLIA WATER PENNSYLVANIA, INC. DEPRECIATION RATES LIFE ONLY – TABLE 2		
Account	**Description**	**Proposed Rate**
346.50	Communication Equipment	10.00%
347.50	Miscellaneous Equipment	6.67%

VEOLIA WATER PENNSYLVANIA, INC. DEPRECIATION RATES LIFE ONLY – TABLE 3		
Account	**Description**	**Proposed Rate**
354.4	Structures and Improvements	3.00%
360.2	Pump Station Force Mains	3.26%
361.2	Collection Sewers - Gravity	3.25%
371.4	Pumping Equipment	15.34%
380.4	Treatment and Disposal Equipment	3.71%
393.00	Tools & Work Equip	5.00%
396.00	Communication Equipment	10.00%

Q. Are there accounts which have significant amounts of capital projected in the Future Test Year and Fully Projected Future Test Year?

A. Yes. Many accounts have large amounts of capital projected for future periods. In particular the Company plans increases in capital expenditures for Accounts 320.3, Water Treatment Painting and painting for assets in Account 330.4-Distribution Reservoirs and Standpipes. The tanks in the treatment function for Account 320.3 are currently fully accrued. As assets are added to that account, a rate of 10% based on the current life parameter is requested.

For account 330.4, Distribution Reservoirs and Standpipes, tank painting is a separate property unit in that account which currently makes up about 25% of the investment at year end 2021. Tank painting expenditures for that account will be recovered over the composite life for that account.

Q. What factors influence the depreciation rates for an account?

A. In the remaining-life depreciation system, the primary factors that influence the depreciation rate for an account are: 1) the depreciable life of the account, and 2) the net salvage for the account.

Q. What factors influenced the proposed rates for Veolia in your depreciation study?

A. All of these factors influenced the proposed depreciation rates for Veolia Water. The drivers of the increase in depreciation rates and resulting depreciation expense are the additional investment added since the last depreciation study and changes in the asset lives, and changes in net salvage proposals. For Veolia Water Pennsylvania the life indications for the majority of the asset accounts stayed the same. Of the 30 accounts analyzed, 5 accounts had longer lives, 7 accounts had shorter lives, 14 accounts remained unchanged and 4 accounts lacked a life parameter so no comparison was possible. Of the 5 accounts that had longer lives, the largest increases were Account 304.4 Transmission and

Distribution Structures and Improvements and Account 304.2 Pumping Structures and Improvements, which had increases of 25 years and 10 years, respectively. The largest accounts by plant balance, Account 343 Transmission and Distribution Mains retained the same life and 345 Services increased the service life by 8 years. Accounts with the greatest decreases in lives were Account 308.2 Infiltration Galleries with a decrease of 19 years, and Accounts 304.3 Purification Structures and Account 311.2 Electric Pumping Equipment - each had a decrease of 10 years.

For Veolia Water Pennsylvania Wastewater., the life indications for the majority of the asset accounts stayed the same. Of the 7 accounts analyzed, 3 accounts had longer lives, 1 account had a shorter life, and 3 accounts had no life parameter so no comparison was possible. The account with an increase in life was Account 354.4 Structures and Improvements which moved from 18 years to 40 years. The account with the decrease in life was Account 371 Pumping Equipment which had a decrease of 2 years.

These changes are addressed more fully in the Depreciation Study report attached as Exhibit DAW-2 to this testimony.

Q. What method did you use to analyze historical data to determine life characteristics?

A. I have used the same analysis methods to perform this depreciation study that were used in the prior study for the 2019 rate case. In much the same manner as

human mortality is analyzed by actuaries, depreciation analysts use models of property mortality characteristics that have been validated in research and empirical applications. For those accounts where aged retirements were available, actuarial analysis was used; for accounts with limited historical retirements, I relied on professional judgement and information provided by Company subject matter experts. Further detail on these methods is found in the life analysis section of Exhibit (DAW-2).

Q. HOW DID YOU DETERMINE THE AVERAGE SERVICE LIVES FOR EACH ASSET GROUP?

A. The establishment of appropriate average service lives for each account was determined by using the actuarial analysis method. Graphs and tables supporting the actuarial analysis along with the chosen Iowa Curves used to determine the average service lives for analyzed accounts are found in the Life Analysis section of Exhibit (DAW-2). A summary of the average service life and chosen Iowa curve for each account is shown in Tables 4 and 5.

VEOLIA WATER PENNSYLVANIA, INC.
DEPRECIABLE LIVES - TABLE 4

Acct	Description	Existing Average Life	Existing Iowa Curve	Proposed Average Life	Proposed Iowa Curve
Depreciated Accounts					
304.2	Source of Supply Structures and Improvements	55	R2	65	R1
305.2	Collection and Impounding Reservoirs	65	S1	85	R3

VEOLIA WATER PENNSYLVANIA, INC. DEPRECIABLE LIVES - TABLE 4					
Acct	**Description**	**Existing Average Life**	**Existing Iowa Curve**	**Proposed Average Life**	**Proposed Iowa Curve**
Depreciated Accounts					
306.2	Lake, Rivers and Other Intakes	65	R2.5	60	R2
307.2	Wells and Springs	48	R2	52	R2.5
308.2	Infiltration Galleries and Tunnels	40	R2.5	21	L3
310.2	Power Generation Equipment	NA	NA	30	R2
311.2	Elec. Pumping Equipment	36	R0.5	26	R0.5
311.2	Oil Pumping Equipment	35	S2	30	R3
311.4	Pumping Equip	NA	NA	26	R0.5
304.3	Purification Structures & Improv	55	S1.5	45	R1
320.3	Water Treatment Equ	50	R1.5	50	R1.5
320.3	WaterTreatPainting	10	SQ	10	SQ
320.3	Chemical treatment	25	S0.5	21	L3
304.4	Structures and Improvements T&D	40	R3	65	R1
330.4	Distribution Reservoirs and Standpipes	45	R1.5	46	R4
331.4	Transmission and Distribution Mains	80	R3	80	R3
333.4	Services	60	S2.5	68	R3
334.4	Meters and Meter Installations	25	S1.5	22	L4
335.4	Hydrants	60	R4	65	R4
304.5	General Office Bldg	45	R2..5	45	R1.5
340.50	Computer Hardware	5	SQ	5	SQ
340.50	Computer Software	5	SQ	5	SQ
340.50	Office Furniture and Fixtures	15	SQ	15	SQ
340.50	Computer Software Lighthouse	8	SQ	8	SQ
341.50	Transportation Equip	7	L3	7	L3
342.50	Stores Equipment	NA	NA	18	R2
343.50	Shop and Garage	20	SQ	20	SQ

VEOLIA WATER PENNSYLVANIA, INC. DEPRECIABLE LIVES - TABLE 4					
Acct	**Description**	**Existing Average Life**	**Existing Iowa Curve**	**Proposed Average Life**	**Proposed Iowa Curve**
Depreciated Accounts					
343.50	Tools & Work Equip	20	SQ	20	SQ
344.50	Laboratory Furniture & Equipment	15	SQ	15	SQ
345.50	Power Operated Equip Communication Equipment	NA	NA	10	L3
346.50	Communication Equipment	10	SQ	10	SQ
347.50	Miscellaneous Equipment	15	SQ	15	SQ

VEOLIA WATER PENNSYLVANIA, INC. DEPRECIABLE LIVES - TABLE 5					
Acct	**Description**	**Existing Average Life**	**Existing Iowa Curve**	**Proposed Average Life**	**Proposed Iowa Curve**
Depreciated Accounts					
354.4	Structures and Improvements	17.99	L0	40	R2
360.2	Pump Station Force Mains	NA	NA	40	R2
361.2	Collection Sewers - Gravity	30.30	L0	40	R2
371.4	Pumping Equipment	17.99	L0	15	R2
380.4	Treatment and Disposal Equipment	17.99	L0	30	R2
393.00	Tools & Work Equip	NA	NA	20	SQ
396.00	Communication Equipment	NA	NA	10	SQ

Q. What is net salvage?

A. While discussed more fully in the study itself, net salvage is the difference between the gross salvage (what is received in scrap value for the asset when retired) and the removal cost (cost to remove and dispose of the asset). Salvage and removal

cost percentages are calculated by dividing the current cost of salvage or removal by the original installed cost of the asset.

Q. How did you determine the net salvage percentages for each asset group?

A. I followed the methodology used in the PUCP's past orders, which have adopted the position that an average of net salvage expense should be used to calculate net salvage and included in the overall depreciation expense of the Company. Therefore, while neither the Company nor Alliance agrees with this position, the Company wished to avoid significant controversy on this issue and directed Alliance to follow this methodology.

As a result, it was agreed to use an average of recent historical net salvage experience. For water assets, the Company used a 5 year average from 2017-2021 to make that computation. As a result, a net salvage amount of $612,742 was developed and has been incorporated into the total annual accrual amount for the Company as shown on Appendix B. Appendix D provides the calculation of this net salvage accrual amount.

For wastewater assets, the Company used a 5 year average from 2017-2021 to make that computation. As a result, a net salvage amount of $0 was developed and has been incorporated into the total annual accrual amount for the Company as shown on Appendix B. Appendix D provides the calculation of the $0 used for the annual net salvage accrual amount.

Q. Is this a reasonable method for determining net salvage rates?

A. Yes. The method used to establish appropriate net salvage percentages for each account was determined by using the same methodology that was approved in the recent cases before the PUCP.[2] It is also the methodology commonly employed throughout the industry and is the method recommended in authoritative texts. [3]

CONCLUSION

Q. What account depreciation rates are you proposing, and how do they compare with the current rates?

A. The proposed depreciation rates for each account are listed previously in my testimony in Tables 2 and 3. The current and proposed depreciation rates, and my underlying calculations used to support my recommendations, are included in Appendix B of Exhibit (DAW-2).

Q. Do you have any concluding remarks?

A. Yes. The depreciation study and analysis performed under my supervision fully supports setting depreciation rates at the level I have indicated in my testimony and underlying depreciation study. The Company should continue to periodically review the annual depreciation rates for its property. In this way, all customers will

[2] *See* Docket Nos. R-2022-3031672 (Pennsylvania American Water) and R-2018-3000834, the Company's last depreciation study.

[3] Public Utility Depreciation Practices, published by the National Associate of Regulatory Commissioners, 1996, p. 157-161, Also Depreciation Systems, by Drs. F.K, Wolf and W.C. Fitch, 1994, Iowa State Press, p. 51-55.

be charged for their appropriate share of the capital expended for their benefit. My depreciation study describes the extensive analysis performed and the resulting rates that are now appropriate for Company property. The Company's depreciation rates should be set consistent with my recommendations in order to allow recovery of the Company's total investment in property over the estimated remaining life of the assets.

Q. Does this conclude your direct testimony at this time?

A. Yes, it does. However, I reserve the right to supplement my testimony as additional issues and facts arise during the course of the proceeding.

VERIFICATION

I, Dane A. Watson, hereby state that the facts set forth above are true and correct to the best of my knowledge, information and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: 6-25-2024

Dane A. Watson

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

EXHIBITS TO ACCOMPANY DIRECT TESTIMONY

OF

DANE WATSON

ALLIANCE CONSULTING GROUP

VEOLIA WATER PENNSYLVANIA, INC.

February 2024

Dane A. Watson Testimony Appearances

Asset Location	Commission	Docket (If Applicable	Company	Year	Description
Michigan	Michigan Public Service Commission	21513	Upper Peninsula Power Company	2023	Electric Depreciation Study
Texas	Public Utility Commission of Texas	55867	Lower Colorado River Authority	2023	Electric Depreciation Study
Texas	Railroad Commission of Texas	Case No. OS-23-00015513	CenterPoint Texas Gas	2023	Gas Depreciation Study
Nevada	Public Utility Commission of Nevada	23-090-12	Southwest Gas	2023	Gas Depreciation Study - Nevada Division
Louisiana	Public Service Commission of Louisiana	36959	Entergy Louisiana	2023	Electric Depreciation Study
Texas	Railroad Commission of Texas	13758	Atmos Energy - APT	2023	Gas Depreciation Study
Florida	Florida Public Service Commission	20230023	People Gas System	2023	Gas Depreciation Study
Texas	Public Utility Commission of Texas	54565	Central States Water Resources (CSWR Texas)	2023	Water Depreciation Study
New York	New York State Public Service Commission	23-W-0111	Veolia New York	2023	Water Depreciation Study
Arkansas	Arkansas Public Service Commission	22-085-U	Empire District Electric Company	2023	Electric Depreciation Study
Alaska	Regulatory Commission of Alaska	TA50-733 (U-21-058)	Cook Inlet Natural Gas Storage Alaska	2023	Focused Study - Communication Equipment
Manitoba Canada	Manitoba Public Utilities Board		Manitoba Hydro Electric	2022	Electric Depreciation Study
Tennessee	Tennessee Public Utility Commission	20-00086	Piedmont Natural Gas	2022	Gas Depreciation Study - 3 State
Texas	Public Utility Commission of Texas	54634	Southwestern Public Service Company	2023	Electric Technical Update
Arkansas	Arkansas Public Service Commission	22-085-U	Liberty Empire Electric Arkansas	2023	Electric Depreciation Study
Florida	Florida Public Service Commission	20220219	People Gas System	2022	Gas Depreciation Study
Michigan	Michigan Public Service Commission	U-21329	Michigan Gas Utilities Corporation	2022	Gas Depreciation Study
Dominica	Independent Regulatory Commission		Dominica Electricity Services LTD	2022	Electric Depreciation Study
New Mexico	New Mexico Public Regulation Commission	22-00270-UT	Public Service of New Mexico	2022	Electric Depreciation Study
New Mexico	New Mexico Public Regulation Commission	22-00286-UT	Southwestern Public Service Company	2022	Electric Technical Update

Dane A. Watson Testimony Appearances

Asset Location	Commission	Docket (If Applicable	Company	Year	Description
Minnesota	Minnesota Public Utilities Commission	22-299	Northern States Power-Minnesota	2022	Electric Gas and Common Depreciation Study
California	California Public Utilities Commission	A.22-08-010	Bear Valley Electric	2022	Electric Depreciation Study
Michigan	Michigan Public Service Commission	U-21294	SEMCO Gas	2022	Gas Depreciation Study
Arkansas	Arkansas Public Service Commission	22-064-U	Liberty Pine Bluff Water	2022	Water Depreciation Study
Colorado	Colorado Public Utilities Commission	22AL-0348G	Atmos Energy	2022	Gas Depreciation Study
New York	FERC	ER22-2581-000	New York Power Authority	2022	Transmission and General Depreciation Study
South Carolina	South Carolina Public Service Commission	2022-89-G	Piedmont Natural Gas	2022	Natural Gas Depreciation Study
California	California Public Utilities Commission	A.22-007-001	California American Water	2022	Water and Waste Water Depreciation Study
Alaska	Regulatory Commission of Alaska	U-22-034	Chugach Electric Association	2022	Electric Depreciation Study
Georgia	Georgia Public Service Commission	44280	Georgia Power Company	2022	Electric Depreciation Study
Texas	Public Utility Commission of Texas	53719	Entergy Texas	2022	Electric Depreciation Study
California	California Public Utilities Commission	22-005-xxx	San Diego Gas and Electric	2022	Electric Gas and Common Depreciation Study
California	California Public Utilities Commission	22-005-xxx	Southern California Gas	2022	Gas Depreciation Study
Colorado	Colorado Public Utilities Commission	22AL-0046G	Public Service of Colorado	2022	Gas Depreciation given potential for climate change
Texas	Public Utility Commission of Texas	53601	Oncor Electric Delivery	2022	Electric Depreciation Study
New Jersey	New Jersey Board of Public Utilities	GR2222040253	South Jersey Gas	2022	Gas Depreciation Study
Oklahoma	Corporation Commission of Oklahoma	PUD 202100163	Empire District Electric Company	2022	Electric Depreciation Study
Michigan	Michigan Public Service Commission	U-21176	Consumers Gas	2021	Gas Depreciation Study
New Jersey	New Jersey Board of Public Utilities	GR21121254	Elizabethtown Natural Gas	2021	Gas Depreciation Study
Ontario Canada	Ontario Energy Board	EB-2021-0110	Hydro One	2021	Electric Depreciation Study
Alaska	Regulatory Commission of Alaska	TA116-118, TA115-97, TA160-37 and TA110-290	Fairbanks Water and Wastewater	2021	Water and Waste Water Depreciation Study

Dane A. Watson Testimony Appearances

Asset Location	Commission	Docket (If Applicable	Company	Year	Description
Colorado	Public Utilities Commission of Colorado	21AL-0317E	Public Service of Colorado	2021	Electric and Common Depreciation Study
Alaska	Regulatory Commission of Alaska	U-21-025	Golden Valley Electric Association	2021	Electric Depreciation Study
Wisconsin	Public Service Commission of Wisconsin	5-DU-103	WE Energies	2021	Electric and Gas Depreciation Study
Kentucky	Public Service Commission of Kentucky	2021-00214	Atmos Kentucky	2021	Gas Depreciation Study
Missouri	Missouri Public Service Commission	ER-2021-0312	Empire District Electric Company	2021	Electric Depreciation Study
Wisconsin	Public Service Commission of Wisconsin	4220-DU-111	Northern States Power Wisconsin	2021	Transmission, Distribution General and Common Depreciation Study
Louisiana	Louisiana Public Service Commission	U-35951	Atmos Energy	2021	Statewide Gas Depreciation Study
Minnesota	Minnesota Public Utilities Commission	E015-D-21-229	Allete Minnesota Power	2021	Intangible, Transmission, Distribution, and General Depreciation Study
Michigan	Michigan Public Service Commission	U-20849	Consumers Energy	2021	Electric and Common Depreciation Study
Texas	Texas Public Utility Commission	51802	Southwestern Public Service Company	2021	Electric Technical Update
MultiState	FERC	RP21-441-000	Florida Gas Transmission	2021	Gas Depreciation Study
New Mexico	New Mexico Public Regulation Commission	20-00238-UT	Southwestern Public Service Company	2021	Electric Technical Update
Yukon Territory Canada	Yukon Energy Board	2021 General Rate Application	Yukon Energy	2020	Electric Depreciation Study
MultiState	FERC	ER21-709-000	American Transmission Company	2020	Electric Depreciation Study
Texas	Texas Public Utility Commission	51611	Sharyland Utilities	2020	Electric Depreciation Study
Texas	Texas Public Utility Commission	51536	Brownsville Public Utilities Board	2020	Electric Depreciation Study

Dane A. Watson Testimony Appearances

Asset Location	Commission	Docket (If Applicable	Company	Year	Description
New Jersey	New Jersey Board of Public Utilities	WR20110729	Suez Water New Jersey	2020	Water and Waste Water Depreciation Study
Idaho	Idaho Public Service Commission	SUZ-W-20-02	Suez Water Idaho	2020	Water Depreciation Study
Texas	Texas Public Utility Commission	50944	Monarch Utilities	2020	Water and Waste Water Depreciation Study
Michigan	Michigan Public Service Commission	U-20844	Consumers Energy/DTE Electric	2020	Ludington Pumped Storage Depreciation Study
Mexico	Comision Reguladora de Energia	G/352/TRA/2015 UH-250/125738/2019	Arguelles Depreciation Study	2020	Gas Depreciation Study
Tennessee	Tennessee Public Utility Commission	2000086	Piedmont Natural Gas	2020	Gas Depreciation Study
Texas	Railroad Commission of Texas	OS-00005136	CoServ Gas	2020	Gas Depreciation Study
Texas	Railroad Commission of Texas	GUD 10988	EPCOR Gas Texas	2020	Gas Depreciation Study
Florida	Florida Public Service Commission	20200166-GU	People Gas System	2020	Gas Depreciation Study
Mississippi	Federal Energy Regulatory Commission	ER20-1660-000	Mississippi Power Company	2020	Electric Depreciation Study
Texas	Public Utility Commission of Texas	50557	Corix Utilities	2020	Water and Waste Water Depreciation Study
Georgia	Georgia Public Service Commission	42959	Liberty Utilities Peach State Natural Gas	2020	Gas Depreciation Study
Texas	Public Utility Commission of Texas	50734	Oncor Electric Delivery	2020	Life of Intangible Plant
New Jersey	New Jersey Board of Public Utilities	GR20030243	South Jersey Gas	2020	Gas Depreciation Study
Kentucky	Kentucky Public Service Commission	2020-00064	Big Rivers	2020	Electric Depreciation Study
Colorado	Colorado Public Utilities Commission	20AL-0049G	Public Service of Colorado	2020	Gas Depreciation Study
Texas	NA	NA	Pedernales Electric Coop	2019	Electric Depreciation Study
New York	Federal Energy Regulatory Commission	ER20-716-000	LS Power Grid New York, Corp.	2019	Electric Transmission Depreciation Study
Mississippi	Mississippi Public Service Commission	2019-UN-219	Mississippi Power Company	2019	Electric Depreciation Study
Texas	Public Utility Commission of Texas	50288	Kerrville Public Utility District	2019	Electric Depreciation Study
Texas	Railroad Commission of Texas	GUD 10920	CenterPoint Gas	2019	Gas Depreciation Study and Propane Air Study

Dane A. Watson Testimony Appearances

Asset Location	Commission	Docket (If Applicable	Company	Year	Description
Texas, New Mexico	Federal Energy Regulatory Commission	ER20-277-000	Southwestern Public Service Company	2019	Electric Production and General Plant Depreciation Study
New Mexico	New Mexico Public Regulation Commission		New Mexico Gas	2019	Gas Depreciation Study
Alaska	Regulatory Commission of Alaska	U-19-086	Alaska Electric Light and Power	2019	Electric Depreciation Study
Texas	Railroad Commission of Texas	GUD 10900	Atmos Energy West Texas Division - Triangle	2019	Depreciation Rates for Natural Gas Property
Delaware	Delaware Public Service Commission	19-0615	Suez Water Delaware	2019	Water Depreciation Study
California	California Public Utilities Commission	A.19-08-015	Southwest Gas Northern California	2019	Gas Depreciation Study
California	California Public Utilities Commission	A.19-08-015	Southwest Gas Southern California	2019	Gas Depreciation Study
Texas	Railroad Commission of Texas	GUD 10895	CenterPoint Propane Air	2019	Depreciation Rates for Propane Air Assets
Texas	Public Utility Commission of Texas	49831	Southwestern Public Service Company	2019	Electric Depreciation Study
New Mexico	New Mexico Public Regulation Commission	19-00170-UT	Southwestern Public Service Company	2019	Electric Depreciation Study
Georgia	Georgia Public Service Commission	42516	Georgia Power Company	2019	Electric Depreciation Study
Georgia	Georgia Public Service Commission	42315	Atlanta Gas Light	2019	Gas Depreciation Study
Arizona	Arizona Corporation Commission	G-01551A-19-0055	Southwest Gas Corporation	2019	Gas Removal Cost Study
New Hampshire	New Hampshire Public Service Commission	DE 19-064	Liberty Utilities	2019	Electric Distribution and General
New Jersey	New Jersey Board of Public Utilities	GR19040486	Elizabethtown Natural Gas	2019	Gas Depreciation Study
Texas	Public Utility Commission of Texas	49421	CenterPoint Houston Electric LLC	2019	Electric Depreciation Study
North Carolina	North Carolina Utilities Commission	Docket No. G-9, Sub 743	Piedmont Natural Gas	2019	Gas Depreciation Study
Minnesota	Minnesota Public Utilities Commission	E-015/D-18-226	Allete Minnesota Power	2018	Electric Compliance Filing
Colorado	Colorado Public Utilities Commission	19AL-0063ST	Public Service of Colorado	2019	Steam Depreciation Study
Texas	NA	NA	CenterPoint Texas	2019	Propane Air Depreciation Study
Various	NA	NA	Enable Midstream Partners	2019	Gas Depreciation Study

Dane A. Watson Testimony Appearances

Asset Location	Commission	Docket (If Applicable	Company	Year	Description
Alaska	Regulatory Commission of Alaska	U-18-121	Municipal Power and Light City of Anchorage	2018	Electric Depreciation Study
Various	NA	NA	Pattern Energy	2018	Renewable Asset Capital Accounting
New York	NA	NA	Long Island Electric Utility Servco LLC	2018	Electric Depreciation Study
Various	FERC	RP19-352-000	Sea Robin	2018	Gas Depreciation Study
Texas New Mexico	Federal Energy Regulatory Commission	ER19-404-000	Southwestern Public Service Company	2018	Electric Transmission Depreciation Study
California	Federal Energy Regulatory Commission	ER19-221-000	San Diego Gas and Electric	2018	Electric Transmission Depreciation Study
Kentucky	Kentucky Public Service Commission	2018-00281	Atmos Kentucky	2018	Gas Depreciation Study
Texas	Public Utility Commission of Texas	48500	Golden Spread Electric Coop	2018	Electric Depreciation Study
Alaska	Regulatory Commission of Alaska	U-18-054	Matanuska Electric Coop	2018	Electric Generation Depreciation Study
California	California Public Utilities Commission	A17-10-007	San Diego Gas and Electric	2018	Electric and Gas Depreciation Study
Texas	NA	NA	Lower Colorado River Authority	2018	Electric Transmission and General Study
Texas	Public Utility Commission of Texas	48401	Texas New Mexico Power	2018	Electric Depreciation Study
Nevada	Public Utility Commission of Nevada	18-05031	Southwest Gas	2018	Gas Depreciation Study
Texas	Public Utility Commission of Texas	48231	Oncor Electric Delivery	2018	Depreciation Rates
Texas	Public Utility Commission of Texas	48371	Entergy Texas	2018	Electric Depreciation Study
Kansas	Kansas Corporation Commission	18-KCPE-480-RTS	Kansas City Power and Light	2018	Electric Depreciation Study
Louisiana	Louisiana Public Service Commission	U-34803	Atmos LGS	2018	Gas Depreciation Study
Arkansas	Arkansas Public Service Commission	18-027-U	Liberty Pine Bluff Water	2018	Water Depreciation Study
Minnesota	Minnesota Public Utilities Commission	E-015/D-18-226	Allete Minnesota Power	2018	Electric Depreciation Rate
Kentucky	Kentucky Public Service Commission	2017-00349	Atmos KY	2018	Gas Depreciation Rates
Tennessee	Tennessee Public Utility Commission	18-00017	Chattanooga Gas	2018	Gas Depreciation Study
Texas	Railroad Commission of Texas	10679	Si Energy	2018	Gas Depreciation Study

Dane A. Watson Testimony Appearances

Asset Location	Commission	Docket (If Applicable	Company	Year	Description
Texas	City of Dallas Statement of Intent	NA	Atmos Mid-Tex	2017-2018	Gas Depreciation Study
Alaska	Regulatory Commission of Alaska	U-17-104	Anchorage Water and Wastewater	2017	Water and Waste Water Depreciation Study
Michigan	Michigan Public Service Commission	U-18488	Michigan Gas Utilities Corporation	2017	Gas Depreciation Study
New Mexico	FERC	ER18-228-000	Southwestern Public Service Company	2017	Electric Production Depreciation Study
Texas	Railroad Commission of Texas	10669	CenterPoint South Texas	2017	Gas Depreciation Study
New Mexico	New Mexico Public Regulation Commission	17-00255-UT	Southwestern Public Service Company	2017	Electric Production Depreciation Study
Arkansas	Arkansas Public Service Commission	17-061-U	Empire District Electric Company	2017	Depreciation Rates for New Wind Generation
Kansas	Kansas Corporation Commission	18-EPDE-184-PRE	Empire District Electric Company	2017	Depreciation Rates for New Wind Generation
Oklahoma	Oklahoma Corporation Commission	PUD 201700471	Empire District Electric Company	2017	Depreciation Rates for New Wind Generation
Missouri	Missouri Public Service Commission	EO-2018-0092	Empire District Electric Company	2017	Depreciation Rates for New Wind Generation
Michigan	Michigan Public Service Commission	U-18457	Upper Peninsula Power Company	2017	Electric Depreciation Study
Florida	Florida Public Service Commission	20170179-GU	Florida City Gas	2017	Gas Depreciation Study
Iowa	NA		Cedar Falls Utility	2017	Telecommunications, Water, and Cable Utility
Michigan	FERC	ER18-56-000	Consumers Energy	2017	Electric Depreciation Study
Missouri	Missouri Public Service Commission	GR-2018-0013	Liberty Utilities	2017	Gas Depreciation Study
Michigan	Michigan Public Service Commission	U-18452	SEMCO	2017	Gas Depreciation Study
Texas	Public Utility Commission of Texas	47527	Southwestern Public Service Company	2017	Electric Production Depreciation Study
Minnesota	Minnesota Public Utilities Commission	17-581	Minnesota Northern States Power	2017	Electric, Gas and Common Transmission, Distribution and General
Colorado	Colorado Public Utilities Commission	17AL-0363G	Public Service of Colorado-Gas	2017	Gas Depreciation Study

Dane A. Watson Testimony Appearances

Asset Location	Commission	Docket (If Applicable	Company	Year	Description
MultiState	FERC	ER17-1664	American Transmission Company	2017	Electric Depreciation Study
Alaska	Regulatory Commission of Alaska	U-17-008	Municipal Power and Light City of Anchorage	2017	Generating Unit Depreciation Study
Louisiana	Louisiana Public Service Commission	U-34343	Atmos Trans Louisiana	2017	Gas Depreciation Study
Mississippi	Mississippi Public Service Commission	2017-UN-041	Atmos Energy	2017	Gas Depreciation Study
New York	FERC	ER17-1010-000	New York Power Authority	2017	Electric Depreciation Study
Oklahoma	Oklahoma Corporation Commission	PUD 201700078	CenterPoint Oklahoma	2017	Gas Depreciation Study
Texas	Railroad Commission of Texas	GUD 10580	Atmos Pipeline Texas	2017	Gas Depreciation Study
Texas	Public Utility Commission of Texas	46957	Oncor Electric Delivery	2017	Electric Depreciation Study
Alabama	FERC	ER16-2312-000	Alabama Power Company	2016	Electric Depreciation Study
Alabama	FERC	ER16-2313-000	SEGCO	2016	Electric Depreciation Study
Alaska	Regulatory Commission of Alaska	U-16-067	Alaska Electric Light and Power	2016	Generating Unit Depreciation Study
Arizona	Arizona Corporation Commission	G-01551A-16-0107	Southwest Gas	2016	Gas Depreciation Study
California	California Public Utilities Commission	A 16-07-002	California American Water	2016	Water and Waste Water Depreciation Study
Colorado	Colorado Public Utilities Commission	16A-0231E	Public Service Company of Colorado	2016	Electric Depreciation Study
Mississippi	Mississippi Public Service Commission	2016 UN 267	Willmut Gas	2016	Gas Depreciation Study
Florida	Florida Public Service Commission	160170-EI	Gulf Power	2016	Electric Depreciation Study
Georgia	N/A	N/A	Dalton Utilities	2016	Electric, Gas, Water, Wastewater & Fiber Depreciation Study
Georgia	NA	NA	Oglethorpe Power	2016	Electric Depreciation Study
Illinois	Illinois Commerce Commission	GRM #16-208	Liberty-Illinois	2016	Natural Gas Depreciation Study
Iowa	Iowa Utilities Board	RPU-2016-0003	Liberty-Iowa	2016	Natural Gas Depreciation Study
Kentucky	FERC	RP16-097-000	KOT	2016	Natural Gas Depreciation Study
Michigan	Michigan Public Service Commission	U-18195	Consumers Energy/DTE Electric	2016	Ludington Pumped Storage Depreciation Study

Dane A. Watson Testimony Appearances

Asset Location	Commission	Docket (If Applicable	Company	Year	Description
Michigan	Michigan Public Service Commission	U-18127	Consumers Energy	2016	Natural Gas Depreciation Study
MultiState	FERC	ER17-191-000	American Transmission Company	2016	Electric Depreciation Study
Hawaii			Hawaii American Water	2015	Wastewater and Water Depreciation Study
New Jersey	New Jersey Board of Public Utilities	GR16090826	Elizabethtown Natural Gas	2016	Gas Depreciation Study
New York	NA		New York Power Authority	2016	Electric Transmission and General Study
North Carolina	North Carolina Utilities Commission	Docket G-9 Sub 77H	Piedmont Natural Gas	2016	Gas Depreciation Study
Texas	Railroad Commission of Texas	GUD 10567	CenterPoint Texas	2016	Gas Depreciation Study
Texas	Public Utility Commission of Texas	45414	Sharyland	2016	Electric Depreciation Study
Alaska	Regulatory Commission of Alaska	U-15-089	Fairbanks Water and Wastewater	2015	Water and Waste Water Depreciation Study
Arkansas	Arkansas Public Service Commission	15-098-U	CenterPoint Arkansas	2015	Gas Depreciation Study and Cost of Removal Study
Arkansas	Arkansas Public Service Commission	15-031-U	Source Gas Arkansas	2015	Underground Storage Gas Depreciation Study
Hawaii			Hawaii American Water	2015	Wastewater and Water Depreciation Study
Arkansas	Arkansas Public Service Commission	15-011-U	Source Gas Arkansas	2015	Gas Depreciation Study
Atmos Energy Corporation	Tennessee Regulatory Authority	14-00146	Atmos Tennessee	2015	Natural Gas Depreciation Study
Colorado	Colorado Public Utilities Commission	15-AL-0299G	Atmos Colorado	2015	Gas Depreciation Study
Kansas	Kansas Corporation Commission	16-ATMG-079-RTS	Atmos Kansas	2015	Gas Depreciation Study
Kansas	Kansas Corporation Commission	15-KCPE-116-RTS	Kansas City Power and Light	2015	Electric Depreciation Study
Montana	NA	NA	Energy Keepers	2015	Property Units/ Depreciation Rates Hydro Facility
Multi-State NE US	FERC	16-453-000	Northeast Transmission Development, LLC	2015	Electric Depreciation Study
New Mexico	New Mexico Public Regulation Commission	15-00261-UT	Public Service Company of New Mexico	2015	Electric Depreciation Study

Dane A. Watson Testimony Appearances

Asset Location	Commission	Docket (If Applicable	Company	Year	Description
New Mexico	New Mexico Public Regulation Commission	15-00296-UT	Southwestern Public Service Company	2015	Electric Depreciation Study
New Mexico	New Mexico Public Regulation Commission	15-00139-UT	Southwestern Public Service Company	2015	Electric Depreciation Study
Texas	Railroad Commission of Texas	GUD 10432	CenterPoint- Texas Coast Division	2015	Gas Depreciation Study
Texas	Public Utility Commission of Texas	44704	Entergy Texas	2015	Electric Depreciation Study
Texas	Public Utility Commission of Texas	44746	Wind Energy Transmission Texas	2015	Electric Depreciation Study
Texas, New Mexico	FERC	ER15-949-000	Southwestern Public Service Company	2015	Electric Depreciation Study
Alaska	Regulatory Commission of Alaska	U-14-120	Alaska Electric Light and Power	2014-2015	Electric Depreciation Study
Alabama	State of Alabama Public Service Commission	U-5115	Mobile Gas	2014	Gas Depreciation Study
Alaska	Regulatory Commission of Alaska	U-14-045	Matanuska Electric Coop	2014	Electric Generation Depreciation Study
Alaska	Regulatory Commission of Alaska	U-14-054	Sand Point Generating LLC	2014	Electric Depreciation Study
Alaska	Regulatory Commission of Alaska	U-14-055	TDX North Slope Generating	2014	Electric Depreciation Study
California	California Public Utilities Commission	A.14-07-006	Golden State Water	2014	Water and Waste Water Depreciation Study
Colorado	Public Utilities Commission of Colorado	14AL-0660E	Public Service Company of Colorado	2014	Electric Depreciation Study
Louisiana	Louisiana Public Service Commission	U-28814	Atmos Energy Corporation	2014	Gas Depreciation Study
Michigan	Michigan Public Service Commission	U-17653	Consumers Energy Company	2014	Electric and Common Depreciation Study
Multi State – SE US	FERC	RP15-101	Florida Gas Transmission	2014	Gas Transmission Depreciation Study
Nebraska	Nebraska Public Service Commission	NG-0079	Source Gas Nebraska	2014	Gas Depreciation Study
New Mexico	New Mexico Public Regulation Commission	14-00332-UT	Public Service of New Mexico	2014	Electric Depreciation Study
Texas	Public Utility Commission of Texas	43950	Cross Texas Transmission	2014	Electric Depreciation Study
Texas	NA	NA	Hughes Natural Gas	2014	Gas Depreciation Study
Texas	Public Utility Commission of Texas	42469	Lone Star Transmission	2014	Electric Depreciation Study

Dane A. Watson Testimony Appearances

Asset Location	Commission	Docket (If Applicable	Company	Year	Description
Texas	Public Utility Commission of Texas	43695	Southwestern Public Service Company	2014	Electric Depreciation Study
Wisconsin	Wisconsin	05-DU-102	WE Energies	2014	Electric, Gas, Steam and Common Depreciation Studies
Texas, New Mexico	Public Utility Commission of Texas	42004	Southwestern Public Service Company	2013-2014	Electric Production, Transmission, Distribution and General Plant Depreciation Study
Virginia	Virginia Corporation Commission	PUE-2013-00124	Atmos Energy Corporation	2013-2014	Gas Depreciation Study
Arkansas	Arkansas Public Service Commission	13-078-U	Arkansas Oklahoma Gas	2013	Gas Depreciation Study
Arkansas	Arkansas Public Service Commission	13-079-U	Source Gas Arkansas	2013	Gas Depreciation Study
California	California Public Utilities Commission	Proceeding No.: A.13-11-003	Southern California Edison	2013	Electric Depreciation Study
Kentucky	Kentucky Public Service Commission	2013-00148	Atmos Energy Corporation	2013	Gas Depreciation Study
Minnesota	Minnesota Public Utilities Commission	13-252	Allete Minnesota Power	2013	Electric Depreciation Study
New Hampshire	New Hampshire Public Service Commission	DE 13-063	Liberty Utilities	2013	Electric Distribution and General
New Jersey	New Jersey Board of Public Utilities	GR13111137	South Jersey Gas	2013	Gas Depreciation Study
North Carolina/South Carolina	FERC	ER13-1313	Progress Energy Carolina	2013	Electric Depreciation Study
Oklahoma and TX Panhandle	NA	NA	Enable Midstream Partners	2013	Gas Depreciation Study
Texas	Public Utility Commission of Texas	41474	Sharyland	2013	Electric Depreciation Study
Texas	Railroad Commission of Texas	10235	West Texas Gas	2013	Gas Depreciation Study
Various	FERC	RP14-247-000	Sea Robin	2013	Gas Depreciation Study
Wisconsin	Public Service Commission of Wisconsin	4220-DU-108	Northern States Power Company - Wisconsin	2013	Electric, Gas and Common Transmission, Distribution and General
Alaska	Regulatory Commission of Alaska	U-12-154	Alaska Telephone Company	2012	Telecommunications Utility
Alaska	Regulatory Commission of Alaska	U-12-141	Interior Telephone Company	2012	Telecommunications Utility
Alaska	Regulatory Commission of Alaska	U-12-149	Municipal Power and Light City of Anchorage	2012	Electric Depreciation Study

Dane A. Watson Testimony Appearances

Asset Location	Commission	Docket (If Applicable	Company	Year	Description
Colorado	Colorado Public Utilities Commission	12AL-1269ST	Public Service Company of Colorado	2012	Gas and Steam Depreciation Study
Colorado	Colorado Public Utilities Commission	12AL-1268G	Public Service Company of Colorado	2012	Gas and Steam Depreciation Study
Kansas	Kansas Corporation Commission	12-ATMG-564-RTS	Atmos Kansas	2012	Gas Depreciation Study
Kansas	Kansas Corporation Commission	12-KCPE-764-RTS	Kansas City Power and Light	2012	Electric Depreciation Study
Michigan	Michigan Public Service Commission	U-17104	Michigan Gas Utilities Corporation	2012	Gas Depreciation Study
Minnesota	Minnesota Public Utilities Commission	12-858	Northern States Power Company - Minnesota	2012	Electric, Gas and Common Transmission, Distribution and General
Nevada	Public Utility Commission of Nevada	12-04005	Southwest Gas	2012	Gas Depreciation Study
New Mexico	New Mexico Public Regulation Commission	12-00350-UT	Southwestern Public Service Company	2012	Electric Depreciation Study
North Carolina	North Carolina Utilities Commission	E-2 Sub 1025	Progress Energy Carolina	2012	Electric Depreciation Study
North Dakota	North Dakota Public Service Commission	PU-12-0813	Northern States Power	2012	Electric, Gas and Common Transmission, Distribution and General
South Carolina	Public Service Commission of South Carolina	Docket 2012-384-E	Progress Energy Carolina	2012	Electric Depreciation Study
Texas	Railroad Commission of Texas	10170	Atmos Mid-Tex	2012	Gas Depreciation Study
Texas	Railroad Commission of Texas	10147, 10170	Atmos Mid-Tex	2012	Gas Depreciation Study
Texas	Railroad Commission of Texas	10174	Atmos West Texas	2012	Gas Depreciation Study
Texas	Railroad Commission of Texas	10182	CenterPoint Beaumont/ East Texas	2012	Gas Depreciation Study
Texas	Texas Public Utility Commission	40604	Cross Texas Transmission	2012	Electric Depreciation Study
Texas	Texas Public Utility Commission	40020	Lone Star Transmission	2012	Electric Depreciation Study
Texas	Texas Public Utility Commission	40606	Wind Energy Transmission Texas	2012	Electric Depreciation Study

Dane A. Watson Testimony Appearances

Asset Location	Commission	Docket (If Applicable	Company	Year	Description
Texas	Texas Public Utility Commission	40824	Xcel Energy	2012	Electric Depreciation Study
California	California Public Utilities Commission	A1011015	Southern California Edison	2011	Electric Depreciation Study
Colorado	Public Utilities Commission of Colorado	11AL-947E	Public Service Company of Colorado	2011	Electric Depreciation Study
Michigan	Michigan Public Service Commission	U-16938	Consumers Energy Company	2011	Gas Depreciation Study
Michigan	Michigan Public Service Commission	U-16536	Consumers Energy Company	2011	Wind Depreciation Rate Study
Mississippi	Mississippi Public Service Commission	2011-UN-184	Atmos Energy	2011	Gas Depreciation Study
MultiState	FERC	ER12-212	American Transmission Company	2011	Electric Depreciation Study
MultiState			Atmos Energy	2011	Shared Services Depreciation Study
MultiState			CenterPoint	2011	Shared Services Study
MultiState			CenterPoint	2011	Depreciation Reserve Study (SAP)
Pennsylvania	NA	NA	Safe Harbor	2011	Hydro Depreciation Study
Texas	Texas Public Utility Commission	39896	Entergy Texas	2011	Electric Depreciation Study
Texas	Public Utility Commission of Texas	38929	Oncor	2011	Electric Depreciation Study
Texas	Texas Commission on Environmental Quality	Matter 37050-R	Southwest Water Company	2011	WasteWater Depreciation Study
Texas	Texas Commission on Environmental Quality	Matter 37049-R	Southwest Water Company	2011	Water Depreciation Study
Alaska	Regulatory Commission of Alaska	U-10-070	Inside Passage Electric Cooperative	2010	Electric Depreciation Study
Georgia	Georgia Public Service Commission	31647	Atlanta Gas Light	2010	Gas Depreciation Study
Maine/ New Hampshire	FERC	10-896	Granite State Gas Transmission	2010	Gas Depreciation Study
Multi State – SE US	FERC	RP10-21-000	Florida Gas Transmission	2010	Gas Depreciation Study
Multistate	NA	NA	Constellation Energy	2010	Fossil Generation Depreciation Study
Multistate	NA	NA	Constellation Energy Nuclear	2010	Nuclear Generation Depreciation Study
Texas	Texas Railroad Commission	10041	Atmos Amarillo	2010	Gas Depreciation Study
Texas	Texas Railroad Commission	10000	Atmos Pipeline Texas	2010	Gas Depreciation Study

Dane A. Watson Testimony Appearances

Asset Location	Commission	Docket (If Applicable	Company	Year	Description
Texas	Railroad Commission of Texas	10038	CenterPoint South TX	2010	Gas Depreciation Study
Texas	Public Utility Commission of Texas	36633	City Public Service of San Antonio	2010	Electric Depreciation Study
Texas	Public Utility Commission of Texas	38339	CenterPoint Electric	2010	Electric Depreciation Study
Texas	Public Utility Commission of Texas	38147	Southwestern Public Service Company	2010	Electric Technical Update
Texas	Public Utility Commission of Texas	38480	Texas New Mexico Power	2010	Electric Depreciation Study
Alaska	Regulatory Commission of Alaska	U-09-015	Alaska Electric Light and Power	2009-2010	Electric Depreciation Study
Alaska	Regulatory Commission of Alaska	U-10-043	Utility Services of Alaska	2009-2010	Water Depreciation Study
California	California Public Utility Commission	A10071007	California American Water	2009-2010	Water and Waste Water Depreciation Study
Michigan	Michigan Public Service Commission	U-16054	Consumers Energy	2009-2010	Electric Depreciation Study
Michigan	Michigan Public Service Commission	U-16055	Consumers Energy/DTE Energy	2009-2010	Ludington Pumped Storage Depreciation Study
Wyoming	Wyoming Public Service Commission	30022-148-GR10	Source Gas	2009-2010	Gas Depreciation Study
Colorado	Colorado Public Utilities Commission	09AL-299E	Public Service of Colorado	2009	Electric Depreciation Study
Iowa	NA		Cedar Falls Utility	2009	Telecommunications, Water, and Cable Utility
Michigan	Michigan Public Service Commission	U-15963	Michigan Gas Utilities Corporation	2009	Gas Depreciation Study
Michigan	Michigan Public Service Commission	U-15989	Upper Peninsula Power Company	2009	Electric Depreciation Study
Michigan	Michigan Public Service Commission	In Progress	Edison Sault	2009	Electric Depreciation Study
Mississippi	Mississippi Public Service Commission	09-UN-334	CenterPoint Energy Mississippi	2009	Gas Depreciation Study
New York	New York Public Service Commission		Key Span	2009	Generation Depreciation Study
North Carolina	North Carolina Utilities Commission		Piedmont Natural Gas	2009	Gas Depreciation Study
South Carolina	Public Service Commission of South Carolina		Piedmont Natural Gas	2009	Gas Depreciation Study
Tennessee	Tennessee Regulatory Authority	09-000183	AGL – Chattanooga Gas	2009	Gas Depreciation Study
Tennessee	Tennessee Regulatory Authority	11-00144	Piedmont Natural Gas	2009	Gas Depreciation Study

Dane A. Watson Testimony Appearances

Asset Location	Commission	Docket (If Applicable	Company	Year	Description
Texas	Railroad Commission of Texas	9869	Atmos Energy	2009	Shared Services Depreciation Study
Texas	Railroad Commission of Texas	9902	CenterPoint Energy Houston	2009	Gas Depreciation Study
Arizona	NA	NA	Arizona Public Service	2008	Fixed Asset Consulting
Louisiana	Louisiana Public Service Commission	U-30689	Cleco	2008	Electric Depreciation Study
Multiple States	NA	NA	Constellation Energy	2008	Generation Depreciation Study
New Mexico	New Mexico Public Regulation Commission	07-00319-UT	Southwestern Public Service Company	2008	Testimony – Depreciation
North Dakota	North Dakota Public Service Commission	PU-07-776	Northern States Power Company - Minnesota	2008	Net Salvage
Texas	Public Utility Commission of Texas	35717	Oncor	2008	Electric Depreciation Study
Texas	Public Utility Commission of Texas	35763	Southwestern Public Service Company	2008	Electric Production, Transmission, Distribution and General Plant Depreciation Study
Wisconsin	Wisconsin	05-DU-101	WE Energies	2008	Electric, Gas, Steam and Common Depreciation Studies
Colorado	Colorado Public Utilities Commission	Filed – no docket to date	Public Service Company of Colorado	2007-2008	Electric Depreciation Study
Colorado	Colorado Public Utilities Commission	10AL-963G	Public Service Company of Colorado	2007-2008	Gas Depreciation Study
Minnesota	Minnesota Public Utilities Commission	E015/D-08-422	Minnesota Power	2007-2008	Electric Depreciation Study
Multiple States	Railroad Commission of Texas	9762	Atmos Energy	2007-2008	Shared Services Depreciation Study
Multiple States	None		Tennessee Valley Authority	2007-2008	Electric Generation and Transmission Depreciation Study
Michigan	Michigan Public Service Commission	U-15629	Consumers Energy	2006-2009	Gas Depreciation Study
Multiple States	NA	NA	Constellation Energy	2007	Generation Depreciation Study
Texas	Public Utility Commission of Texas	34040	Oncor	2007	Electric Depreciation Study
Arkansas	Arkansas Public Service Commission	06-161-U	CenterPoint Energy – Arkla Gas	2006	Gas Distribution Depreciation Study and Removal Cost Study

Dane A. Watson Testimony Appearances

Asset Location	Commission	Docket (If Applicable	Company	Year	Description
Colorado	Colorado Public Utilities Commission	06-234-EG	Public Service Company of Colorado	2006	Electric Depreciation Study
Multiple States	Multiple	NA	CenterPoint Energy	2006	Shared Services Depreciation Study
Nevada	NA	NA	Nevada Power/Sierra Pacific	2006	ARO Consulting

VEOLIA WATER PENNSYLVANIA, INC.

WATER AND WASTE WATER UTILITY

DEPRECIATION RATE STUDY

AT DECEMBER 31, 2021

http://www.utilityalliance.com

VEOLIA WATER PENNSYLVANIA, INC.
WATER AND WASTE WATER
DEPRECIATION RATE STUDY
EXECUTIVE SUMMARY

Veolia Water Pennsylvania, Inc. (”Veolia” or “Company” or “Utility”) engaged Alliance Consulting Group to conduct a depreciation study of the Company’s depreciable assets as of December 31, 2021. For Water assets, this study recommends an increase of approximately $766 thousand in annual depreciation compared to the depreciation rates currently in effect. For Waste Water assets, this study recommends a decrease of approximately $170 thousand in annual depreciation compared to the depreciation rates currently in effect. Overall this study recommends an increase of $595 thousand annually in depreciation expense.

The existing depreciation rates were based on the straight-line method, equal life group (“ELG”) procedure, and remaining-life technique. The same method, procedure, and technique are retained in this study. For Veolia Water, the life indications for the majority of the asset accounts stayed the same. Of the 30 accounts analyzed, 5 accounts had longer lives, 7 accounts had shorter lives, 14 accounts remained unchanged, and 4 accounts lacked an existing life parameter. Of the 5 accounts that had longer lives, the largest increases were Account 304.4 Transmission and Distribution Structures and Improvements and Account 304.2 Pumping Structures and Improvements, which had increases of 25 years and 10 years, respectively. Of the largest accounts by plant balance, Account 343 Transmission and Distribution Mains retained the same life and 345 Services increased the service life by 8 years. Accounts with the greatest decreases in lives were Account 308.2 Infiltration Galleries with a decrease of 19 years and Accounts 304.3 Purification Structures and Account 311.2 Electric Pumping Equipment, both of which had a decrease of 10 years.

For Veolia Waste Water, the life indications for the majority of the asset accounts stayed the same. Of the 7 accounts analyzed, 3 accounts had longer lives, 1 account

had shorter a shorter life, and 3 accounts lacked an existing life parameter. The account with the largest increase in life was Account 354.4 Structures and Improvements, which moved from 18 years to 40 years. The account with the smallest decrease in life was Account 371 Pumping Equipment, which had a decrease of 2 years.

At the request of the Company, this study does not include traditional net salvage recommendations. Instead, it includes the approach approved by the Pennsylvania Public Utility Commission ("Commission") in the last case. This approach, which is being proposed in the study, develops an annual removal cost amount based on the most recent five years of removal cost charges. This amount will be accrued as part of the depreciation expense. For Veolia Water, the net salvage accrual of $612,742 is shown in Appendix B as part of the annual depreciation accrual. Appendix D provides the calculation of the $612,742 net salvage amount. For Veolia Waste Water, the net salvage accrual of $0 is shown in Appendix B as part of the annual depreciation accrual. Appendix D-2 provides the calculation of the $0 net salvage amount.

Appendix A provides the calculation of the recommended depreciation rates for Water and Waste Water. Appendices A-1 provides the calculation of the recommended amortization rates for the amortized general plant accounts and the general plant reserve true-up. Appendix B provides the comparison in depreciation expense from existing annual accrual to proposed annual accrual. Appendix C provides the mortality characteristics (life, curve, salvage, and net salvage) for the accounts analyzed. Appendix D provides the net salvage history for all accounts. Appendix E shows a comparison of book and allocated depreciation reserves by account.

VEOLIA PENNSYLVANIA
WATER AND WASTE WATER
DEPRECIATION RATE STUDY
AT DECEMBER 31, 2021
Table of Contents

PURPOSE

The purpose of this study is to develop depreciation rates for the specified water and waste water depreciable property as recorded on Veolia's books at December 31, 2021. The account-based depreciation rates were designed to recover the total remaining undepreciated investment for the analyzed accounts, adjusted for net salvage, over the remaining life of the property on a straight-line basis.

Veolia Water Pennsylvania ("VWPA") provides water service to approximately 65,000 customers in 9 counties and 42 municipalities throughout Pennsylvania. It operates five surface water treatment plants ranging in size from three quarters to twelve million gallons per day. It also operates 33 wells with varying degrees of treatment, 34 booster stations and 41 storage facilities. Its infrastructure includes over 950 miles of main, 13,000 valves and 4,100 hydrants. The estimated number of customers served is 162,500.

Veolia Water Bethel serves approximately 2,500 customers in the Bethel system. Veolia owns and operates the water system infrastructure including 40 miles of water main. There are no treatment plants, wells, booster pump stations, or tanks in this system. It is served via interconnects with Veolia Water Delaware and Chester Water Authority. The estimated number of customers served is 7,500.

STUDY RESULTS

Overall depreciation rates for the specific depreciable property analyzed and included in this study are shown in Appendices A and A-1. For Veolia Pennsylvania Water assets, these rates translate into an annual depreciation expense of $11.6 million based on Veolia's depreciable investment at December 31, 2021. The annual equivalent depreciation expense calculated by the same method using the approved rates was $11.0 million. The proposed increase is $595 thousand from current deprecation rates. Appendix A demonstrates the development of the annual depreciation rates and annual accruals, and Appendix A-1 shows amortization rates and annual accruals by account. Appendix B presents a comparison of approved rates and accrual amounts versus proposed rates and accrual amounts by account. Appendix C presents a summary of life and net salvage estimates by account. Appendix D shows the net salvage history for all accounts. A summary of results is shown in the table below.

Veolia Water Pennsylvania
Comparison of Proposed Depreciation Rates

As of December 31, 2021

Water Function	Plant at 12/31/21	Current Expense	Proposed Expense	Difference
Source of Supply	13,873,035	348,639	298,875	(49,764)
Pumping Equipment	17,109,183	600,205	862,587	262,382
Treatment Equipment	66,212,049	1,913,933	1,843,323	(70,611)
Transmission and Distribution	322,504,386	6,311,888	6,595,395	283,507
General	25,151,698	1,370,140	1,529,891	159,752
General Plant AR 15 Water Imbalance			180,571	180,571
	444,850,351	10,544,805	11,310,642	765,837

Sewer Function	Plant at 12/31/21	Current Expense	Proposed Expense	Difference
Collection, Treatment and Disposal	5,499,333	427,078	254,631	(172,446)
General Plant	20,876	234	1,898	1,663
General Plant AR 15 Sewer Imbalance			538	538
Total Sewer	5,520,209	427,312	257,067	(170,245)
Total Veolia PA	450,370,560	10,972,117	11,567,709	595,592

GENERAL DISCUSSION

Definition

The term "depreciation" as used in this study is considered in the accounting sense, that is, a system of accounting that distributes the cost of assets, less net salvage (if any), over the estimated useful life of the assets in a systematic and rational manner. It is a process of allocation, not valuation. This expense is systematically allocated to accounting periods over the life of the properties. The amount allocated to any one accounting period does not necessarily represent the loss or decrease in value that will occur during that particular period. The Company accrues depreciation on the basis of the original cost of all depreciable property included in each functional property group. On retirement the full cost of depreciable property, less the net salvage value, is charged to the depreciation reserve.

Basis of Depreciation Estimates

The straight-line, broad (average) life group, remaining-life depreciation system was employed to calculate annual and accrued depreciation in this study. In this system, the annual depreciation expense for each group is computed by dividing the original cost of the asset less allocated depreciation reserve less estimated net salvage by its respective average life group remaining life. The resulting annual accrual amounts of all depreciable property within a function were accumulated, and the total was divided by the original cost of all functional depreciable property to determine the depreciation rate. The calculated remaining lives and annual depreciation accrual rates were based on attained ages of plant in service and the estimated service life and salvage characteristics of each depreciable group. The computations of the annual depreciation rates and remaining lives are shown in Appendices A and A-1.

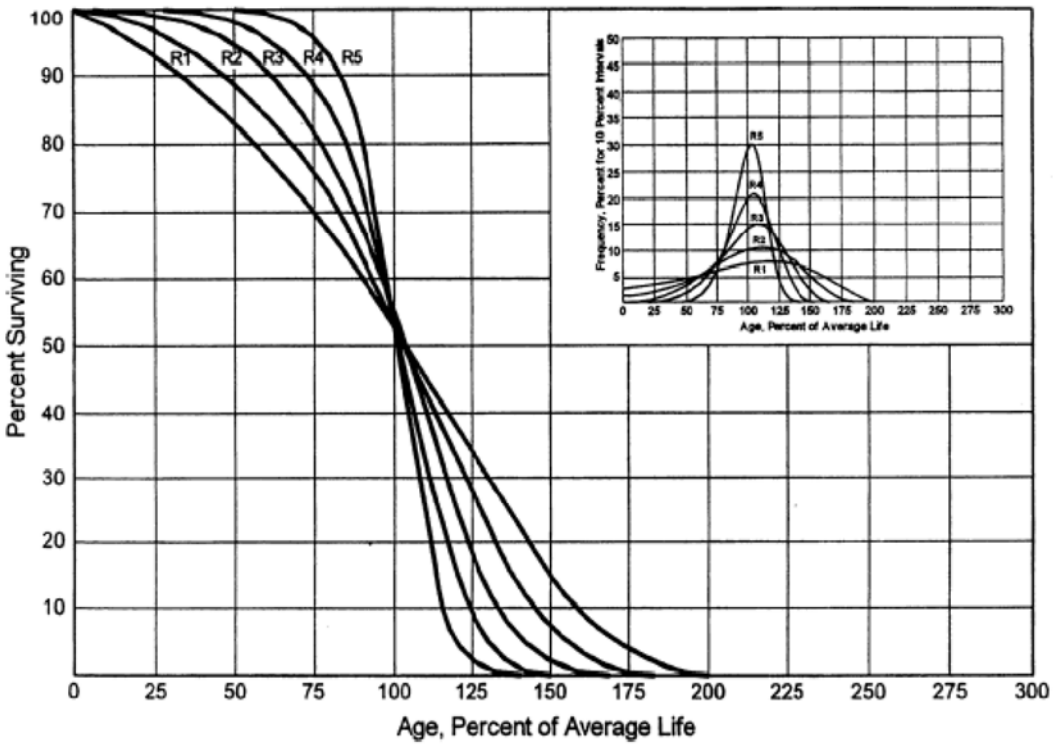
Actuarial analysis was used with each account within a function where

sufficient data were available, and judgment was used to some degree on all accounts.

Survivor Curves

To fully understand depreciation projections in a regulated utility setting, there must be a basic understanding of survivor curves. Individual property units within a group do not normally have identical lives or investment amounts. The average life of a group can be determined by first constructing a survivor curve which is plotted as a percentage of the units surviving at each age. A survivor curve represents the percentage of property remaining in service at various age intervals. The Iowa Curves are the result of an extensive investigation of life characteristics of physical property made at Iowa State College Engineering Experiment Station in the first half of the prior century. Through common usage, revalidation and regulatory acceptance, these curves have become a descriptive standard for the life characteristics of industrial property. An example of an Iowa Curve is shown below.

There are four families in the Iowa Curves that are distinguished by the relation of the age at the retirement mode (largest annual retirement frequency) and the average life. For distributions with the mode age greater than the average life, an "R" designation (i.e., Right modal) is used. The family of “R” moded curves is shown below.



Similarly, an "S" designation (i.e., Symmetric modal) is used for the family whose mode age is symmetric about the average life. An "L" designation (i.e., Left modal) is used for the family whose mode age is less than the average life. A special case of left modal dispersion is the "O" or origin modal curve family. Within each curve family, numerical designations are used to describe the relative magnitude of the retirement frequencies at the mode. A "6" indicates that the retirements are not greatly dispersed from the mode (i.e., high mode frequency) while a "1" indicates a large dispersion about the mode (i.e., low mode frequency). For example, a curve with an average life of 30 years and an "L3" dispersion is a moderately dispersed, left modal curve that can be designated as a 30 L3 Curve. An SQ, or square, survivor curve occurs where no dispersion is present (i.e., units of common age retire simultaneously).

Most property groups can be closely fitted to one Iowa Curve with a unique average service life. The blending of judgment concerning current conditions and

future trends along with the matching of historical data permits the depreciation analyst to make an informed selection of an account's average life and retirement dispersion pattern.

Actuarial Analysis

Actuarial analysis (retirement rate method) was used in evaluating historical asset retirement experience where vintage data were available and sufficient retirement activity was present. In actuarial analysis, interval exposures (total property subject to retirement at the beginning of the age interval, regardless of vintage) and age interval retirements are calculated. The complement of the ratio of interval retirements to interval exposures establishes a survivor ratio. The survivor ratio is the fraction of property surviving to the end of the selected age interval, given that it has survived to the beginning of that age interval. Survivor ratios for all of the available age intervals were chained by successive multiplications to establish a series of survivor factors, collectively known as an observed life table. The observed life table shows the experienced mortality characteristic of the account and may be compared to standard mortality curves such as the Iowa Curves. Where data were available, accounts were analyzed using this method. Placement bands were used to illustrate the composite history over a specific era, and experience bands were used to focus on retirement history for all vintages during a set period. The results from these analyses for those accounts which had data sufficient to be analyzed using this method are shown in the Life Analysis section of this report. Actuarial transactions were available from for varying periods. The oldest actuarial retirements began in 1955. The period of available data varied depending on the plant account.

Judgment

Any depreciation study requires informed judgment by the analyst

conducting the study. Knowledge of the property being studied, utilities' policies and procedures, general trends in technology and industry practice, and a sound basis of understanding depreciation theory are needed to apply this informed judgment. Judgment was used in areas such as survivor curve modeling and selection, depreciation method selection, simulated plant record method analysis, and actuarial analysis.

Judgment is not defined as being used in cases where there are specific, significant pieces of information that influence the choice of a life or curve. Those cases would simply be a reflection of specific facts into the analysis. Where there are multiple factors, activities, actions, property characteristics, statistical inconsistencies, implications of applying certain curves, property mix in accounts, or a multitude of other considerations that impact the analysis (potentially in various directions), judgment is used to take all of these factors and synthesize them into a general direction or understanding of the characteristics of the property. Individually, no one factor in these cases may have a substantial impact on the analysis, but, overall, may shed light on the utilization and characteristics of assets. Judgment may also be defined as deduction, inference, wisdom, common sense, or the ability to make sensible decisions. There is no single correct result from statistical analysis; hence, there is no answer absent judgment. At the very least, for example, any analysis requires choosing upon which bands to place more emphasis.

The establishment of appropriate average service lives and retirement dispersions for the Source of Supply, Pumping, Water Treatment, Transmission and Distribution, and General accounts requires judgment to incorporate the understanding of the operation of the system with the available accounting information analyzed using the Retirement Rate actuarial methods. The appropriateness of lives and curves depends not only on statistical analyses, but also on how well future retirement patterns will match past retirements.

Current applications and trends in use of the equipment also need to be factored into life and survivor curve choices in order for appropriate mortality characteristics to be chosen.

Equal Life Group Depreciation

The source of Veolia's existing depreciation accruals uses the average life group ("ELG") depreciation procedure, broad group with remaining life. This methodology was recently approved by the Pennsylvania Public Utilities Commission in Commission Docket Number R-2018-3000834 for the Pennsylvania water and waste water assets on plant at December 31, 2017. At the request of Veolia, this study uses the ELG depreciation procedure to group the assets within each account. After an average service life and dispersion were selected for each account, those parameters were used to estimate what portion of the surviving investment of each vintage was expected to retire. The depreciation of the group continues until all investment in the vintage group is retired. ELG groups are defined by their respective account dispersion, life, and salvage estimates. A straight-line rate for each ELG group is computed and accumulated across each vintage. The resultant rate for each ELG group is designed to recover all retirements less net salvage as each vintage retires. The ELG procedure recovers net book cost over the life of each ELG group rather than averaging many components. It also closely matches the concept of component or item accounting found in accounting textbooks.

Theoretical Depreciation Reserve

At the Company's request, the Company's book depreciation reserves were reallocated within division and function by plant account based on the theoretical reserves for each account for each division. The Company will maintain its books and records at the division level, and for this reason, reserve reallocation was performed within each distribution and function. These results are shown in Appendix E for each division. This study used a reserve model that relied on a prospective concept relating future retirement and accrual patterns for property, given current life and salvage estimates. The theoretical reserve of a group is developed from the estimated remaining life, total life of the property group, and estimated net salvage. The theoretical reserve represents the portion of the group cost that would have been accrued if current forecasts were used throughout the life of the group for future depreciation accruals. The computation involves multiplying the vintage balances within the group by the theoretical reserve ratio for each vintage. The equal life group method requires an estimate of dispersion and service life to establish how much of each vintage is expected to be retired in each year until all property within the vintage is retired. Estimated average service lives and dispersion determine the amount within each equal life group. The equal life group-remaining-life theoretical reserve ratio ("RRELG") is calculated as:

$$RRELG = 1 - \frac{(ELG\ Remaining\ Life)}{(ELG\ Life)} * (1 - Net\ Salvage\ Ratio)$$

DETAILED DISCUSSION

Depreciation Study Process

This depreciation study encompassed four distinct phases. The first phase involved data collection and field interviews. The second phase was where the initial data analysis occurred. The third phase was where the information and analysis were evaluated. Once the first three stages were complete, the fourth phase began. This phase involved the calculation of deprecation rates and documenting the corresponding recommendations.

During the Phase 1 data collection process, historical data was compiled from continuing property records and general ledger systems. Data was validated for accuracy by extracting and comparing to multiple financial system sources. Audit of this data was validated against historical data from prior periods, historical general ledger sources, and field personnel discussions. This data was reviewed extensively to put in the proper format for a depreciation study. Further discussion on data review and adjustment is found in the Salvage Considerations Section of this study. Also, as part of the Phase 1 data collection process, numerous discussions were conducted with engineers and field operations personnel to obtain information that would assist in formulating life and salvage recommendations in this study. One of the most important elements of performing a proper depreciation study is to understand how the utility utilizes assets and the environment of those assets. Interviews with engineering and operations personnel are important methods that allow the analyst to obtain information that is beneficial when evaluating the output from the life and net salvage programs in relation to the utility's actual asset utilization and environment. Information that was gleaned in these discussions is found both in the Detailed Discussion of this study in the life analysis and salvage analysis sections and also in workpapers.

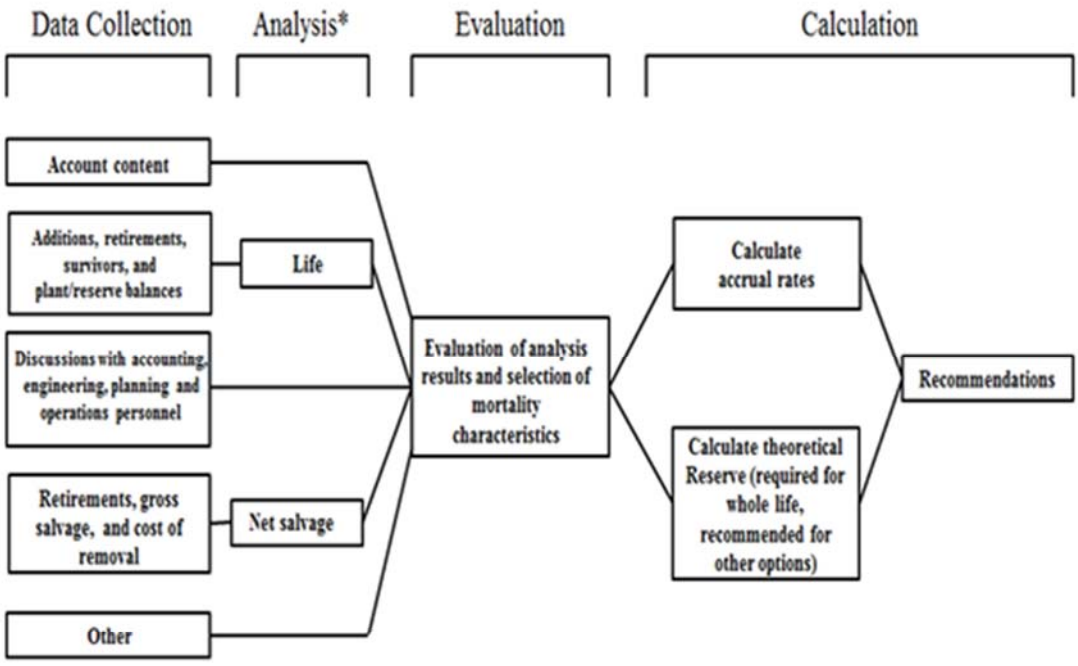
Phase 2 is where the actuarial analysis is performed. Phase 2 and 3 overlap to a significant degree. The detailed property records information is used in Phase 2 to develop observed life tables for life analysis. These tables are visually compared to industry standard tables to determine historical life characteristics. It is possible that the analyst would cycle back to this phase based on the evaluation process performed in Phase 3. Net salvage analysis consists of compiling historical salvage and removal data by functional group to determine values and trends in gross salvage and removal cost. This information was then carried forward into Phase 3 for the evaluation process.

Phase 3 is the evaluation process which synthesizes analysis, interviews, and operational characteristics into a final selection of asset lives and net salvage parameters. The historical analysis from Phase 2 is further enhanced by the incorporation of recent or future changes in the characteristics or operations of assets that were revealed in Phase 1. Phases 2 and 3 allow the depreciation analyst to validate the asset characteristics as seen in the accounting transactions with actual Utility operational experience.

Finally, Phase 4 involved calculating accrual rates, making recommendations, and documenting the conclusions in a final report. The calculation of accrual rates is found in Appendices A and A-1. Recommendations for the various accounts are contained within the Detailed Discussion of this report. The depreciation study flow diagram shown as Figure 1[1] documents the steps used in conducting this study. Depreciation Systems[2], page 289, documents the same basic processes in performing a depreciation study which are: statistical analysis, evaluation of statistical analysis, discussions with management, forecast assumptions, write logic supporting forecasts and estimation, and write final report.

[1] INTRODUCTION TO DEPRECIATION FOR PUBLIC UTILITIES & OTHER INDUSTRIES, AGA EEI (2013).
[2] W. C. Fitch and F.K.Wolf, DEPRECIATION SYSTEMS, Iowa State Press, at page 289 (1994).

Book Depreciation Study Flow Diagram



Source: Introduction to Depreciation for Public Utilities and Other Industries, AGA EEI , 2013.

*Although not specifically noted, the mathematical analysis may need some level of input from other sources (for example, to determine analysis bands for life and adjustments to data used in all analysis).

Depreciation Rate Calculation

Annual depreciation expense amounts for the depreciable property accounts of Veolia Pennsylvania were calculated by the straight line, equal life group, remaining life system. With this approach, remaining lives were calculated according to standard ELG group expectancy techniques, using the Iowa Curves noted in the calculation. For each plant account, the difference between the surviving investment at the statewide level, adjusted for estimated net salvage and the allocated book depreciation reserve, was divided by the average remaining life to yield the annual depreciation expense. These calculations are shown in Appendix A.

Vintage Group Amortization

Veolia proposes to implement vintage group amortization for assets in Accounts 391-398, excluding Transportation Equipment Power Operated Equipment. Under vintage group amortization, assets in the amortized accounts are retired when they reach the projected service life of the group. This study has reviewed the life and net salvage parameters for all accounts in this group. In the life analysis and salvage analysis sections, recommended changes to each account describe the depreciation parameters requested for those accounts. The depreciation accrual for General amortized property plant will change to reflect the reserve position of the various accounts and small changes in life parameters and net salvage percentages. This allows the Company to continue to track small dollar General Property plant items in a cost-efficient manner.

The changes in General Property plant for Vintage Group Amortization assets resulted in a reserve difference that has to be addressed to provide full recovery of the cost for these assets. For ease of tracking the difference, this study proposes a 5 year recovery period for this difference. These computations are shown in Appendix A-1.

Remaining Life Calculation

The establishment of appropriate average service lives and retirement dispersions for each account within a functional group was based on engineering judgment that incorporated available accounting information analyzed using the Retirement Rate actuarial methods. After establishment of appropriate average service lives and retirement dispersion, remaining life was computed for each account. Theoretical depreciation reserve with zero net salvage was calculated using theoretical reserve ratios as defined in the theoretical reserve portion of the General Discussion section. The difference between account balance and theoretical reserve was then spread over the ELG depreciation accruals. Remaining life computations are found for each account in the workpapers.

LIFE ANALYSIS

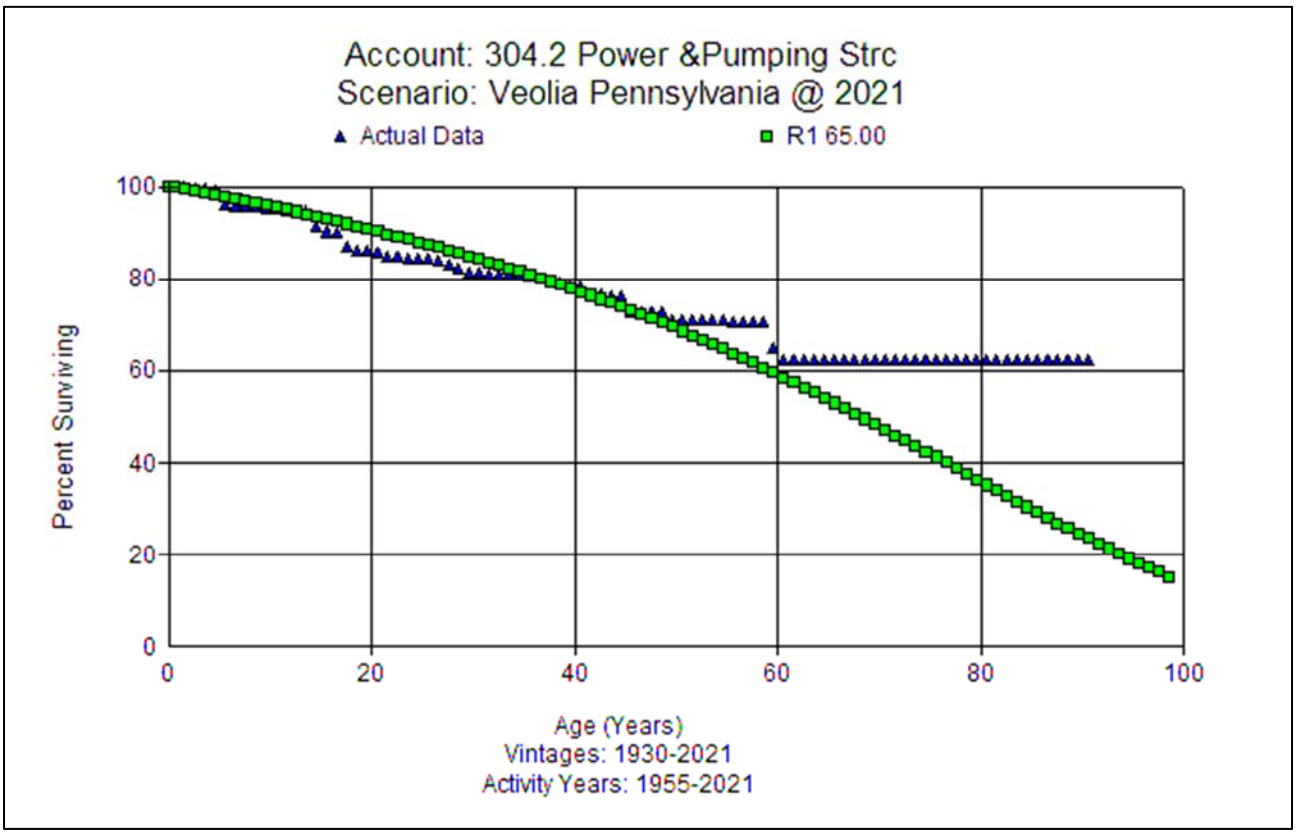
The retirement rate actuarial life analysis used in performing this study. The retirement rate actuarial analysis method was applied to all of the specified accounts for Veolia. For each account, an actuarial retirement rate analysis was made with placement and experience bands of varying width. The historical observed life table was plotted and compared with various Iowa Curves to obtain the most appropriate match. A selected curve for each account is shown in the Life Analysis Section of this report. The observed life tables for all analyzed placement and experience bands are provided in workpapers. The existing lives are determined in Pennsylvania Docket R-2018-3000834.

Life Analysis – Veolia Pennsylvania Water Assets

Source of Supply Plant

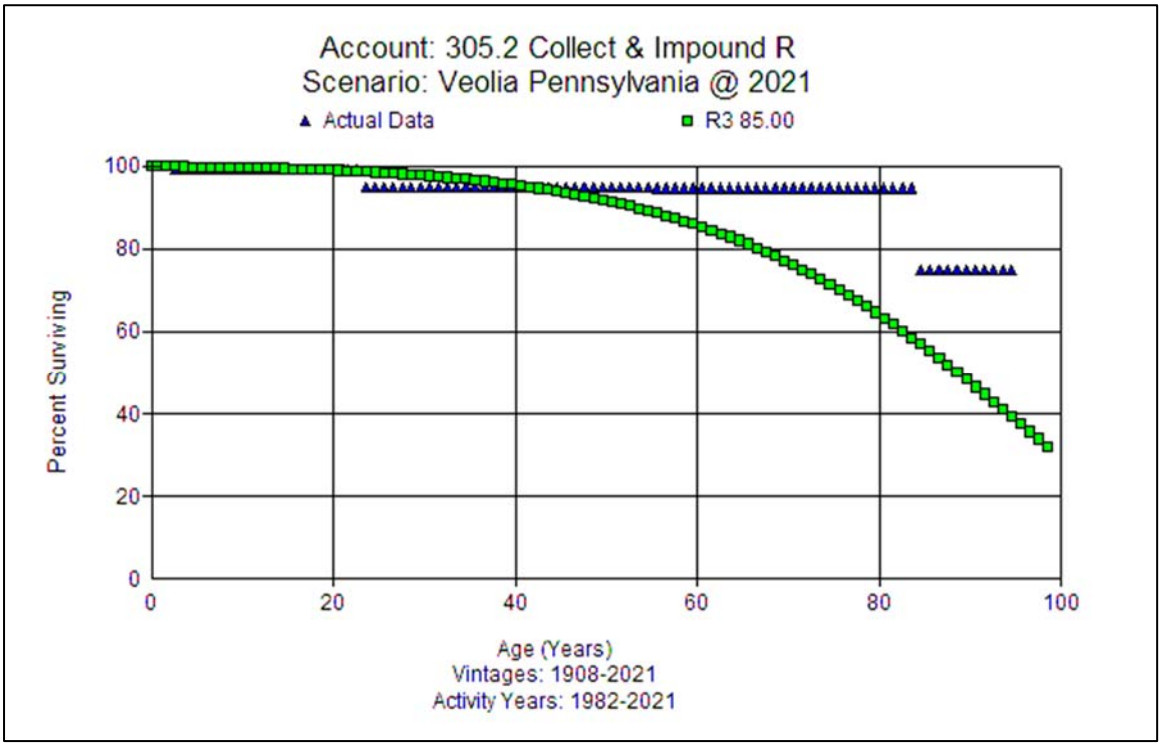
Account 304.2 Structures and Improvements Source of Supply (65 R1)

This account consists of structures and various improvements associated with source of supply equipment. The account balance is $7.0 million for this account. The plant is all located in Veolia Pennsylvania. The current life of this account is 55 years with an R2 dispersion. The items in this account are components of structures such as: building shell, site work, roofs, fences, HVAC systems, safety equipment, and security systems. Actuarial analysis shows a slightly lower longer life, and Company SMEs ("Subject Matter Experts") report that the assets in this account are concrete basins, which would have a longer life than the components in other types of structures. Based on judgment, input from Company personnel, and the assets in this account, this study recommends moving to a 65 year life with an R1 dispersion curve for this account. A graph of the observed life table compared to the proposed curve and life for this account is shown below.


Account: 304.2 Power &Pumping Strc
Scenario: Veolia Pennsylvania @ 2021
Actual Data
R1 65.00
Percent Surviving
100
80
60
40
20
0
0
20
40
60
80
100
Age (Years)
Vintages: 1930-2021
Activity Years: 1955-2021

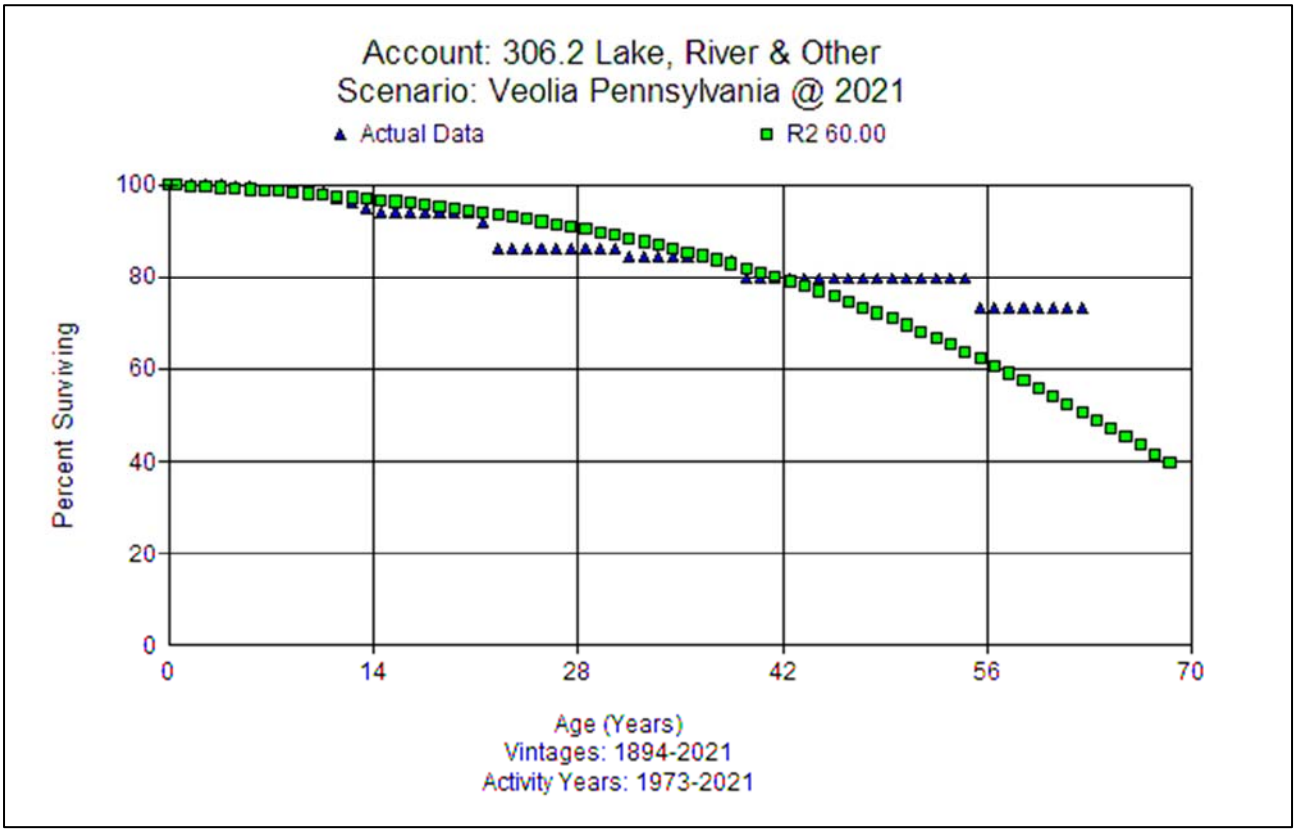
Account 305.2 Collecting & Impounding Reservoirs (85 R3)

This account has an account balance of $435 thousand as of December 31, 2021. The plant is all located in Veolia Pennsylvania. The current life of this account is 65 years with an S1 dispersion. This account contains structures and various improvements used for impounding, collecting, and storing water in the source of supply system. Company personnel report that assets associated with dams have a longer life than the current life for this account. Based on judgment and the type of construction, this study recommends moving to an 85 year life with an R3 dispersion curve for this account. A graph of the observed life table compared to the proposed curve and life for this account is shown below.



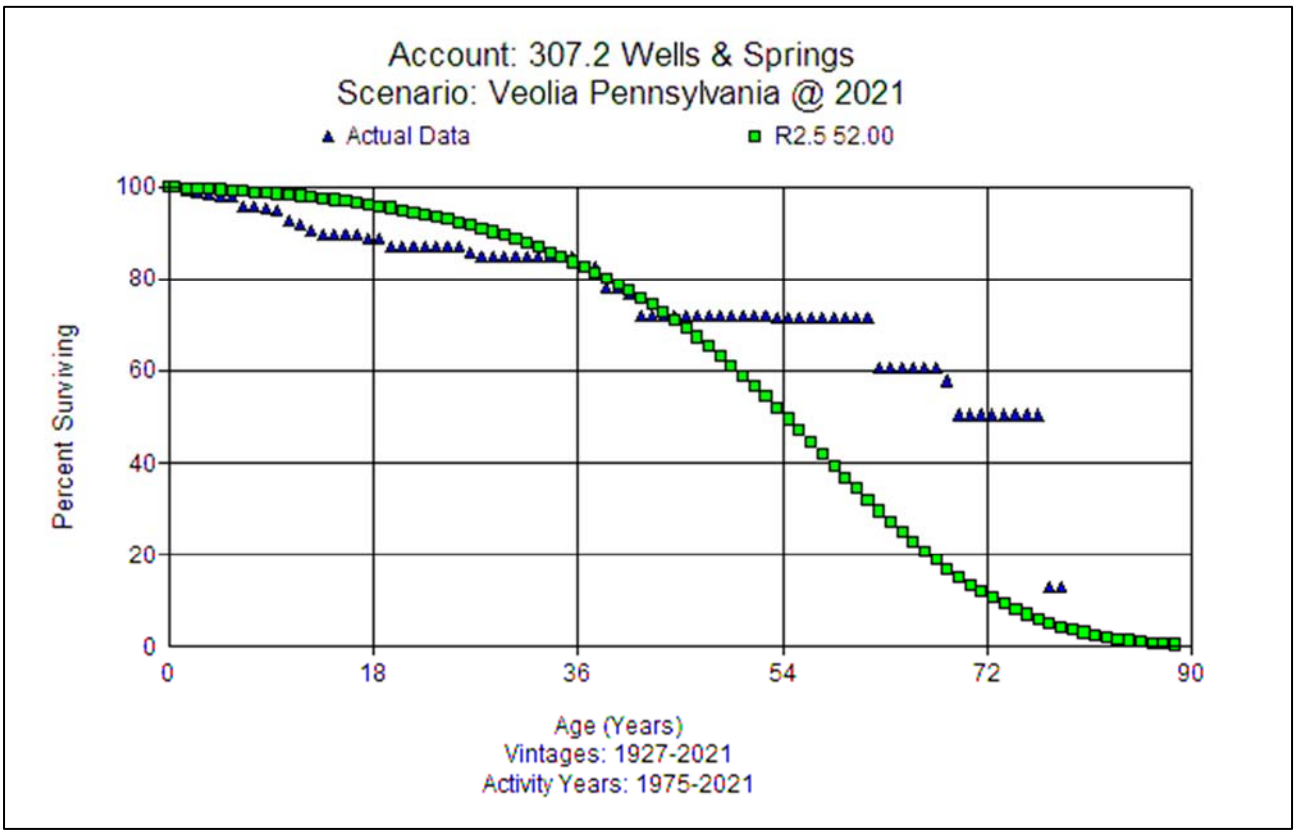
Account 306.2 Lake, River, and Other Intakes (60 R2)

This account consists of lake, river, or other intakes and includes items such as buildings, bulkheads, filter plant, screens, piping, and related assets. This account has an account balance of $4.9 million as of December 31, 2021. The plant is all located in Veolia Pennsylvania. The current life of this account is 65 years with an R2.5 dispersion. Company SMEs report these assets are mostly raw water pipes and intake structures. They estimate that the life of intakes would be 50 years and longer for raw water pipes. Based on actuarial analysis and the assets in this account, this study recommends moving to a 60 year life with an R2 dispersion curve for this account. A graph of the observed life table compared to the proposed curve and life for this account is shown below.



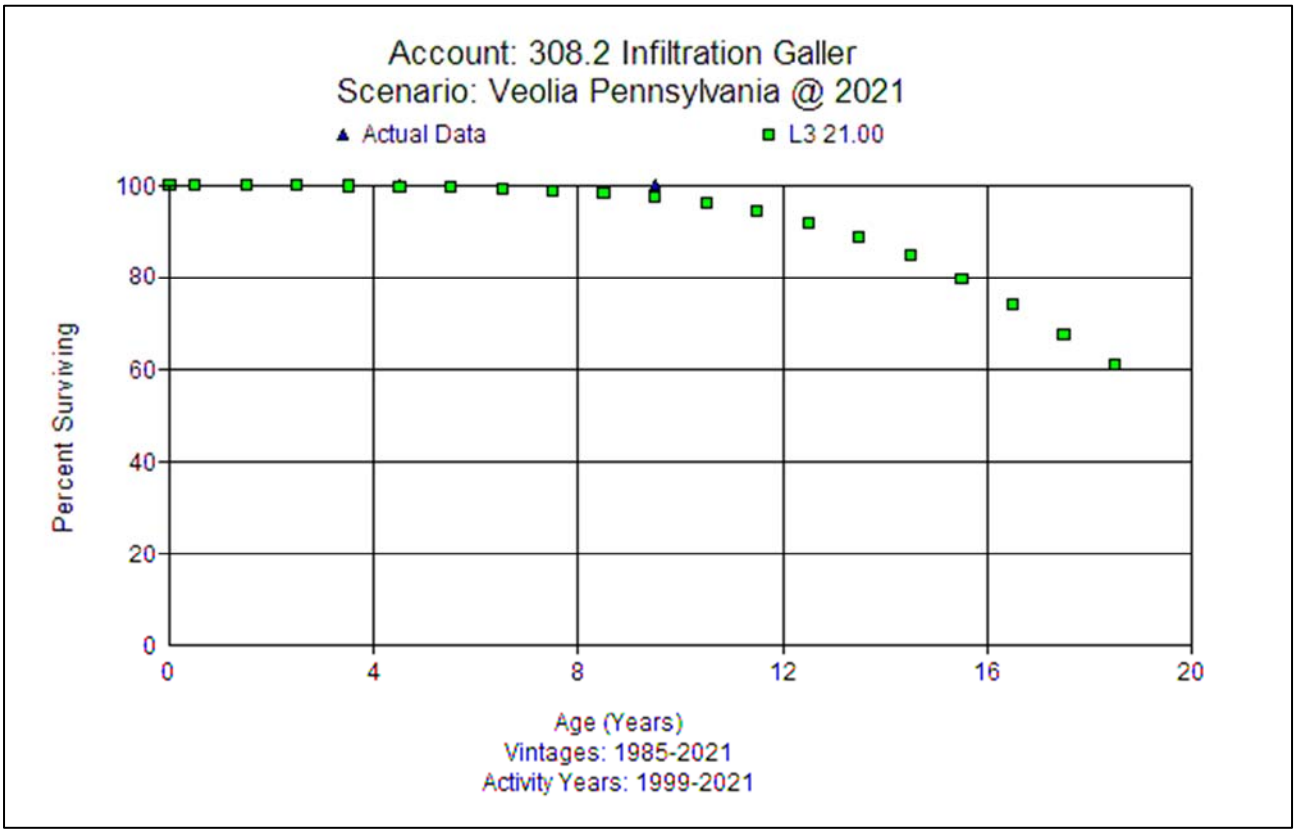
Account 307.2 Wells and Springs (52 R2.5)

This account consists of the cost of wells and springs used as a source of supply. Such assets might be collecting basins, pipes, springs and appurtenances, and wells and casings. The current life of this account is 48 years with an R2 dispersion, and the account balance is $1.4 million. The plant is all located in Veolia Pennsylvania. Company SMEs report that there are many fairly short-lived assets in the account as well as some longer lived assets. A well itself will last longer than 55 years but much of the ancillary equipment that is replaced much more often. A number of the wells are from the 1950s and 1960s. Rehabilitations are capital and would occur on a 7-10 year cycle. Some original cost would be retired when rehabbed. If not rehabilitated frequently enough, the Company will permanently lose capacity in the well. From an operations perspective, Company SME recommend a slight movement longer in the life of this account. Based on judgment and data from Company SMEs, this study recommends moving to a 52 year life and moving to an R2.5 dispersion curve for this account. A graph of the observed life table compared to the proposed curve and life for this account is shown below.


Account: 307.2 Wells & Springs
Scenario: Veolia Pennsylvania @ 2021
Actual Data
R2.5 52.00
Percent Surviving
100
80
60
40
20
0
0
18
36
54
72
90
Age (Years)
Vintages: 1927-2021
Activity Years: 1975-2021

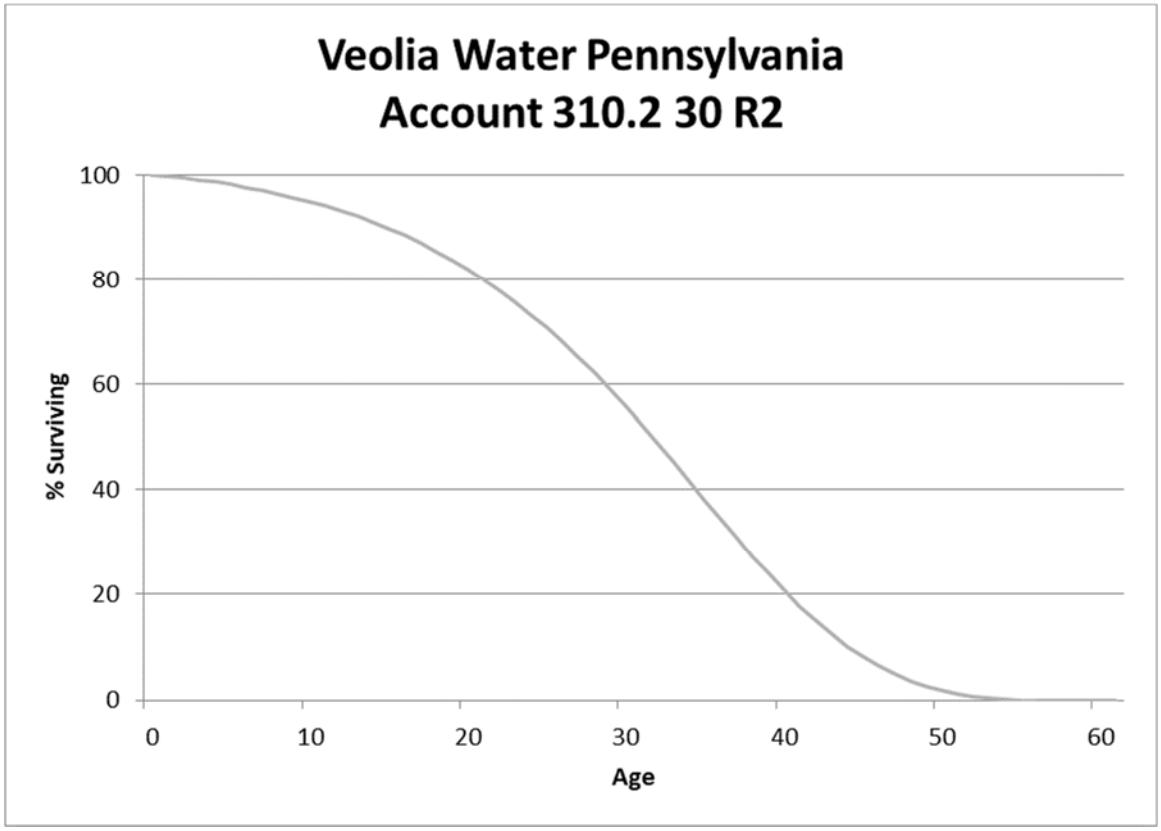
Account 308.2 Infiltration Galleries and Tunnels (21 L3)

This account consists of the cost of infiltration galleries and tunnels used as a source of supply. Such assets might be conduits, gatehouses, and equipment and /or piping. The current life of this account is 40 years with an R2.5 dispersion, and the account balance is $13 thousand. The plant is all located in Veolia Pennsylvania. Company SMEs report that the small amount of plant in this account was added in 2016. It relates to Copper Smith plant piping and is similar to treatment plant. Company SMEs recommend a shorter life similar to other accounts in the treatment function. Based on judgment and data from Company SMEs, this study recommends moving to a life of 21 years with an L3 dispersion curve for this account. A graph of the observed life table compared to the proposed curve and life for this account is shown below.



Account 310.2 Power Generation Equipment (30 R2)

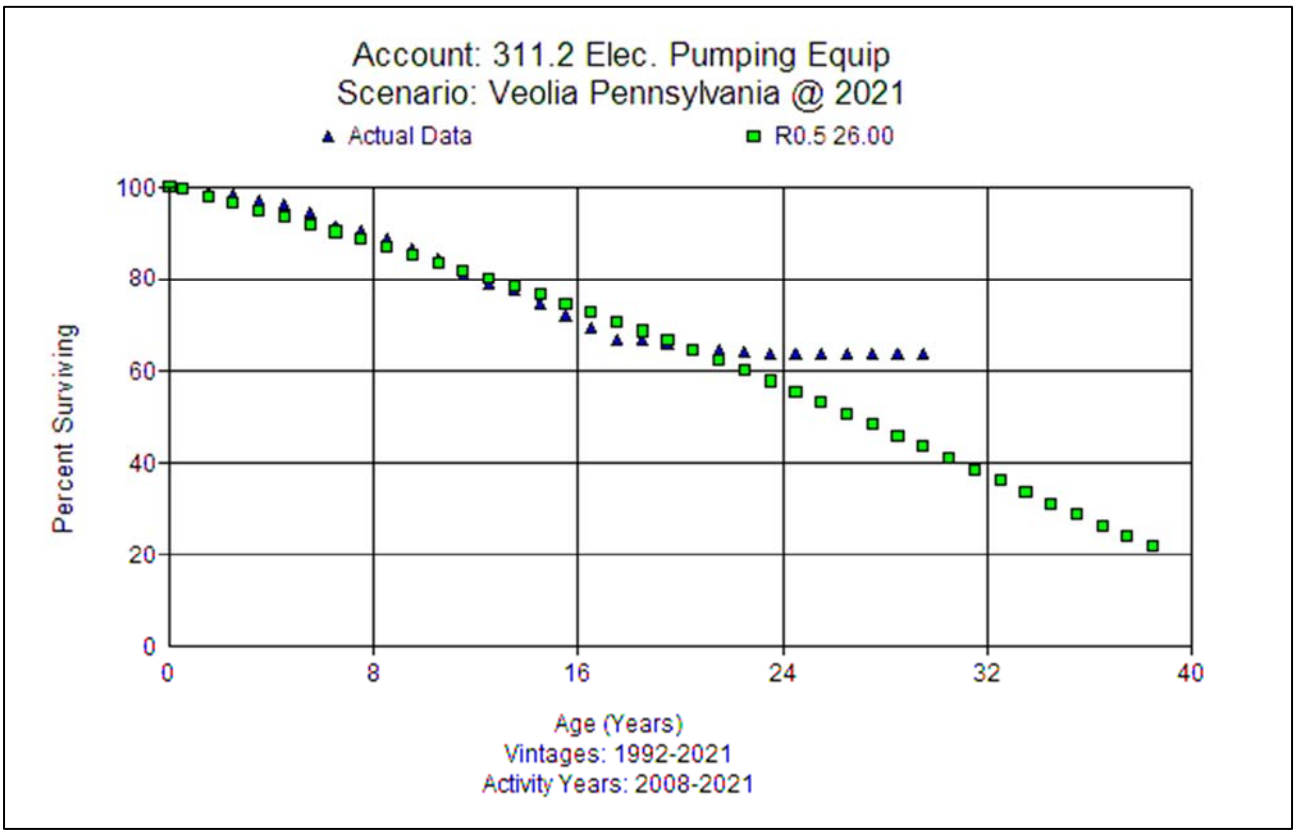
This account consists of the cost of any equipment used for the production of power. Such assets might include generators. The account balance is $159 thousand. The plant is all located in Veolia Pennsylvania. There is no current life for this account. Based on judgment, this study recommends a 30 year life and an R2 dispersion curve for this account. A generic graph of the proposed curve and life for this account is shown below.



Pumping Plant

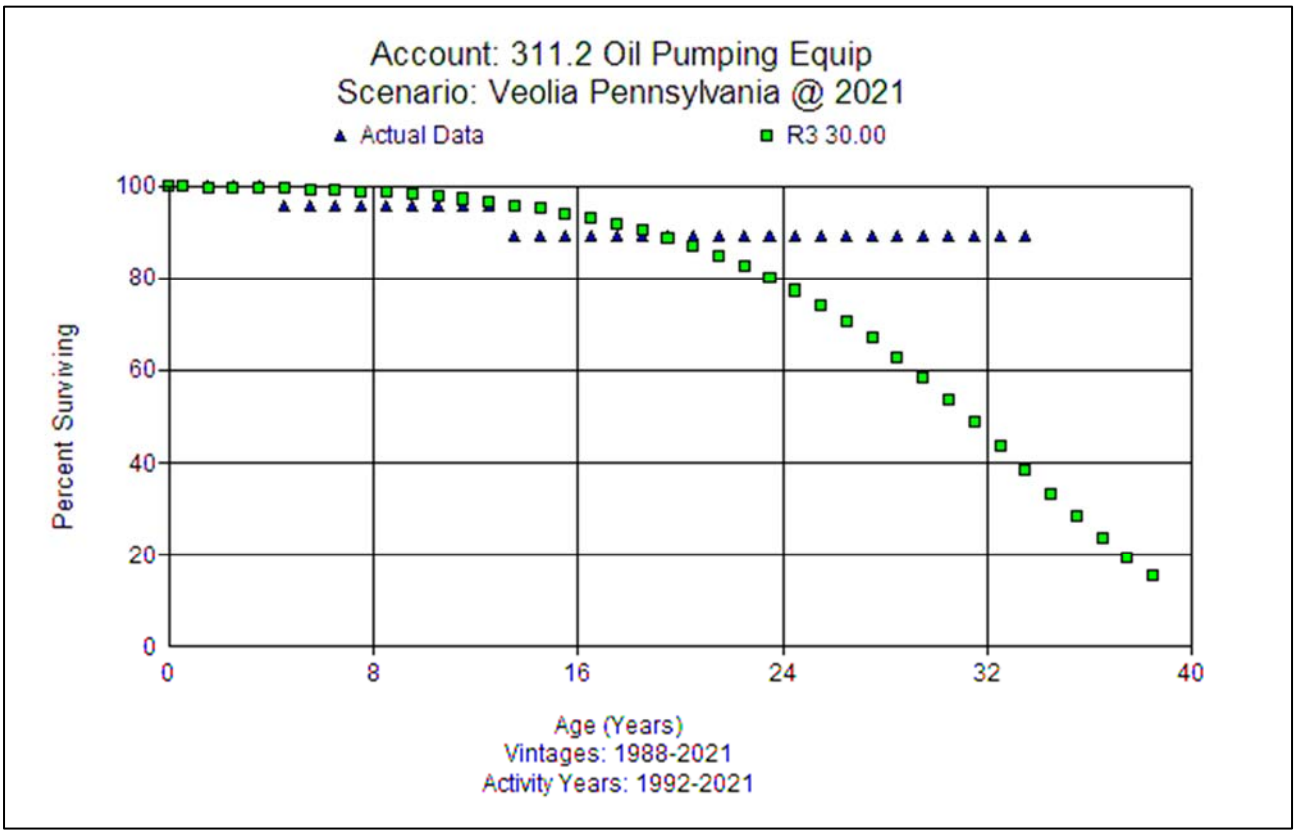
Account 311.2 Pumping Equipment Electrical (26 R0.5)

This account consists of electric pumps, piping, circulating, and other related equipment used in the pumping plant. The account balance is $16.2 million for this account. The current life of this account is 36 years with an R0.5 dispersion. The plant is all located in Veolia Pennsylvania. The actuarial analysis for this account shows a much shorter life than the existing life. Company SMEs report that the average age of assets in this account is 12 years. Company SMEs reports that operationally, the pumps that are used now are lead free and have a shorter life. The life should be much shorter than the existing life of 36 years. Company SMEs recommend moving to a 26 years life, which they believe is very reasonable and would be around the expected life in the field. Based on judgment and the assets in this account, this study recommends a 26 year life with an R0.5 dispersion curve for this account. A graph of the observed life table compared to the proposed curve and life for this account is shown below.


Account: 311.2 Elec. Pumping Equip
Scenario: Veolia Pennsylvania @ 2021
Actual Data
R0.5 26.00
Percent Surviving
100
80
60
40
20
0
0
8
16
24
32
40
Age (Years)
Vintages: 1992-2021
Activity Years: 2008-2021

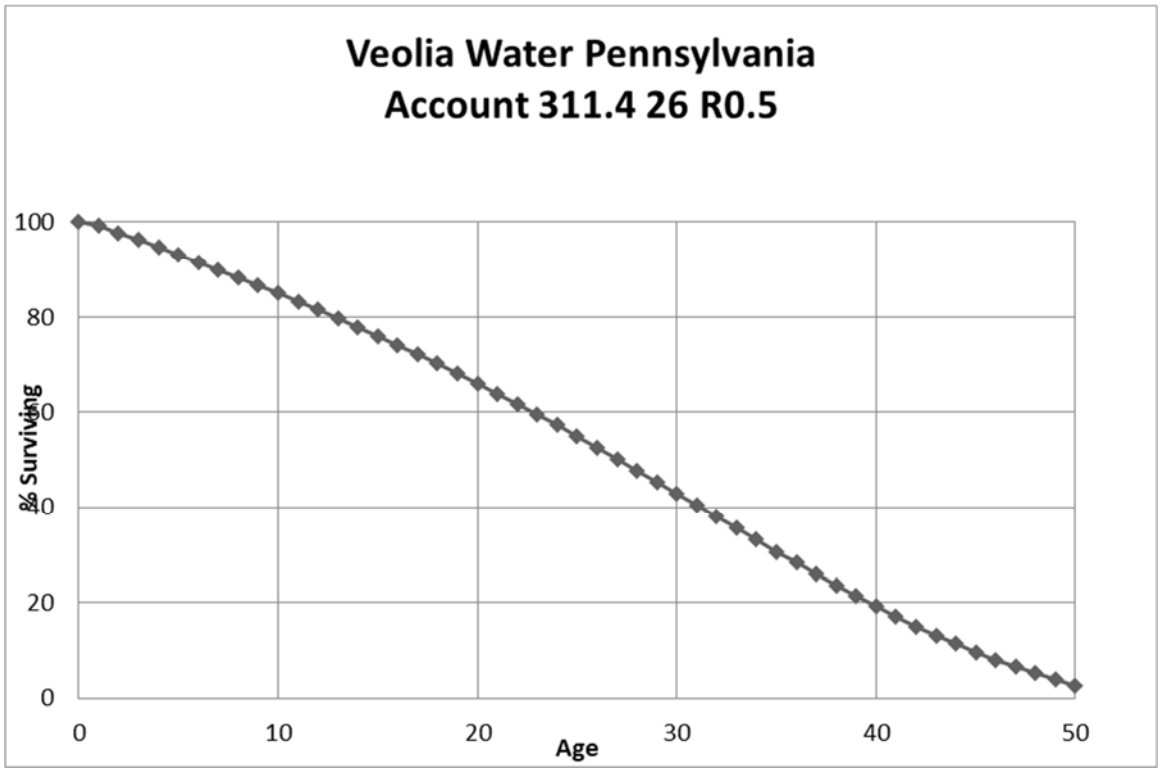
Account 311.2 Oil Pumping Equipment (30 R3)

This account consists of diesel pumps, piping, circulating, and other related equipment used in the pumping plant. The account balance is $314 thousand for this account. The current life of this account is 35 years with an S2 dispersion. The plant is all located in Veolia Pennsylvania. Company SMEs believe that the life of this account should be in the low 30 year range. New pumps offer improvements in efficiency with operation and operating costs. The newest assets in this account come from the 2006 vintage ($63k out of $314k). There is also a portable diesel pump and oil engine pump from 1993, which cost $233 thousand. Operations personnel believe that the 30 year old portable pump would be close to retirement. Based on judgment and the assets in this account, this study recommends a 30 year life with an R3 dispersion curve for this account. A graph of the observed life table compared to the proposed curve and life for this account is shown below.



Account 311.4 Pumping Equipment Other (26 R0.5)

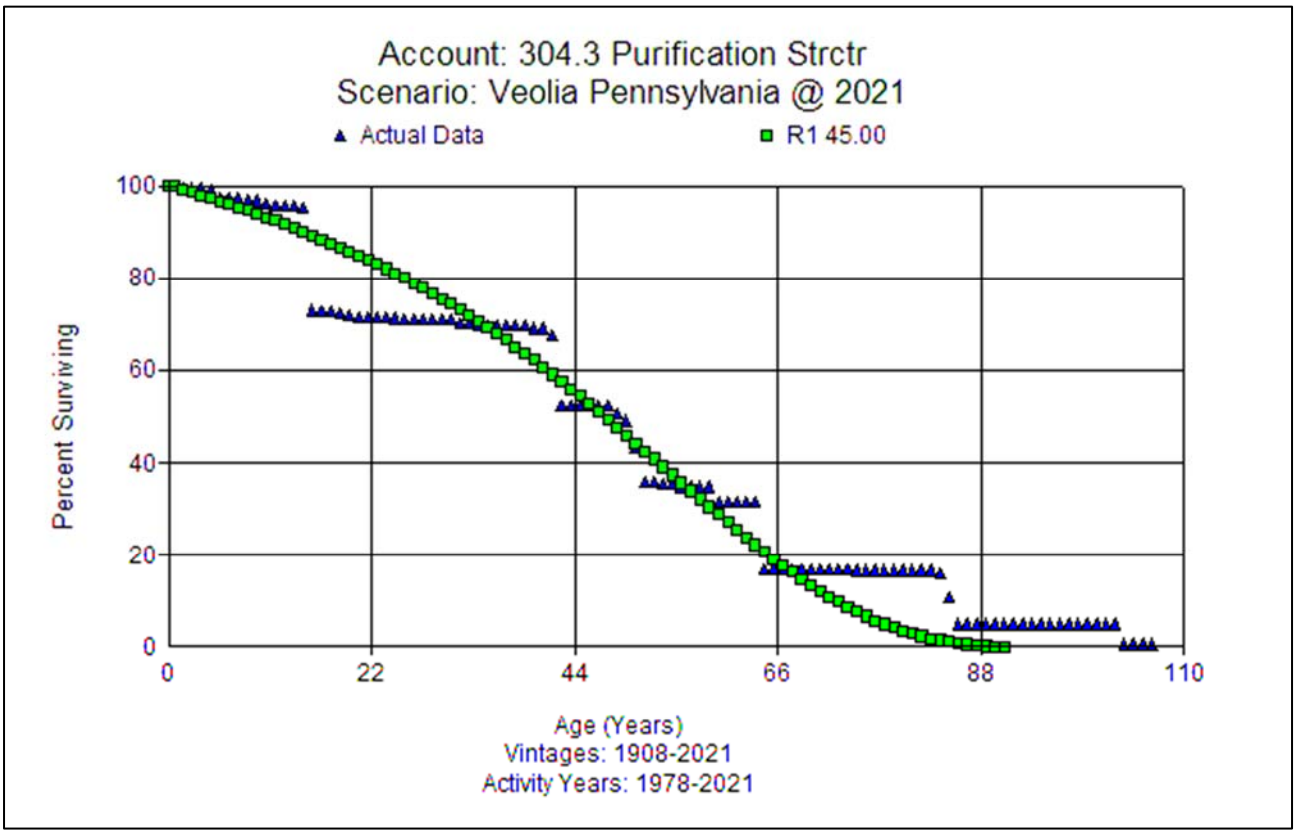
This account consists of various booster pumps, chemical pumps, and VFD (variable frequency drive) equipment. The account balance is $569 thousand for this account. The is no current life for this account. The plant is all located in Veolia Pennsylvania. Company personnel state that this account will have a life similar life to Account 311.2 Electric Pumping Equipment. There have been no retirements in this account. Based on input from Company SMEs and the assets in this account, this study recommends a 26 year life with an R0.5 dispersion curve for this account. A generic graph for this account is shown below.



Water Treatment Plant

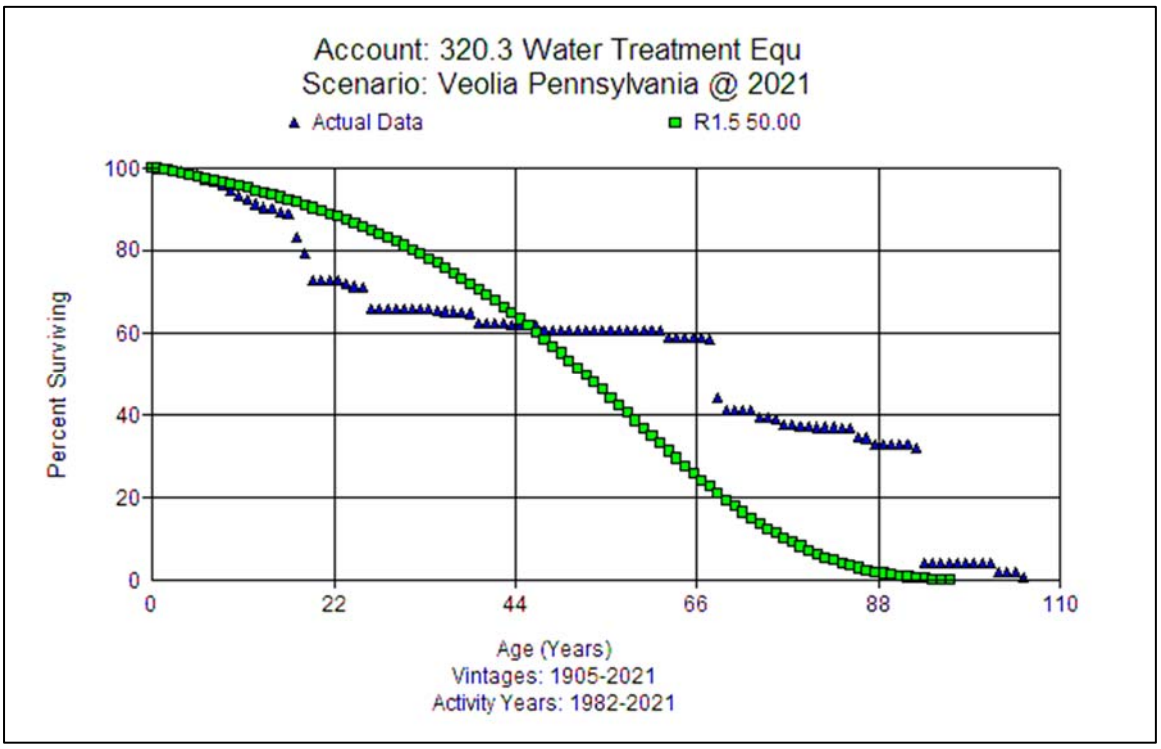
Account 304.3 Structures and Improvements Treatment (45 R1)

This account consists of structures and various improvements associated with treatment equipment. The account balance is $17.8 million for this account. The plant is all located in Veolia Pennsylvania. The current life of this account is 55 years with an S1.5 dispersion. The items in this account are components of structures such as: building shell, site work, roofs, fences, HVAC systems, safety equipment, and security systems. There is some shorter lived treatment equipment in this account. Company personnel expect a shorter life for this type of structures (due to a harsher environment) than for source of supply structures, which have a 65 year life. Based on judgment and the assets in this account, this study recommends reducing the life to 45 years with an R1 dispersion curve for this account. A graph of the observed life table compared to the proposed curve and life for this account is shown below.



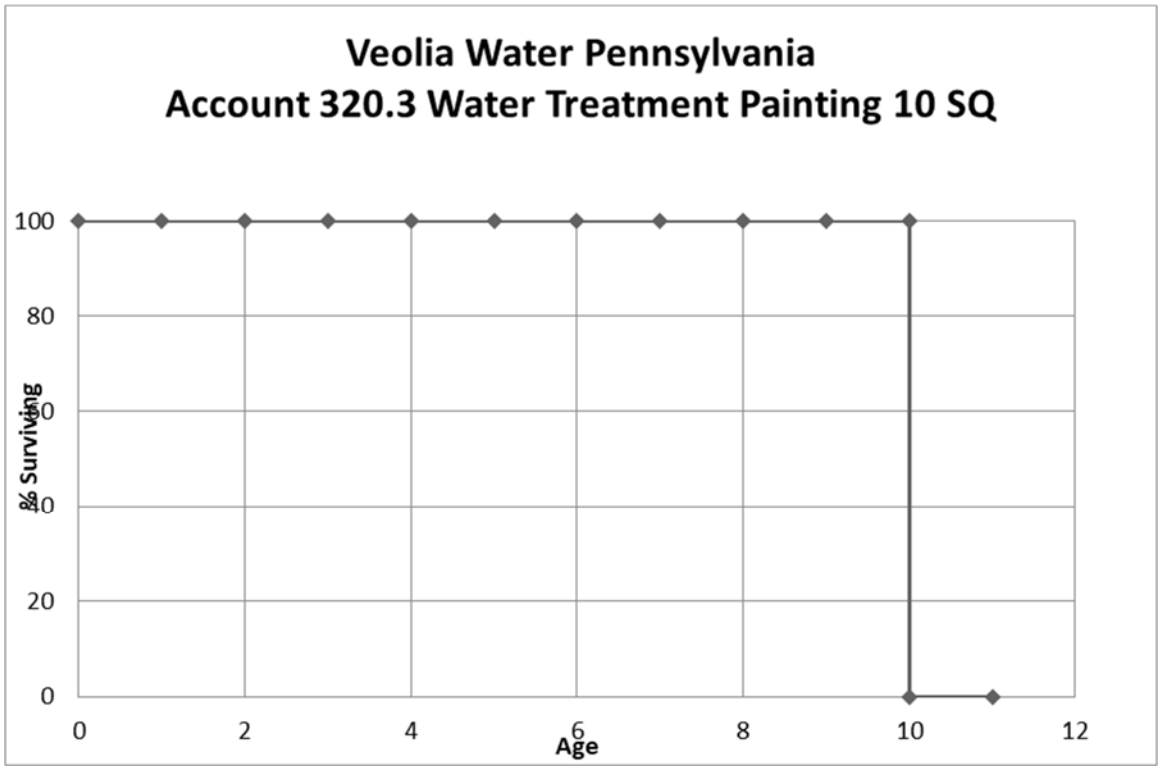
Account 320.3 Water Treatment Equipment (50 R1.5)

This account consists of chemical equipment, disinfection facilities, sedimentation basins and equipment, media for water treatment equipment, including filtration systems, and other equipment used in the water treatment plant. The account balance is $40.1 million for this account. The plant is all located in Veolia Pennsylvania. The current life of this account is 50 years with an R1.5 dispersion. Corrosive chemicals in water treatment tend to shorten the life of equipment. Membranes would only last 9 or 10 years. The Company performed a large membrane changeout in 2014 or 2015. Operationally, there are also other items with short lives (like chemical and chlorine equipment) but many of the large items (like yard piping, etc.) would last much longer. There is one plant with a Per and Polyfluoroalkyl Substances (PFOS) project (Market Street). The current 50 year life is as long as operationally supportable, since membrane is 40% or more of the total cost. Based on judgment, input of utility personnel and future plans, and the mix of assets in the account, this study recommends retention of the existing 50 year life with an R1.5 dispersion curve. A graph of the observed life table compared to the proposed curve and life for this account is shown below.


Account: 320.3 Water Treatment Equ
Scenario: Veolia Pennsylvania @ 2021
Actual Data
R1.5 50.00
Percent Surviving
100
80
60
40
20
0
0
22
44
66
88
110
Age (Years)
Vintages: 1905-2021
Activity Years: 1982-2021

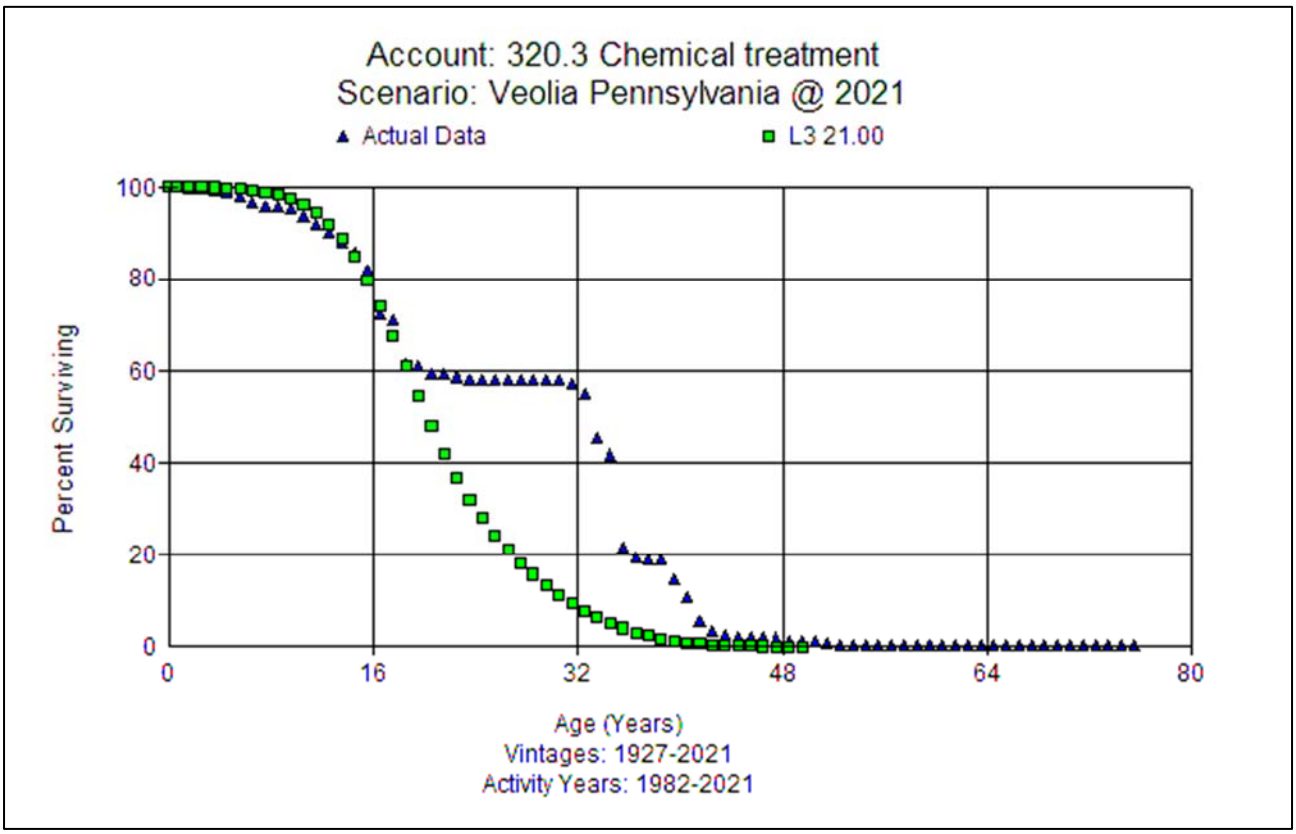
Account 320.3 Water Treatment Painting (10 SQ)

This account consists of painting treatment used for chemical equipment, disinfection facilities, sedimentation basins and equipment, media for water treatment equipment, including filtration systems, and other equipment used in the water treatment plant. The account balance is $424 thousand for this account. The plant is all located in Veolia Pennsylvania. The current life of this account is 10 years with an SQ dispersion. Company SMEs state that painting these assets occurs about every ten years. Tanks are the primary item that is painted. Based on judgment, input of utility personnel and future plans, and the mix of assets in the account, this study recommends retention of the existing 10 year life with an SQ dispersion curve. Currently this account is fully accrued. Future additions are assumed to have a 10% annual accrual rate based on the proposed life parameter. A generic curve shape is shown below.



Account 320.3 Chemical Treatment Equipment (21 L3)

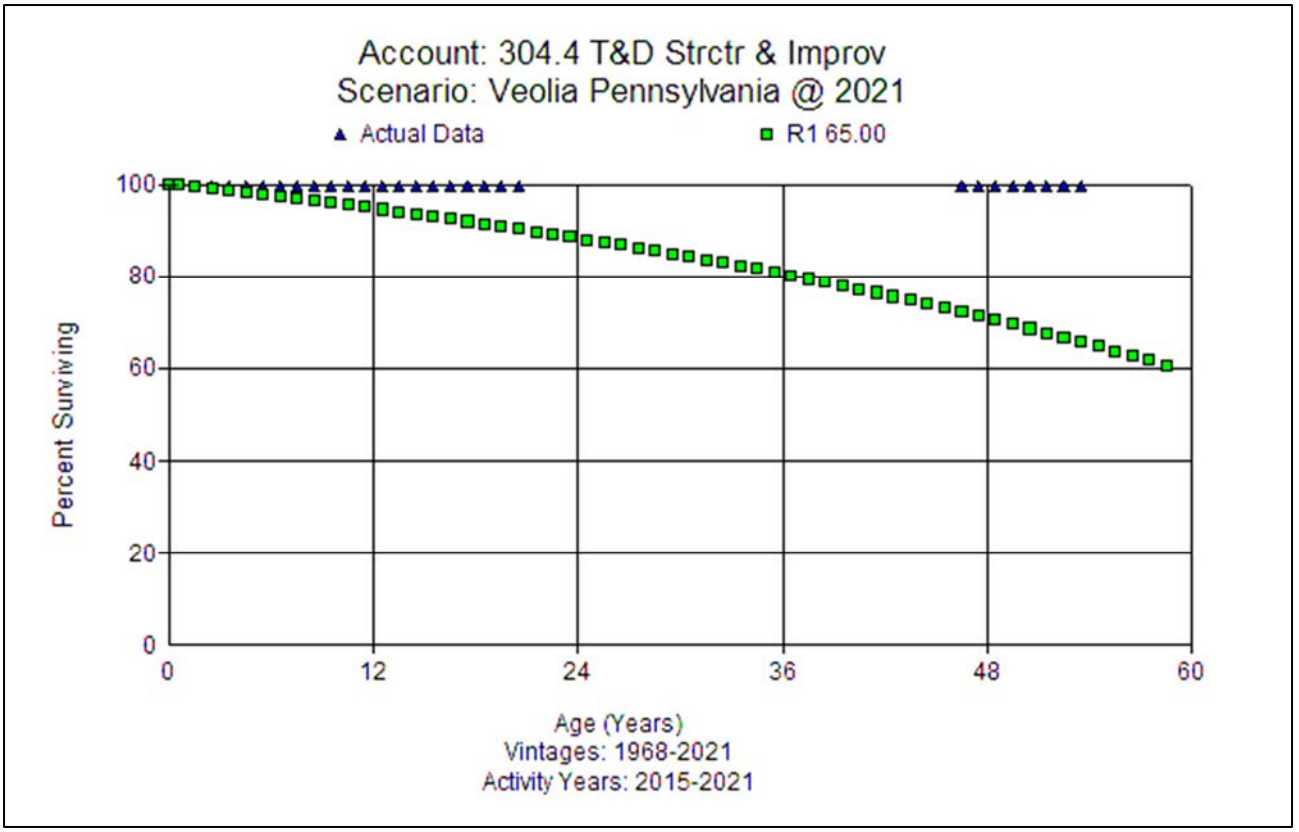
This account consists of chemical equipment, disinfection facilities, sedimentation basins and equipment, media for water treatment equipment, including filtration systems, and other equipment used in the water treatment plant. The account balance is $7.8 million for this account. The plant is all located in Veolia Pennsylvania. The current life of this account is 25 years with an S0.5 dispersion. Company personnel expect an operational life of under 20 years. The Company plans to overhaul Raybold plant over the next 2-3 years. Company SMEs state that the many different components in this account have varying lives: chemical equipment has a life of 20-25 years; disinfectant facilities have a life of 20 years; chemical storage tanks have a life of 10 years; and storage tanks have a life of 10 years. Based on judgment, input of utility personnel and future plans, and the mix of assets in the account, this study recommends moving to a 21 year life with an L3 dispersion curve. A graph of the observed life table compared to the proposed curve and life for this account is shown below.


Account: 320.3 Chemical treatment
Scenario: Veolia Pennsylvania @ 2021
Actual Data
L3 21.00
Percent Surviving
100
80
60
40
20
0
0
16
32
48
64
80
Age (Years)
Vintages: 1927-2021
Activity Years: 1982-2021

Transmission and Distribution Plant

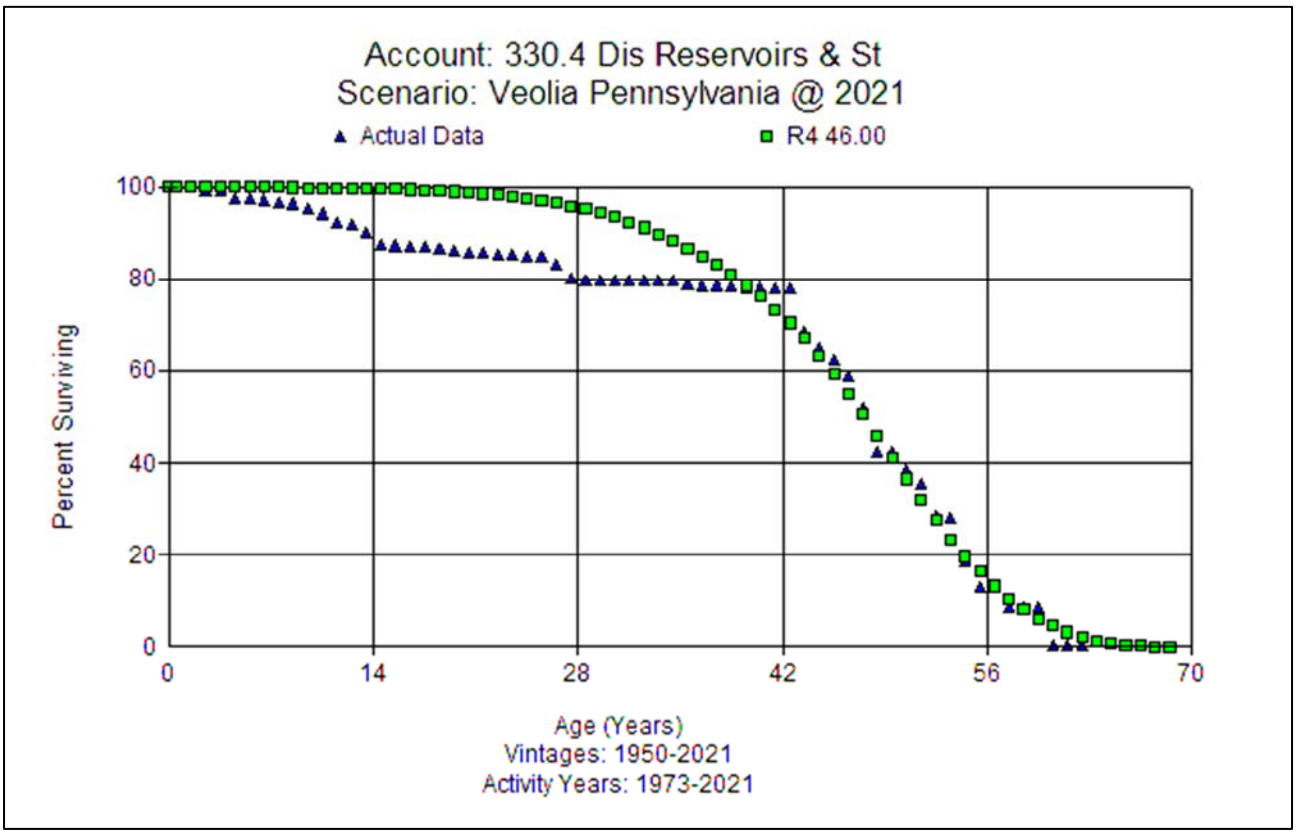
Account 304.4 Structures and Improvements – Transmission and Distribution (65 R1)

This account consists of structures and various improvements associated with the transmission and distribution plant. The account balance is $1.6 million for this account. The plant is all located in Veolia Pennsylvania. The current life of this account is 40 years with an R3 dispersion. No retirements have occurred in this account. Based on judgment and similarity between assets in Account 304.2 and the assets in this account, this study recommends moving to a 65 year life with an R1 dispersion curve for this account. A graph of the observed life table compared to the proposed curve and life for this account is shown below.



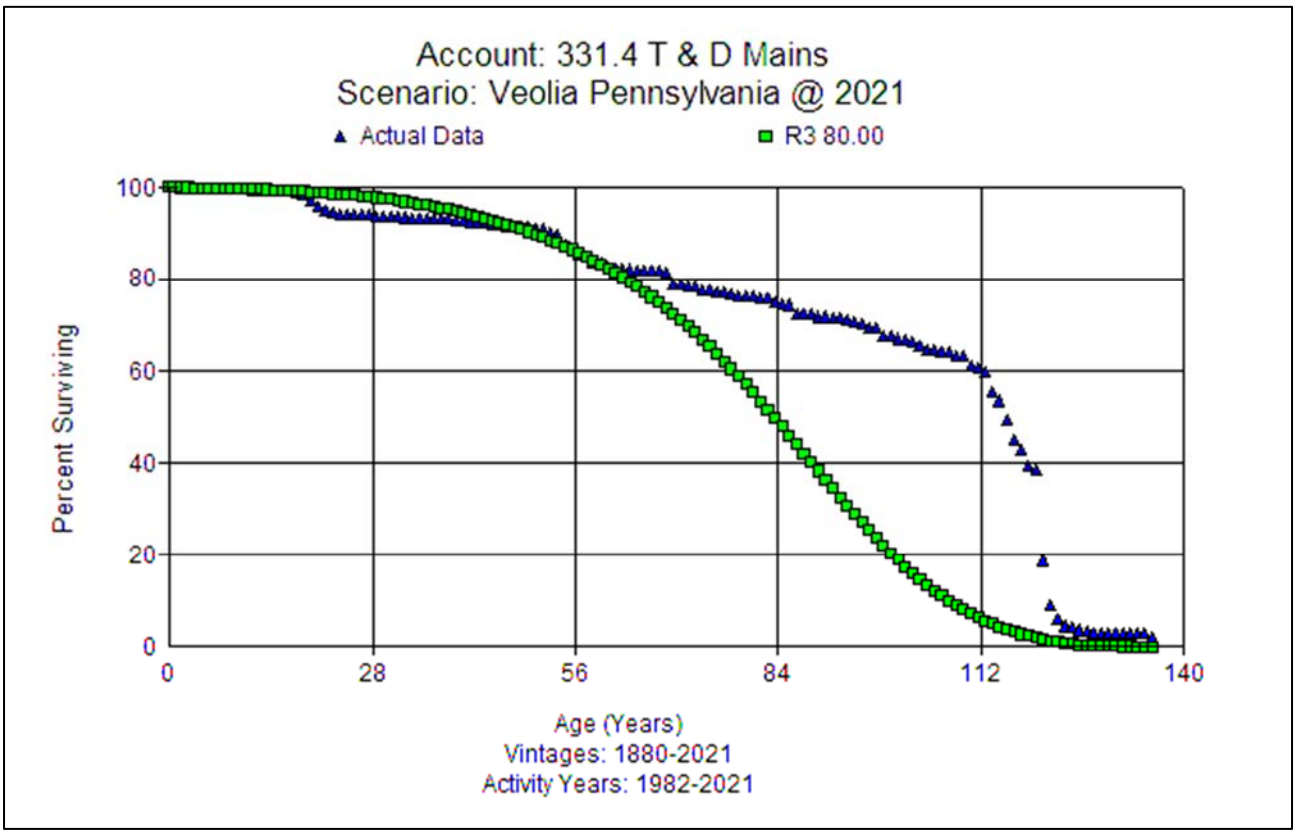
Account 330.4 Distribution Reservoirs and Standpipes (46 R4)

This account consists of reservoirs, tanks, standpipes, and appurtenances used in storing water for transmission and distribution plant. The account balance is $12.0 million for this account. The plant is all located in Veolia Pennsylvania. The current life of this account is 45 years with an R1.5 dispersion. Most of the assets in 330.4 are in tanks. There are frequent capital improvements (over $3M in painting and $8M in tanks) on the impoundments. There are around 42 tanks on the system. The Company's painting cycle for non-treatment tanks is 20 years. The Company will retire previous painting costs (if known; if not known, they will retire a portion of the tank). Tanks (except for partial retirements or retirement of painting costs) may last a long time. Any painting costs will be recovered over the composite life of this account. Based on the analysis, judgment and the assets in this account, this study recommends moving to a 46 year life with an R4 dispersion curve. A graph of the observed life table compared to the proposed curve and life for this account is shown below.


Account: 330.4 Dis Reservoirs & St
Scenario: Veolia Pennsylvania @ 2021
Actual Data
R4 46.00
Percent Surviving
100
80
60
40
20
0
0
14
28
42
56
70
Age (Years)
Vintages: 1950-2021
Activity Years: 1973-2021

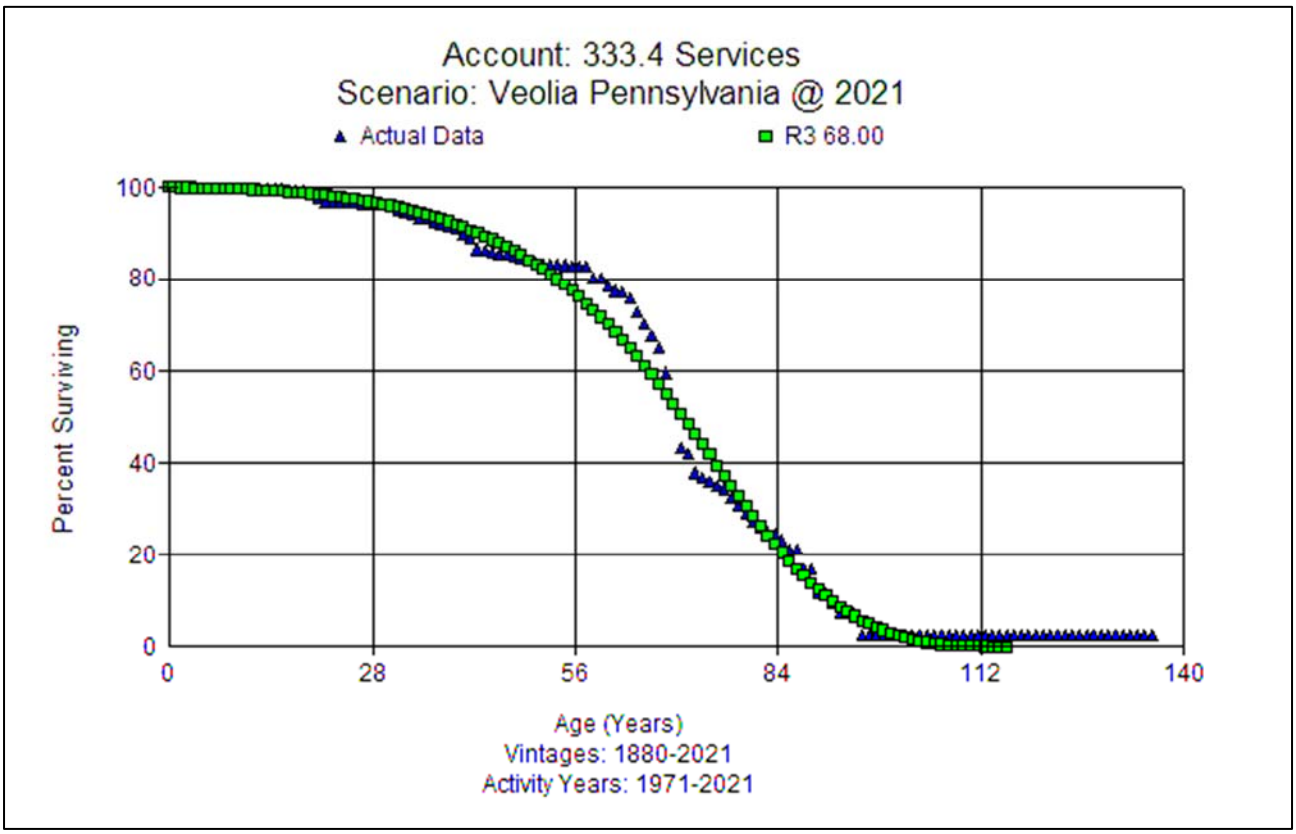
Account 331.4 Transmission and Distribution Mains (80 R3)

This account consists of transmission and distribution mains of varying types. The account balance is $215.1 million for this account. The plant is separated into Veolia Pennsylvania with $206.0 million and Bethel with $5.8 million. The current life of this account for Veolia Pennsylvania is 80 years with an R3 dispersion. For Bethel, the plant is divided into two groups: 1) assets installed after 1991 with a life of 84.75 years and R3 dispersion; and 2) assets installed before 1991 with a 78.74 year life and R3 dispersion. The Company began doing material amounts of replacements in 2016 (nearly $29M out of the $215M in service). There has been a robust main replacement in the last few years. Company SMEs have the expectation that pipe and valves put in now should last 100 years. The retirements occurring range from 60 years to 100+ year old cast iron. They are installing all Ductile Iron, which should last 100 years. AC and plastic (250 miles remaining – 30%) would have much shorter lives, around 40 years. There is very little galvanized left to replace. Operationally, moving to an average of 80 years would be reasonable at this point. As the earlier generations of pipe are replaced, Company personnel would expect the life to increase. Based on judgment and the assets in this account, this study recommends retaining the current 80 year life with an R3 dispersion curve for this account. A graph of the observed life table compared to the proposed curve and life for this account is shown below.


Account: 331.4 T & D Mains
Scenario: Veolia Pennsylvania @ 2021
Actual Data
R3 80.00
Percent Surviving
100
80
60
40
20
0
0
28
56
84
112
140
Age (Years)
Vintages: 1880-2021
Activity Years: 1982-2021

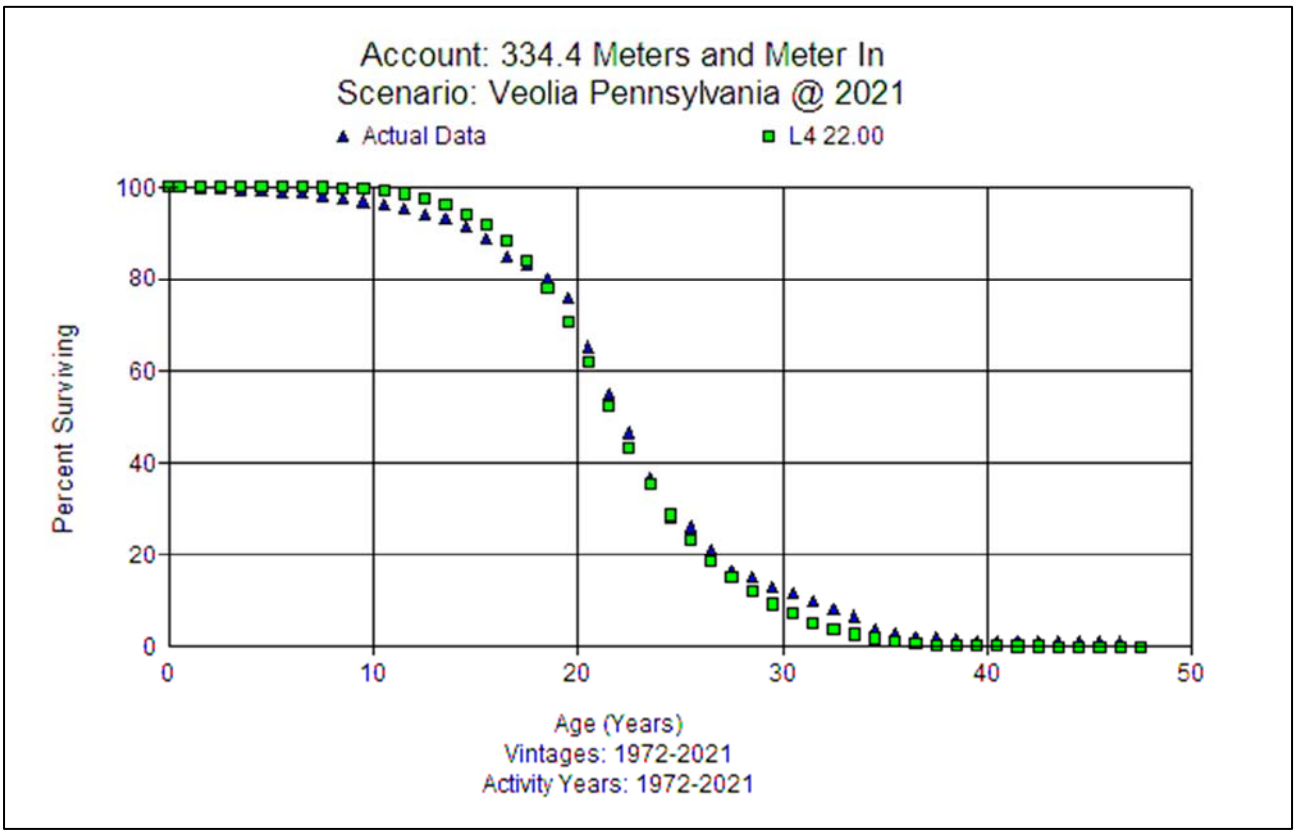
Account 333.4 Services (68 R3)

This account consists of service pipes and accessories leading from the main to the curb box by customers' premises. The account balance is $58.1 million for this account. The plant is separated into Veolia Pennsylvania with $56.5 million and Bethel with $1.6 million. The current life of this account for Veolia Pennsylvania is 60 years with an S2.5 dispersion. For Bethel, the plant is divided into two groups: 1) assets installed after 1991 with a life of 64.94 years and an S2.5 dispersion; and 2) assets installed before 1991 with an 60.24 year life and S2.5 dispersion. Company owns from the main to the curb box. Relocations and road widenings, as well as replacements when mains are replaced, would be forces of retirement. Meter pits are not owned by the Company (they will install but the customer would then own). The expectation for services in general is that they will have a shorter life than mains. The Company is performing an inventory to validate if there are any lead services. When they touch a main, they will install a meter pit and move the meter out of the house into the pit. Company SMEs feel that a 65-70 year life is operationally reasonable. Based on judgment and the assets in this account, this study recommends retaining the current 68 year life with an R3 dispersion curve for this account. A graph of the observed life table compared to the proposed curve and life for this account is shown below.


Account: 333.4 Services
Scenario: Veolia Pennsylvania @ 2021
Actual Data
R3 68.00
Percent Surviving
100
80
60
40
20
0
0
28
56
84
112
140
Age (Years)
Vintages: 1880-2021
Activity Years: 1971-2021

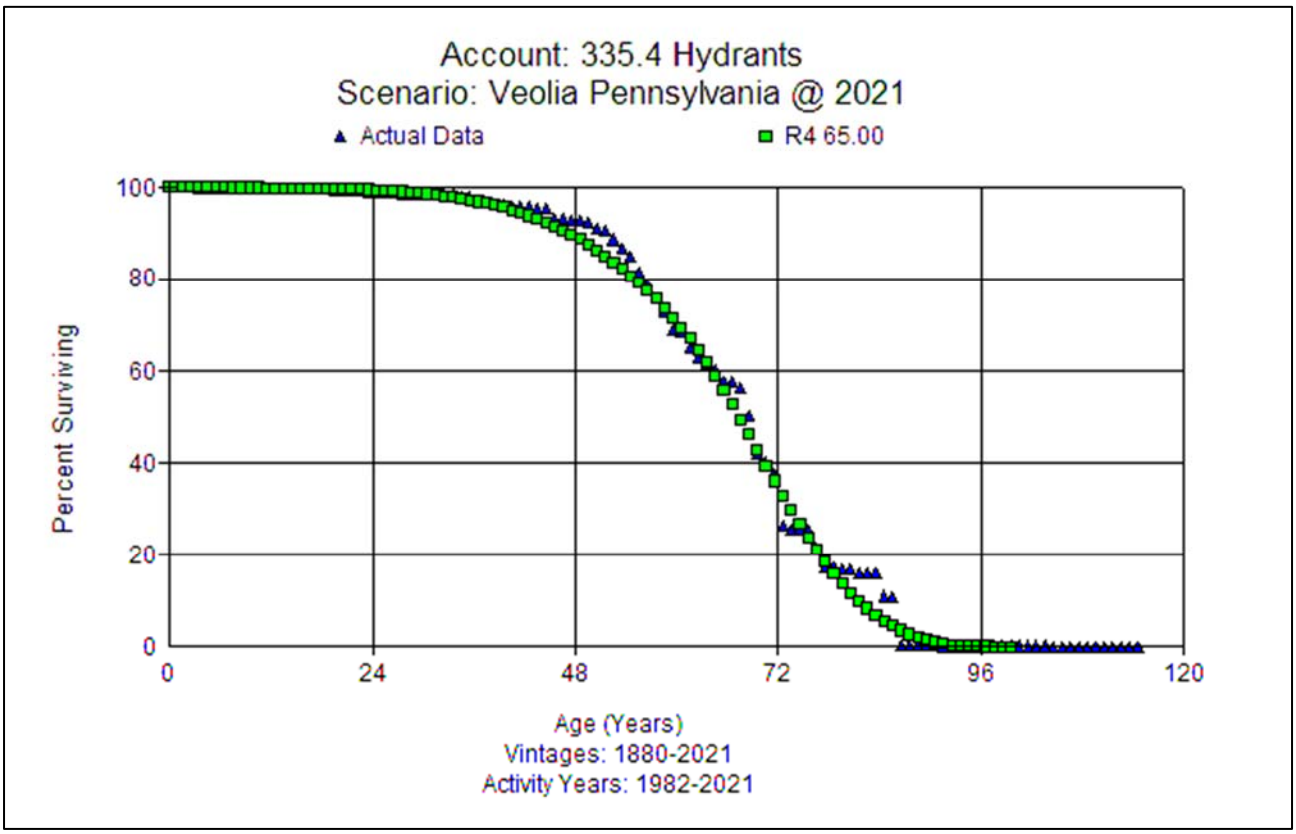
Account 334.4 Meters (22 L4)

This account consists of meters, devices, and other appurtenances used for measuring the quantity of water delivered to users, whether actually in service or held in reserve. The account balance is $25.4 million for this account. The plant is separated into Veolia Pennsylvania with $24.9 million and Bethel with $509 thousand. The current life of this account for Veolia Pennsylvania is 25 years with an S1.5 dispersion. For Bethel, the plant is divided into two groups: 1) assets installed after 1991 with a life of 30.03 years and an S1.5 dispersion; and 2) assets installed before 1991 with a 26.46 year life and an S1.5 dispersion. The state has compliance requirements in place to mandate replacing small residential meters by 20 years. Larger meters are replaced or tested in shorter periods. Based on judgment and the assets in this account, this study recommends moving to a 22 year life for residential meters with an L4 dispersion curve for this account. A graph of the actual data is shown below.


Account: 334.4 Meters and Meter In
Scenario: Veolia Pennsylvania @ 2021
Actual Data
L4 22.00
Percent Surviving
100
80
60
40
20
0
0
10
20
30
40
50
Age (Years)
Vintages: 1972-2021
Activity Years: 1972-2021

Account 335.4 Hydrants (65 R4)

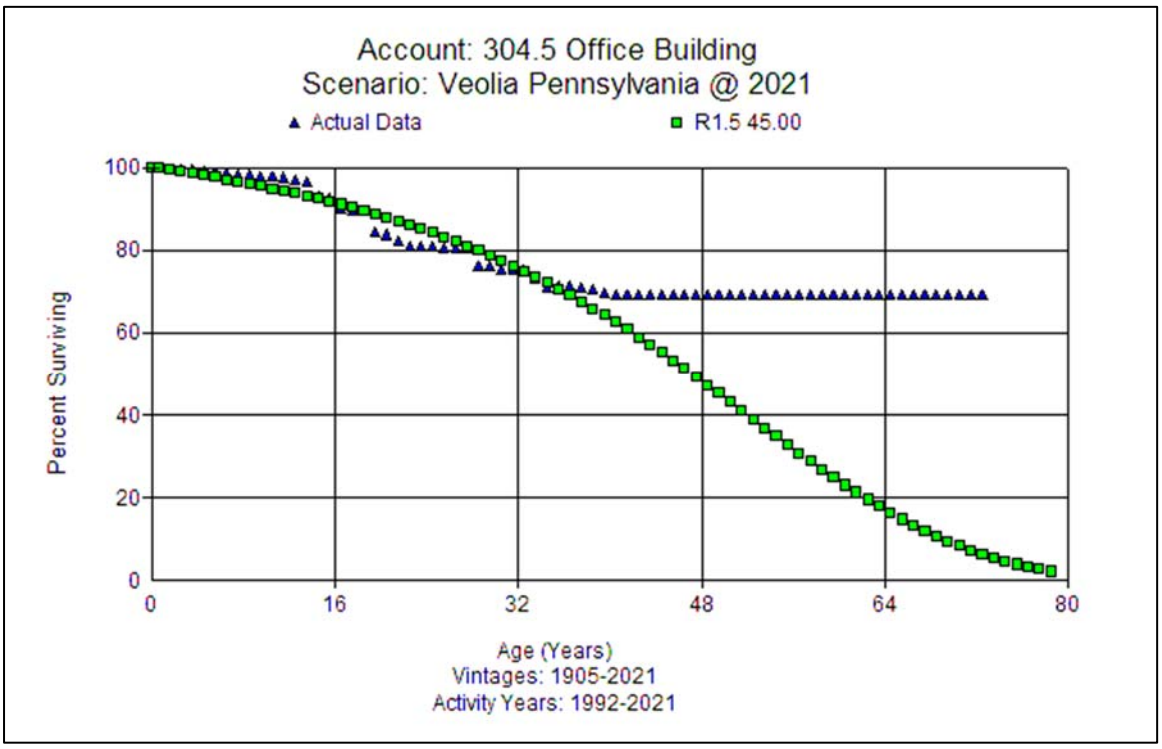
This account consists of hydrants in service owned by the utility. The account balance is $10.2 million for this account. The plant is separated into Veolia Pennsylvania with $9.7 million and Bethel with $475 thousand. The current life of this account for Veolia Pennsylvania is 60 years with an R4 dispersion. For Bethel, the plant is divided into two groups: 1) assets installed after 1991 with a life of 54.95 years and an R4 dispersion; and 2) assets installed before 1991 with a 49.50 year life and an R4 dispersion. Some hydrants are replaced due to mains replacement and others due to vehicular accidents. Company SMEs report that they will replace hydrants as they replace water mains in the main renewal program. T, lateral, etc. are also part of this account, although they are a small portion. Hydrants would have a shorter life than mains and have more chance of damage. Company SMEs feel that the current life is slightly shorter than future expectations for this account. The actuarial fit provides an excellent visual match. Based on judgment and the assets in this account, this study recommends moving to a 65 year life with an R4 dispersion curve for this account. A graph of the observed life table compared to the proposed curve and life for this account is shown below.


Account: 335.4 Hydrants
Scenario: Veolia Pennsylvania @ 2021
Actual Data
R4 65.00
Percent Surviving
100
80
60
40
20
0
0
24
48
72
96
120
Age (Years)
Vintages: 1880-2021
Activity Years: 1982-2021

General Plant

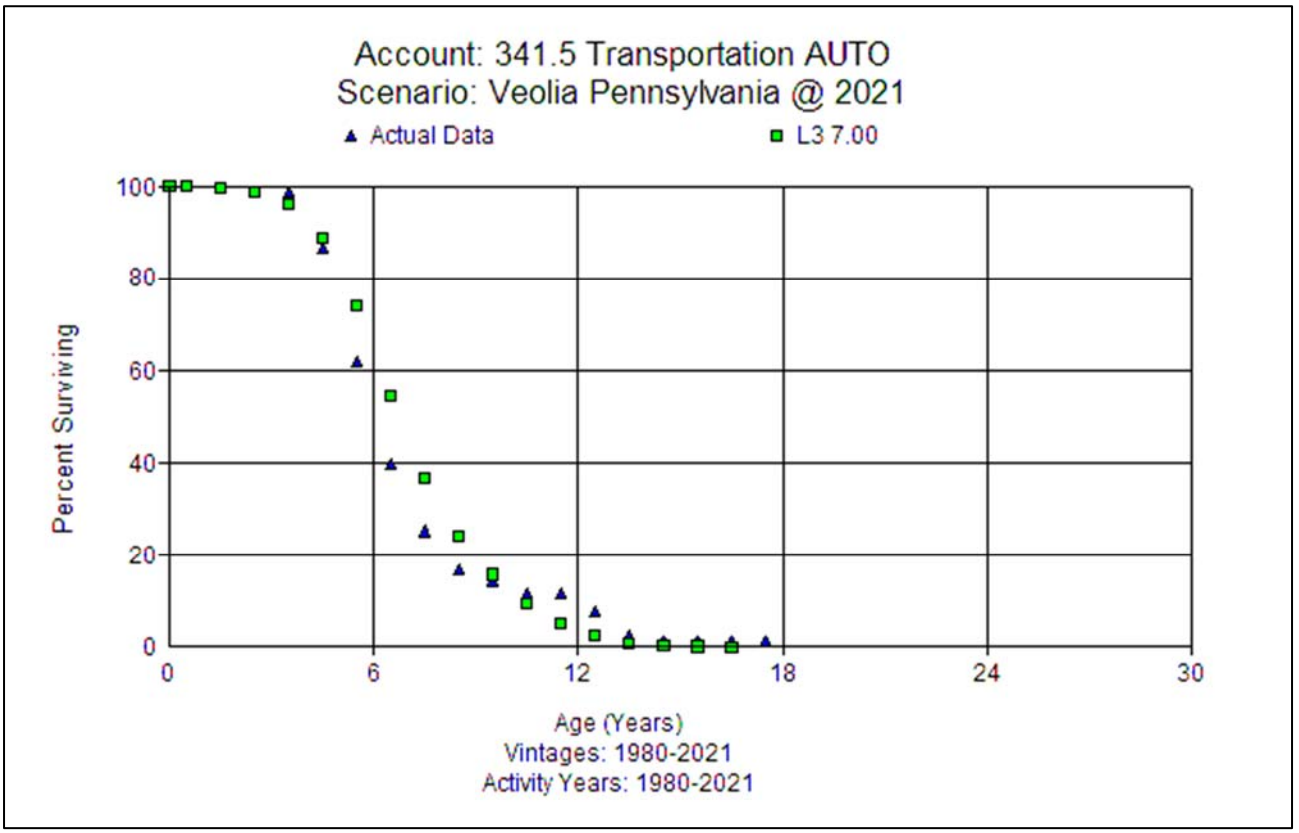
Account 304.5 General Offices (45 R1.5)

This account consists of structures and various improvements associated with general offices not tied to a specific functional group. The account balance is $12.2 million this account, and the current life is 45 years with an R2.5 dispersion. The plant is all located in Veolia Pennsylvania. The Company recently moved its offices and will retire the building when demolished. There was a reclass to nonutility plant. There are very few actual building assets in this account. Most are much shorter lived assets: 50% of the account is office remodel and many assets are roofs, fencing, cameras, etc. None of the assets other than any actual building shells will last 45 years or longer. The items in this account are components of structures such as: the building shell, roadways, paving, HVAC systems, safety equipment, and flooring. Actuarial analysis shows a slightly shorter life. Based on judgment and the assets in this account, this study recommends retaining a 45 year life with an R1.5 dispersion curve. A graph of the observed life table compared to the proposed curve and life for this account is shown below.


Account: 304.5 Office Building
Scenario: Veolia Pennsylvania @ 2021
Actual Data
R1.5 45.00
Percent Surviving
100
80
60
40
20
0
0
16
32
48
64
80
Age (Years)
Vintages: 1905-2021
Activity Years: 1992-2021

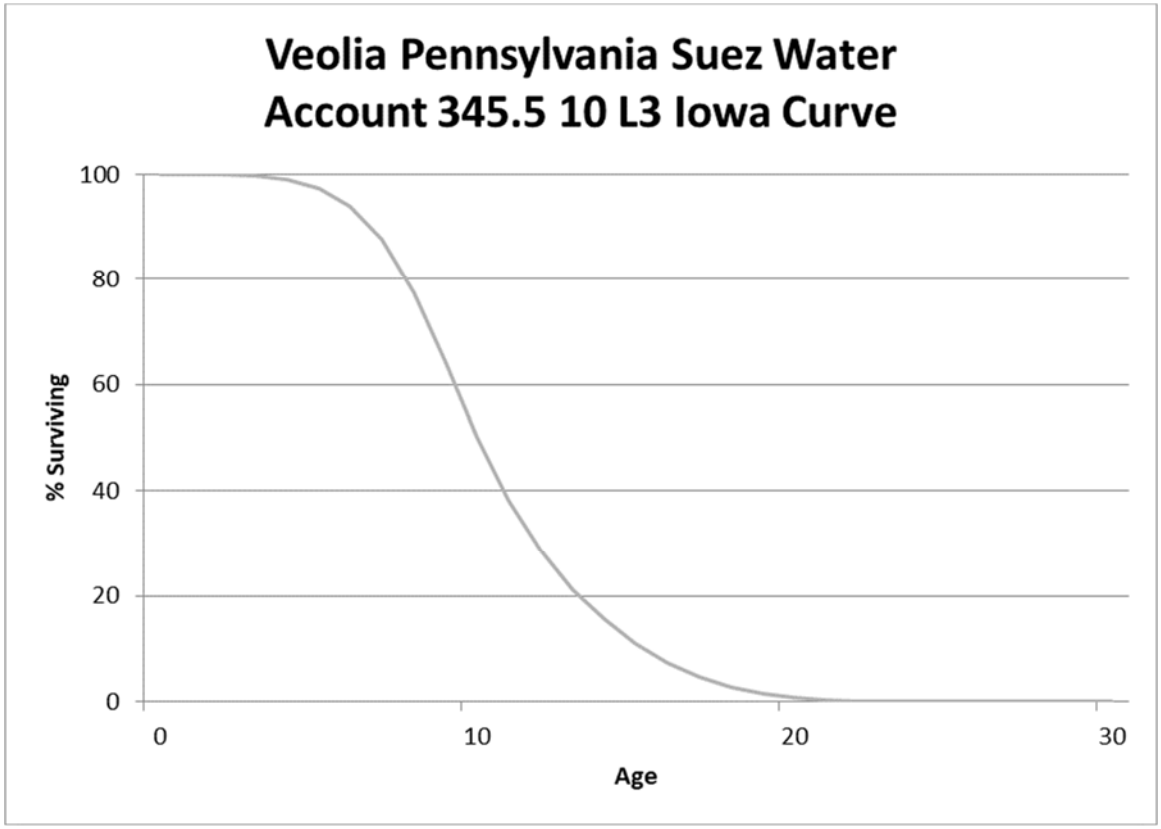
Account 341.5 Transportation Equipment (7 S3)

This account consists of transportation equipment that is licensed on local roadways. The account balance is $4 thousand for this account. The approved life is 7 years with an L3 dispersion. Actuarial analysis shows a similar life. Based on judgment and actuarial analysis, this study recommends a 7 year life with an L3 dispersion. A graph of the observed life table compared to the proposed curve and life for this account is shown below.



Account 345.5 Power Operated Equipment (10 L3)

This account can consist of power operated equipment such as bulldozers, trenchers, hydro excavators, and backhoes. The account balance is $7 thousand for this account. The is no approved life for this account. Based on judgment and the analysis, this depreciation study recommends a 10 year life and an L3 dispersion curve for this account. A generic graph showing the proposed survivor curve is shown below.



General Plant - Amortized (Accounts 340.5, 342.5-344.5, 346.5-347.5)

Adoption of Vintage Group Amortization

This study recommends the adoption of vintage group amortization for certain General plant accounts. FERC adopted Accounting Release 15 ("AR15") in 1997 using the following criteria:

1. The individual classes of assets for which vintage year accounting is followed are high volume, low value items;

2. There is no change in existing retirement unit designations, for purposes of determining when expenditures are capital or expense;

3. The cost of the vintage groups is amortized to depreciation expense over their useful lives and there is no change in depreciation rates resulting from the adoption of the vintage year accounting;

4. Interim retirements are not recognized;

5. Salvage and removal cost relative to items in the vintage categories are included in the accumulated depreciation account and assigned to the oldest vintage first; and

6. Properties are retired from the affected accounts that, at the date of the adoption of vintage year accounting, meet or exceed the average service life of properties in that account.

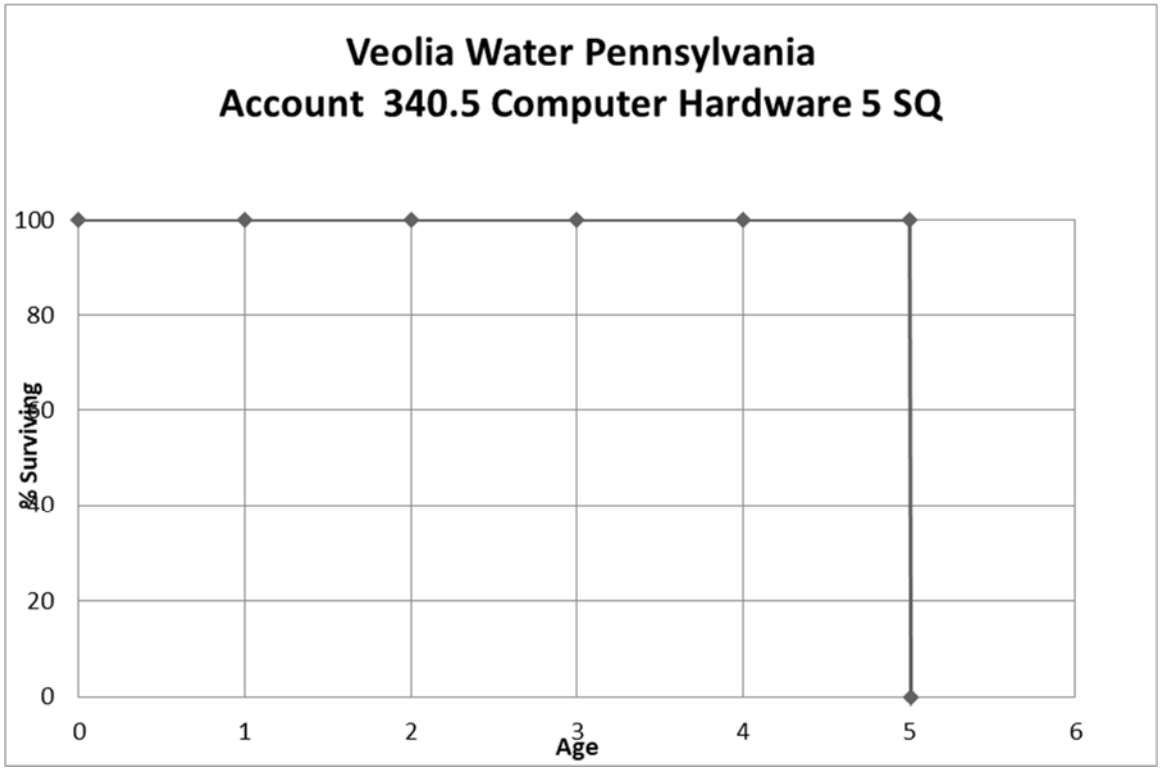
A vintage year method of accounting for the general plant accounts that meets all of the foregoing requirements may be implemented without obtaining specific authorization from the Commission to do so.

With the adoption of vintage group amortization, it is no longer necessary to keep track of the location and retirement of specific assets. Annually, assets are retired after reaching the average service life for that account. The retirement amounts for fully accrued assets are shown for each account in Appendix A-1. After those assets are retired, the remaining plant in service for each account will be amortized using the amortization rates shown in Appendix A-1. An additional accrual is necessary for each plant account to make up the difference between the book

depreciation reserve and the theoretical depreciation reserve. For Veolia, there is a small difference between the book and theoretical reserve that needs to be amortized over the remaining life of each plant account. This amount is shown for each account in Appendix A-1. Slight changes in life for the amortized plant accounts are discussed below.

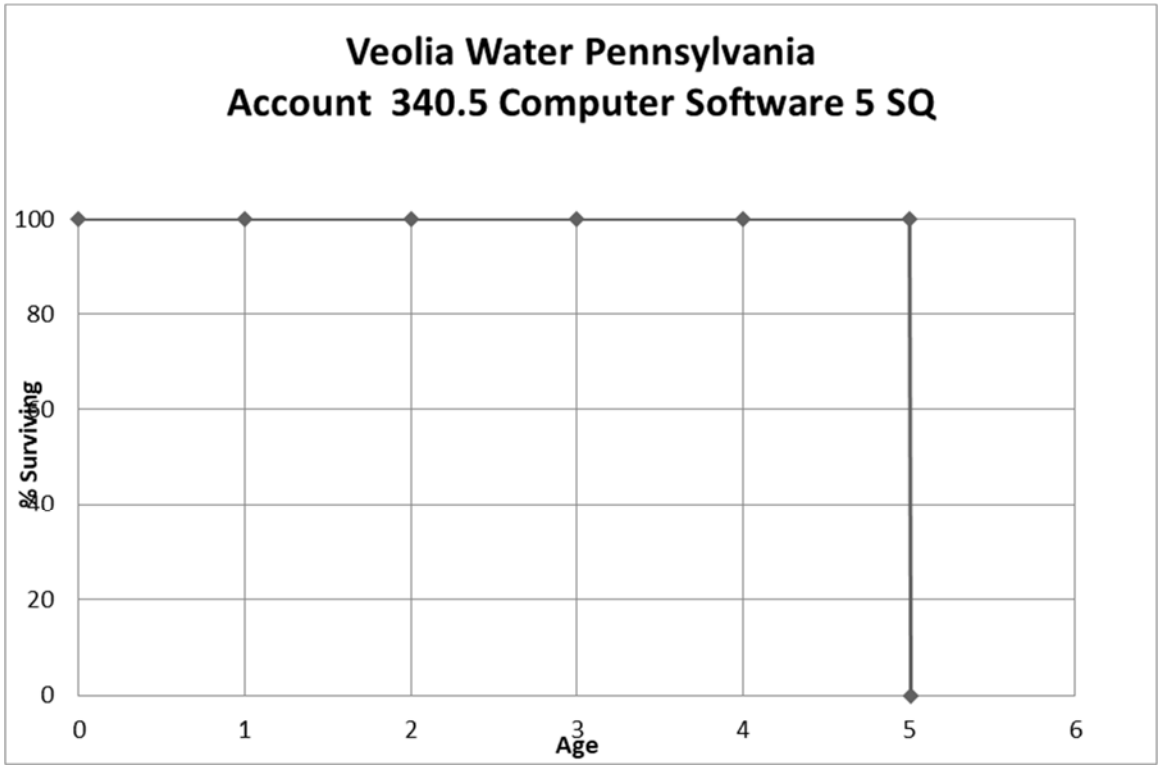
Account 340.5 Computer Hardware (5 SQ)

This account consists of various types of computer hardware, such as servers and network equipment. The account balance is $1.2 million for this account, and after the retirement of fully accrued assets, there will be $648 thousand in plant. All the plant is located in Veolia Pennsylvania. The approved life is 5 years. The Company's goal is to refresh its computer equipment every 4 years. Some assets (such as network equipment) may last longer. Based on judgment and Company practices, this study recommends retaining the approved 5 year life and using an SQ dispersion curve for this account. A graph of the recommended curve shape is shown below.



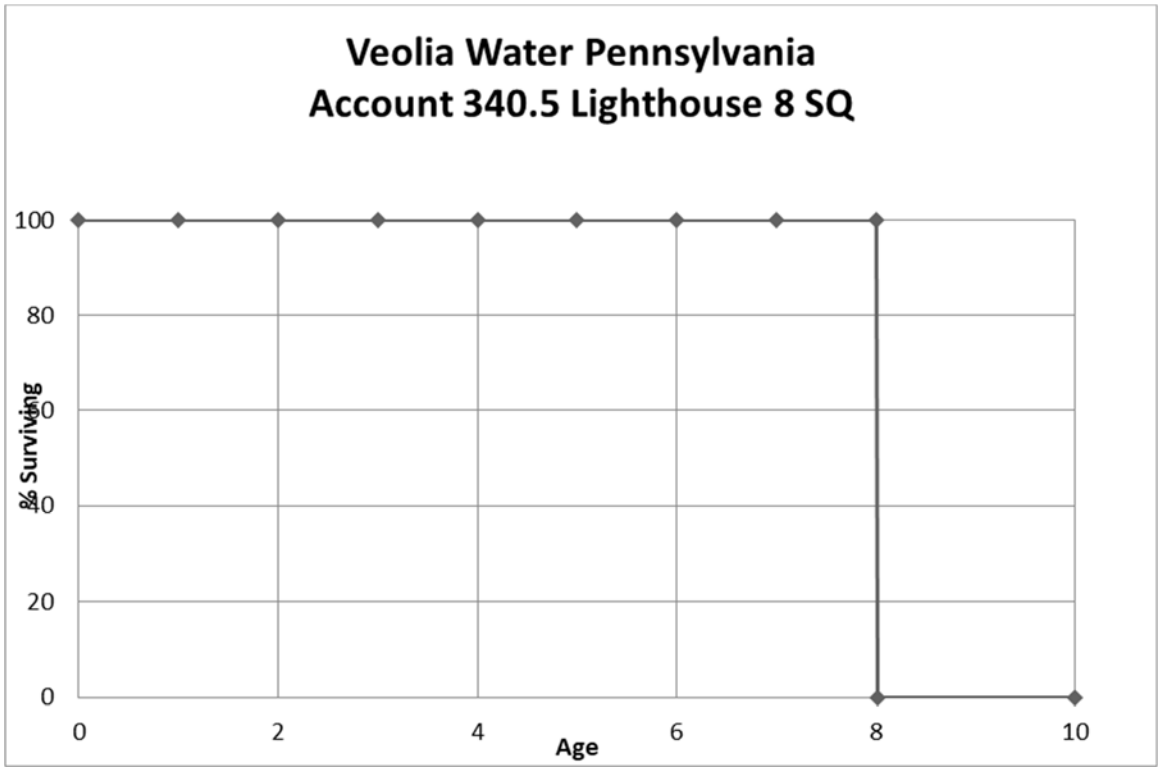
Account 340.5 Computer Software (5 SQ)

This account consists of miscellaneous computer software. The account balance is $2.6 million for this account. After the retirement of fully accrued assets, there will be $731 thousand in plant. All the plant is located in Veolia Pennsylvania. The approved life is 5 years. The Company refreshes software every 4 to 5 years. Based on judgment and Company practice, this study recommends retaining the approved 5 year life and using an SQ dispersion curve for this account. A graph of the recommended curve shape is shown below.



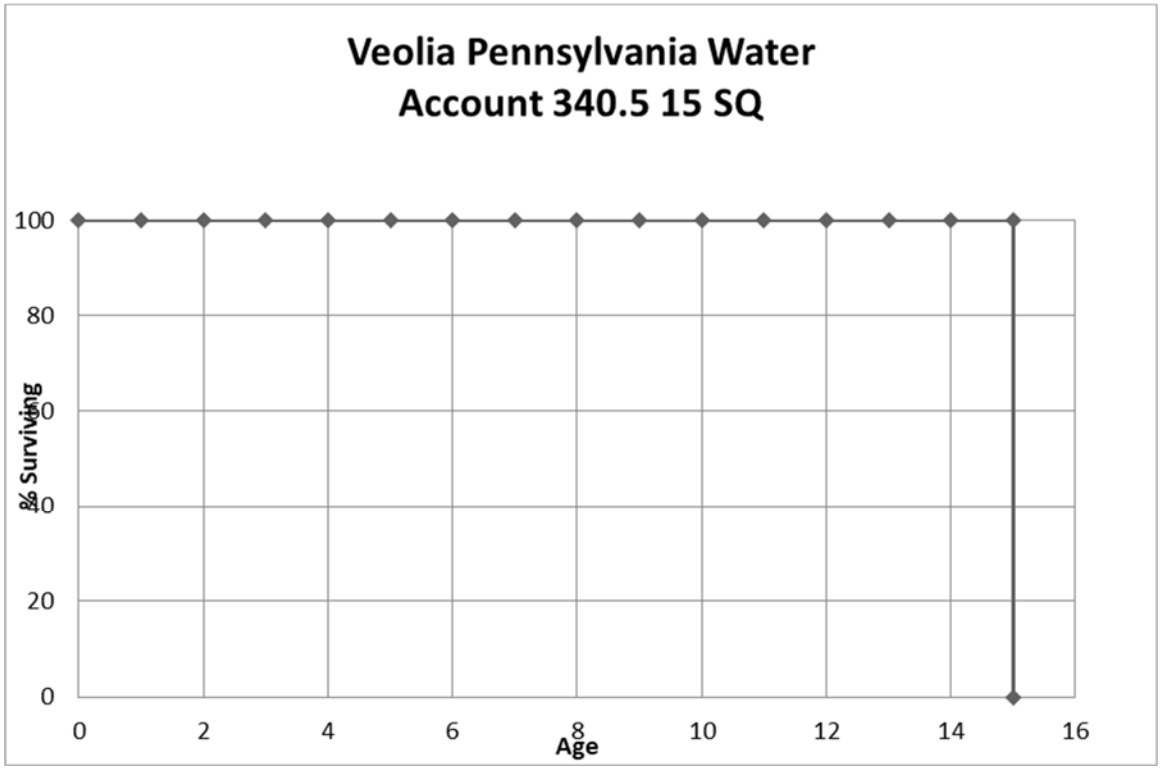
Account 340.5 Computer Software Lighthouse (8 SQ)

This account consists of the Company's lighthouse computer software. The account balance is $3.8 million for this account. After the retirement of fully accrued assets, there will be $0 in plant. All the plant is located in Veolia Pennsylvania. The current life of this account is 8 years. The assets in this account were installed in 2011, and there have been no additions or retirements since the assets went in service. Given that the use of the software is unchanged, Company SMEs recommend retention of the current 8 year life Based on judgment and the recommendation of Company personnel, this study recommends a 8 year life and using an SQ dispersion curve for this account. A graph of the recommended curve shape is shown below.



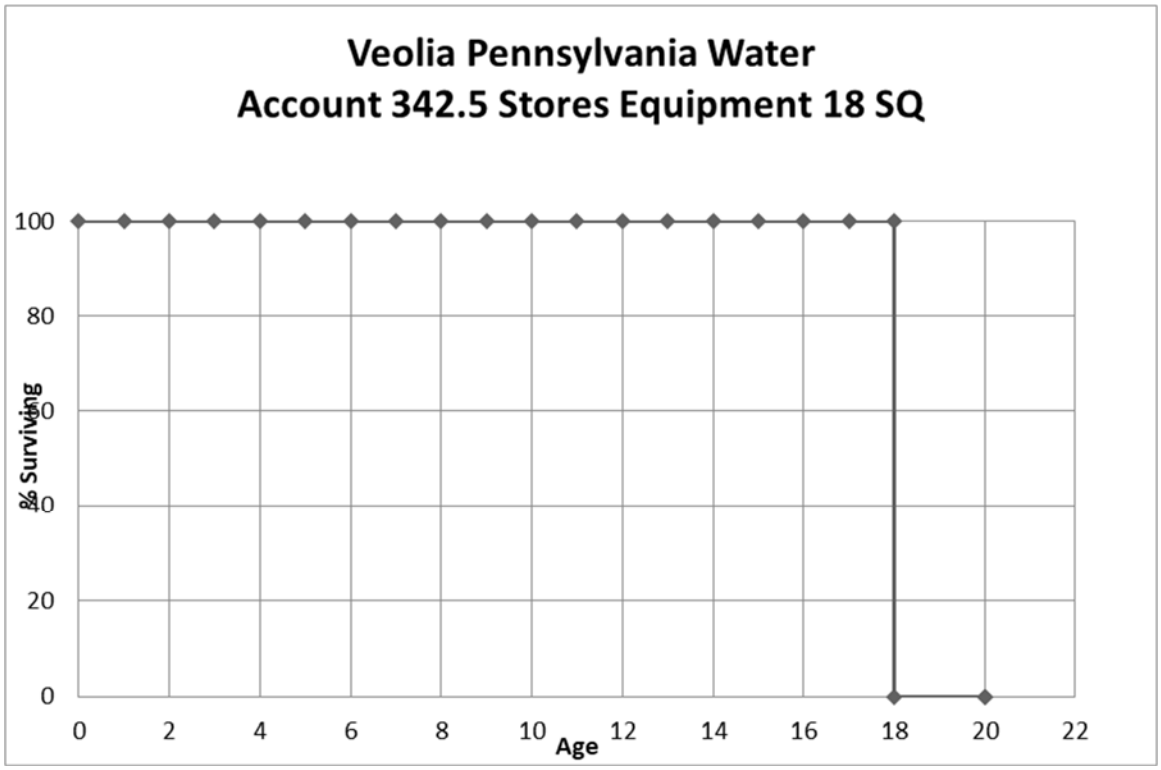
Account 340.5 Office Furniture and Equipment (15 SQ)

This account consists of office furniture and equipment such as desks, chairs, projectors, and other similar equipment. The account balance is $754 thousand for this account. After the retirement of fully accrued assets, there will be $751 thousand in plant. All the plant is located in Veolia Pennsylvania. The approved life is 15 years. After adoption of general plant amortization, this study recommends retaining the approved 15 year life and using an SQ dispersion curve for this account. A graph of the recommended curve shape is shown below.



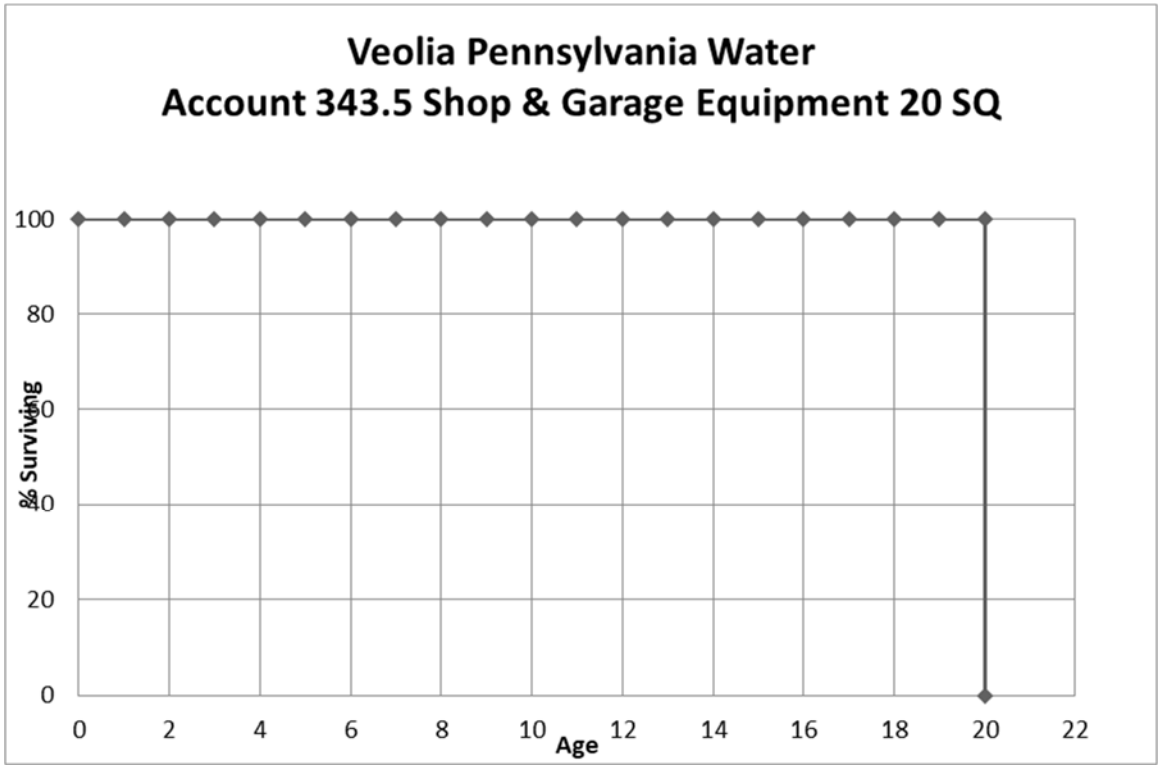
Account 342.5 Stores Equipment (18 SQ)

This account consists of stores equipment such as furniture and tools. The account balance is $8 thousand for this account. The plant is all located in Veolia Pennsylvania. The approved life characteristic is unknown. After adoption of general plant amortization, this study recommends an 18 year life with an SQ dispersion curve. A graph of the proposed curve shape is shown below.



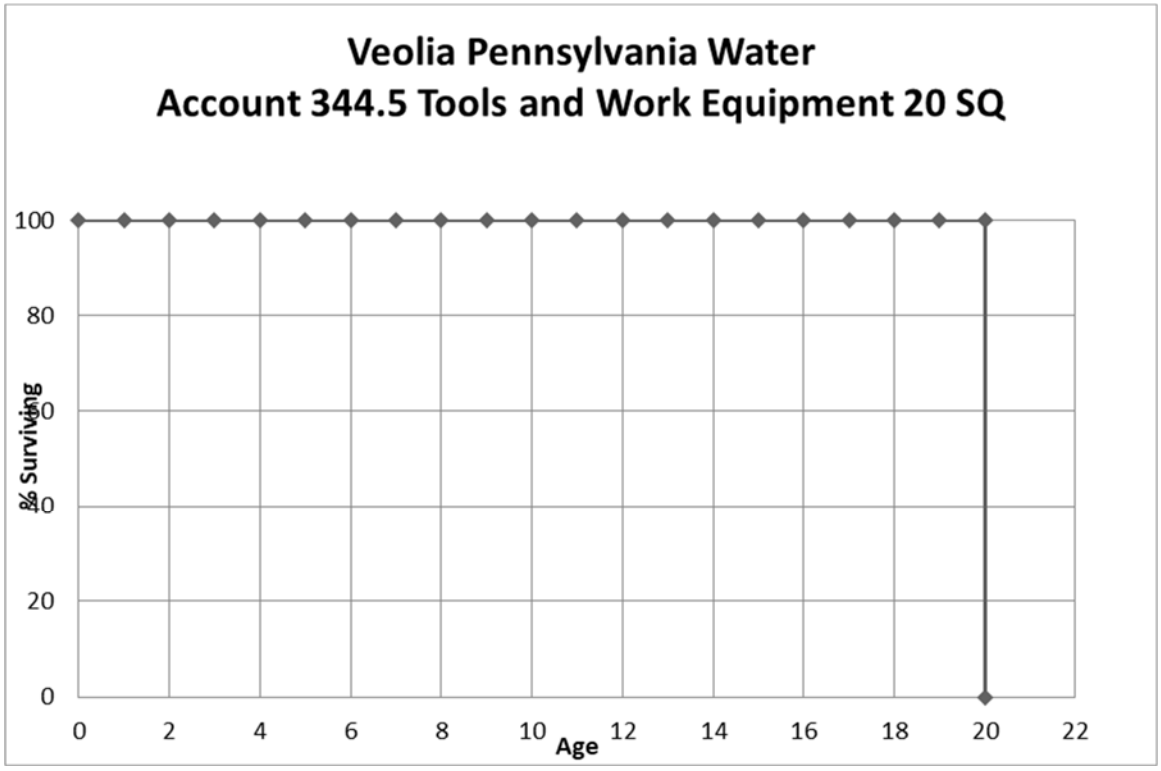
Account 343.5 Shop, and Garage Equipment (20 SQ)

This account consists , shop, and garage equipment, such as miscellaneous tools, electric equipment, or pumps. The account balance is $765 thousand for this account and the existing life is 20 years. The plant is all located in Veolia Pennsylvania. After the retirement of fully accrued assets, there will be $697 thousand in plant. After adoption of general plant amortization, this study recommends retention of a 20 year life and using an SQ dispersion curve for this account. A graph of the proposed curve shape is shown below.



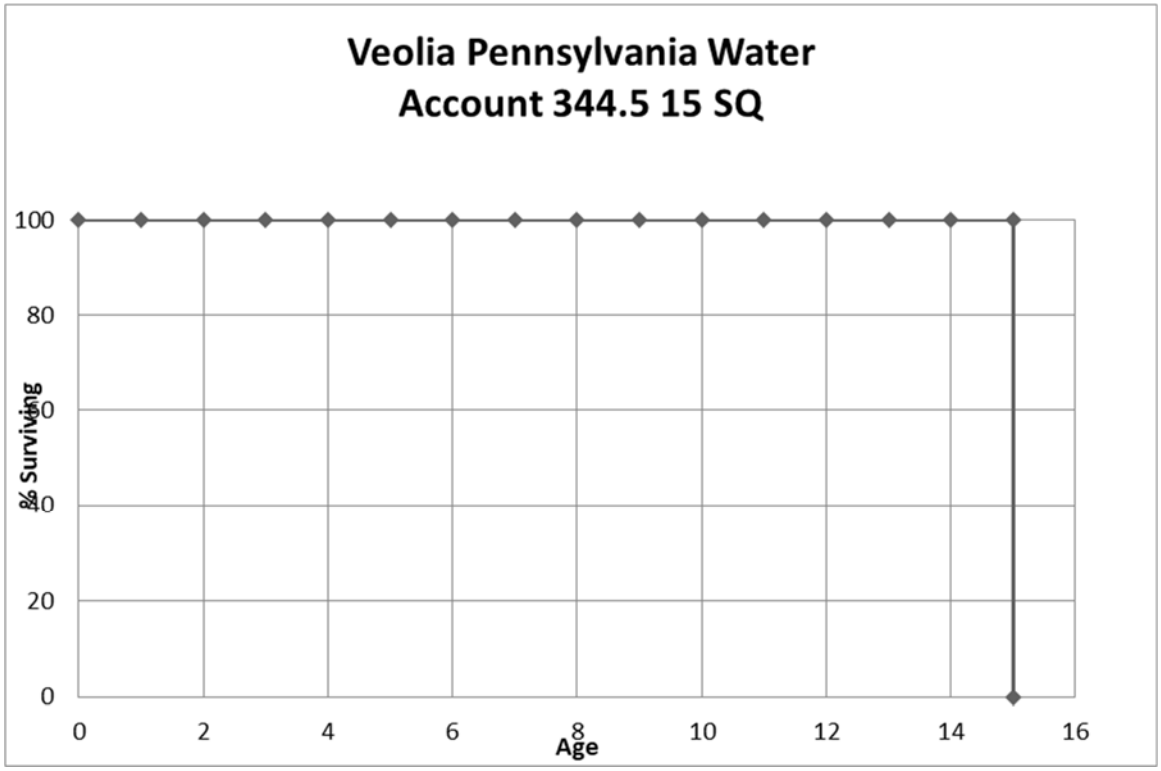
Account 344.5 Tools and Work Equipment (20 SQ)

This account consists of tools and work equipment, such as miscellaneous tools, electric equipment, or pumps. The account balance is $3.7 million for this account and the existing life is 20 years. The plant is all located in Veolia Pennsylvania. After the retirement of fully accrued assets, there will be $3.4 million in plant. After adoption of general plant amortization, this study recommends retention of a 20 year life and using an SQ dispersion curve for this account. A graph of the proposed curve shape is shown below.



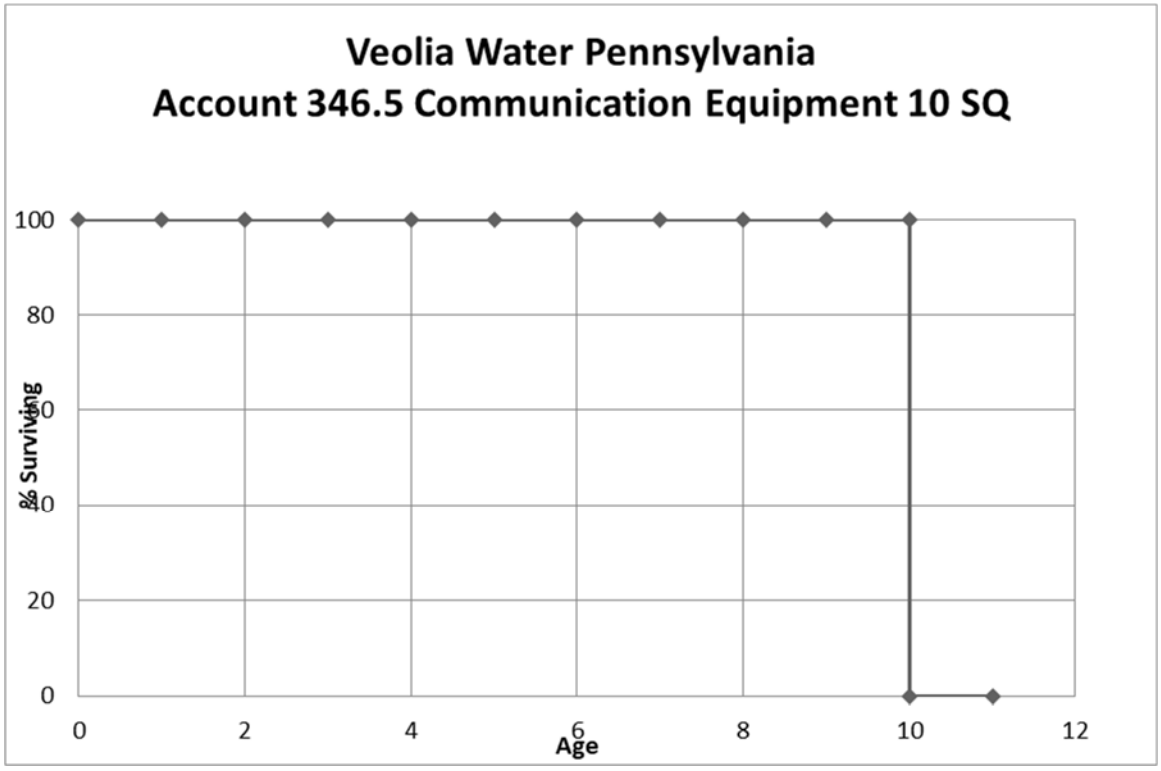
Account 344.5 Laboratory Equipment (15 SQ)

This account consists of laboratory equipment such as testing instruments. The account balance is $132 thousand for this account. After the retirement of fully accrued assets, there will be $81 thousand in plant. The plant is all located in Veolia Pennsylvania. The approved life characteristic is 15 years with an SQ dispersion. Company personnel state that the assets in this account are driven by technology change. Accordingly, they recommend a slightly shorter life. After adoption of general plant amortization, this study recommends moving to a 15 year life and using an SQ dispersion curve for this account. A graph of the proposed curve shape is shown below.



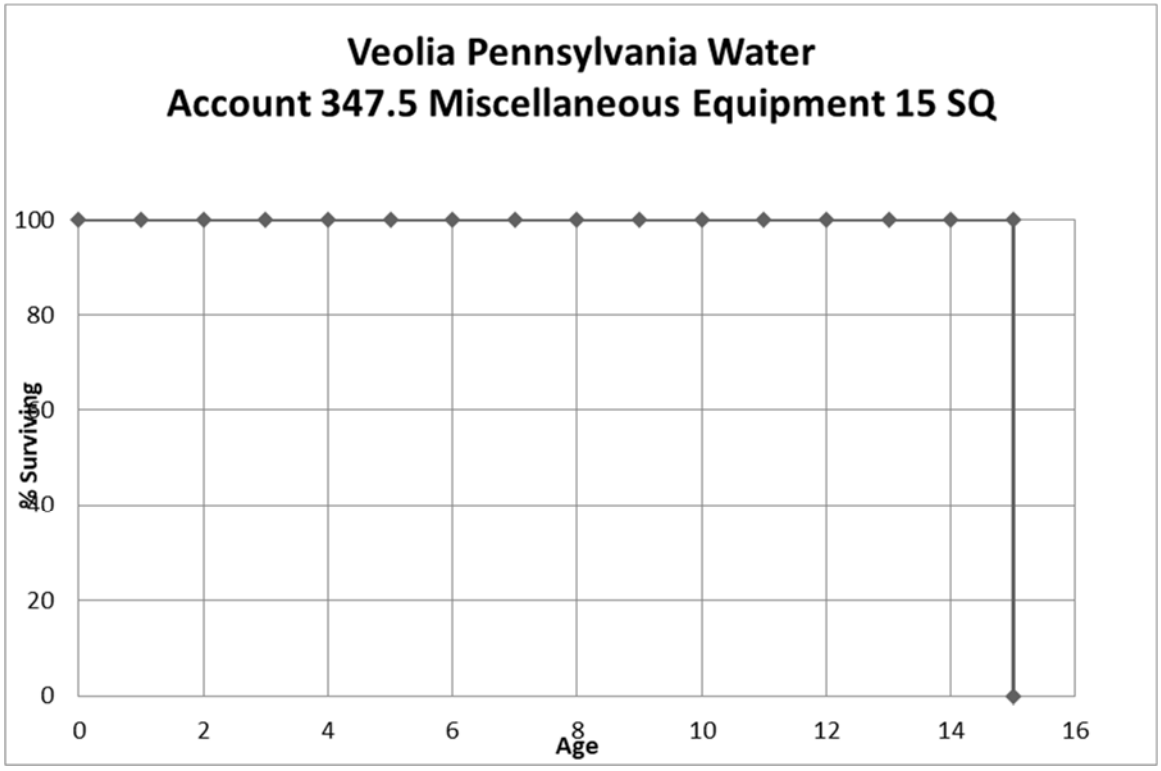
Account 346.5 Communication Equipment (10 SQ)

This account consists of communication equipment such as control equipment, radios, telephone systems, and similar assets. The account balance is $7.9 million for this account, and after the retirement of fully accrued assets, there will be $5.6 million in plant. The plant is all located in Veolia Pennsylvania. The current life for this account is 10 years. Company SMEs see no operational reason to change the existing service life. After adoption of general plant amortization, this study recommends a 10 year life and using an SQ dispersion curve for this account. A graph of the proposed curve shape is shown below.



Account 347.5 Miscellaneous Equipment (15 SQ)

This account consists of miscellaneous equipment signs, miscellaneous tools, sampling stations, or other equipment that may not fit in any other general plant account. The account balance is $1.0 million for this account. The plant is all located in Veolia Pennsylvania. No assets are older than the current 15 year life. Company SMEs see no operational reason to change the existing service life. After adoption of general plant amortization, this study recommends retaining the approved 15 year life and using an SQ dispersion curve for this account. A graph of the proposed curve shape is shown below.

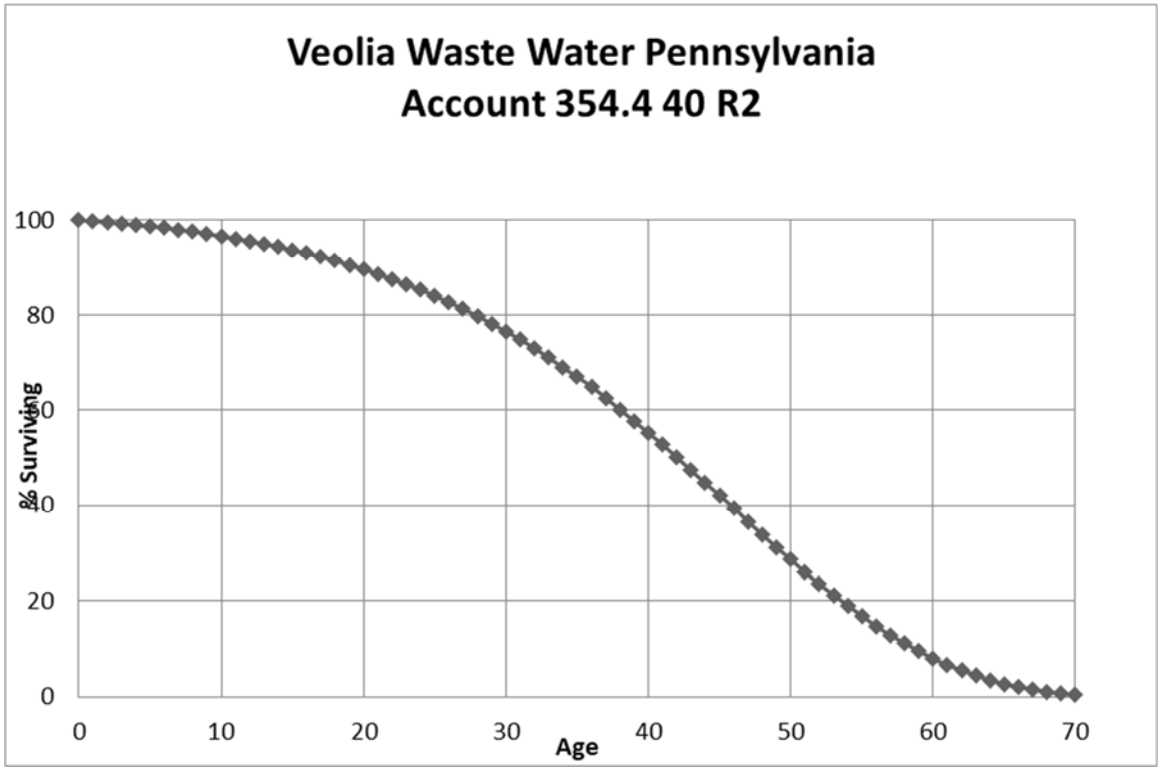


Life Analysis – Veolia Pennsylvania Waste Water Assets

Treatment and Disposal Plant

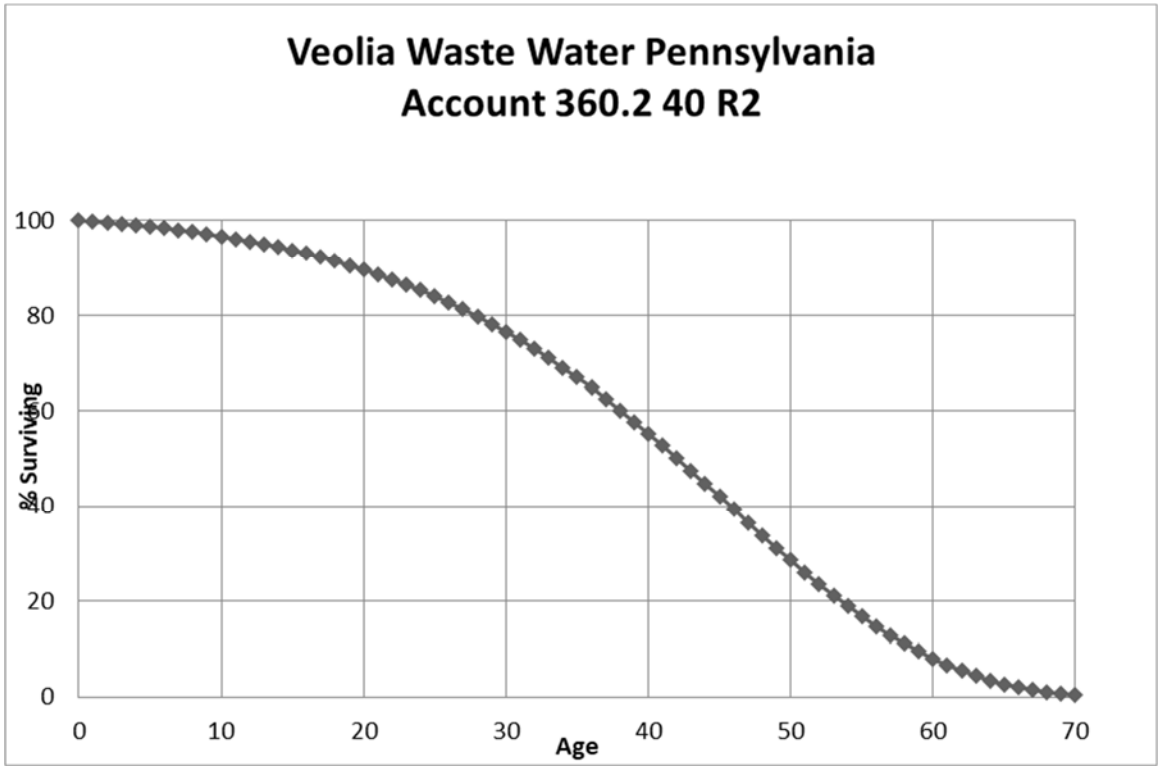
Account 354.4 Structures and Improvements (40 R2)

This account includes the cost of all structures and improvements used for treatment and disposal of sewage. The account balance is $36 thousand million for this account. The current life of this account is 17.99 years with an L0 dispersion. There is no actuarial history for this account. Based on judgment, this study recommends moving to a 40 year life with an R2 dispersion. A generic curve shape is shown below.



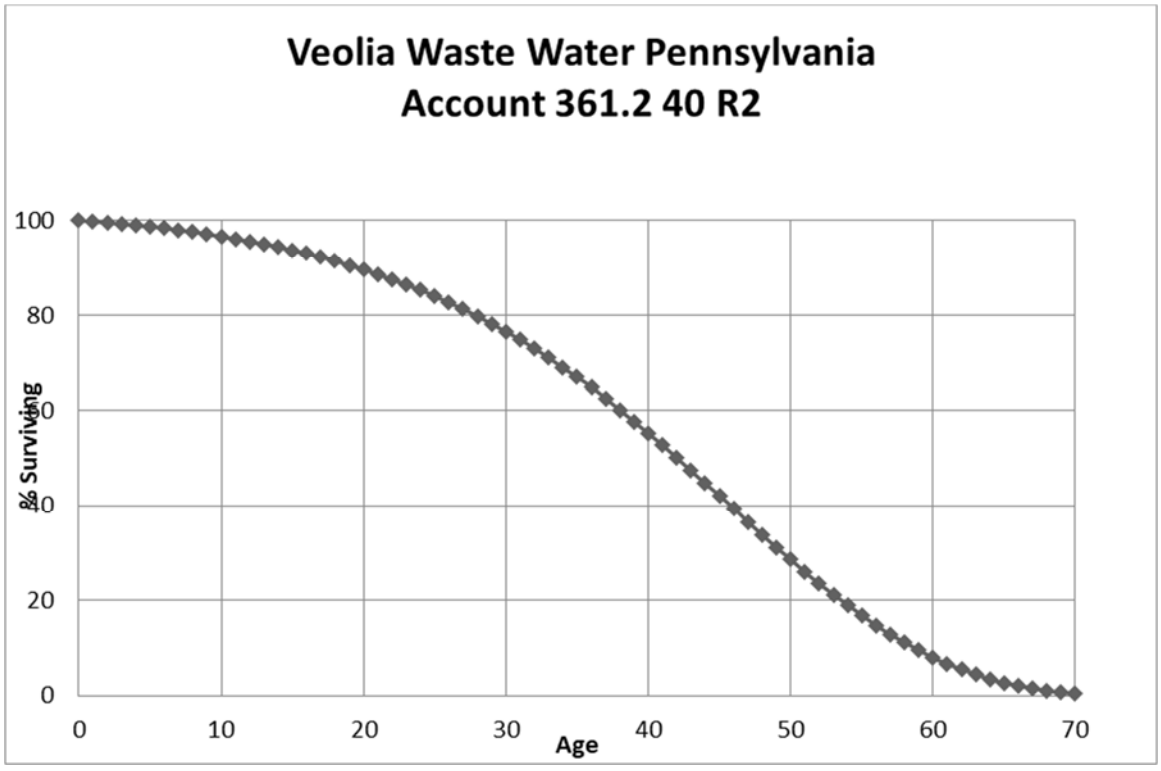
Account 360.2 Force Mains (40 R2)

Items in this account include the cost of all mains, piping and special castings, valves, etc., used in the conveyance of sewage, under pressure, to the next pumping station or other junction point in the collecting system, to the treatment plant, or directly to a point of final discharge. The account balance is $170 thousand for this account. This account does not have a current life. There is no actuarial history for this account. Based on judgment, this study recommends a 40 year life with an R2 dispersion. A generic curve shape is shown below.



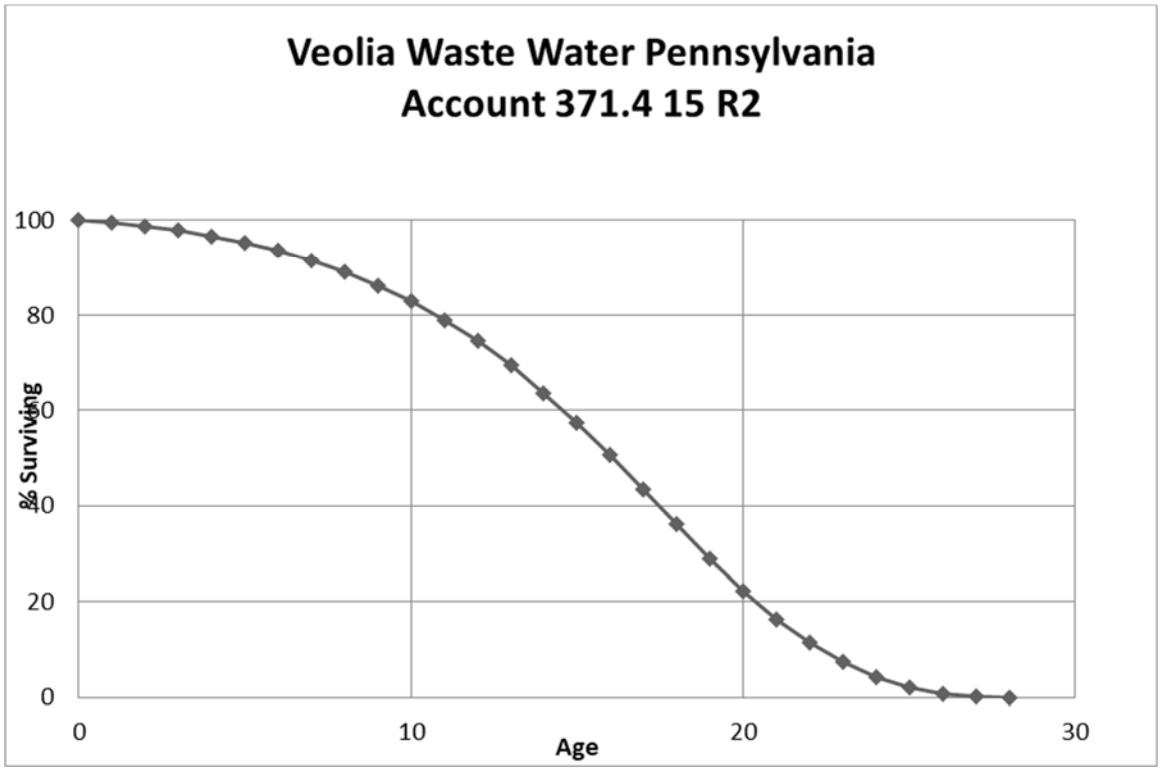
Account 361.2 Collection Sewers Gravity (40 R2)

This account shall include the cost of all mains, pipes, ducts, receiving and pumping wells, manholes and their related equipment, and accessories, the primary purpose of which is to convey sewage from the service connection to a point where it enters the interceptor main or pumping station within the collecting system. The account balance is $4.3 million for this account. The current life of this account is 30.30 years with an L0 dispersion. There is insufficient data to perform actuarial analysis for this account. Company SMEs believe that operationally, assets in Accounts 321-323 will have similar lives. Based on actuarial analysis and judgment, this study recommends moving to a 40 year life with an R2 dispersion. A generic curve shape is shown below.



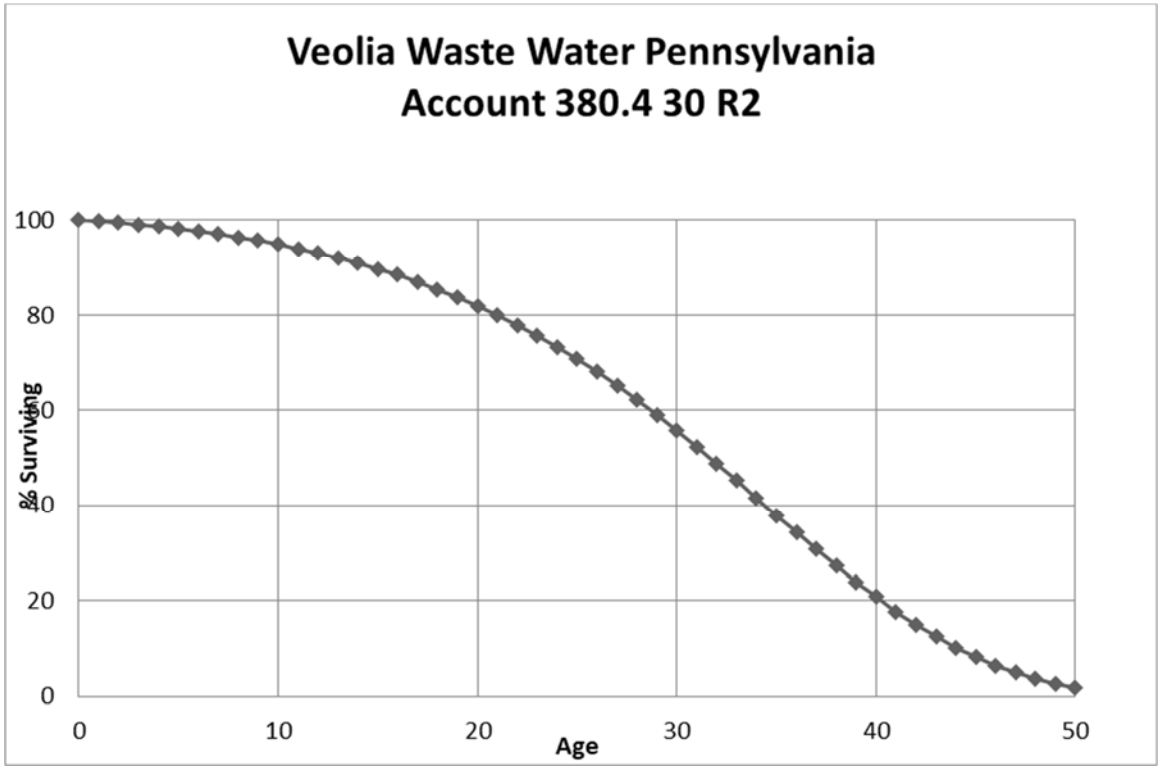
Account 371.4 Pumping Equipment - Electric (15 R2)

Items charged to this account include the cost installed of electric-powered pumping equipment used in the sewerage process. Such equipment includes generating equipment (if any), prime movers, pumps, controls and all appurtenant equipment and appliances. The account balance is $611 thousand for this account. The current life of this account is 17.99 years with an L0 dispersion. There is insufficient data to perform actuarial analysis for this account. Company SMEs believe that this account should have a similar life to water pumping equipment due to the similar nature of those operations. Based on actuarial analysis and judgment, this study recommends moving to a 15 year life with an R2 dispersion. A generic curve shape is shown below.



Account 380.4 Treatment Plant and Equipment (30 R2)

This account includes the cost of chlorine containers, gas-producing evaporators and similar equipment, the transmission lines, which convey the chlorine from the containers to such producers, the chlorinators wherein the chlorine gas is mixed with water, the source of supply providing the water used for the chlorine solution, and all equipment used for conveying water from such source to chlorinators. Equipment of a similar nature used for the handling, converting, and conveying of any chemical purification material other than chlorine is also included in this account. The account balance is $416 thousand for this account. The current life of this account is 17.99 years with an L0 dispersion. There is insufficient data to perform actuarial analysis for this account. Company SMEs believe that this account should have a life similar to water treatment equipment due to the harsh chemicals associated with these assets. Based on actuarial analysis and judgment, this study recommends moving to a 30 year life with an R2 dispersion. A generic curve shape is shown below.



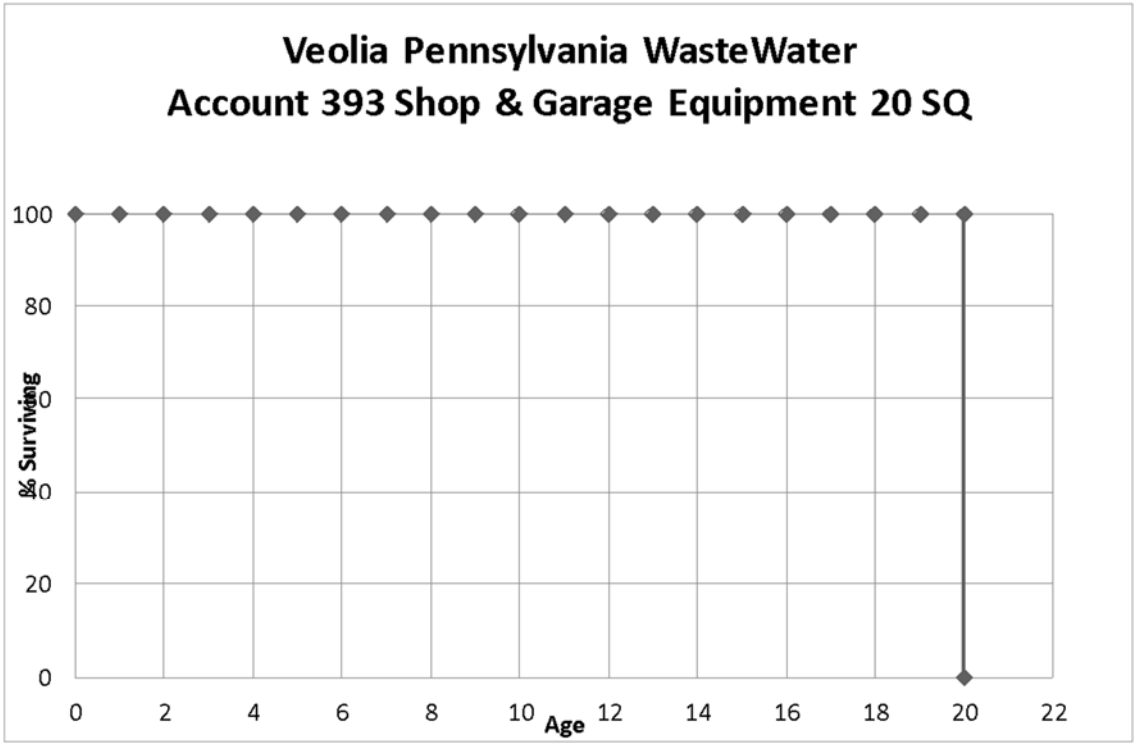
General Plant - Amortized (Accounts 393 and 396)

Adoption of Vintage Group Amortization

Since AR-15 is being adopted for water assets, this study proposed its adoption for waste water assets. With the adoption of vintage group amortization, it is no longer necessary to keep track of the location and retirement of specific assets. Annually, assets are retired after reaching the average service life for that account. The retirement amounts for fully accrued assets are shown for each account in Appendix A-2 After those assets are retired, the remaining plant in service for each account will be amortized using the amortization rates shown in Appendix A-2. An additional accrual is necessary for each plant account to make up the difference between the book depreciation reserve and the theoretical depreciation reserve. For Veolia, there is a small difference between the book and theoretical reserve that needs to be amortized over the remaining life of each plant account. This amount is shown for each account in Appendix A-2. Slight changes in life for the amortized plant accounts are discussed below.

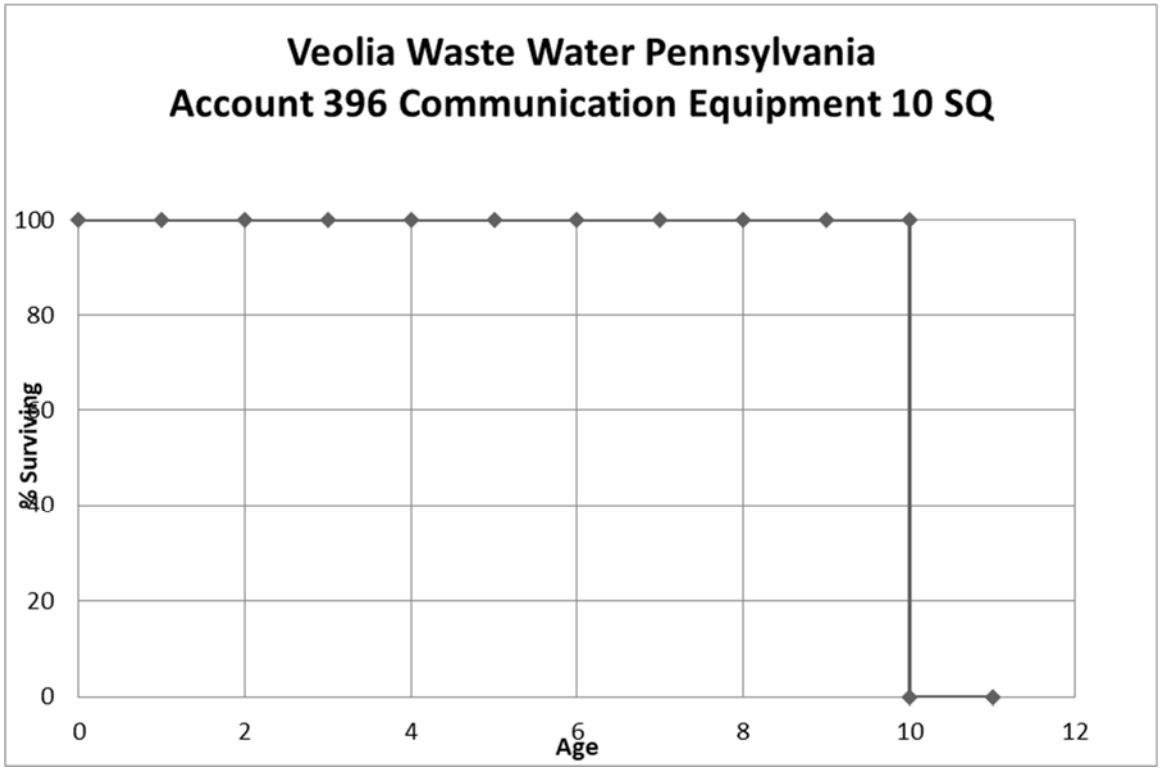
Account 393 Shop, and Garage Equipment (20 SQ)

This account consists of shop and garage equipment, such as miscellaneous tools, electric equipment, or pumps. The account balance is $4 thousand for this account. Company SMEs see no operational reason to change the existing service life used for water assets. After adoption of general plant amortization, this study recommends a 20 year life and an SQ dispersion curve for this account. A graph of the proposed curve shape is shown below.



Account 396 Communication Equipment (10 SQ)

This account consists of communication equipment such as control equipment, radios, telephone systems, and similar assets. The account balance is $17 thousand for this account, and after the retirement of fully accrued assets, there will be no change in plant balance. The plant is all located in Veolia Pennsylvania. There is no current life for this account. Company experts believe a 10 year for this account is a reasonable life estimate from an operational perspective for waste water assets. After adoption of general plant amortization, this study recommends a 10 year life and using an SQ dispersion curve for this account. A graph of the proposed curve shape is shown below.



NET SALVAGE

When a capital asset is retired, physically removed from service and finally disposed of, terminal retirement is said to have occurred. The residual value of a terminal retirement is called gross salvage. Net salvage is the difference between the gross salvage (what the asset was sold for) and the removal cost (cost to remove and dispose of the asset). Salvage and removal cost percentages are calculated by dividing the salvage and removal costs stated in current dollars by the original installed cost of the asset stated in dollars when the plant went into service. Some plant assets can experience significant negative removal cost percentages due to the timing of the original addition versus the retirement. For example, a Distribution asset in FERC Account 331 Mains with a current installed cost of $500 (2021) would have had an installed cost of $12.62[3] in 1941. A removal cost of $50 for the asset calculated (incorrectly) on current installed cost would only have a negative 10 percent removal cost ($50/$500). However, a correct removal cost calculation would show a negative 396 percent removal cost for that asset ($50/$12.62). Inflation from the time of installation of the asset until the time of its removal must be taken into account in the calculation of the removal cost percentage because the depreciation rate, which includes the removal cost percentage, will be applied to the original installed cost of assets.

The normal net salvage analysis that is performed uses the history of the individual accounts to estimate the future net salvage that a company can expect in its operations. As a result, the analysis not only looks at the historical experience but also takes into account recent and expected changes in operations that could reasonably lead to different future expectations for net salvage than were experienced in the past. Generally, recent experience is more heavily weighted in making net salvage recommendations than experience older than 10 years. As discussed below, this approach was not used for Veolia Pennsylvania.

[3] Using the Handy-Whitman Bulletin No. 198, W-1, line 34, $12.62 = $500 x 23/911.

Salvage Characteristics

In the traditional net salvage analysis, we take historical data for each account, including data for retirements, gross salvage, and cost of removal for as far back as available. A minimum of 10 years is desired. Moving averages, which remove timing differences between retirement and salvage and removal cost, would be analyzed over periods varying from one to two to 10 years. These are then evaluated in making the net salvage recommendations for the study. However, the Commission's past orders have supported the Commission Staff's position that an average of net salvage expense should be used to calculate net salvage and included in the overall depreciation expense of the Company. Therefore, while neither the Company nor Alliance agrees with this position, the Company wished to avoid significant controversy on this issue and directed Alliance to follow this methodology.

As a result, it was agreed to use an average of recent historical net salvage experience. For water assets, the Company used a 5 year average from 2017-2021 to make that computation. As a result, a net salvage amount of $612,742 was developed and has been incorporated into the total annual accrual amount for the Company as shown on Appendix B. Appendix D provides the calculation of the annual net salvage accrual amount.

For waste water assets, the Company used a 5 year average from 2017-2021 to make that computation. As a result, a net salvage amount of $0 was developed and has been incorporated into the total annual accrual amount for the Company as shown on Appendix B. Appendix D provides the calculation of the $0 used for the annual net salvage accrual amount.

APPENDIX A

Computation of Annual Depreciation Accrual and Rates

Veolia Water Pennsylvania

Computation of Proposed Depreciation Rates
Using Equal Life Group Depreciation
As of December 31, 2021

Account	Description	Plant Balance	Allocated Reserve	Unaccrued Balance	Average Remaining Life	Annual Accrual Amount	Proposed Annual Accrual Rate
Source of Supply							
304.2	Source of Supply Structures and Improvements	6,964,369.12	1,287,653.08	5,676,716.04	37.11	152,973.58	2.20%
305.2	Collection and Impounding Reservoirs	434,514.78	130,585.82	303,928.96	36.33	8,366.82	1.93%
306.2	Lake, Rivers and Other Intakes	4,912,488.15	1,342,975.01	3,569,513.14	37.30	95,691.47	1.95%
307.2	Wells and Springs	1,389,114.26	510,377.19	878,737.07	30.74	28,588.23	2.06%
308.2	Infiltration Galleries and Tunnels	13,358.04	6,362.28	6,995.76	10.83	646.17	4.84%
310.2	Power Generation Equipment	159,191.00	22,831.45	136,359.55	12.38	11,012.46	6.92%
	Total Source of Supply	13,873,035.35	3,300,784.83	10,572,250.52		297,278.73	2.14%
Pumping Equipment							
311.2	Elec. Pumping Equipment	16,226,444.97	5,741,651.43	10,484,793.54	13.65	768,372.38	4.74%
311.2	Oil Pumping Equipment	314,155.78	208,454.13	105,701.65	9.92	10,652.30	3.39%
311.4	Pumping Equipment	568,582.10	81,863.73	486,718.37	12.22	39,817.22	7.00%
	Total Pumping	17,109,182.85	6,031,969.29	11,077,213.56		818,841.90	4.79%
Treatment Equipment							
304.3	Purification Structures & Improv	17,846,220.37	5,508,524.28	12,337,696.09	26.01	474,257.86	2.66%
320.3	Water Treatment Equ	40,111,224.04	11,743,166.27	28,368,057.77	29.80	951,964.30	2.37%
320.3	WaterTreatPainting	423,963.70	423,963.70	-	-	-	0.00% *
320.3	Chemical treatment	7,830,640.74	3,915,989.84	3,914,650.90	10.07	388,918.69	4.97%
	Total Treatment	66,212,048.85	21,591,644.10	44,620,404.75	-	1,815,140.85	0 2.74%

* Remaining life is zero.

Transmission and Distribution							
304.4	Structures and Improvements T &D	1,603,093.31	110,323.67	1,492,769.64	37.27	40,051.43	2.50%
330.4	Distribution Reservoirs and Standpipes	12,000,255.10	2,817,748.07	9,182,507.03	28.26	324,892.31	2.71%
331.4	Transmission and Distribution Mains	215,118,009.75	25,664,311.36	189,453,698.39	62.12	3,049,861.20	1.42%
333.4	Services	58,107,724.56	8,251,861.56	49,855,863.00	48.28	1,032,681.81	1.78%
334.4	Meters and Meter Installations	25,442,524.14	6,507,670.92	18,934,853.22	13.23	1,431,371.36	5.63%
335.4	Hydrants	10,232,779.21	1,872,254.16	8,360,525.05	45.23	184,838.98	1.81%
	Total Transmission & Distribution	322,504,386.07	45,224,169.75	277,280,216.32		6,063,697.09	1.88%
General							
304.5	General Plant Office Buildings	12,198,028.17	2,105,270.22	10,092,757.95	28.45	354,762.84	2.91%
341.5	Transportation Equipment	3,993.79	2,003.28	1,990.51	2.76	720.35	18.04%
345.5	Power Operated Equipment	7,045.89	7,045.89	-	1.09	-	10.00%
	Total Water General Plant	12,209,067.85	2,114,319.39	10,094,748.46		355,483.18	
Excludes General Plant Amortized	Total Water	431,907,720.97	78,262,887.36				

* Remaining life was less than 1 year. Remaining life set as greater than 1. Account is fully accrued. Proposed whole life rate of 10% for new additions.

Veolia Water Pennsylvania

Computation of Proposed Depreciation Rates
Using Equal Life Group Depreciation
As of December 31, 2021

Account	Description	Plant Balance	Allocated Reserve	Unaccrued Balance	Average Remaining Life	Annual Accrual Amount	Proposed Annual Accrual Rate
Sewer Plant							
Collection, Treatment and Disposal							
354.4	Structures and Improvements	36,078.02	14,454.66	21,623.36	19.96	1,083.20	3.00%
360.2	Pump Station Force Mains	169,734.00	54,613.44	115,120.56	20.79	5,536.84	3.26%
361.2	Collection Sewers - Gravity	4,266,458.22	1,379,013.50	2,887,444.72	20.80	138,819.16	3.25%
371.4	Pumping Equipment	611,013.99	366,929.13	244,084.86	2.60	93,753.38	15.34%
380.4	Treatment and Disposal Equipment	416,048.92	248,615.60	167,433.32	10.85	15,438.54	3.71%
Excludes General Plant Amortized	Total Treatment and Disposal	5,499,333.15	2,063,626.33	3,435,706.82		254,631.12	4.63%
General Plant							
393.7	Tools, Shop and Garage Equipment	3,800.00	288.32	3,511.68	3.50	1,003.34	26.40%
396.7	Communication Equipment	17,076.15	1,744.45	15,331.70	12.50	1,226.54	7.18%
	Total Sewer General	20,876.15	2,032.77	18,843.38		2,229.87	10.68%
Excludes General Plant Amortized	Total Sewer	5,520,209.30	2,065,659.10	3,454,550.20		256,861.00	
Excludes General Plant Amortized	Total Company	437,427,930.27	80,328,546.46				

APPENDIX A-1

Computation of Annual Amortization Accrual and Rates

VEOLIA WATER PENNSYLVANIA

COMPUTATION OF AMORTIZATION RATE
AT DECEMBER 31, 2021

Account	Description	Original Cost at 12/31/21	Allocated Book Reserve at 12/31/21	Theoretical Reserve $	Reserve Difference $	Asset > ASL	Remaining Life
340.50	Computer Hardware	1,245,991.71	1,012,960.79	1,048,707.74	(35,746.95)	598,165.90	5.00
340.50	Computer Software	2,549,853.56	2,244,197.20	2,365,714.75	(121,517.55)	1,818,796.64	5.00
340.50	Office Furniture and Fixtures	753,725.20	120,976.92	143,316.62	(22,339.71)	2,622.26	5.00
340.50	Computer Software Lighthouse	3,815,699.93	3,815,699.93	3,815,699.93	-	3,815,699.93	5.00
342.50	Stores Equipment	7,543.09	743.80	884.19	(140.39)	-	5.00
343.50	Shop and Garage	765,520.13	388,425.10	448,774.59	(60,349.49)	68,696.55	5.00
344.50	Tools & Work Equip	3,708,971.79	1,097,974.13	1,239,922.74	(141,948.60)	345,937.58	5.00
344.50	Laboratory Furniture & Equipment	132,049.93	90,345.76	97,743.64	(7,397.88)	51,152.17	5.00
346.50	Communication Equipment	7,769,107.38	4,748,094.17	5,238,098.31	(490,004.15)	2,152,076.83	5.00
347.50	Miscellaneous Equipment	1,047,315.18	124,025.20	147,435.23	(23,410.04)	-	5.00
393.00	Tools & Work Equip	-	-	-	-	-	5.00
396.00	Communication Equipment	17,076.15	1,576.66	4,269.04	(2,692.38)	-	5.00
		21,812,854.05	13,645,019.65	14,550,566.79	(905,547.14)	8,853,147.86	

After Retirements of Assets with Age > Average Service Life

Account	Description	Plant Balance	Allocated Reserve	Amortization Life	Annual Amortization %	Annual Amortization $	Annual Amortization True Up $
340.50	Computer Hardware	647,825.81	414,794.89	5.00	20.00%	129,565.16	7,149.39
340.50	Computer Software	731,056.92	425,400.56	5.00	20.00%	146,211.38	24,303.51
340.50	Office Furniture and Fixtures	751,102.94	118,354.66	15.00	6.67%	50,073.53	4,467.94
340.50	Computer Software Lighthouse	-	-	8.00	12.50%	-	-
342.50	Stores Equipment	7,543.09	743.80	18.00	5.56%	419.06	28.08
343.50	Shop and Garage	696,823.58	319,728.55	20.00	5.00%	34,841.18	12,069.90
344.50	Tools & Work Equip	3,363,034.21	752,036.55	20.00	5.00%	168,151.71	28,389.72
344.50	Laboratory Furniture & Equipment	80,897.76	39,193.59	15.00	6.67%	5,393.18	1,479.58
346.50	Communication Equipment	5,617,030.55	2,596,017.34	10.00	10.00%	561,703.06	98,000.83
347.50	Miscellaneous Equipment	1,047,315.18	124,025.20	15.00	6.67%	69,821.01	4,682.01
-	-	-	-				
-	-	-	-				
393.00	Tools & Work Equip	-	-	20.00	5.00%	-	-
396.00	Communication Equipment	17,076.15	1,576.66	10.00	10.00%	1,707.62	538.48
		12,959,706.19	4,791,871.79			1,167,886.89	181,109.43

APPENDIX B

Comparison of Existing and Proposed Accrual and Rates

Veolia Water Pennsylvania

Computation of Proposed Depreciation Rates
Using Equal Life Group Depreciation
As of December 31, 2021

Acct	Description	Plant	Depreciation Accrual Current Rates	Life Proposed Accrual Rate	Life Proposed Accrual $	Amortization of Net Salvage	Net Salavge Accrual %	Total Company Accrual %	Total Accrual	Accrual $ Difference
Source of Supply										
304.2	Source of Supply Structures and Improvements	6,964,369.12	154,608.99	2.20%	152,973.58	309.05	0.00%	2.20%	153,282.64	(1,326.36)
305.2	Collection and Impounding Reservoirs	434,514.78	7,995.07	1.93%	8,366.82	1,192.40	0.27%	2.20%	9,559.22	1,564.15
306.2	Lake, Rivers and Other Intakes	4,912,488.15	157,690.87	1.95%	95,691.47	82.23	0.00%	1.95%	95,773.70	(61,917.17)
307.2	Wells and Springs	1,389,114.26	23,614.94	2.06%	28,588.23	12.74	0.00%	2.06%	28,600.97	4,986.03
308.2	Infiltration Galleries and Tunnels	13,358.04	399.41	4.84%	646.17	-	0.00%	4.84%	646.17	246.77
310.2	Power Generation Equipment	159,191.00	4,330.00	6.92%	11,012.46	-	0.00%	6.92%	11,012.46	6,682.46
	Total Source of Supply	13,873,035.35	348,639.28		297,278.73	1,596.42			298,875.16	(49,764.12)
Pumping Equipment										
311.2	Elec. Pumping Equipment	16,226,444.97	580,906.73	4.74%	768,372.38	43,745.23	0.27%	5.00%	812,117.61	231,210.88
311.2	Oil Pumping Equipment	314,155.78	3,832.70	3.39%	10,652.30	-	0.00%	3.39%	10,652.30	6,819.60
311.4	Pumping Equipment	568,582.10	15,465.43	7.00%	39,817.22	-	0.00%	7.00%	39,817.22	24,351.78
	Total Pumping	17,109,182.85	600,204.86		818,841.90	43,745.23			862,587.12	262,382.26
Treatment Equipment										
					-					
304.3	Purification Structures & Improv	17,846,220.37	439,363.02	2.66%	474,257.86	1,763.40	0.01%	2.67%	476,021.26	36,658.24
320.3	Water Treatment Equ	40,111,224.04	906,513.66	2.37%	951,964.30	7,108.48	0.02%	2.39%	959,072.78	52,559.12
320.3	WaterTreatPainting	423,963.70	37,139.22	0.00%	-	-	0.00%	0.00%	-	(37,139.22)
320.3	Chemical treatment	7,830,640.74	530,917.44	4.97%	388,918.69	19,310.08	0.25%	5.21%	408,228.77	(122,688.67)
	Total Treatment	66,212,048.85	1,913,933.35		1,815,140.85	28,181.96			1,843,322.81	(70,610.54)
* If plant is added to this account a rate of 10% is proposed										
Transmission and Distribution										
304.4	Structures and Improvements T &D	1,603,093.31	56,669.72	2.50%	40,051.43	-	0.00%	2.50%	40,051.43	(16,618.29)
330.4	Distribution Reservoirs and Standpipes	12,000,255.10	347,323.62	2.71%	324,892.31	12,737.86	0.11%	2.81%	337,630.17	(9,693.45)
331.4	Transmission and Distribution Mains	215,118,009.75	3,515,505.24	1.42%	3,049,861.20	452,026.70	0.21%	1.63%	3,501,887.90	(13,617.34)
333.4	Services	58,107,724.56	1,065,477.72	1.78%	1,032,681.81	46,632.70	0.08%	1.86%	1,079,314.51	13,836.79
334.4	Meters and Meter Installations	25,442,524.14	1,146,927.56	5.63%	1,431,371.36	15,036.62	0.06%	5.69%	1,446,407.98	299,480.42
335.4	Hydrants	10,232,779.21	179,983.77	1.81%	184,838.98	5,260.48	0.05%	1.86%	190,099.46	10,115.69
	Total Transmission & Distribution	322,504,386.07	6,311,887.63		6,063,697.09	531,694.36			6,595,391.45	283,503.82
General										
304.5	General Plant Office Buildings	12,198,028.17	286,762.82	2.91%	354,762.84	1,517.90	0.01%	2.92%	356,280.74	69,517.92
340.5	Computer Hardware	647,825.81	38,770.83	20.00%	129,565.16	65.75	0.01%	20.01%	129,630.91	90,860.08
340.5	Computer Software	731,056.92	83,530.50	20.00%	146,211.38	-	0.00%	20.00%	146,211.38	62,680.88
340.5	Office Furniture and Fixtures	751,102.94	23,165.15	6.67%	50,073.53	(65.75)	-0.01%	6.66%	50,007.78	26,842.63
340.5	Computer Software Lighthouse	-	18,765.12	12.50%	-	-	0.00%	12.50%	-	(18,765.12)
341.5	Transportation Equipment	3,993.79	811.94	18.04%	720.35	-	0.00%	18.04%	720.35	(91.59)
342.5	Stores Equipment	7,543.09	-	5.56%	419.06	-	0.00%	5.56%	419.06	419.06
343.5	Shop and Garage	696,823.58	32,764.26	5.00%	34,841.18	1.19	0.00%	5.00%	34,842.37	2,078.11
344.5	Tools & Work Equip	3,363,034.21	186,190.38	5.00%	168,151.71	5,182.84	0.15%	5.15%	173,334.55	(12,855.83)
344.5	Laboratory Furniture & Equipment	80,897.76	4,674.57	6.67%	5,393.18	-	0.00%	6.67%	5,393.18	718.62
345.5	Power Operated Equipment	7,045.89	191.65	10.00%	704.59	-	0.00%	10.00%	704.59	512.94
346.5	Communication Equipment	5,617,030.55	621,305.22	10.00%	561,703.06	822.42	0.01%	10.01%	562,525.48	(58,779.74)
347.5	Miscellaneous Equipment	1,047,315.18	73,207.33	6.67%	69,821.01	-	0.00%	6.67%	69,821.01	(3,386.32)
	Total Water General Plant	25,151,697.89	1,370,139.76		1,522,367.05	7,524.35			1,529,891.40	159,751.64
	General Plant Water Imbalance				180,570.95				180,570.95	180,570.95
	Total Water	444,850,351.01	10,544,804.89		10,697,896.56	612,742.33			11,310,638.89	765,834.00
* If plant is added to this account a rate of 10.0% is proposed										

Veolia Water Pennsylvania

Computation of Proposed Depreciation Rates
Using Equal Life Group Depreciation
As of December 31, 2021

Acct	Description	Plant	Depreciation Accrual Current Rates	Life Proposed Accrual Rate	Life Proposed Accrual $	Amortization of Net Salvage	Net Salavge Accrual %	Total Company Accrual %	Total Accrual	Accrual $ Difference
Sewer Plant										
Collection, Treatment and Disposal										
354.4	Structures and Improvements	36,078.02	2,728.74	3.00%	1,083.20	-	0.00%	3.00%	1,083.20	(1,645.54)
360.2	Pump Station Force Mains	169,734.00	7,824.74	3.26%	5,536.84	-	0.00%	3.26%	5,536.84	(2,287.89)
361.2	Collection Sewers - Gravity	4,266,458.22	331,687.64	3.25%	138,819.16	-	0.00%	3.25%	138,819.16	(192,868.48)
371.4	Pumping Equipment	611,013.99	61,704.15	15.34%	93,753.38	-	0.00%	15.34%	93,753.38	32,049.23
380.4	Treatment and Disposal Equipment	416,048.92	23,132.32	3.71%	15,438.54	-	0.00%	3.71%	15,438.54	(7,693.78)
	Total Treatment and Disposal	5,499,333.15	427,077.59		254,631.12	-	-		254,631.12	(172,446.47)
General Plant										
393.7	Tools, Shop and Garage Equipment	3,800.00	234.46	5.00%	190.00	-	0.00%	5.00%	190.00	(44.46)
396.7	Communication Equipment	17,076.15	-	10.00%	1,707.62	-	0.00%	10.00%	1,707.62	1,707.62
	Total Sewer General	20,876.15	234.46		1,897.62	-			1,897.62	1,663.16
	General Plant Sewer Imbalance				538.48				538.48	538.48
	Total Sewer	5,520,209.30	427,312.05		257,067.21	-			257,067.21	(170,244.84)
	Total Veolia PA	450,370,560.31	10,972,116.94	-	10,954,963.78	612,742.33			11,567,706.11	595,589.17

APPENDIX C

Comparison of Life and Net Salvage Parameters

Veolia Water Pennsylvania

Comparison Of Life Parameters
As of December 31, 2021

	Current							
	Veolia Plant		Bethel				Proposed	
			Post 91		Pre 91			
Plant Acct	Life	Curve	Life	Curve	Life	Curve	Life	Curve
301.1 Organization								
302.1 Franchises & Consen								
303.2 Other Supply Land								
303.3 Purification Land								
303.4 Rsrvrs&Stndpipe Land								
304.2 Power &Pumping Strc	55	R2					65	R1
304.3 Purification Strctr	55	S1.5					45	R1
304.4 TD Structures	40	R3					65	R1
304.5 Office Building	45	R2..5					45	R1.5
305.2 Collect & Impound R	65	S1					85	R3
306.2 Lake, River & Other	65	R2.5					60	R2
307.2 Wells & Springs	48	R2					52	R2.5
308.2 Infiltration Galler	40	R2.5					21	L3
310.2 - Power Generation Equipment							30	R2
311.2 Elec. Pumping Equip	36	R0.5					26	R0.5
311.2 Oil Pumping Equip	35	S2					30	R3
311.4 - Pumping Equipment							26	R0.5
320.3 Water Treatment Equ	50	R1.5					50	R1.5
320.3 WaterTreatPainting	10	SQ					10	SQ
320.3 Chemical treatment	25	S0.5					21	L3
330.4 Dis Reservoirs & St	45	R1.5					46	R4
331.4 T & D Mains	80	R3	84.75	R3	78.74	R3	80	R3
333.4 Services	60	S2.5	64.94	S2.5	60.24	S2.5	68	R3
334.4 Meters and Meter In	25	S1.5	30.03	S1.5	26.46	S1.5	22	L4
335.4 Hydrants	60	R4	54.95	R4	49.50	R4	65	R4
340.5 Computer Hardware	5	SQ					5	SQ
340.5 Computer Software	5	SQ					5	SQ
340.5 Office Furniture &	15	SQ					15	SQ
340.5 Comp. Software Lighthouse	8	SQ					8	SQ
341.5 Transportation AUTO	7	L3					7	L3
342.5 Stores Equipment	NA						18	R2
343.5 Shop and Garage	20	SQ					20	SQ
343.5 Tools & Work Equip	20	SQ					20	SQ
344.5 Laboratory Equipmen	15	SQ					15	SQ
345.0 - Power Operated Equipment	NA						10	L3
346.5 Communication Equip	10	SQ					10	SQ
347.5 Miscellaneous Equip	15	SQ					15	SQ
354.4 Structures & Improv	17.99	L0					40	R2
360.2 Collection Sewers - force							40	R2
361.2 Collection Sewers - Gravity	30.30	L0					40	R2
371.3 Pumping Equipment	17.99	L0					15	R2
380.4 Treatment & Disposa	17.99	L0					30	R2
393.0 Tools and Work Equipment							20	SQ
396.7 Communication Equipment							10	SQ

APPENDIX D

Net Salvage

VEOLIA PENNSYLVANIA AND BETHEL
AMORTIZATION OF NET SALVAGE 2017-2021

	2017		2018		2019		2020		2021			
Plant Acct	Gross Salvage	Cost of Removal	Gross Salvage	Cost of Removal	Gross Salvage	Cost of Removal	Gross Salvage	Cost of Removal	Gross Salvage	Cost of Removal	Net Salvage	Salvage Accrual
304.2 Power &Pumping Strc		82.00		1,463.27							(1,545.27)	(309.05)
304.3 Purification Strctr		8,380.00		436.98							(8,816.98)	(1,763.40)
304.4 T&D Strctr & Improv											0.00	0.00
304.5 Office Building		0.00		7,597.05		(7.54)					(7,589.51)	(1,517.90)
305.2 Collect & Impound R						5,962.00					(5,962.00)	(1,192.40)
306.2 Lake, River & Other						411.16					(411.16)	(82.23)
307.2 Wells & Springs						63.69					(63.69)	(12.74)
308.2 Infiltration Galler											0.00	0.00
310.2 - Power Generation Equipment											0.00	0.00
311.2 Elec. Pumping Equip		3,725.00		16,089.17		13,417.10		32,848.90		152,645.96	(218,726.13)	(43,745.23)
311.2 Oil Pumping Equip											0.00	0.00
311.4 - Pumping Equipment											0.00	0.00
320.3 Water Treatment Equ		501.00		14,327.00		990.16		18,226.47		1,497.79	(35,542.42)	(7,108.48)
320.3 WaterTreatPainting											0.00	0.00
320.3 Chemical treatment		23,442.00		6,883.44		9,309.50		3,620.39		53,295.06	(96,550.39)	(19,310.08)
330.4 Dis Reservoirs & St		11,262.00		21,409.94		4,989.24		26,028.13			(63,689.31)	(12,737.86)
331.4 T & D Mains		237,488.23		256,562.90		146,308.06	103.25	1,379,574.47		240,303.11	(2,260,133.52)	(452,026.70)
333.4 Services		42,620.00		51,991.19		74,323.53	0.00	42,290.72		21,938.06	(233,163.50)	(46,632.70)
334.4 Meters and Meter In		(6,288.10)	452.10	19,207.15	4,208.00	32,325.31	2,500.00	37,089.98		8.85	(75,183.09)	(15,036.62)
335.4 Hydrants		2,742.00	5,612.00	450.32	4,024.63	6,291.36	4,190.19	4,615.18	1,494.55	27,524.91	(26,302.40)	(5,260.48)
340.5 Computer Hardware				328.74							(328.74)	(65.75)
340.5 Computer Software											0.00	0.00
340.5 Office Furniture &				(328.74)							328.74	65.75
340.5 Comp. Software Lighthouse											0.00	0.00
341.5 Transportation AUTO											0.00	0.00
342.5 Stores Equipment											0.00	0.00
343.5 Shop and Garage								5.95			(5.95)	(1.19)
343.5 Tools & Work Equip								25,914.20			(25,914.20)	(5,182.84)
344.5 Laboratory Equipmen											0.00	0.00
345.0 - Power Operated Equipment											0.00	0.00
346.5 Communication Equip		1,796.00		49.25		2,266.86					(4,112.11)	(822.42)
347.5 Miscellaneous Equip											0.00	0.00
354.4 Structures & Improv											0.00	0.00
360.2 Collection Sewers - force											0.00	0.00
361.2 Collection Sewers - Gravity											0.00	0.00
371.3 Pumping Equipment											0.00	0.00
380.4 Treatment & Disposa												0.00
393.0 Tools and Work Equipment												0.00
396.7 Communication Equipment												0.00
397.7 Miscellaneous Equipment												0.00
Total	-	325,750.13	6,064.10	396,467.66	8,232.63	296,650.43	6,793.44	1,570,214.39	1,494.55	497,213.74	(3,063,711.63)	(612,742.33)

APPENDIX E
Comparison of Book and Allocated Depreciation Reserve

Veolia Pennsylvania
Comparison of Accumulated Depreciation
Per Book, Reallocated, and Calculated Reserve at December 31, 2021

	Per Book	Reallocated	Calculated
Plant Acct	**Total Accumulated Depr**	**Total Accumulated Depr**	**Total Accumulated Depr**
Water			
301.1 Organization	145,805.00	145,805.00	145,805.00
302.1 Franchises & Consen	-		
Source of Supply			
303.2 Other Supply Land	-		
304.2 Power &Pumping Strc	1,214,475.89	1,287,653.08	1,175,111.97
306.2 Collect & Impound R	126,428.48	130,585.82	120,542.53
306.2 Lake, River & Other	1,382,766.74	1,342,975.01	1,225,598.75
307.2 Wells & Springs	550,614.82	510,377.19	465,843.24
308.2 Infiltration Galler	3,667.45	6,362.28	5,865.92
310.2 - Power Generation Equipmen	27,169.80	22,831.45	97,797.41
Mahoning Unallocated	(4,338.35)		
	3,300,784.83	3,300,784.83	3,090,759.80
Pumping Equipment			
311.2 Elec. Pumping Equip	5,687,678.81	5,741,651.43	6,185,746.95
311.2 Oil Pumping Equip	262,726.75	208,454.13	224,577.28
311.3	(300.00)	-	-
311.4 - Pumping Equipment	299,418.09	81,863.73	350,659.27
Mahoning Unallocated	(217,554.36)		
Total Pumping	6,031,969.29	6,031,969.29	6,760,983.50
Treatment Equipment			
303.3 Purification Land	(81,870.00)		
304.3 Purification Strctr	3,242,897.57	5,508,524.28	5,411,929.41
320.3 Water Treatment Equ	16,409,141.10	11,743,166.27	11,476,977.17
320.3 WaterTreatPainting	311,930.47	423,963.70	423,963.70
320.3 Chemical treatment	1,700,994.14	3,915,989.84	3,657,928.02
Mahoning Unallocated	8,550.82		-
Total Treatment	21,591,644.10	21,591,644.10	20,970,798.30
Transmission and Distribution			
303.4 Rsrvrs&Stndpipe Land	-		
304.4 Structures & Improv TD	216,785.57	110,323.67	268,318.32
330.4 Dis Res Stand Painting	83,134.12	-	-
330.4 Dis Reservoirs & St	4,322,621.72	2,817,748.07	4,281,048.13
331.4 T & D Mains	16,821,248.66	25,664,311.36	38,096,100.36
333.4 Services	12,206,766.67	8,251,861.56	11,910,286.29
334.4 Meters and Meter In	8,147,434.66	6,507,670.92	9,356,166.80
335.4 Hydrants	2,918,707.45	1,872,254.16	2,732,859.13
Mahoning Unallocated	507,470.90	-	
Total Transmission & Distribution	45,224,169.75	45,224,169.75	66,644,779.03

Veolia Pennsylvania
Comparison of Accumulated Depreciation
Per Book, Reallocated, and Calculated Reserve at December 31, 2021

	Per Book	Reallocated	Calculated
Plant Acct	**Total Accumulated Depr**	**Total Accumulated Depr**	**Total Accumulated Depr**
General			
303.5 Land and Land Rights	(55,219.00)	-	
304.5 Misc Structure and Improveme	210,235.87	-	
304.5 Office Building	1,325,510.06	2,105,270.22	2,519,121.17
304.5 Shop & Garage Building	641,361.64	-	
340.5 Computer Hardware	780,279.95	1,031,371.07	1,048,707.74
340.5 Computer Software	2,007,063.57	2,248,338.66	2,528,126.87
340.5 Office Furniture &	113,541.34	120,976.92	147,458.08
340.5 Comp. Software Lighthouse	3,815,699.93	3,815,699.93	3,815,699.93
341.5 Transportation AUTO	149,351.18	2,003.28	2,381.41
342.5 Stores Equipment	64,145.33	743.80	884.19
343.5 Shop and Garage	380,165.34	388,425.10	448,774.59
343.5 Tools & Work Equip	1,020,910.38	1,097,974.13	1,239,922.74
344.5 Laboratory Equipmen	98,944.12	90,345.76	97,743.64
345.0 - Power Operated Equipment	4,184.00	7,045.89	6,653.85
346.5 Communication Equip	5,043,069.24	4,871,166.31	5,361,170.45
347.5 Miscellaneous Equip	150,333.46	124,025.20	147,435.23
Mahoning Unallocated	153,809.86		
Total General	15,903,386.27	15,903,386.27	17,364,079.91
			-
Total Water	92,343,564.23	92,343,564.23	115,123,010.53
Sewer Plant			
354.4 Structures & Improv			
360.2 Collection Sewers - force			
361.2 Collection Sewers - Gravity	6,908.94		
371.3 Pumping Equipment	(279.83)		
380.4 Treatment & Disposa	645.59		
330.4 Dis Reservoirs & St	(100.99)		
333.4 Services	(21.09)		
354.4 Structures & Improv	21,255.15	14,454.66	17,998.44
360.2 Collection Sewers - force	87,243.00	54,613.44	79,917.05
361.2 Collection Sewers - Gravity	1,334,492.40	1,379,013.50	2,002,308.14
371.3 Pumping Equipment	367,027.33	366,929.13	534,953.96
380.4 Treatment & Disposa	253,608.45	248,615.60	280,489.47
Total Treatment and Disposal	2,063,626.33	2,063,626.33	2,915,667.06
Sewer General			
393.0 Tools and Work Equipment	2,248.00	288.32	2,470.00
396.7 Communication Equipment	(215.23)	1,744.45	2,846.03
Total General Plant	2,032.77	2,032.77	5,316.03
Total Sewer	2,065,659.10	2,065,659.10	2,920,983.09
Total Company	94,409,223.33	94,409,223.33	118,043,993.62

VWPA STATEMENT NO. 5-R

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NOS. R-2024-3045192-Water R-2024-3045193 WW

REBUTTAL TESTIMONY

OF

DANE WATSON

REGARDING

DEPRECIATION STUDY

VEOLIA WATER PENNSYLVANIA, INC.

June 7, 2024

Q. What is your name and business address?

A. My name is Dane A. Watson. My business address is 101 E. Park Blvd. Suite 220, Plano, Texas 75074.

Q. Are you the same Dane Watson that submitted direct testimony in this docket?

A. Yes, I am.

Q. What is the purpose of your rebuttal testimony in this proceeding?

A. The purpose of my rebuttal testimony is to address serious errors and shortcomings related to depreciation recommendations in the prepared direct testimony of witness David J. Garrett, testifying on behalf of the Pennsylvania Office of Consumer Advocate ("OCA").

Q. Please explain how your rebuttal testimony is organized.

A. OCA witness Garrett has made recommendations to change the depreciation system that the Company has used for nearly 30 years and he also selected life parameters which produce lower depreciation rates than those I recommend. First, I will discuss Mr. Garrett's recommendation to change the depreciation system from Equal Life Group ("ELG") to Average Life Group ("ALG). Next, I will discuss the issues with witness Garrett's life recommendations.

Q. Have you prepared any exhibits supporting your rebuttal testimony?

A. Yes, I have. My Exhibit No. (DAW), consisting of five documents prepared by me or under my direction and supervision.

Exhibit DAW-1-R	Response to OCA 10-19
Exhibit DAW-2-R	RTU Detail for Accounts
Exhibit DAW-3-R	Account 311.2 Retirement data over age 35.5 Placement Band 1894-2021 Experience Band 1955-2021
Exhibit DAW-4-R	Account 320.3 Chemical Treatment Retirement data over age 31.5 Placement Band 1927-2021 Experience Band 1968-2021
Exhibit DAW-5-R	Account 331 Retirement data over age 59.5 Placement Band 1894-2021 Experience Band 1955-2021

Q. Please summarize the key concerns and disagreements you have regarding the substance of witness Garrett's testimony.

A. My key concerns and disagreements are as follows:

1. Mr. Garrett's proposal to change the depreciation system from the long-standing approved Equal Life Group to Average Life Group.
2. The six parameter changes recommended by OCA witness Garrett are inappropriate and do not incorporate analysis from multiple placement and experience bands and important operational feedback from Company

subject matter experts ("SMEs").

-

Q. Mr. Garrett argues that "the ALG method results in a fairer application of depreciation rates compared to the ELG method given the realities of ratemaking proceedings."[1] What is your response to Mr. Garrett's opinion?

A. I do not agree. Authoritative treatises, including those by the developer of the Iowa curves, Mr. Robley Winfrey, advocate the use of ELG. For nearly 30 years, this Commission has approved ELG rates for VWPA and its predecessors. Other utilities, both water and energy, have used ELG in prescribing depreciation accrual rates. Mr. Garrett is concerned about "unnecessarily increase[ing] the depreciation accrual charged to customers[2]", without considering that ELG does a more accurate job of matching consumption to revenues.

Q. What is the goal of setting depreciation rates?

A. The goal of setting depreciation rates is to estimate them as accurately as possible—neither overestimating lives nor underestimating lives. In reality, there are impacts both for the Company and for customers of over- or under-estimating lives and depreciation expense. That is why it is important to be deliberate in assessing the appropriate depreciation procedure, methodology, and data as well as the Company-specific operations and experience with the subject assets to determine appropriate life parameters and depreciation rates that result in a

[1] Direct Testimony of David J. Garrett, OCA St. 3, at 64:8-9 ("Garrett Direct").
[2] Id, 64:10-11

reasonable level of depreciation expense. My study has achieved this. Mr. Garrett's approach does not.

I. ELG VS. ALG PROCEDURES

Q. Please summarize Mr. Garrett's proposal regarding the depreciation procedure that should be used to establish depreciation rates in this case.

A. Mr. Garrett proposes to reduce VWPA's depreciation expense by $1.6 million[3] by recommending that depreciation rates should be established for VWPA using the ALG procedure instead of the ELG procedure. This is a reduction of nearly 15% over the Company's current rates and a reduction of 14% compared to my proposed rates.[4] Notably, Mr. Garrett takes this position even though this Commission has repeatedly affirmed the use of the ELG procedure to establish depreciation rates for VWPA for more than 25 years. Other water and wastewater utilities in Pennsylvania have used ELG since its approval in 1997, over 25 years ago.

Q. Has Mr. Garrett addressed depreciation in other cases before this commission?

A. Not as far as I can tell. Mr. Garrett's resume includes appearance before this Commission,[5] but the topics of his testimony have been fair value market review, cost of capital, awarded rate of return and capital structure.

[3] Garrett Direct, at 62: 4-5.
[4] Current rate change =-1,600,000/10,954,964 = 15%
Proposed rate change =-1,600,000/11,567,706 = 14%

[5] Garrett Direct at Exhibit DJG-1.

Q. Please describe the main difference between the ELG and ALG procedures.

A. The ELG procedure recognizes that individual assets within a group of assets have different lives and, therefore, should be depreciated over different periods to fully recover the cost of each asset at the end of the life of that asset. The ALG procedure contrasts with the ELG procedure in that it recognizes that individual assets within a group have different lives but depreciates all assets over the "average" life of the group. In the ALG procedure, the remaining depreciation on assets that retire before the average life of the group will effectively be recovered later through assets that retire after the average life of the asset group.

Q. Would you provide a simple example that illustrates these differences?

A. Yes. Assume that we have a category containing two assets, both installed in the same year and each costing $10. Further assume that Asset A has a life of two years and Asset B has a life of eight years. The average service life of this group is five years ($10 x 2 years plus $10 x 8 years divided by $20). The following Table illustrates the difference between the ALG and the ELG procedures:

		ALG		ELG	
Period	**Balance Beg of Yr**	**Accrual**	**EOY Reserve**	**Accrual**	**EOY Reserve[6]**
1	20.0	4.0	4.0	6.25	6.25
2	20.0	4.0	(2.0)	6.25	2.50
3	10.0	2.0	0.0	1.25	3.75
4	10.0	2.0	2.0	1.25	5.00
5	10.0	2.0	4.0	1.25	6.25
6	10.0	2.0	6.0	1.25	7.50
7	10.0	2.0	8.0	1.25	8.75
8	10.0	2.0	0.0	1.25	0.0

Q. What does this table illustrate?

A. First, there is retirement dispersion since each asset has a different life (*i.e.*, the two assets retired at different ages). Second, neither of the assets has a life equivalent to the average service life. Third, both procedures provide for full recovery of the $20 investment. Fourth, and most importantly, the two-year asset is not recovered over its two-year life in the ALG procedure, but it is in the ELG procedure. As I explain more fully below, there is a deferral of recovery inherent in the ALG procedure.

Q. Please explain.

A. The end-of year ("EOY") Reserve Column for the ALG procedure at the end of Period 2 is negative. This means that one must over-accrue depreciation for the long-lived asset (eight years) to make up for the under-accrual for the short-lived asset (two years) under the ALG procedure. In contrast, the ELG procedure

[6] "EOY Reserve" means end-of-year accumulated depreciation balance.

provides the proper matching between asset consumption and depreciation and results in a more accurate depiction of each asset over its expected life.

Q. What is the difference in the patterns of depreciation rates for the two procedures?

A. For the ALG procedure, the depreciation is always 20.00%, regardless of which assets are in service. For the ELG procedure, the depreciation rate is 31.25% for the first two years (6.25/20) to depreciate one asset over eight years and one asset over two years and 12.50% for the remaining six years (1.25/10) to recover the remaining periods for the second asset after the first was fully depreciated.

Q. Does the ELG depreciation rate change over time?

A. In theory, it does. But in reality, the ELG depreciation rate remains relatively constant for accounts when normal growth is occurring.

Q. Why is this the case?

A. This occurs because the Company's accounts are continuous property groups. That is, additions and retirements are continually being made to the accounts and the actual ELG depreciation rate changes very little, if at all, over time in most cases. VWPA's continued capital investments and improvements, necessary to provide continual and adequate service, naturally result in increased depreciation expense.

Q. Is the ELG procedure considered a more accurate depreciation procedure by depreciation experts?

A. ELG has been historically recognized as the more theoretically correct depreciation procedure, first by Mr. Robley Winfrey (who helped design the current depreciation system we use today) over 70 years ago. In fact, Mr. Winfrey stated that ELG is "the only mathematically correct [depreciation] procedure."[7] Some 30 years later, Mr. Winfrey reflected on the use of ELG and confirmed his earlier opinion that ELG was the most appropriate depreciation methodology.[8] Similarly, Dr. W. Chester Fitch and Dr. Frank K. Wolf, two other recognized authorities on depreciation systems, agree with Mr. Winfrey on the validity of the ELG method.[9] In short, it is baseless to argue, as Mr. Garrett does, that the ELG method is not an appropriate method for calculating depreciation expense.

Q. Has this Commission repeatedly recognized that the ELG procedure is a more appropriate method of deriving depreciation rates for water and wastewater utility assets?

A. Yes. The Commission approved the use of the ELG depreciation procedure for VWPA's assets in Docket Nos. R-2009-2122887, R-2015-2462723, R-2018-3000834.[10] The Commission has also approved the use of the ELG for other

[7] Winfrey, Robley, Depreciation of Property Groups, Bulletin 155 at 71 (1969).
[8] W.C. Fitch, F. K. Wolf, and B.H. Bissinger, The Estimation of Depreciation, 53-54 (1982).
[9] Frank K. Wolf and W. C. Fitch, Depreciation Systems, 93 (1994).
[10] Response to OCA Set 10, Question 19. Also Exhibit DAW-1-R

entities, as enumerated in my response to OCA Set 10, Question 19, shown as Exhibit DAW-1-R.[11]

Q. How long has VWPA used ELG?

A. VWPA has used ELG since 1997 in Docket R-00973947.

Q. Are you aware of another regulatory body where Mr. Garrett made this recommendation to switch from ALG TO ELG?

A. Yes, before the Railroad Commission of Texas ("RRCT"). The RRCT has approved the use of ELG to compute depreciation accrual rates since 1996. In GUD No. 8664, the RRCT found that "[the ELG procedure] provides a more accurate estimate of the actual consumption of the property."[12] I agree with the RRCT's findings because the ELG procedure appropriately recognizes that specific assets within a plant account retire at different ages, not over just the stated average service life of all assets in the account. As such, the ELG procedure groups assets that share similar lives within an account and appropriately calculates a theoretical reserve amount for that account to reflect retirements that occur at ages outside of the average, unlike the ALG procedure.

[11] *Id*.

[12] *Statement of Intent of Lone Star Gas Company and Lone Star Pipeline Company, Divisions of Enserch Corporation, and Ensat Pipeline Company to Increase the Intracompany City Gate Rate*, GUD No. 8664, Second Order on Rehearing at FOF 92 (Dec. 1, 1997) ("Because it provides a more accurate estimate of the actual consumption of property, the ELG depreciation procedure requested by Lone Star is reasonable.").

Over the past three decades, the RRCT has continued to maintain the use of ELG depreciation rates.

Q. How were Mr. Garrett's challenges resolved?

A. In two recent cases he challenged the use of ELG and advocated the use of ALG. In GUD 10580, in response to my direct testimony on behalf of Atmos Pipeline – Texas, Mr. Garrett proposed the RRCT shift from Atmos Pipeline's long-standing approach of using the ELG method to calculate depreciation to use of the ALG depreciation system. The issue was fully litigated, and Mr. Garrett's proposals were reviewed and rejected by the RRCT.[13] The RRCT ordered that "[t]he ELG depreciation method is proper and adequate. Atmos met its burden by establishing that ELG is a viable, industry-accepted method to establish depreciation rates[14]." Mr. Garrett made similar proposal in GUD 10920,[15] and the settlement agreement in that case adopted my proposed ELG rates.

Q. Mr. Garrett characterizes the ELG procedure as an accelerated form of cost recovery.[16] Is this an accurate characterization?

A. No. As noted above, the ELG is the more accurate methodology as long as a company has sufficient data to support it, as VWPA does here. A more accurate

[13] *Statement of Intent to Change Rates of CGS and Rate PT Rates of Atmos Pipeline Texas*, GUD No. 10580, Final Order at FOFs 61-65 (Aug. 1, 2017).
[14] *Id*.
[15] *Statement of Intent to Change Rates of CenterPoint Energy Resources Corp to increase rates in the Beaumont/East Texas Division,* GUD No. 10920 (June 20, 2020). The settlement agreement in that case adopted the rates I proposed which were computed using ELG.

[16] Garrett Direct at 5:10-11, 18-19; 80:2-3.

characterization would be that the ALG procedure is actually a *deferred* approach compared to ELG and less precise.

Both procedures are straight-line methods of calculating depreciation so that assets are fully depreciated at the end of their service lives. Both procedures calculate a theoretical reserve that reflects what the Company would have collected if its recommended parameters had been in place throughout the history of its current investment. Both procedures calculate the annual accrual necessary for the Company to collect a return of its remaining plant investment over the remaining lives of the assets. And the point of both procedures is to do this as accurately as possible based on the best information available. In this case, that is the ELG procedure. There is no "acceleration of depreciation" inherent in using a methodology that performs these functions more accurately, regardless of the results.

Q. Mr. Garrett argues that the ALG procedure provides a more balanced and even application across generations of ratepayers. Do you agree?

A. No. In fact, shifting from ELG to ALG would shift costs to future generations. The ALG procedure considers all units in an account to be one group,[17] so all costs for the entire group are allocated over one life, the average service life. As stated in *Depreciation Systems*:[18]

[17] NARUC, Public Utility Depreciation Practices, 1996, p.62.
[18] Depreciation Systems, by Drs. F. K. Wolf and W. C. Fitch, Iowa State University Press, 1994, p 93.

> The ALG procedure treats each unit as though its life is equal to the average of the group. The ELG procedure treats each unit in the group as though its life was known. This is the basis for the argument that the equal life group procedure better matches depreciation charges with the life of the units in the group.

ALG relies on the last units in the group to achieve full recovery. ELG uses each ELG group appropriately to recover the capital for that group. By deferring capital recovery to the longest-surviving units in the group, ALG shifts the burden of capital recovery to future customers in return for lower immediate rates. Stated differently, future customers are paying depreciation expense on assets long after they have been retired under the ALG procedure.

The National Association of Regulatory Utility Commissioners ("NARUC") describes that "the ELG procedure will group assets according to their service lives, with the units from each vintage expected to experience the same service life being included in the same life group".[19] NARUC further states "[t]his procedure permits accruing the full cost of the shorter-lived units to the depreciation reserve while they are in service. Thus, the longer-lived units bear only their own costs."[20]

[19] NARUC, Public Utility Depreciation Practices at 62 (1996).
[20] *Id*.

Q. Can you provide an example of how this intergenerational inequity occurs under the ALG procedure?

A. Yes. Assume that you have plant assets with an average 30-year life. Further assume that one of these assets is damaged and must be retired from service after two years. Under the ALG procedure, the cost of the retired asset will not be fully depreciated at the end of its two-year life. Instead, when the two-year asset is replaced at the end of its two-year life, the replacement asset will begin to be depreciated while at the same time, most of the cost of the retired asset will continue to be recovered from customers until it too is fully depreciated. Effectively, in year three, customers are paying for the new asset and also the retired two-year asset. This is the reality any time you assign averaged depreciation lives for assets—it creates intergenerational inequities for future customers by deferring recovery of cost until later in the life of the group.

Q. Have you recommended the ALG procedure be used in the past?

A. Yes. I have recommended ALG for jurisdictions where ALG is the precedent. I used ELG in this case because it is the long-standing precedent at the Pennsylvania Public Utility Commission and that is how VWPA's depreciation expense has been calculated in rates for many years.

Q. Mr. Garrett implies that this Commission has misapplied the ELG procedure because it has failed to annually adjust rates under the ELG procedure. Do you have a response?

A. Mr. Garrett mistakenly states, "In order for the ELG method to be properly applied, a utility company would need to revise depreciation each year.[21]" This Commission has regulated water and wastewater utilities for nearly 30 years using ELG rates, and no utility under its jurisdiction has been asked to follow Mr. Garrett's proposed criteria. I believe that Mr. Garrett is incorrect in his comments about misapplication.

Q. Should the Commission continue to use the ELG procedure to establish depreciation rates for VWPA?

A. Yes. The ALG procedure does not fully recognize that assets retire outside of the approved service life, so when retirement occurs before the average service life occurs, the longer-lived assets have to make up for those early retired assets. The reality is very few assets actually retire at the average service life. The ALG procedure also creates intergenerational inequity despite Mr. Garrett's claim of being "balanced and even." The ELG procedure, on the other hand, recognizes and accounts for the retirement of assets at varying ages. The ELG procedure also more accurately accounts for how assets are actually recorded in VWPA's books and records. And, use of the ELG procedure facilitates generational equity

[21] Garrett Direct at 61:26-28.

among all ratepayers. Moreover, ELG is the long-standing precedent of this Commission. For these reasons, I strongly recommend continuing to use the ELG method for VWPA.

II. PROPOSED LIFE PARAMETERS

Q. What recommendations do witness Garrett make with regard to various account service lives?

A. Witness Garrett suggests that the proposed service lives for six distribution accounts should be extended.[22]

Q. How does witness Garrett's proposed lives and survivor curves for the six accounts at issue compare with those currently approved for VWPA and your proposals?

A. Table 1 below compares my proposals to witness Garrett's proposals for the existing life and survivor parameters for the six accounts at issue.

TABLE 1

		Existing		Company		OCA	
Acct	Description	Life	Curve	Life	Curve	Life	Curve
	Structure and Improv						
304.2	Source of Supply	55	R2	65	R1	74	R1
304.5	Office Buildings	45	R2.5	45	R1.5	54	R1

[22] Garrett Direct at 67, 70, 71, 72, 73, and 75.

311.2	Elec Pumping Equip	36	R0.5	26	R0.5	31	R0.5
320.3	Water Treatment Equip	50	R1.5	50	R1.5	58	R1
320.3	Chemical Treatment Equip	25	S0.5	21	L3	29	R1.5
331.4	T & D Mains	80	R3	80	R3	88	R2.5

Q. Do you agree with witness Garrett's recommendations?

A. No. Witness Garrett's proposed service lives for the six property accounts are not reasonable and are not based on sound depreciation practices. Witness Garrett's recommendations should be rejected, and my proposed service lives should be adopted.

Q. Would you elaborate on your disagreement with witness Garrett's life selections?

A. Yes. There are a number of errors in witness Garrett's analysis which lead to inappropriate life recommendations. I will address those in this section. Later, I will discuss account-specific issues with witness Garrett's six life recommendations.

Q. Would you describe the flaws in witness Garrett's analysis?

A. Yes. Witness Garrett's analysis:

- Violated the principles behind actuarial analysis by only using one placement and experience band (the full band) thereby not analyzing trends in life through time.

- Ignored both company-specific operational information and reasonable engineering expectations for the life of assets.

Q. What placement and experience bands did witness Garrett use in his analysis?

A. Witness Garrett only used one placement and experience band in his testimony and workpapers for each account, as summarized in Table 2.

TABLE 2

Acct	Description	Placement Band First Year	Placement Band Last Year	Experience Band First Year	Experience Band Last Year
	Structure and Improv				
304.2	Source of Supply	1894	2021	1955	2021
304.5	Office Buildings	1905	2021	1972	2021
311.2	Elec Pumping Equip	1894	2021	1955	2021
320.3	Water Treatment Equip	1905	2021	1970	2021
320.3	Chemical Treatment Equip	1927	2021	1968	2021
331.4	T & D Mains	1880	2021	1968	2021

Q. Do you agree with witness Garrett's decision to use only one placement and experience band?

A. No. Witness Garrett's use of only one placement and experience band does not follow sound depreciation practice or guidance, and in my expert opinion, does not lead to accurate results in this case. NARUC's *Public Utility Depreciation Practices* advocates the use of multiple bands:

> Banding is compositing a number of years of data in order to merge them into a single data set for further analysis. Often, several bands are analyzed. By making determinations of the life and retirement dispersion in successive bands, the analyst can get a clear indication

of whether there is a trend in either the life of the plant or in the dispersion of the retirements.[23]

Another learned treatise, *Depreciation Systems*, offers similar guidance:

> The analyst must use good judgment when determining band widths. Many empirical procedures governing this choice have been developed. These include the selection bands of fixed width, often 3, 5, or 10 years; rolling bands, in which one band overlaps the next; and shrinking bands, in which the width of the band systematically decreases.
>
> A preferred approach is to select the bands based on the history and the activities that occurred during the period defined by the bands. Because placement bands are often used to describe property of a particular technology, a band could be chosen that will be wide enough to include all property of a similar technology. Experience bands may be chosen to include the calendar years during which a single force of retirement was of particular interest.
>
> Bands may be chosen to detect change in the survivor characteristics.[24]

Witness Garrett does not explain why he has decided not to follow this guidance and instead choose only one placement and experience band.

[23] NARUC, *Public Utility Depreciation Practices*, at 113 (1996).
[24] F.K. Wolf and W. C. Fitch, *Depreciation Systems*, at 186 (1994).

Q. What placement and experience bands did you use for purposes of your study?

A. I used five or more placement/experience bands for each account at issue in this proceeding. I ran an overall placement band[25] with the overall experience band,[26] I generally ran placement bands of 1955–2021 and 1992–2021 to model life characteristics over various placement years. I also ran experience bands of 1982–2021 and 1992–2021 experience bands. For each account below, I will enumerate number of bands analyzed.

Q. Even using only the full band, did Mr. Garrett follow authoritative guidance on which portion of the curve to model?

A. No. For many accounts, Mr. Garrett focuses on fitting the end of the curve at the oldest ages: Account 304.2, Account 311.2, and Account 320.3-Chemical Treatment.[27] For some accounts, he inserts a truncation point where he states that a truncation point "would eliminate data occurring after this point that would excludes age intervals associated with dollars exposed to retirement that are less than 1% of the total exposures at age zero."[28] However, in my opinion, his proposed curves produce the visual fits that seem to model assets in the older portion of the observed life table ("OLT"). *Depreciation Systems* provides authoritative guidance as to what part of the curve to match:

[25] The width of each placement band varied depending on the amount of data available.
[26] The overall experience band varied depending on the amount of data available.
[27] Garrett Direct, at Figure 4 p. 68, Figure 5, p. 70, Figure 7, p. 74, respectively.
[28] Garrett Direct at 68: 3-6.

> After plotting the observed curve, the analyst should first visually match the plotted data to make an initial judgment about the type curve that may be good fits. The analyst also must decide which points or section of the curve should be given the most weight. Points at the end of the curve are often based on fewer exposures and may be given less weight than the points based on larger samples. The weight placed on those points will depend on the size of the exposures. **Often the middle section of the curve (that section ranging from approximately 80 percent to 20 percent surviving) is given more weight than the first and last sections. This middle section is relatively straight and is the portion of the curve that often best characterizes the survivor curve**.[29]

Witness Garrett has provided no authority in support of his position on which portions of the curve to match. His methodology appears inconsistent and does not focus on periods from 80 to 20 percent surviving period that are recommended by academic guidance.

Q. You stated earlier that witness Garrett did not incorporate information from SMEs in his recommendations. Why do you take issue with this?

A. Witness Garrett makes no indication in his testimony, exhibits, or workpapers that he reviewed or incorporated any information from Company experts in his life

[29] F.K. Wolf and W. C. Fitch, *Depreciation Systems*, at 46–47 (1994) (emphasis added).

recommendations. Information provided by SME's on the specific plant and equipment being studied is of critical importance in the depreciation study process. In its 1996 edition of the publication *Public Utility Depreciation Practices*, NARUC advises against strict reliance on historical data and fitting, stating:

> Depreciation analysts should avoid becoming ensnared in the historical life study and relying solely on mathematical solutions. The reason for making an historic life analysis is to develop a sufficient understanding of history in order to evaluate whether it is a reasonable predictor of the future. The importance of being aware of circumstances having direct bearing on the reason for making an historical life analysis cannot be understated. **The analyst should become familiar with the physical plant under study and its operating environment, including talking with the field people who use the equipment being studied**.[30]

For instance, witness Garrett ignores important information from Company experts for Account 320.3- Water Treatment Equipment who state, "They would expect a life of under 20 years. They are planning to overhaul Raybold plant over the next 2-3 years. Chemical pumps would have short lives. Tanks would have longer lives and the containment would have even longer. A 21-year life may be reasonable. "[31] Witness Garrett's recommendation of 29 years ignores this crucial information.

[30] NARUC, *Public Utility Depreciation Practices*, at 126 (1996) (emphasis added).
[31] Watson Direct Workpapers, Folder Interview Notes.

III. ACCOUNT LEVEL DISCUSSION

Account 304.2 – Structures and Improvements Source of Supply

Q. What assets are in this plant account?

A. This account consists of structures and various improvements associated with source of supply equipment. The account balance is $7.0 million for this account. The items in this account are components of structures such as: building shell, site work, roofs, fences, HVAC systems, safety equipment, and security systems.

Q. Please describe your and witness Garrett's recommendations for Account 304.2- Structures and Improvements-Source of Supply.

A. I recommend increasing the existing service life for Account 304.2, which is currently 55 R2, to a 65 R1. This represents an increase of ten years. Witness Garrett proposes 74 R1, which is an increase of 19 years and **34.6** percent over the existing life and nine years beyond my recommendation. At December 31, 2021, the average age of survivors in this account is 9.73 years and the average age of retirements in this account is 30.61 years. This information demonstrates that this is a young account with little retirement experience for the majority of the assets.

Q. Do you agree with witness Garrett's basis for proposing a 74 R1 Curve?

A. No. There are a number of reasons I disagree with witness Garrett on the life for this account. First, witness Garrett does not appear to factor in the life expectations for specific assets in this account as communicated by Company SMEs. Many of the components in this account: roofs, fences, HVAC systems, safety equipment, and security systems will not last the 65 years I recommend. Mr. Garrett's 74-year life does not incorporate that factor.

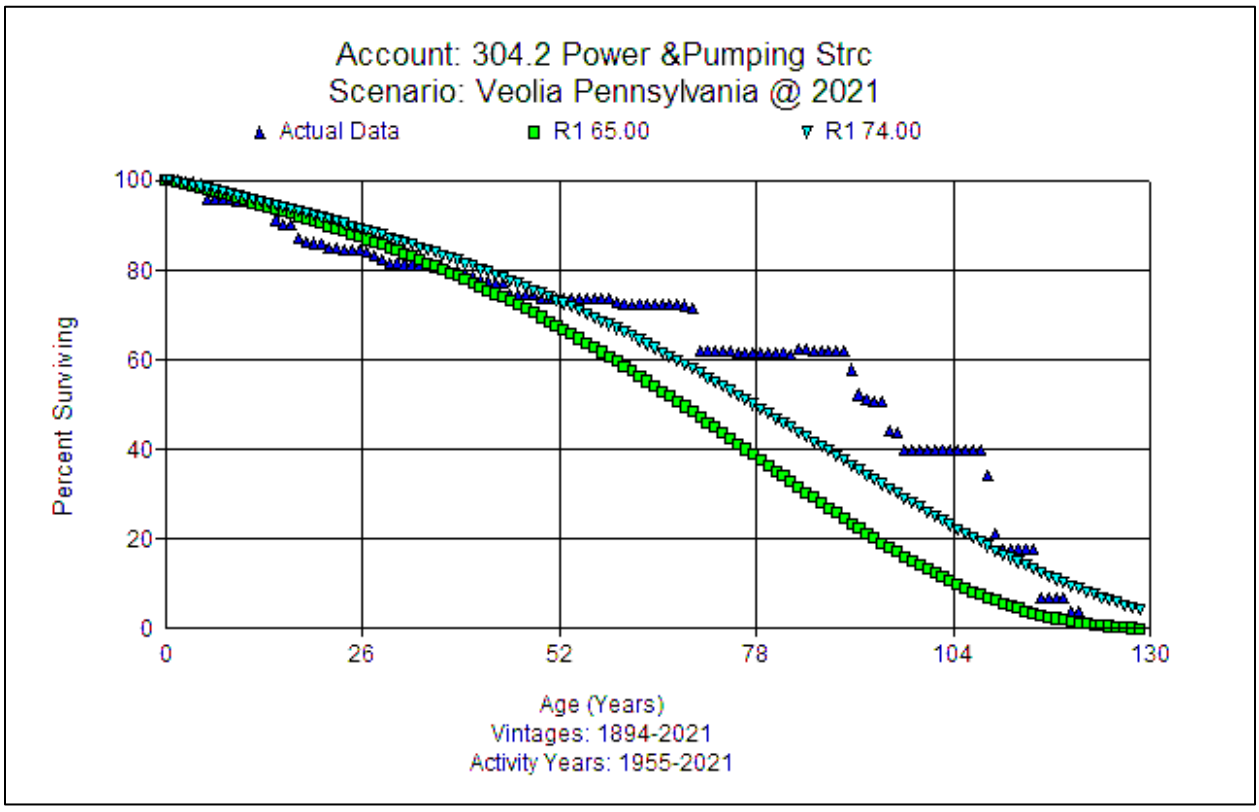
Next, as also discussed earlier, witness Garrett only examines one band for his proposal. In contrast, I used seven different placement and experience bands as shown in my workpapers. As stated in NARUC's *Public Utility Depreciation Practices*, it is important to look at different placement bands and experience bands:

> Placement bands may be used to show the effects and technological and material changes, whereas experience bands are used the show the effects of business and operational changes. Such banding is necessary because the analyst does not have access to a database wherein each factor (e.g., change in materials/technology or operational environment) is held constant.[32]

[32] NARUC, *Public Utility Depreciation Practices*, at 125 (1996).

Q. What does a visual comparison over multiple bands show when correcting the previously discussed errors in witness Garrett's analysis?

A. Below are graphs over various placement and experience bands. The dark blue triangles represent the observed life table, the green rectangles represent the Company's proposal, and the teal slanted triangles show witness Garrett's proposal. The first graph shows the period 1894–2021 for the placement and 1955-2021 experience band with both my recommendation and that of witness Garrett.



Q. How should one interpret this graph?

A. My recommendation is a better visual match through age 45, and Mr. Garrett's matches part of the tail of the curve beyond age 100. It is more important to match the top portion of the curve than the tail, because as the data becomes sparser with older assets, the drops in the survivor curve are driven by the oldest assets in the group, which are not representative of current technology. The table below shows activity which drives the tail of the curve:[33]

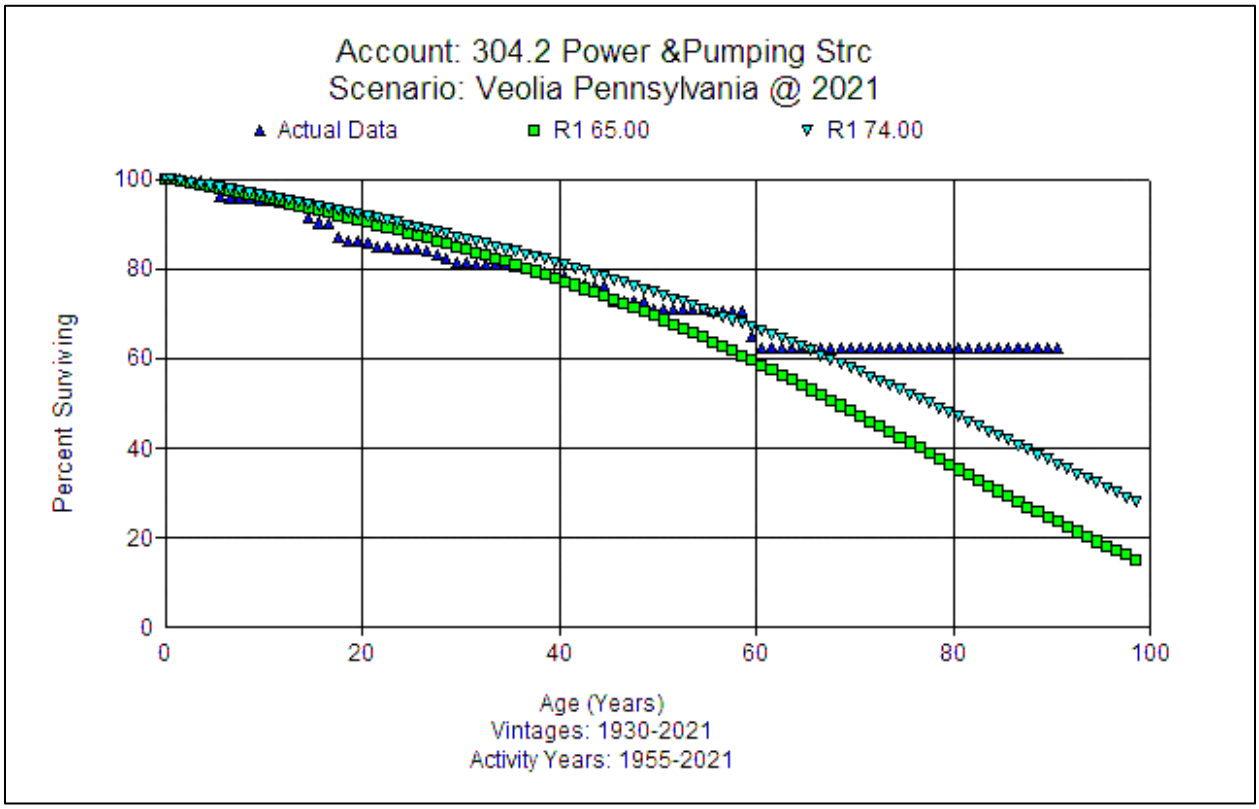
Age Beginning of Interval	Retirement	Transaction Year	Vintage Year
94.5	6,690.03	2018	1923
95.5	275.97	2017	1921
96.5	4,224.05	2018	1921
107.5	6,163.06	2016	1908
108.5	13,405.57	2016	1908
109.5	3,636.94	2017	1908
114.5	11,559.50	2015	1900
118.5	3,234.56	2015	1896
120.5	3,945.76	2015	1894

It is not reasonable to base the life recommendation of this account from assets over 100 years old when the average age of survivors in this account is 9.73 years.

[33] Garrett Direct at Exhibit DJG-26, pages 1-3

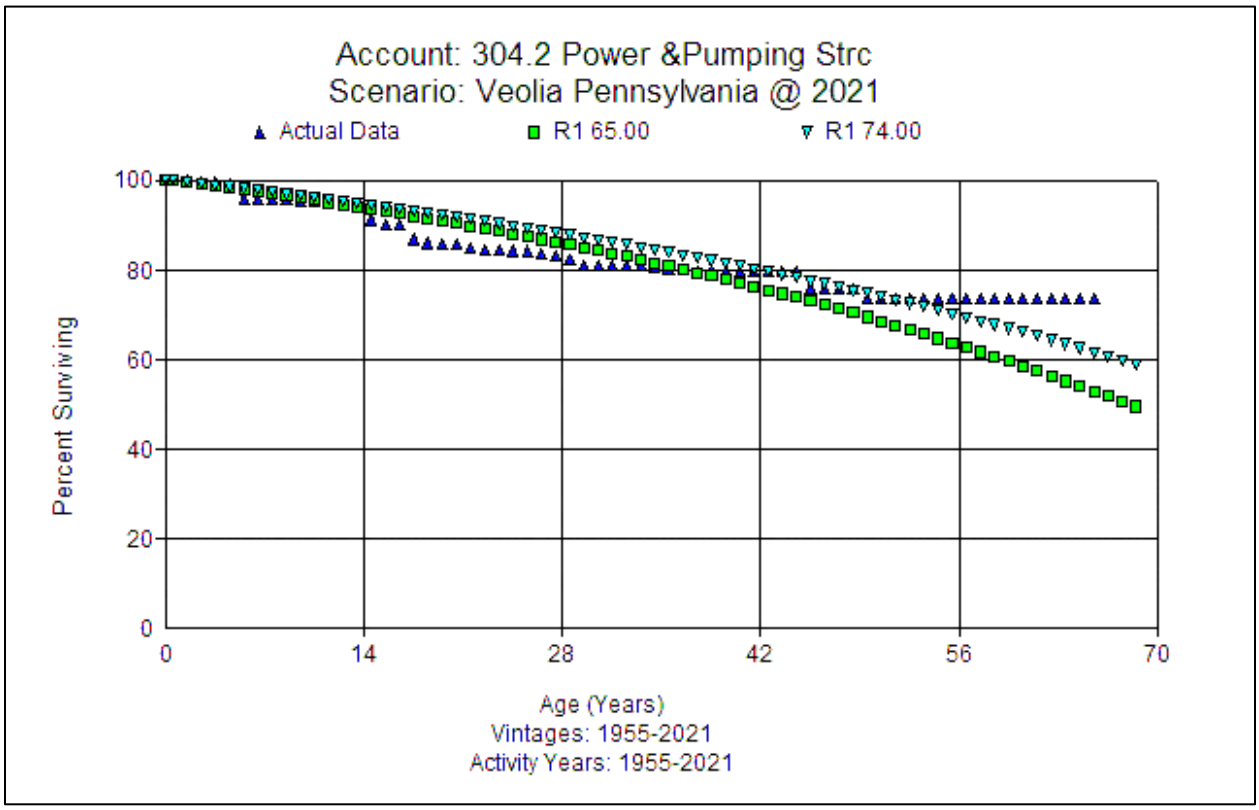
Q. What do more recent placement and experience bands show?

A. More recent bands show that my proposed curve again remains a better visual match. This band is shown in my depreciation study report.[34]

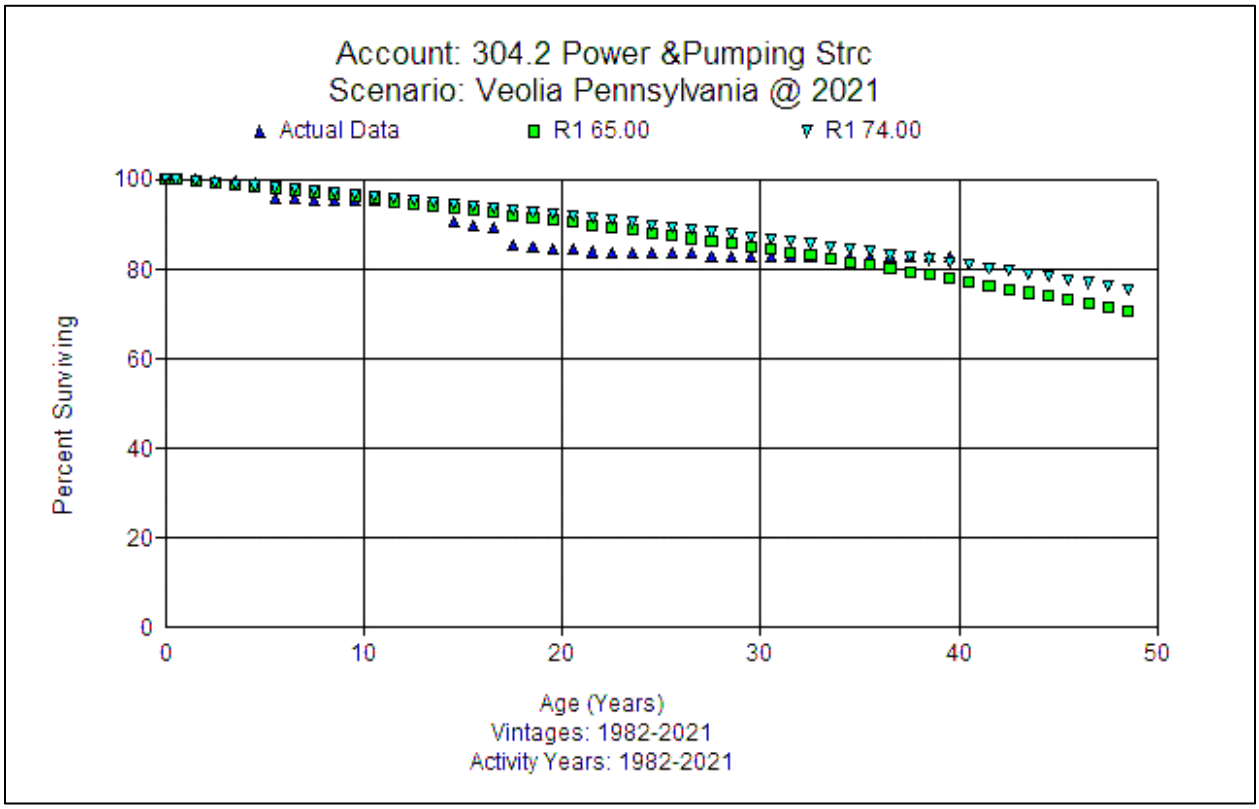


[34] Watson,MFR VI-02 Attachment, page 22

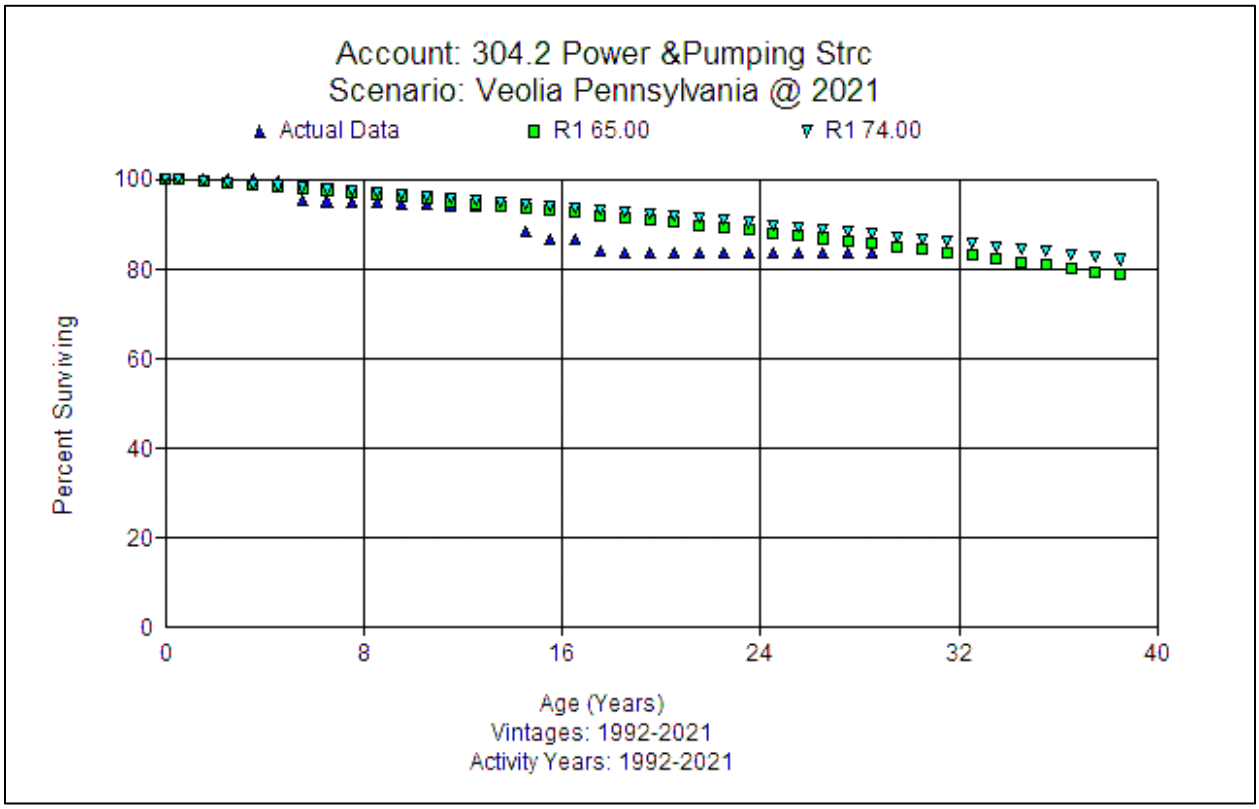
As the band changes, different time periods are shown.



By the time we examine the most recent 40 years, the retirement activity is occurring at a faster rate than either proposed curve until the data becomes too sparse to be meaningful.



The band from the most recent 30 years shown below exhibits the same pattern- assets are retiring at an earlier age than either proposal. Increasing the life to Mr. Garrett's proposed 74 years does not match recent experience.



Q. Do you have any additional comments on the life recommendation for this account?

A. Yes. My life recommendation of 65-R1 recognizes both the indications in the life analysis and the Company-specific information from the SMEs. Further, my analysis recommends an *increase* of 10 years over the existing life, which translates to a 20 percent increase to the life. To move the life another nine years from my recommendation is excessive, especially without definitive support. When

compared to existing parameters, witness Garrett's life represents an increase of nineteen years or a 35 percent change. This level of change without operational reasons at one time is unreasonable, is not supported by the evidence, and should be rejected.

Account 304.5 Office Buildings

Q. What assets are in this plant account?

A. This account consists of structures and various improvements associated with general offices not tied to a specific functional group. The account balance is $12.2 million in this account.

Q. Please describe your and witness Garrett's recommendations for Account 304.5- Office Buildings.

A. I recommend retaining the existing service life for Account 304.5 Office Buildings with a slight shift in dispersion, which is currently 45 R2.5, to a 45 R1.5. Witness Garrett proposes 54 R1, which is an increase of nine years over the existing and my recommendation. At December 31, 2021, the average age of survivors in this account is 8.15 years and the average age of retirements in this account is 14.82 years. This information demonstrates the account is made up of newer assets that are replaced on an ongoing basis.

Q. Do you agree with witness Garrett's basis for proposing a 54 R1 Curve?

A. No. There are a number of reasons I disagree with witness Garrett on the life for this account. First, witness Garrett does not appear to factor in the life expectations for specific assets in this account as communicated by Company SMEs. My interview notes on this account indicate the following factors that influence the life of this account:

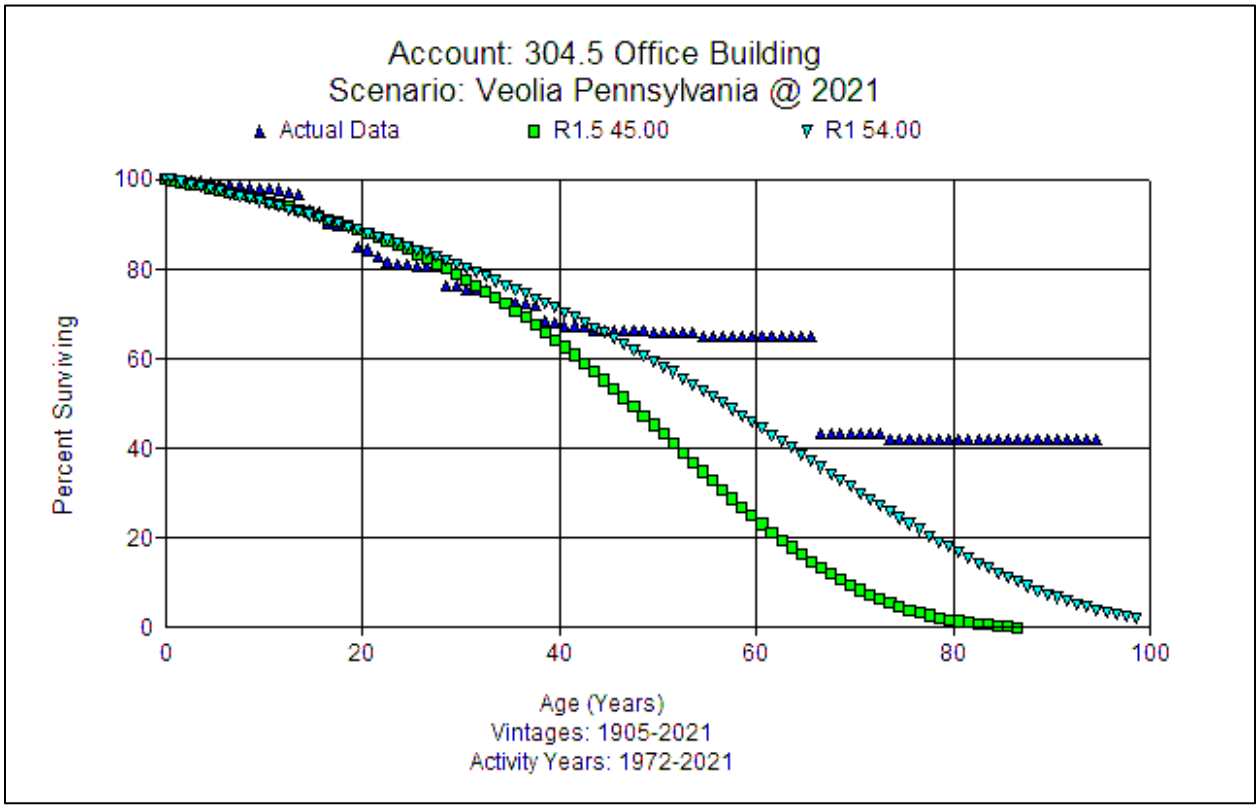
> Company recently moved its offices and will retire the building when demolished. There was a reclass to nonutility plant. There are very few actual building assets in this account. Most are much shorter lived assets: 50% of the account is office remodel and many assets are roofs, fencing, cameras, etc. None of the assets other than any actual building shells will last 45 years or longer. The items in this account are components of structures such as: the building shell, roadways, paving, HVAC systems, safety equipment, and flooring. Actuarial analysis shows a slightly shorter life.[35]

Second, as discussed earlier, witness Garrett's life analysis only examines one band for his proposal. In contrast, I used six different placement experience bands as shown in my workpapers.

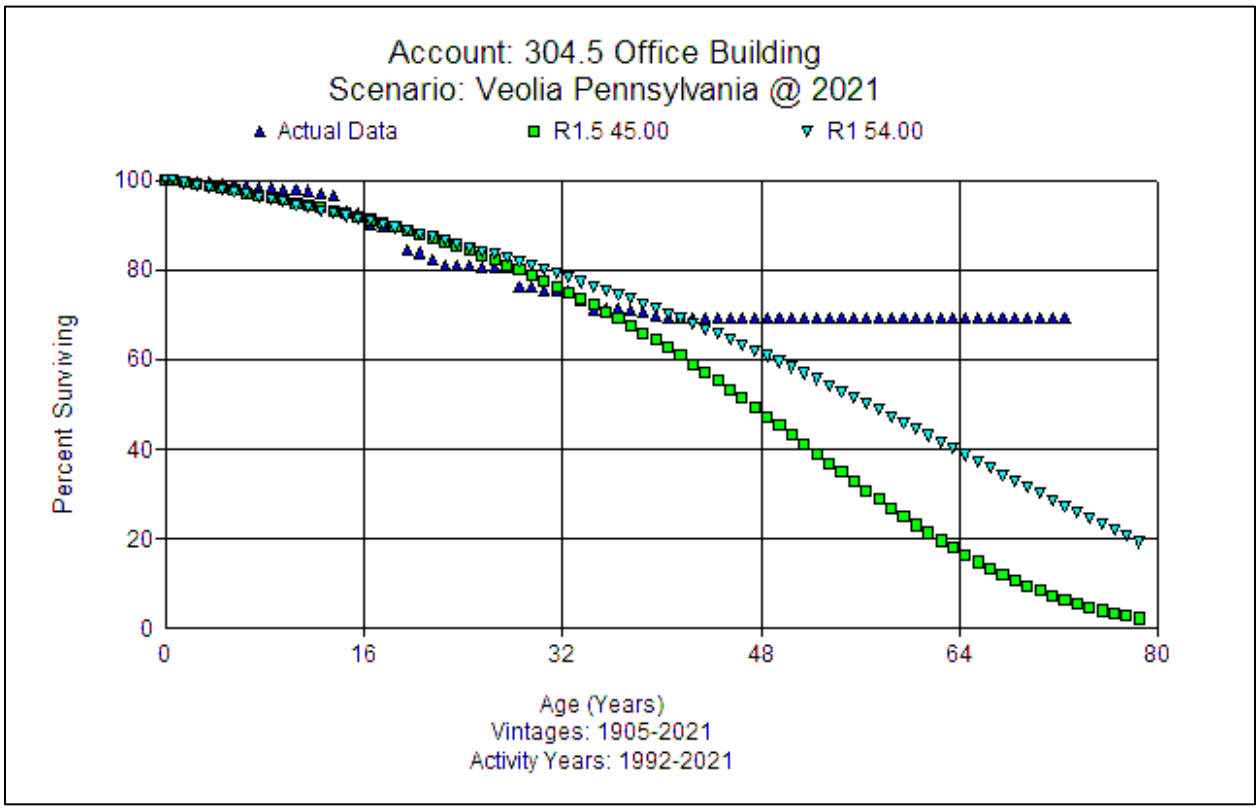
Q. What does a visual comparison over multiple bands show?

[35] Watson , MRF VI-02 Attachment, Page 50.

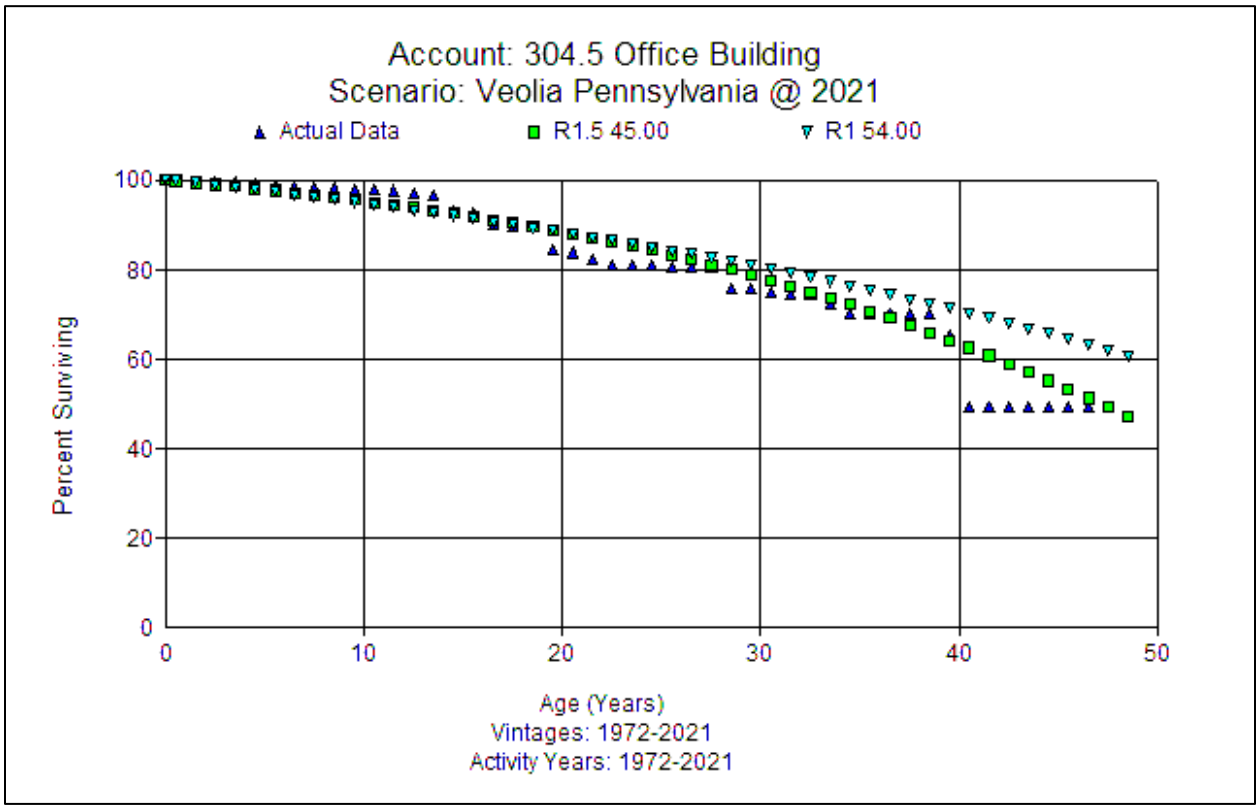
A. Below are graphs over various placement and experience bands. The same color scheme shown in Account 304.2 is used in this and all remaining accounts. The graph below shows our competing selections for the period 1905–2021 for the placement band and 1972-2021 experience band. My recommendation is clearly a superior match through age 40 – beyond which there is little transactional information to be statistically valid.



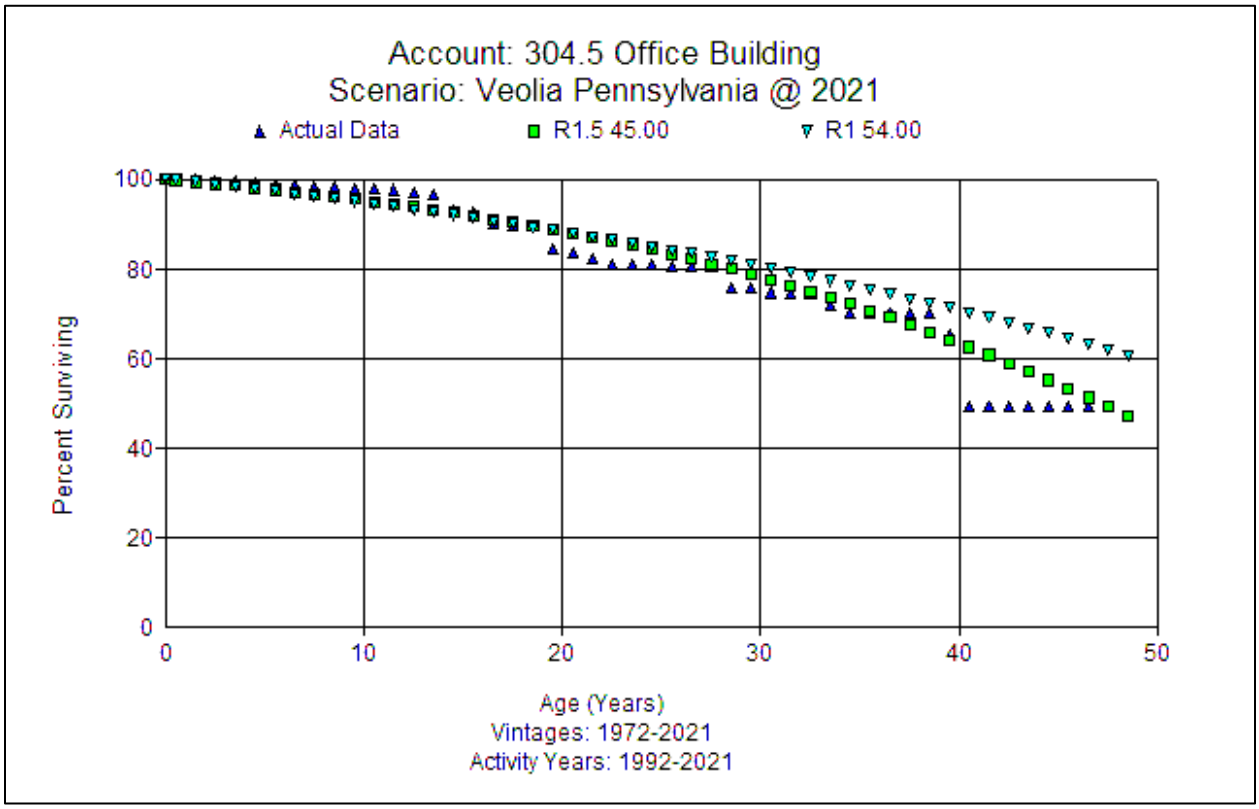
The graph below shows the band that I put in the report for this account.



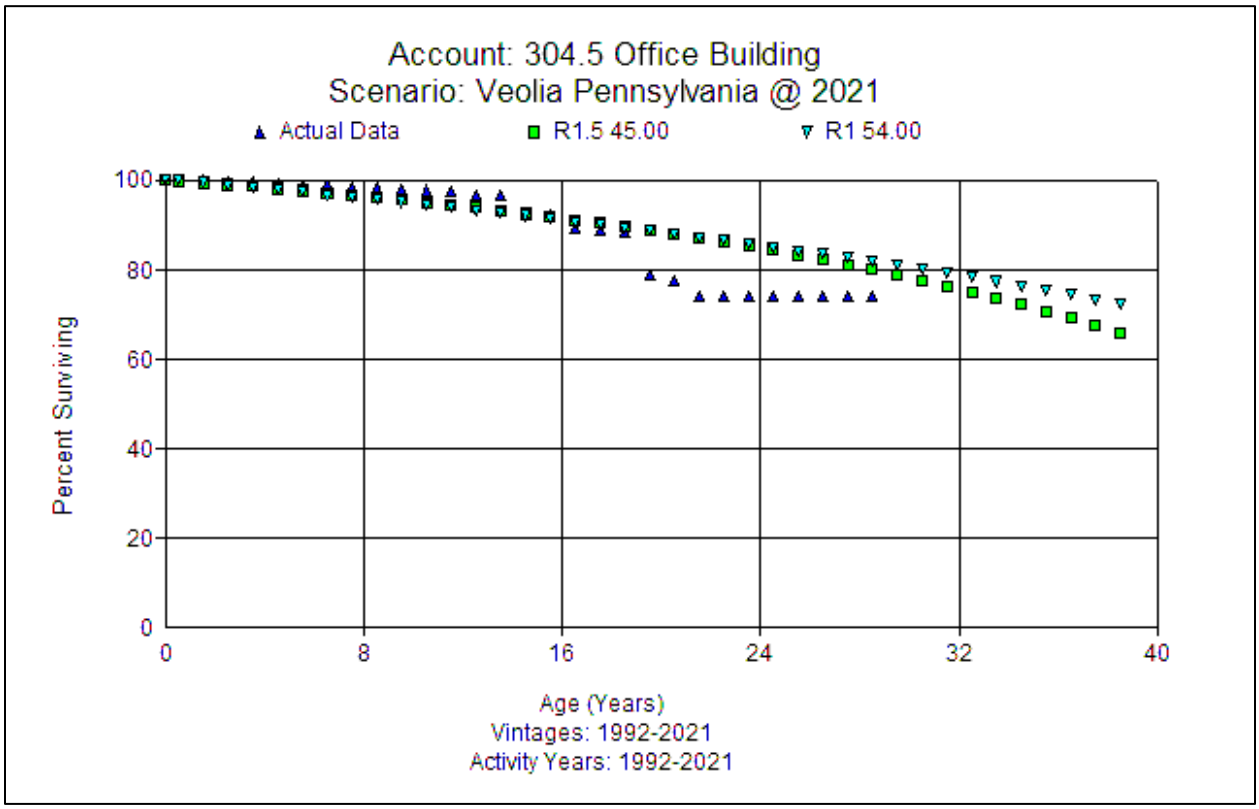
If I vary the band to the most recent 50 years for placement and experience, the result is shown below.



Again, my proposed curve is a better match through age 40. Another band with different experience and the same placement shows the same trend.



The next graph shows the Company's experience in this account over the past thirty years. Assets over 16 years old are retiring at a faster rate than either proposed curve.



Q. Do you have any additional comments on the life recommendation for this account?

A. Yes. My life recommendation of 45-R1.5 recognizes both the indications in the life analysis and the Company-specific information from the SMEs. Further, my analysis recommends no change over the existing life. When compared to existing parameters, witness Garrett's life represents an increase of nine years or a 20 percent change. Given the requirements of today's office buildings, with needs for lighting, ventilation, security systems, and disability access and the current mix of

assets in the account, it makes no sense to base the life of this account on the longest placement and experience band as Mr. Garrett proposes. This level of change without operational reasons at one time is unreasonable, is not supported by the evidence, and should be rejected.

Account 311.2

Q. Please describe your and witness Garrett's recommendations for Account 311.2- Pumping Equipment?

A. This account consists of electric pumps, piping, circulating, and other related equipment used in the pumping plant. The account balance is $16.2 million for this account. The current life of this account is 36 years with an R0.5 dispersion. The plant is all located in VWPA.

Q. Please describe your and witness Garrett's recommendations for Account 311.2-Pumping Equipment.

A. I recommend decreasing the existing service life for Account 311.2-Pumping Equipment from 36 R0.5. to 26 R0.5. My recommendation is a ten year decrease over the existing life. Witness Garrett proposes 31 R0.5, which is a decrease of five years under the existing and five years over my recommendation. At December 31, 2021, the average age of survivors in this account is 11.53 years and the average age of retirements in this account is 13.64 years. This information

demonstrates that this is a young account with little retirement experience for the majority of the assets.

Q. Do you agree with witness Garrett's basis for proposing a 31 R0.5 Curve?

A. No. There are a number of reasons I disagree with witness Garrett on the life for this account. First, witness Garrett does not appear to factor in the life expectations for specific assets in this account as communicated by Company SMEs. My interview notes on this account indicate the following factors that influence the life of this account:

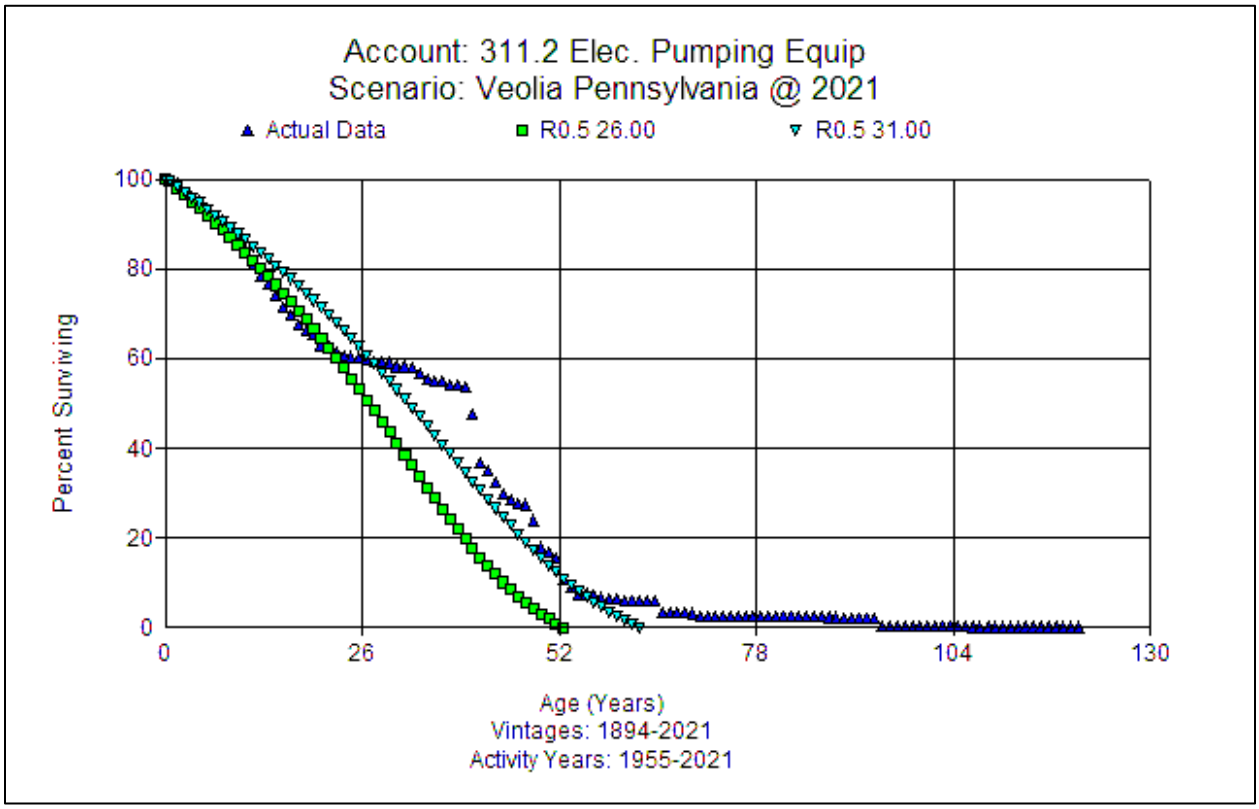
> Company SMEs report that the average age of assets in this account is 12 years. Company SMEs report that operationally, the pumps that are used now are lead free and have a shorter life. The life should be much shorter than the existing life of 36 years. Company SMEs recommend moving to a 26 year life, which they believe is very reasonable and would be around the expected life in the field.[36]

Second, as discussed earlier, witness Garrett's life analysis only examines one band for his proposal. In contrast, I used six different placement experience bands as shown in my workpapers.

[36] Watson MFR VI-02 Attachment, page 29.

Q. What does a visual comparison over multiple bands show?

A. My proposed curve is a better match through age 26. When the slope of the curve as the data becomes sparser, Mr. Garrett's curve matches after age 35.



Q. Since the tail of the curve matches better, isn't Mr. Garrett's choice a better match?

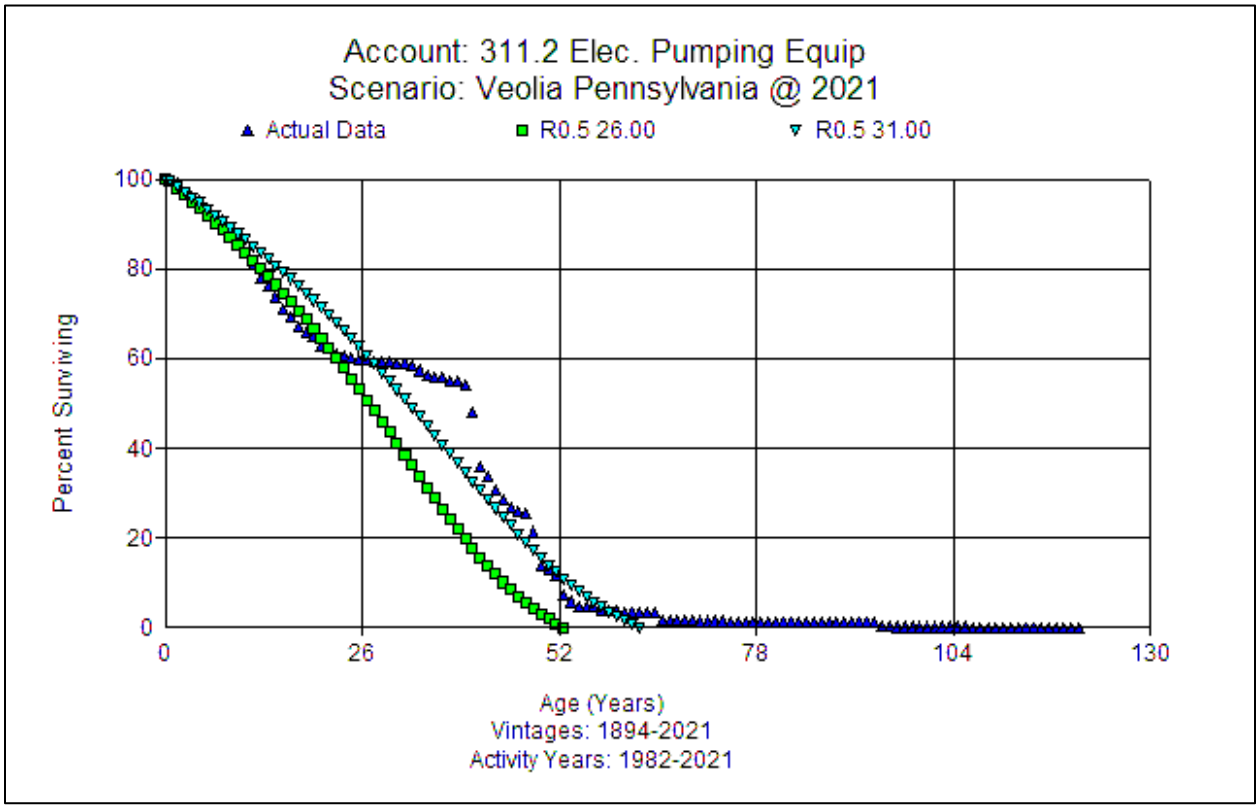
A. Not in my opinion. Exhibit DAW-3-R[37] shows the transaction years and vintages that make up the retirement data for the overall band, 1894-2021 and 1955-2021.

[37] Retirement Data as shown in Garrett Direct at Exhibit DJG-26. Pages 4-6

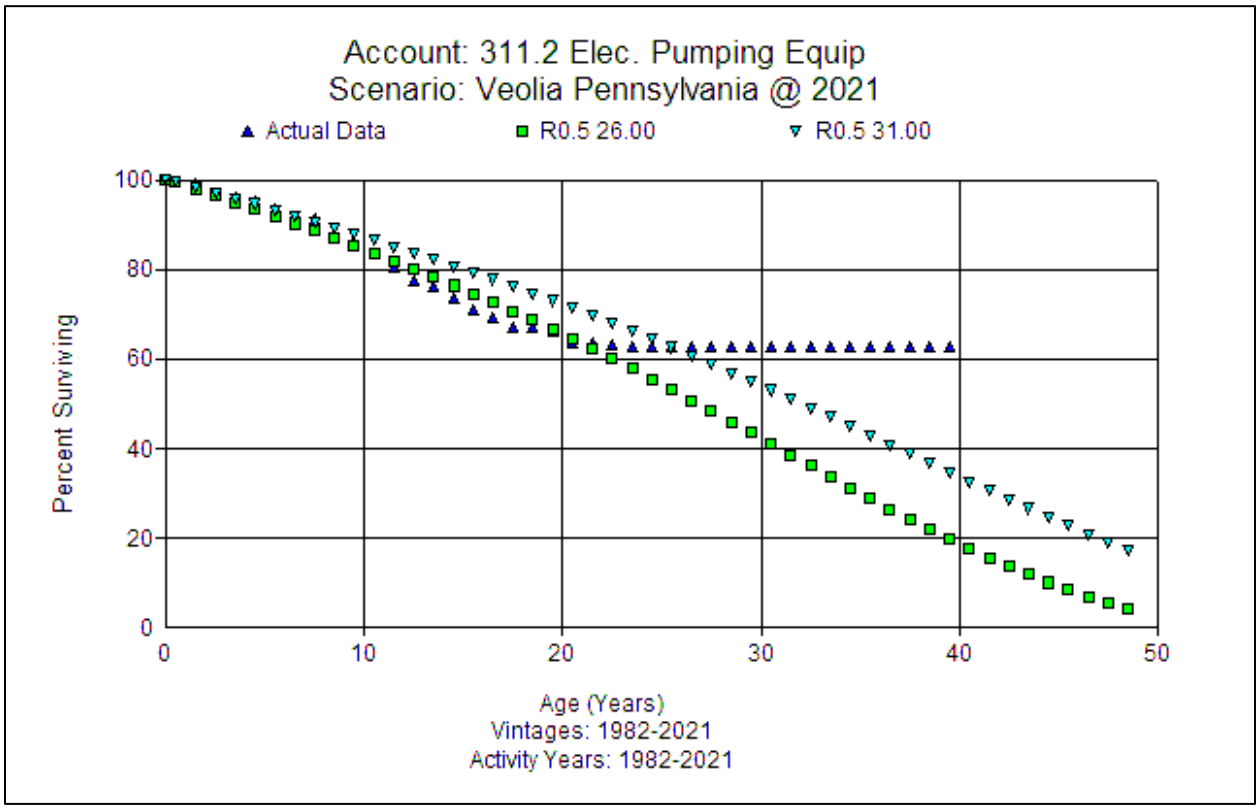
The most recent vintage that makes up the data is 1979. In an account with an approved life of 36 years, it illogical to consider matches of plant from 1894-1979 to determine the retirement characteristics of this account, especially given the changing materials in more modern pumps. My proposed curve is a better match through age 26. When the slope of the curve as the data becomes sparser, Mr. Garrett's curve matches after age 35.

Q. What does this look like with a more narrow band?

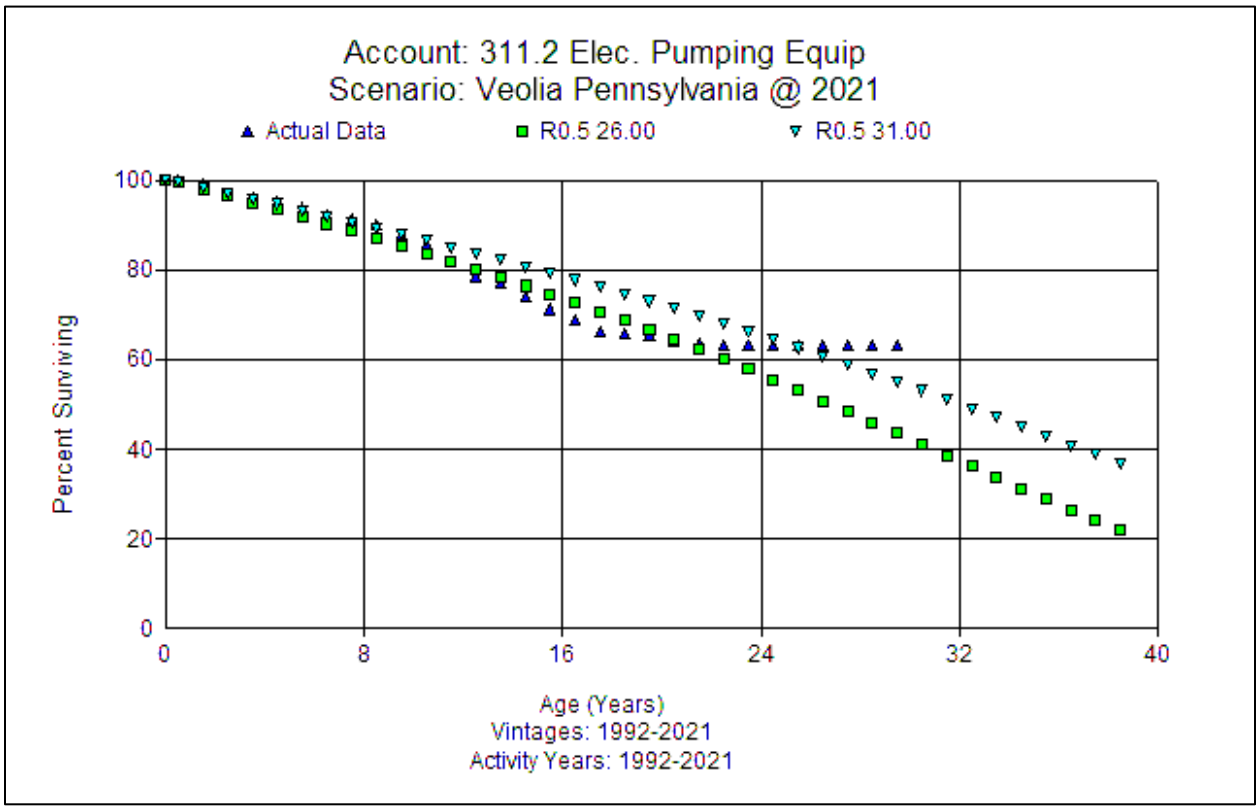
A. The band of 1894-2021 and experience 1982-2021 shows a similar trend. When the slope of the curve as the data becomes sparser, Mr. Garrett's curve matches after age 35.



If we examine the last 40 years for history, Mr. Garrett's proposed curve no longer matches the data.

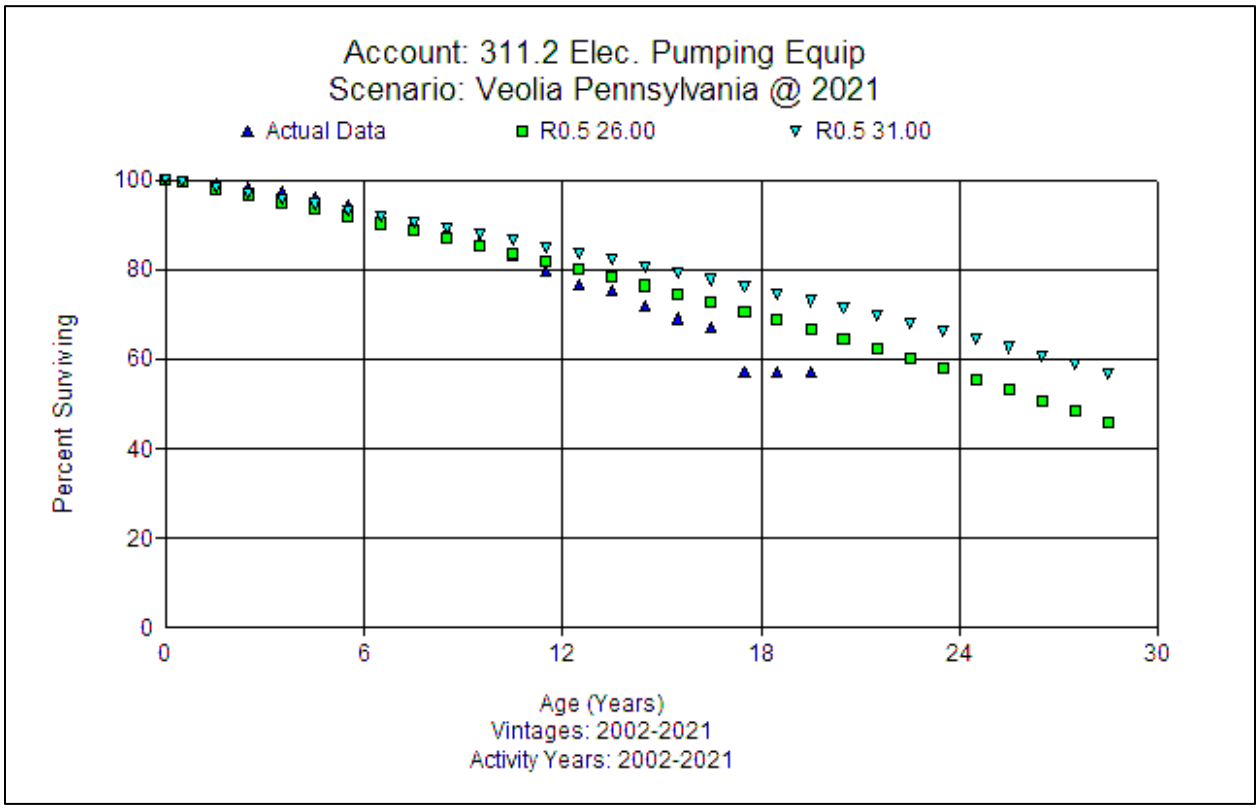


1 The same is true if we look at the last 30 years of history shown below.



2

In the last 20 years of history, the Company's data is showing a greater proportion of retirements (Shorter average life) than either proposed curve.



Q. Are there other aspects that you considered in your 26 R0.5 recommendation?

A. Yes. The fit I selected was one of 29 different fits across multiple placement and experience bands, which can be found in my workpapers. There are a variety of assets with a mix of lives recorded in this account and my proposed 26-year life is reasonable.

Q. Do you have any additional comments on the life recommendation for this account?

A. Yes. My life recommendation of 26 R0.5 recognizes both the indications in the life analysis and the Company-specific information from the SMEs. Mr. Garrett's proposed curve does not match well in more recent periods from 20 to 40 years. Mr. Garrett's proposal for this account is unreasonable, is not supported by the evidence, and should be rejected.

Account 320.3 – Water Treatment Equipment

Q. What assets are booked in this account?

A. This account consists of chemical equipment, disinfection facilities, sedimentation basins and equipment, media for water treatment equipment, including filtration systems, and other equipment used in the water treatment plant. The account balance is $40.1 million for this account. The plant is all located in VWPA.

Q. Please describe your and witness Garrett's recommendations for Account 320.3-Water Treatment Equipment.

A. I recommend retaining the existing service life for Account 320.3 Water Equipment, which is currently 50 R1.5. Witness Garrett proposes a 58 R1, which is an increase of eight years over the existing and my recommendation. At December 31, 2021, the average age of survivors in this account is 13.65 years and the average age of retirements in this account is 23.17 years. This information demonstrates that

many newer assets and retirements that are occurring before the current average service life.

Q. Do you agree with witness Garrett's basis for proposing a 58 R1 Curve?

A. No. There are a number of reasons I disagree with witness Garrett on the life for this account. First, witness Garrett does not appear to factor in the life expectations for specific assets in this account as communicated by Company SMEs. As stated in my depreciation study,[38] I mention factors that influence the life of this account:

> Corrosive chemicals in water treatment tend to shorten the life of equipment. Membranes would only last 9 or 10 years. The Company performed a large membrane changeout in 2014 or 2015. Operationally, there are also other items with short lives (like chemical and chlorine equipment) but many of the large items (like yard piping, etc.) would last much longer. There is one plant with a Per and Polyfluoroalkyl Substances (PFOS) project (Market Street). The current 50 year life is as long as operationally supportable, since membrane is 40% or more of the total cost.

Second, as, with other accounts, witness Garrett only examines one band for his proposal. In contrast, I used six different placement and experience bands as

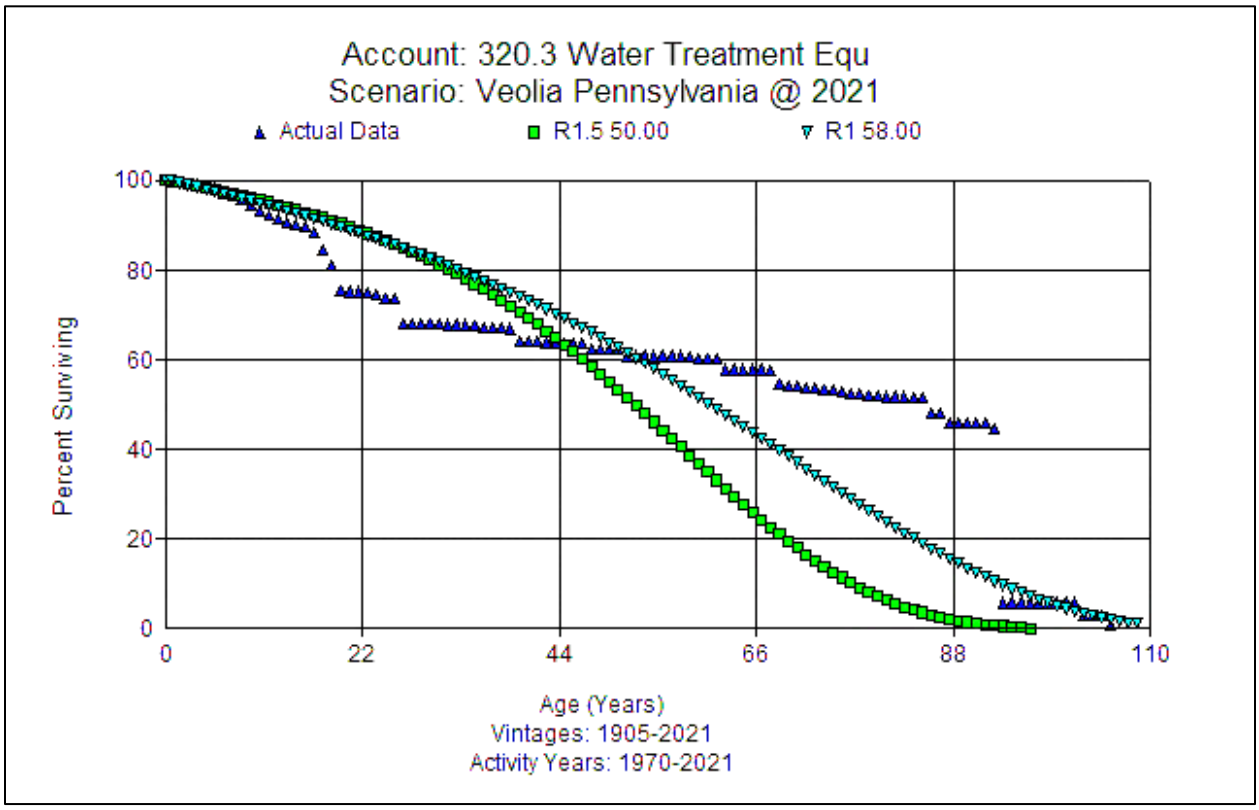
[38] Watson, MFR VI-02 Attachment. Page 34.

shown in my workpapers.

Finally, the use Company history as shown below validates the superiority of the Company's proposal compared to witness Garrett's.

Q. What does a visual comparison over multiple bands show?

A. The overall band shown below shows more early retirements through age 45. Neither proposal matches the curve well between 100 percent and 60 percent. Mr. Garrett proposes to fit the tail of the curve, given the match after age 90.



Q. How old are the assets at the tail of the curve that you mention?

A. The table below shows activity which drives the tail of the curve:[39]

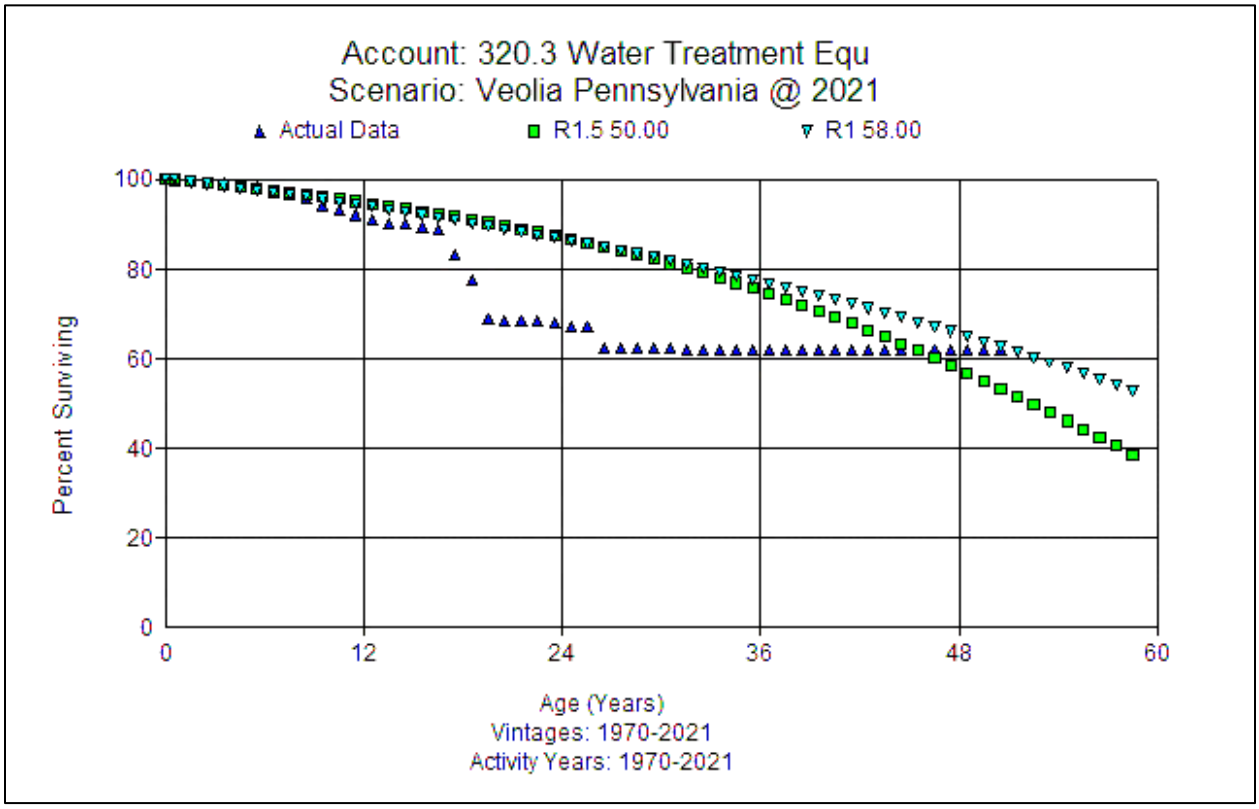
Age Beginning of Interval	Retirement	Transaction Year	Vintage Year
94.5	6,690.03	2018	1923
95.5	275.97	2017	1921
96.5	4,224.05	2018	1921
107.5	6,163.06	2016	1908
108.5	13,405.57	2016	1908
109.5	3,636.94	2017	1908
114.5	11,559.50	2015	1900
118.5	3,234.56	2015	1896
120.5	3,945.76	2015	1894

It is not reasonable to base the life recommendation of this account from assets over 100 years old when the average age of survivors in this account is 9.73 years.

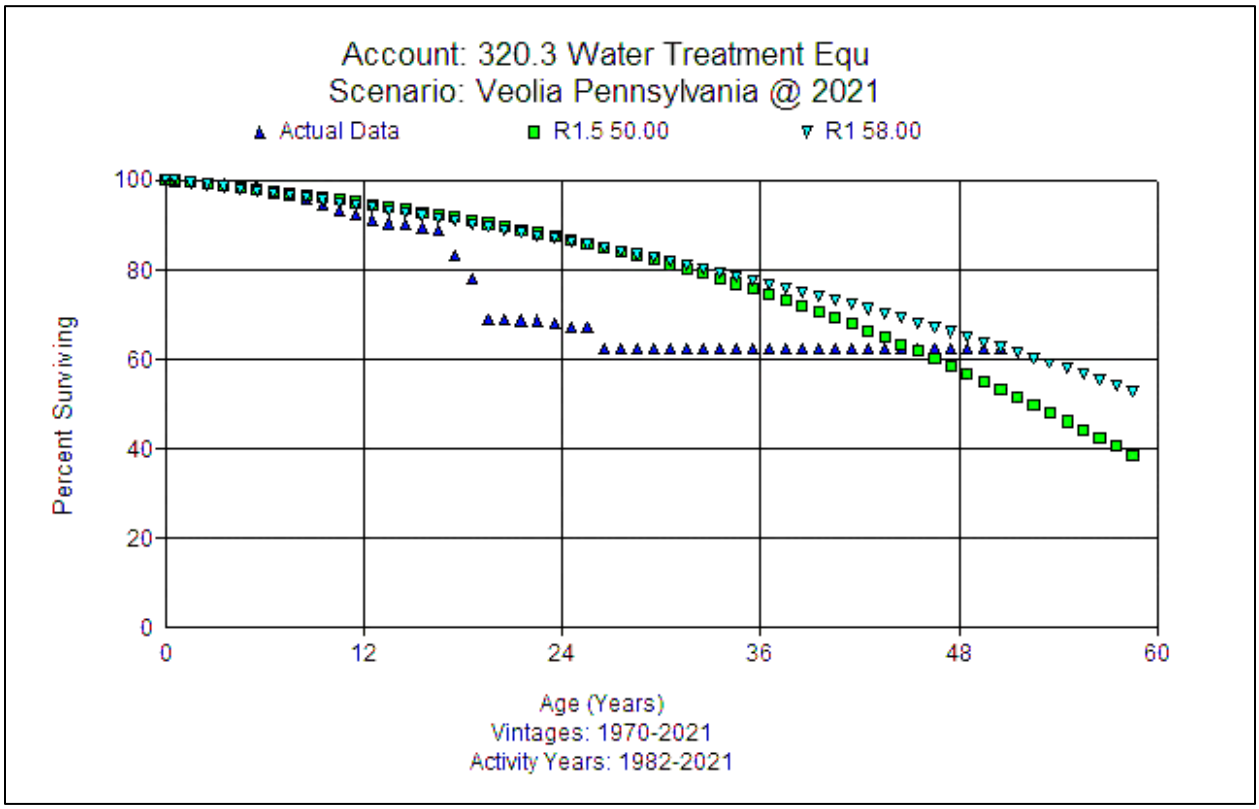
[39] Garrett Direct at Exhibit DJG-26, pages 9-10

Q. What occurs when the band changes?

A. The curve below shows the placement band of 1970-2021 and experience band of 1982-2021. Note that the company's history shows earlier retirements (Shorter average life) than either proposed curve.



The same trend is apparent in a different band with more recent experience band of 1982-2021.



Q. Are there other aspects that you considered in your 50 R1.5 recommendation?

A. Yes. The fit I selected was one of 25 different fits across multiple placement and experience bands, which can be found in my workpapers. There are a variety of assets with a mix of lives recorded in this account and my retention of a 50-year life is reasonable.

Q. Do you have any additional comments on the life recommendation for this account?

A. Yes. My life recommendation of 50 R1.5 recognizes both the indications in the life analysis and the Company-specific information from the SMEs. Mr. Garrett's proposal to move the life another eight years from my recommendation is excessive. When compared to existing parameters, witness Garrett's life represents a 16 percent change. This level of change without operational reasons at one time is unreasonable, is not supported by the evidence, and should be rejected.

Account 320.3 – Chemical Treatment Equipment

Q. What assets are in this plant account?

A. This account consists of chemical equipment, disinfection facilities, sedimentation basins and equipment, media for water treatment equipment, including filtration systems, and other equipment used in the water treatment plant. The account balance is $7.8 million for this account. The plant is all located in VWPA.

Q. Please describe your and witness Garrett's recommendations for Account 320.3- Chemical Treatment Equipment.

A. I recommend decreasing the existing service life for Account 320.3- Chemical Treatment, which is currently 25 S0.5, to a 21 L3. This represents a decrease of four years. Witness Garrett proposes 29 R1.5, which is an increase of four years

over the existing .and eight years beyond my recommendation. At December 31, 2021, the average age of survivors in this account is 10.63 years and the average age of retirements in this account is 14.94 years. This information demonstrates that this is a young account with little retirement experience for the majority of the assets.

Q. Do you agree with witness Garrett's basis for proposing a 29 R1.5 Curve?

A. No. There are a number of reasons I disagree with witness Garrett on the life for this account. First, witness Garrett does not appear to factor in the life expectations for specific assets in this account as communicated by Company SMEs. My interview notes on this account indicate the following factors that influence the life of this account:

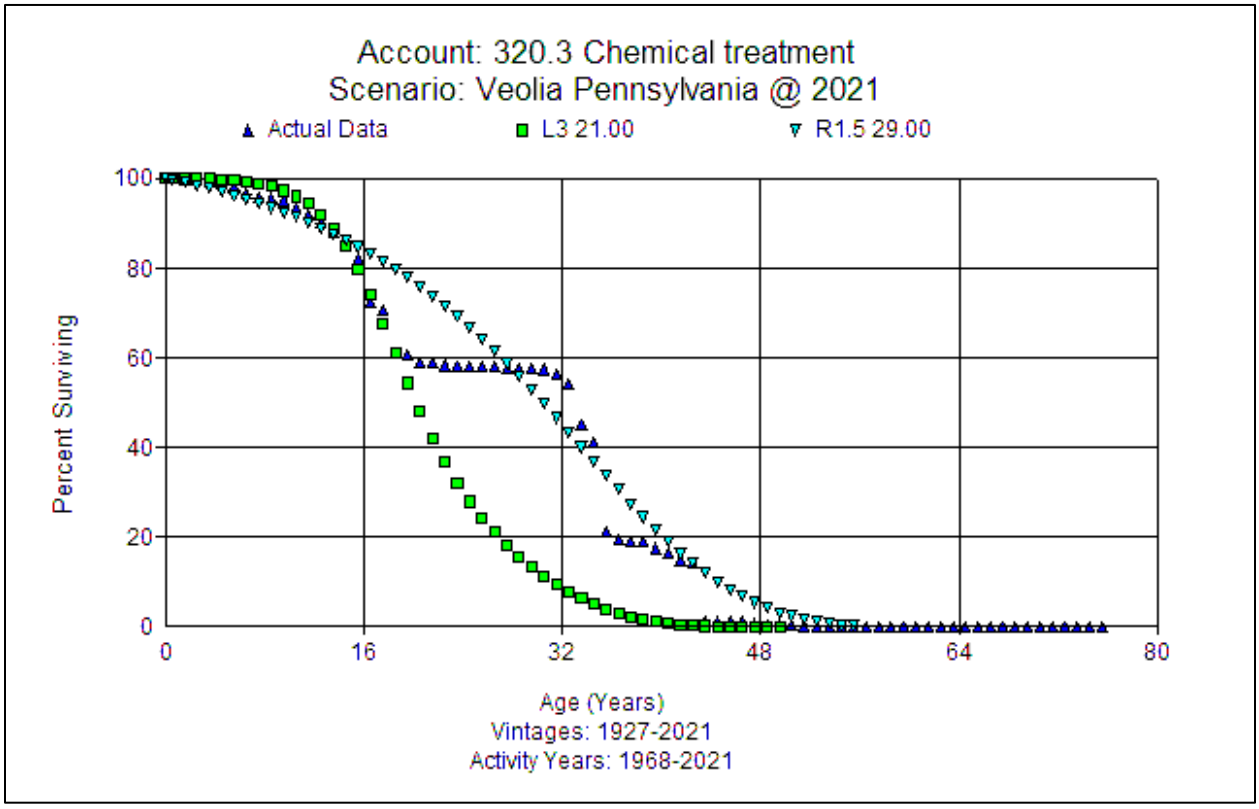
> Company SMEs state that the many different components in this account have varying lives: chemical equipment has a life of 20-25 years; disinfectant facilities have a life of 20 years; chemical storage tanks have a life of 10 years; and storage tanks have a life of 10 years.[40]

Second, witness Garrett only examines one band for his proposal. In contrast, I used six different placement and experience bands as shown in my workpapers.

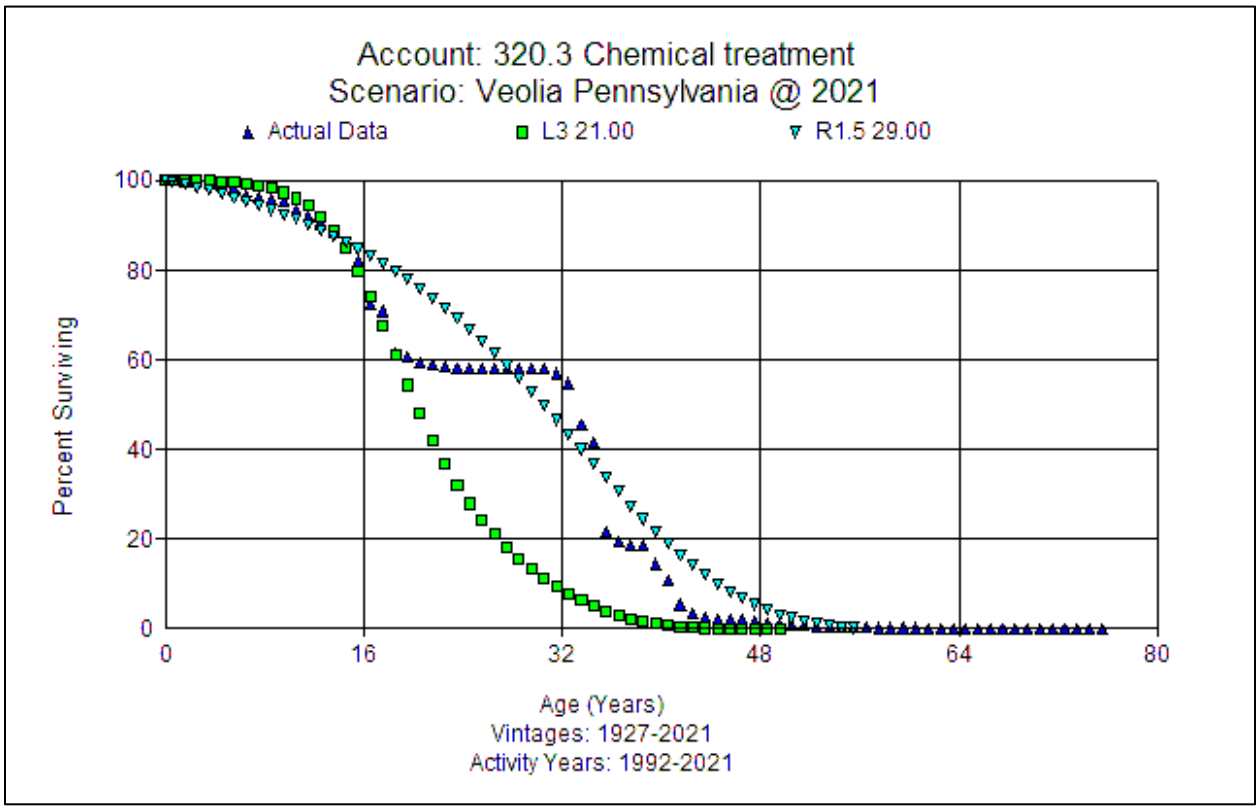
[40] Watson Direct Workpapers, Interview Notes.

Q. What does a visual comparison over multiple bands show when correcting the previously discussed errors in witness Garrett's analysis?

A. The curve below shows the overall band placement 1927-2021 and experience 1968-2021. My curve is a better match through age 20, while Mr. Garrett's matches age 30 and longer.



The next curve shows the same placement band with a narrower experience band.



Q. Since the tail of the curve matches better, isn't Mr. Garrett's choice a better match?

A. Not in my opinion. Exhibit DAW-4-R[41] shows the transaction years and vintages that make up the retirement data for the overall band, 1927-2021 and 1957-2021. The most recent vintage that makes up the data is 1985. In an account with an approved life of 25 years, it illogical to consider matches of plant from 1927-1985

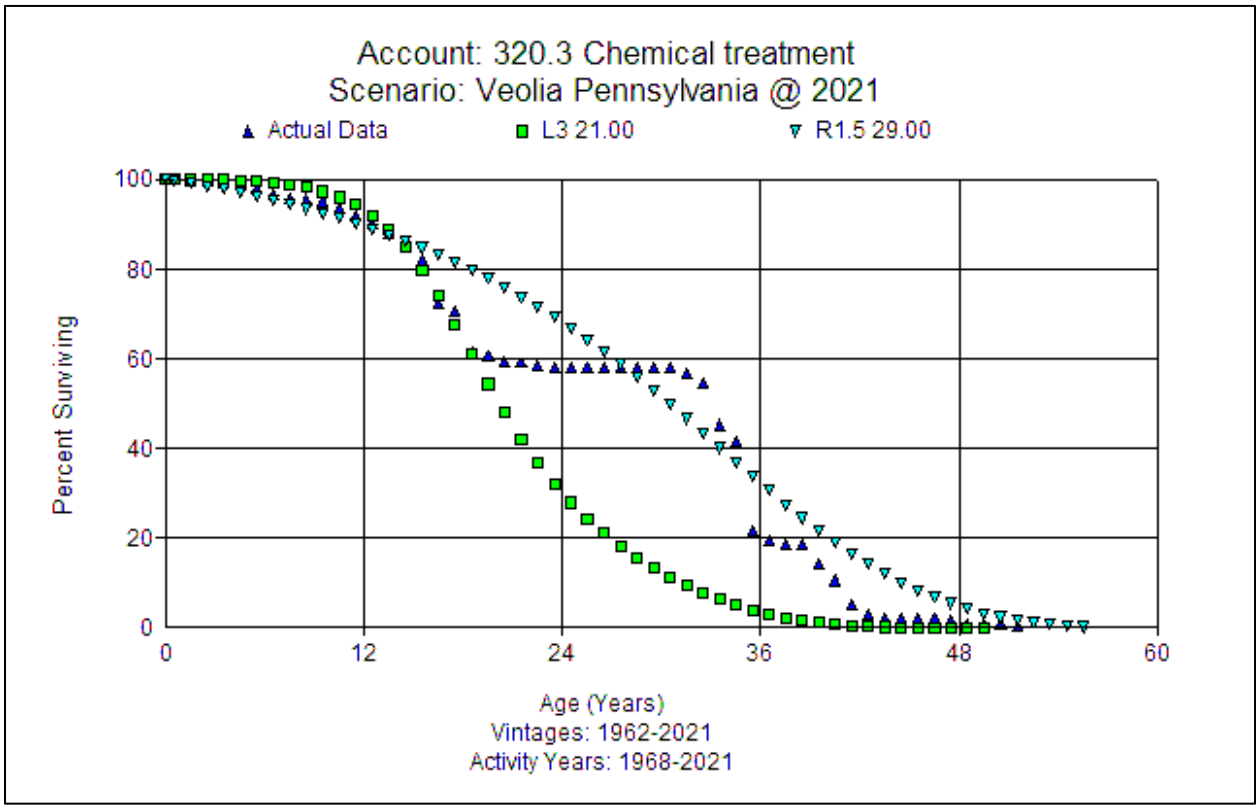
[41] Retirement Data as shown in Garrett Direct at Exhibit DJG-26. Pages 9-10

to determine the retirement characteristics of this account. My proposed curve is a better match through age 20. As the band becomes more narrower, the differences between the two proposals become more apparent.

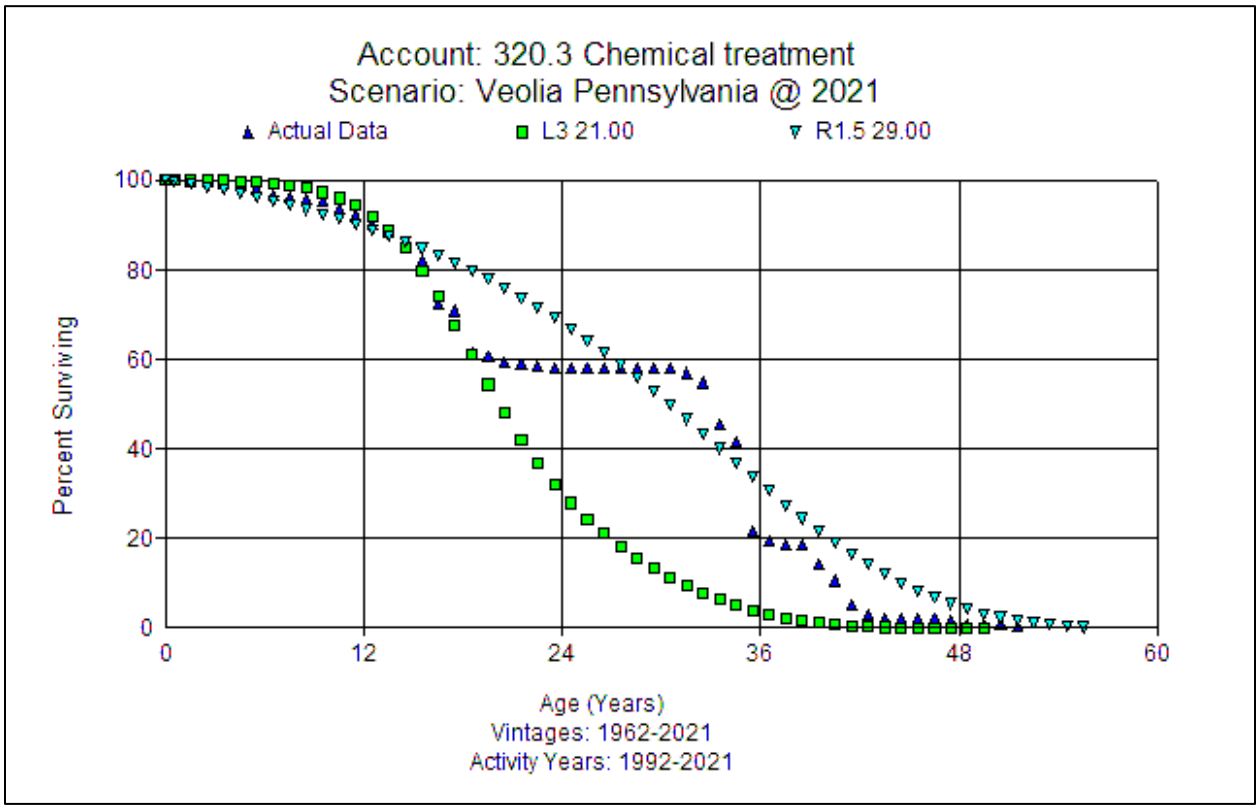
Q. What does this look like with a more narrow band?

A. When the slope of the curve as the data becomes sparser, Mr. Garrett's curve matches after age 35. However the flaws in fitting the tail of the curve exist in all bands.

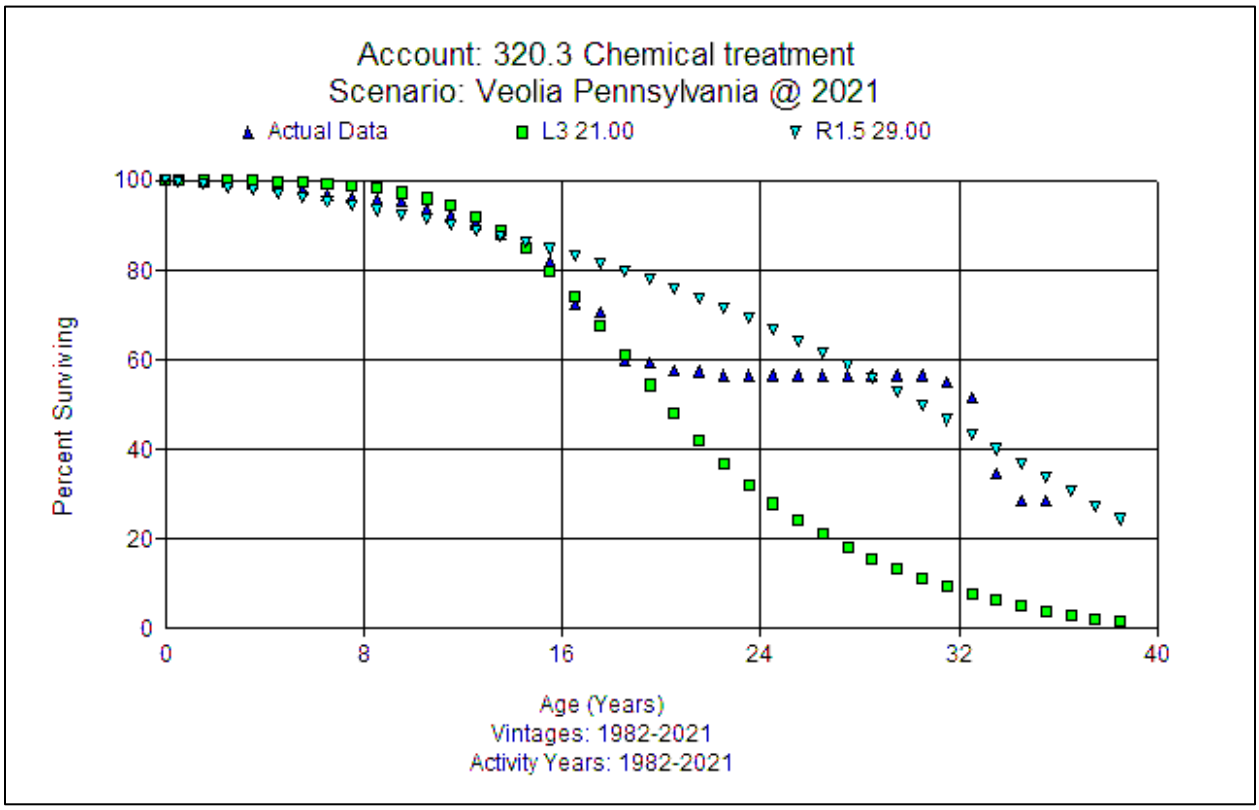
The next graph shows a more recent placement band with assets from 1962 and later and an experience band from 1968-2021.



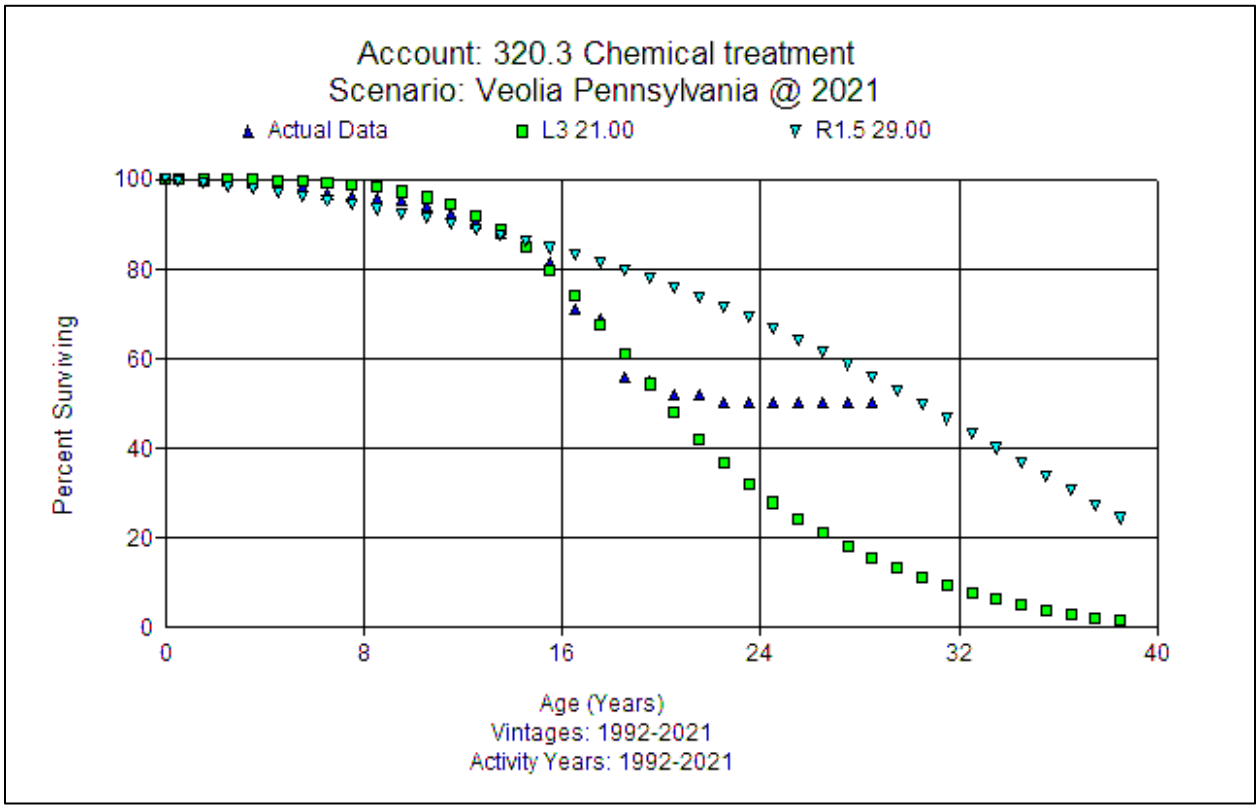
Another placement and experience band combination of 1962-2021 and 1992-2021 is shown next.



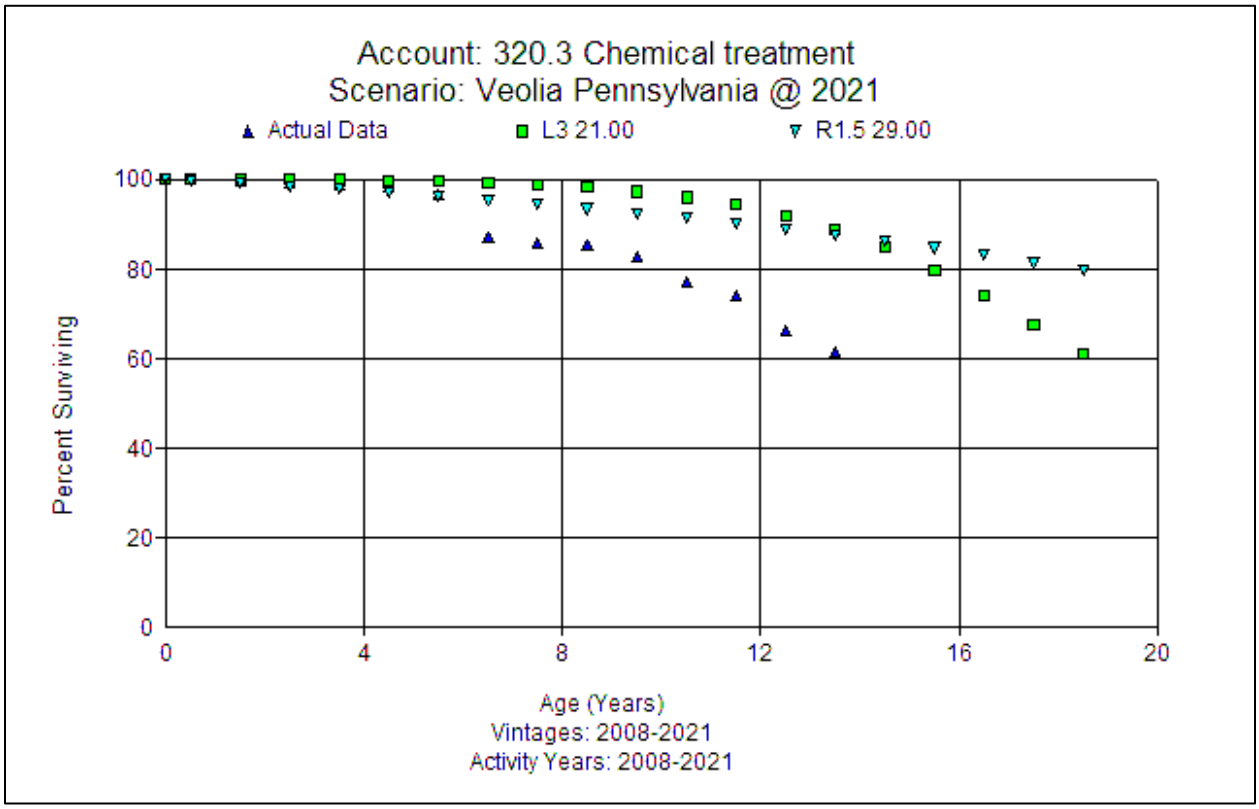
Next, the most recent 40 years of placement and experience is shown below.



Next, the most recent 30 years of placement and experience is shown below. In examining a band over the last 30 years, my curve is a better match through age 20.



Finally, the placement and experience years of 2008-2021 show that the Company's assets in this account are retiring sooner than either my proposal or Mr. Garrett's.



Q. Are there other aspects that you considered in your 26 R0.5 recommendation?

A. Yes. The fit I selected was one of 26 different fits across multiple placement and experience bands, which can be found in my workpapers. There are a variety of assets with a mix of lives recorded in this account and my proposed 23-year life is reasonable.

Q. Do you have any additional comments on the life recommendation for this account?

A. Yes. My life recommendation of 23 L3 recognizes both the indications in the life analysis and the Company-specific information from the SMEs. Mr. Garrett's proposed curve does not match well in more recent periods from 20 to 40 years. He proposes to increase the life by four years or 16 percent over the current life. Mr. Garrett's proposal for this account is unreasonable, is not supported by the evidence, and should be rejected.

Account 331.4 – Transmission and Distribution Mains

Q. What assets are booked in this account?

A. This account consists of transmission and distribution mains of varying types. The account balance is $215.1 million for this account. This account makes up 48 percent of the depreciable plant for VWPA, so any change in life could cause material changes in depreciation accruals. The current life of this account for VWPA is 80 years with an R3 dispersion. For Bethel, the plant is divided into two groups: 1) assets installed after 1991 with a life of 84.75 years and R3 dispersion; and 2) assets installed before 1991 with a 78.74 year life and R3 dispersion.

Q. Please describe your and witness Garrett's recommendations for Account 331.4- Transmission and Distribution Mains.

A. I recommend retaining the existing service life for Account 331.4, which is currently 80 R3. Witness Garrett proposes 88 R2.5, which is an increase of 8 years over and a 10 percent increase in life over the existing life and my recommendation. At December 31, 2021, the average age of survivors in this account is 14.13 years and the average age of retirements in this account is 28.50 years. Even though there are assets that are over 140 years old, plant experience for the majority of the assets comes from newer assets.

Q. Do you agree with witness Garrett's basis for proposing an 88 R2.5 Curve?

A. No. There are a number of reasons I disagree with witness Garrett on the life for this account. First, witness Garrett does not appear to factor in the life expectations for specific assets in this account as communicated by Company SMEs. My interview notes on this account indicate the following factors that influence the life of this account:[42]

> The Company began doing material amounts of replacements in 2016 (nearly $29M out of the $215M in service). There has been a robust main replacement in the last few years. Company SMEs have the expectation that pipe and valves put in now should last 100 years. The retirements occurring range from 60 years to 100+ year old cast iron. They are installing all Ductile Iron, which should last 100 years. AC and plastic

[42] Watson, MFR VI-02 Attachment, page 42.

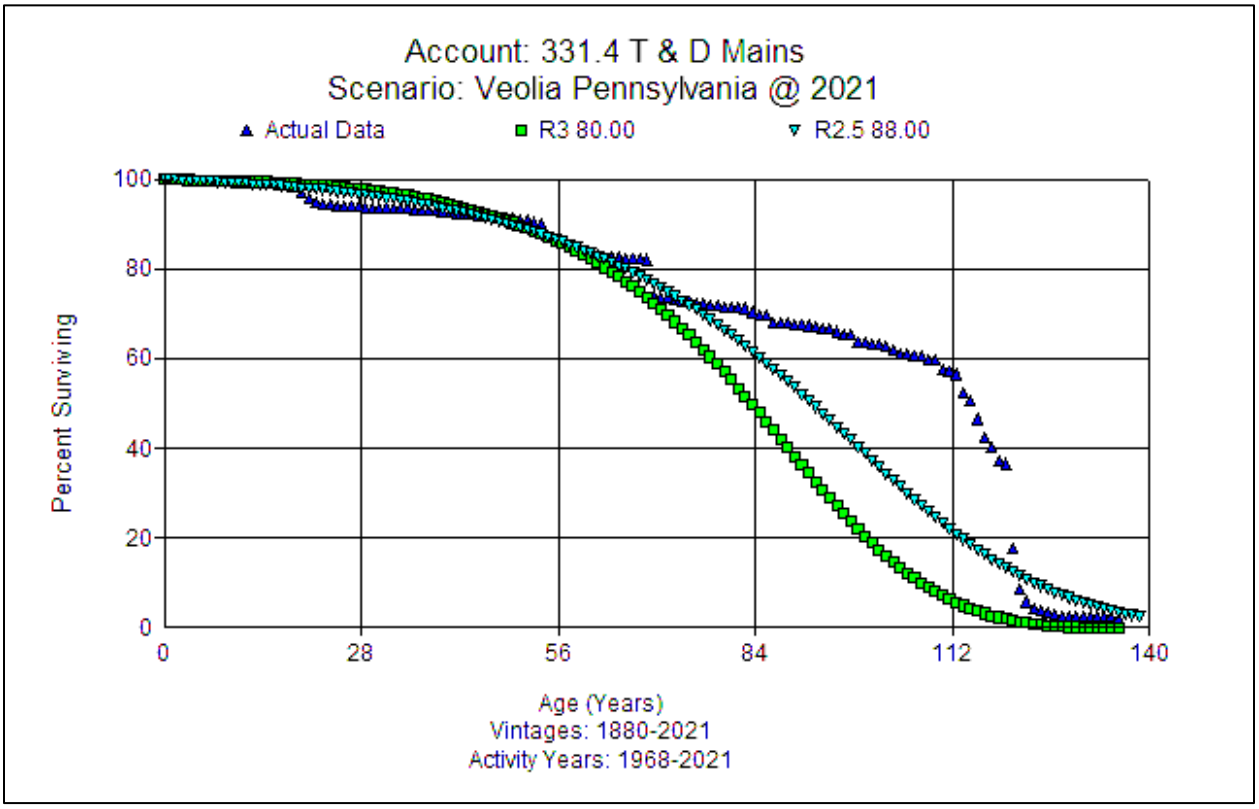
> (250 miles remaining – 30%) would have much shorter lives, around 40 years. There is very little galvanized left to replace. Operationally, moving to an average of 80 years would be reasonable at this point. As the earlier generations of pipe are replaced, Company personnel would expect the life to increase[43]

Second, witness Garrett only examines one band for his proposal. In contrast, I used five different placement and experience bands as shown in my workpapers.

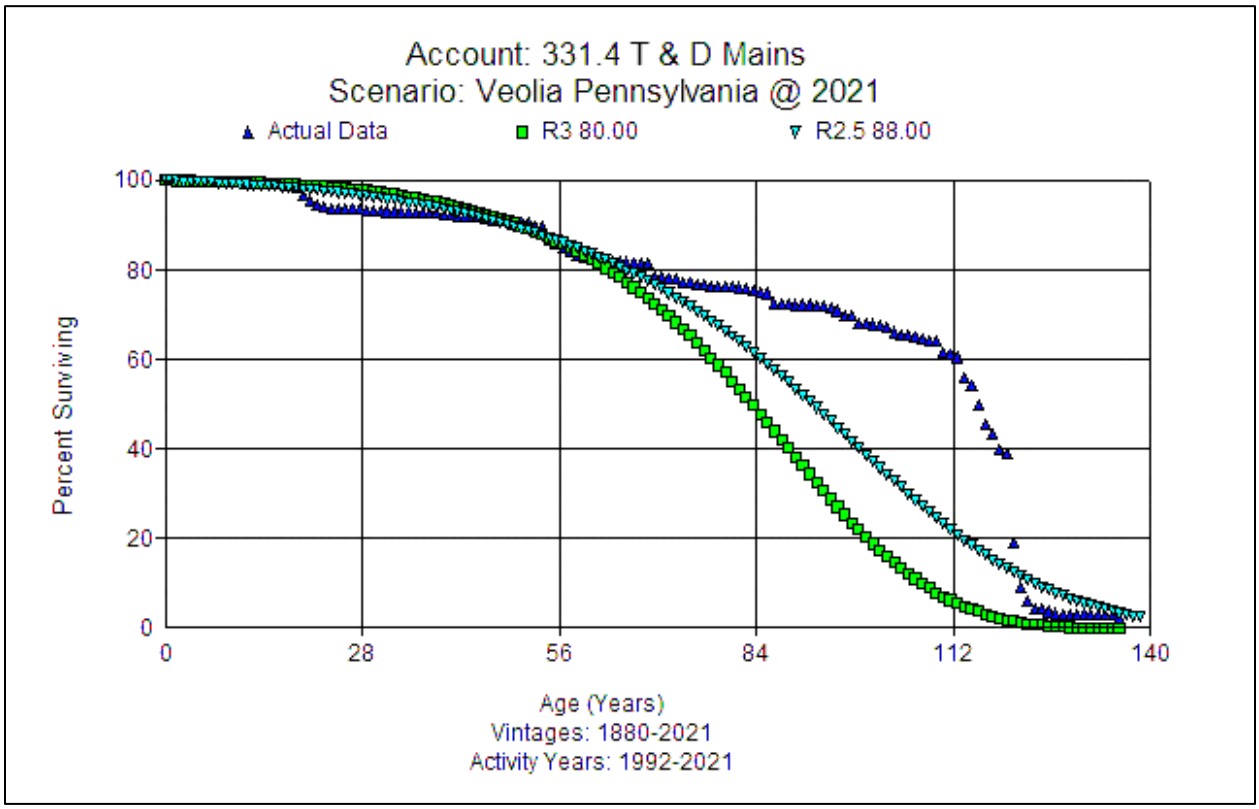
[43] Watson Direct Workpapers, Interview Notes.

Q. What does a visual comparison over multiple bands show?

A. The overall band, as shown in the curve below, my proposed curve is a better match through age 60. When the slope of the curve as the data becomes sparser, Mr. Garrett's curve matches after age 60.



The next curve shows the same long placement band with a narrower experience band.



The graphs look similar.

Q. Since the tail of the curve matches better, isn't Mr. Garrett's choice a better match?

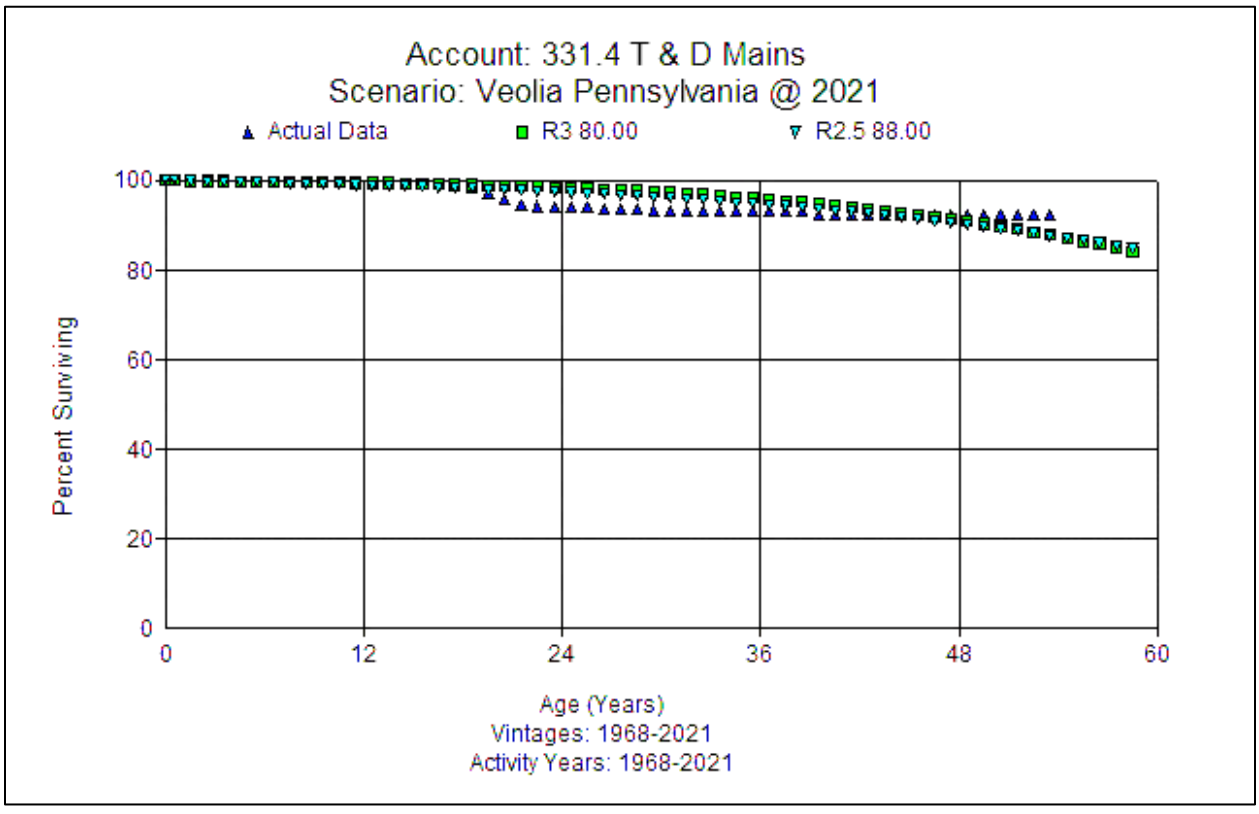
A. Not in my opinion. Exhibit DAW-5-R[44] shows the transaction years and vintages that make up the retirement data for the overall band, 1880-2021 and 1968-2021.

[44] Retirement Data as shown in Garrett Direct at Exhibit DJG-26, Pages 11-13

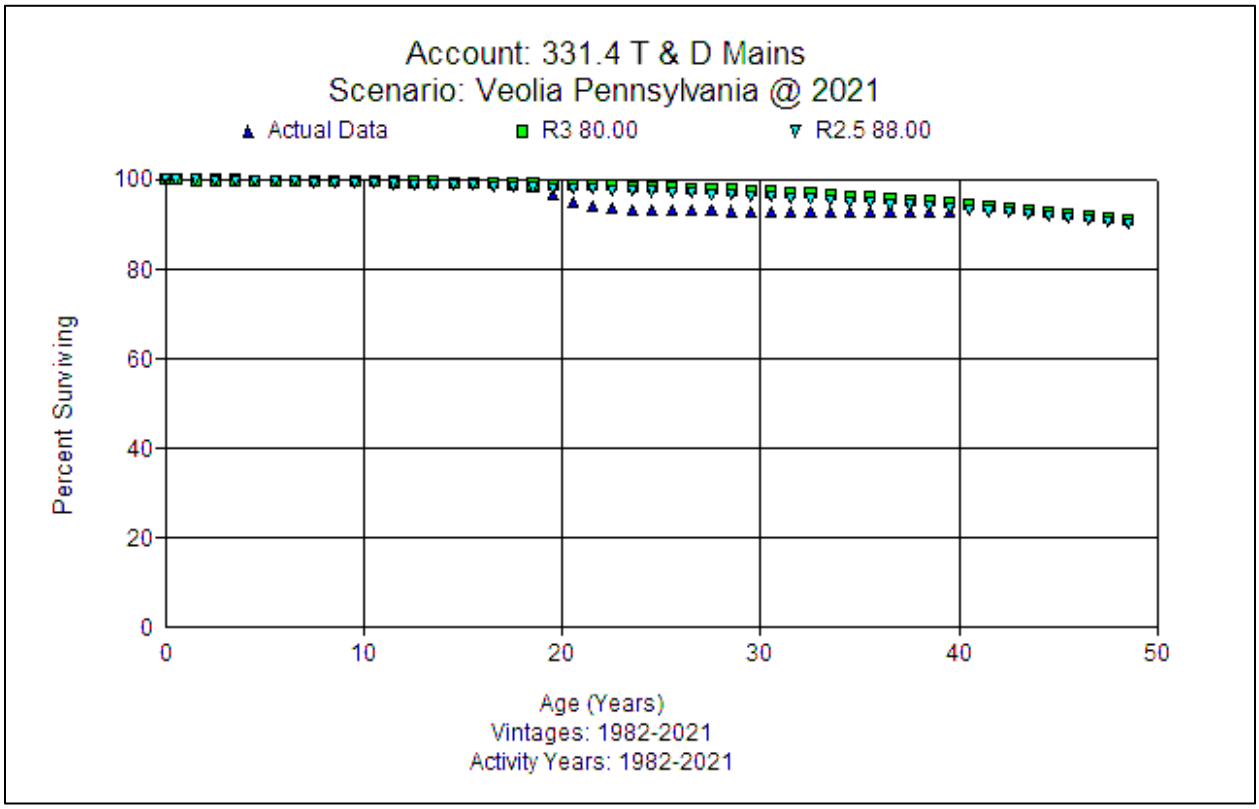
The most recent vintage that makes up the data is 1951. In an account with an approved life of 80 years, it is illogical to consider matches of plant from 1880-1951 to determine the retirement characteristics of this account.

Q. What does this look like with a more narrow band?

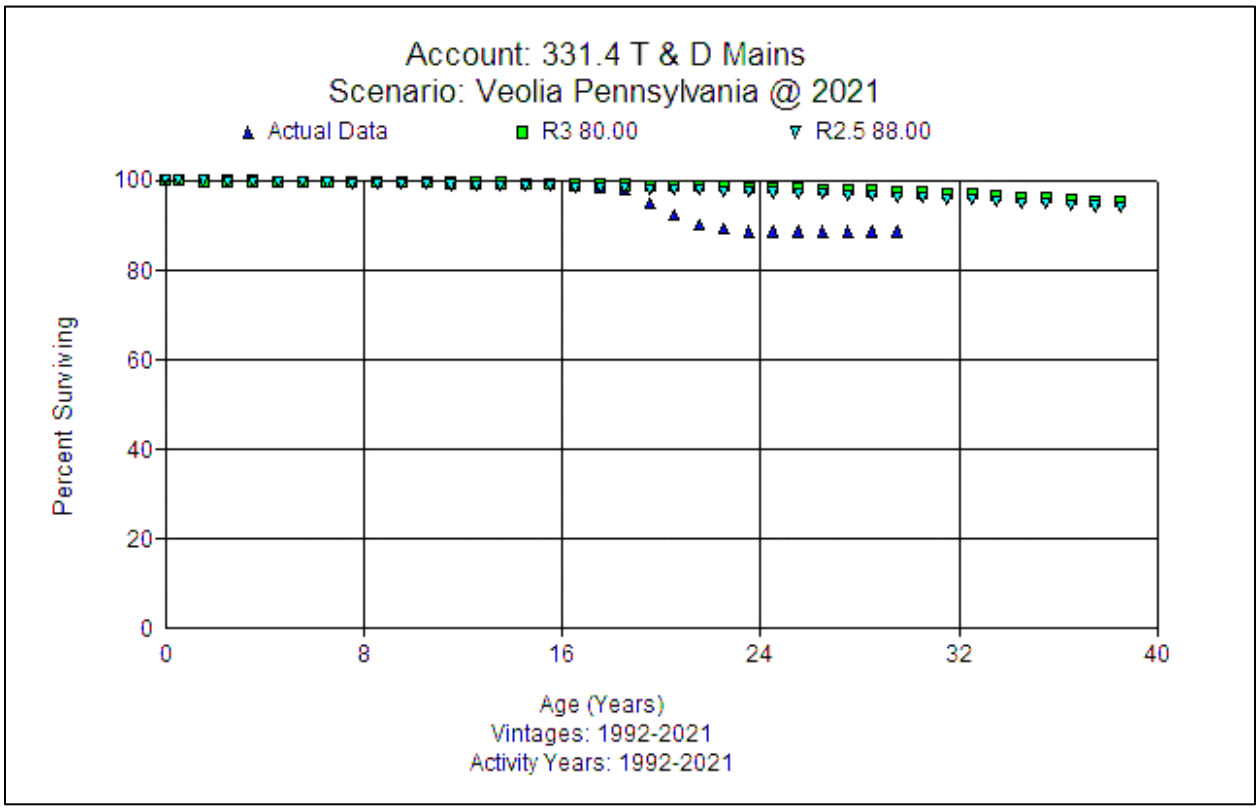
A. Shown below, a more narrow band of 1968-2021 for placement and experience shows that both curves are close but much of the activity is retiring more quickly than either curve projects.



The next curve below shows retirement activity for the last 40 years. Again, retirement activity is occurring more quickly than projected by either proposed curve.



The same is true for the last 30 years which is shown in the curve below.



By selecting only one band, witness Garrett's analysis doesn't fully analyze or accurately represent the Company's historical experience.

Q. Are there other aspects that you considered in your 80 R3 recommendation?

A. Yes. The fit I selected was one of 32 different fits across multiple placement and experience bands, which can be found in my workpapers. There are a variety of assets with a mix of lives recorded in this account and retention of the current 80-year life is reasonable.

Q. Do you have any additional comments on the life recommendation for this account?

A. Yes. My life recommendation of 80-R3 recognizes both the indications in the life analysis and the Company-specific information from the SMEs. To move the life another eight years from my recommendation is excessive. When compared to existing parameters, witness Garrett's life represents an increase of 8 years or a 10 percent change. This level of change without operational reasons at one time is unreasonable, is not supported by the evidence, and should be rejected.

SUMMARY

Q. Please summarize your rebuttal testimony.

A. I conducted a complete depreciation study using standard depreciation processes and methodologies that resulted in the recommended parameters and depreciation rates. My recommended life and net salvage parameters are reasonable and aligned with operational experience of VWPA's SMEs, as discussed above. The depreciation rates, as provided in Exhibit No. MFR VI-02 Attachment, Appendices A and B of my direct testimony should be applied to VWPA's plant in-service. Witness Garrett is the only witness to oppose my recommendations and resulting depreciation rates. My depreciation rates, when applied to VWPA's forecasted plant in-service balances provide fair and reasonable recovery to both the Company and its customers and should be adopted by this Commission.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does. However, I reserve the right to supplement my testimony as additional issues arise within this proceeding. Thank you.

VERIFICATION

I, Dane A. Watson, hereby state that the facts set forth above are true and correct to the best of my knowledge, information and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: 6-25-2024

Dane A. Watson

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

EXHIBITS TO ACCOMPANY REBUTTAL TESTIMONY

OF

DANE WATSON

REGARDING

DEPRECIATION STUDY

VEOLIA WATER PENNSYLVANIA, INC.

June 2024

Pennsylvania Public Utility Commission
v.
Veolia Water Pennsylvania, Inc.
Docket No. R-2024-3045192 (Water)
R-2024-3045193 (Wastewater)

Interrogatories of the Office of Consumer Advocate
Set 10

OCA-10-19 Please refer to Mr. Watson's Direct Testimony, page 9, lines 12-20 regarding the equal life group (ELG) and average life group (ALG) methods.

a. Please identify by name and docket number each of the "recent cases" in which the "PUC has adopted the ELG procedure and remaining life technique."

b. Is Mr. Watson aware of PUC cases in which the PUC adopted the ALG procedure? If yes, please provide the case name and docket for such Pennsylvania cases within the past 10 years. Please identify whether Mr. Watson was a witness in the case.

Answer:

a. Watson has not made an extensive search to determine cases where ELG was adopted. He aware of the following proceedings where ELG was adopted:

Company	Case	
Pennsylvania American Water Co.	R-2022-3031672 R-2020-3019369 R-2017-2595853	
Aqua Pennsylvania	R-2022-3027385 R-2022-3027386 R-2021-3027385 R-2021-3027386 R-2018-3003558 R-2018-3003558	
Veolia Pennsylvania	R-2018-3000834 R-2015-2462723 R-2009-2122887	
City of Bethlehem	R-2020-3020256	
The York Water Company	R-2022-3031340	
UGI Utilities, Inc. – Electric Division	R-2022-3037368	
National Fuel Gas Distribution Corporation	R-2022-3035730	
Peoples Natural Gas Company LLC	R-2018-3006818	

Pennsylvania Public Utility Commission
v.
Veolia Water Pennsylvania, Inc.
Docket No. R-2024-3045192 (Water)
R-2024-3045193 (Wastewater)

Interrogatories of the Office of Consumer Advocate
Set 10

---

b. This case is Mr. Watson's first appearance before the Pennsylvania Public Utility Commission. He has not made a search for depreciation cases where ALG was adopted.

Answer provided by:	Dane Watson
Title:	Managing Partner, Alliance Consulting Group
Address:	101 E. Park Blvd. Suite 220 Plano TX 75074
Date:	March 28, 2024

VEOLIA PENNSYLVANIA
SUMMARY OF RETIREMENT UNIT BY PLANT ACCOUNT
AT DECEMBER 31, 2021

Row Labels	Bethel	Veolia PA	Grand Total
304.2		**6,964,369.12**	**6,964,369.12**
Building		3,377,719.82	3,377,719.82
Control Equipment & Instrument		4,588.98	4,588.98
Electric equipment		938,297.20	938,297.20
Electrical Service		28,378.71	28,378.71
Fences		27,911.01	27,911.01
Generator		378,129.52	378,129.52
HVAC		15,375.73	15,375.73
Intake		45,567.18	45,567.18
Interconnection		1.00	1.00
Non-unitized		5,658.19	5,658.19
Plant metering		19,708.58	19,708.58
Pumps		5,819.12	5,819.12
Roads and paths		75,426.05	75,426.05
Roofs		18,873.40	18,873.40
SCADA Radio transmitting and receiv		3,281.15	3,281.15
Security System		17,871.68	17,871.68
Tanks		19,708.16	19,708.16
Valves and vaults		1,481,459.96	1,481,459.96
Vaults constructed as part of build		48,184.60	48,184.60
VFD		3,058.56	3,058.56
Water meters		11,989.50	11,989.50
Water piping within station, includ		433,645.64	433,645.64
Wells, casings and appurtenances, i		3,715.38	3,715.38
304.5		**12,198,028.17**	**12,198,028.17**
Building		1,918,751.90	1,918,751.90
Computer-Hardware		2,981.95	2,981.95
Conduits		3,186.24	3,186.24
Cranes (portable)		1,244.62	1,244.62
Drainage and sewerage systems		3,469.31	3,469.31
Electric equipment		6,813,481.88	6,813,481.88
Fence		5,000.00	5,000.00
Fences		129,338.67	129,338.67
Filter plant		2,257.88	2,257.88
Floor coverings		4,721.94	4,721.94
Furniture		24,249.17	24,249.17
HVAC		52,532.06	52,532.06
Landscaping		88.93	88.93
Leased property, expenditures on		973.08	973.08
Lighting fixtures and outside light		11,391.53	11,391.53
Non-unitized		280,280.13	280,280.13
Office Building		123,259.59	123,259.59
Plant metering		3,103.07	3,103.07
Roads and paths		52,062.52	52,062.52
Roadways, railroads, bridges, and t		5,358.41	5,358.41

VEOLIA PENNSYLVANIA
SUMMARY OF RETIREMENT UNIT BY PLANT ACCOUNT
AT DECEMBER 31, 2021

Row Labels	Bethel	Veolia PA	Grand Total
Roofs		85,188.54	85,188.54
Security System		73,781.92	73,781.92
Sewer drain or storm sewer		88,034.40	88,034.40
Small Tools/Equip		5,960.47	5,960.47
Stacks, brick steel, or concrete		7,057.98	7,057.98
Storage facilities		2,282,447.07	2,282,447.07
Tanks		11,761.96	11,761.96
tools - Misc		4,206.37	4,206.37
Tunnels, intake and discharge, incl		34,957.76	34,957.76
Vaults constructed as part of build		9,367.30	9,367.30
Water and Sewer systems, for genera		9,687.54	9,687.54
Water basins or reservoirs		31,603.32	31,603.32
Water meters		106,032.14	106,032.14
Water supply piping, hydrants and w		10,208.52	10,208.52
331.4	**5,819,619.99**	**209,298,389.76**	**215,118,009.75**
Blow-offs and overflows		3,459.87	3,459.87
Clamp 10"		22,448.44	22,448.44
Clamp 12"	34,188.71	187,932.33	222,121.04
Clamp 16"		5,282.49	5,282.49
Clamp 4" and below		304,855.19	304,855.19
Clamp 6"		738,460.68	738,460.68
Clamp 8"	6,162.42	161,029.44	167,191.86
Conversion		4,485.00	4,485.00
Easements		3,094.15	3,094.15
Gauges and recorders		59,033.54	59,033.54
Interconnection		174,364.05	174,364.05
Mains 10 inch		686,720.16	686,720.16
Mains 12 inch	1,589,597.55	43,213,692.77	44,803,290.32
Mains 14 inch		45,798.18	45,798.18
Mains 16 inch		15,920,217.50	15,920,217.50
Mains 18 inch		1,641,205.00	1,641,205.00
Mains 20 inch		943,870.34	943,870.34
Mains 24 inch		2,430,346.67	2,430,346.67
Mains 3 inch		1,936.18	1,936.18
Mains 36 inch		26,500.84	26,500.84
Mains 4 inch		60,713.00	60,713.00
Mains 4 inch and below	602,498.44	10,384,016.61	10,986,515.05
Mains 6 inch	202,335.93	23,587,515.44	23,789,851.37
Mains 8 inch	2,946,669.94	82,038,831.55	84,985,501.49
Manholes		10,272.39	10,272.39
Meter vaults or boxes		20,636.67	20,636.67
Meters and appurtenances		63,099.07	63,099.07
Non-unitized	145,195.71	10,424,925.06	10,570,120.77
Pipes		730,088.50	730,088.50
Plant metering		5,223.89	5,223.89

VEOLIA PENNSYLVANIA
SUMMARY OF RETIREMENT UNIT BY PLANT ACCOUNT
AT DECEMBER 31, 2021

Row Labels	Bethel	Veolia PA	Grand Total
PRV		242,402.19	242,402.19
Sampling Stations	5,794.13	28,992.90	34,787.03
Services line meter pit		7,771.57	7,771.57
Valve 14"		36,261.47	36,261.47
Valves 10 inch		160,427.08	160,427.08
Valves 12 inch	90,721.84	2,581,752.31	2,672,474.15
Valves 16 inch		1,057,284.53	1,057,284.53
Valves 20 inch		157,839.31	157,839.31
Valves 24 inch		375,789.32	375,789.32
Valves 4 inch		350.00	350.00
Valves 4 inch and below	30,117.67	758,967.03	789,084.70
Valves 6 inch	8,718.73	2,357,638.99	2,366,357.72
Valves 8 inch	157,618.92	6,030,885.80	6,188,504.72
Valves and vaults		136,966.16	136,966.16
Water piping within station, includ		1,465,006.10	1,465,006.10
311.2 Electric Pumpig Equip		**16,226,444.97**	**16,226,444.97**
Auxiliary equipment for engines and		16,247.79	16,247.79
Building		15,220.55	15,220.55
Chemical treating plant		10,441.18	10,441.18
Control Equipment & Instrument		21,389.57	21,389.57
Conversion		1,294.06	1,294.06
Electric equipment		732,652.27	732,652.27
Electrical Pumping Equipment		405,153.40	405,153.40
Generator		987,017.48	987,017.48
Intake		919,931.47	919,931.47
Ladders, stairs and platforms if pa		19,691.05	19,691.05
Motors		118,064.10	118,064.10
Non-unitized		83,237.05	83,237.05
Plant metering		50,993.74	50,993.74
PRV		14,603.67	14,603.67
Pumps		9,048,799.36	9,048,799.36
SCADA Radio transmitting and receiv		1,382.92	1,382.92
Sewer Pipes		1,725.65	1,725.65
Starter		44,913.59	44,913.59
Tanks		4,733.33	4,733.33
Testing instruments		16,527.68	16,527.68
tools - Misc		39,556.55	39,556.55
Valves and vaults		25,622.14	25,622.14
Vaults constructed as part of build		14,391.45	14,391.45
VFD		608,502.95	608,502.95
Water piping within station, includ		3,003,006.64	3,003,006.64
Water supply piping, hydrants and w		21,345.33	21,345.33
320.3 Chemical Treat		**7,830,640.74**	**7,830,640.74**
Chemical treating plant		3,353,085.69	3,353,085.69
Computer-Hardware		2,976.93	2,976.93

VEOLIA PENNSYLVANIA
SUMMARY OF RETIREMENT UNIT BY PLANT ACCOUNT
AT DECEMBER 31, 2021

Row Labels	Bethel	Veolia PA	Grand Total
Filter plant		3,561,512.80	3,561,512.80
Instrumentation		330,885.62	330,885.62
Lab equipment		4,784.13	4,784.13
Plant metering		53,173.49	53,173.49
Pumps		28,851.47	28,851.47
SCADA Radio transmitting and receiv		23,374.52	23,374.52
Security System		3,317.80	3,317.80
Tanks		172,938.50	172,938.50
Testing instruments		174,630.62	174,630.62
tools - Misc		11,054.75	11,054.75
VFD		110,054.42	110,054.42
320.3 Water Treatment Equ		**40,111,224.04**	**40,111,224.04**
Air compressors		77,960.68	77,960.68
Air Stripping System		27,757.62	27,757.62
Building		14,808.11	14,808.11
Chemical equipment		212,103.67	212,103.67
Clear water basin		1,414,498.62	1,414,498.62
Control Equipment & Instrument		491,485.77	491,485.77
Disinfection equipment		2,459,835.23	2,459,835.23
Electric equipment		39,242.81	39,242.81
Fences		16,546.83	16,546.83
Gauges and recorders		2,274.61	2,274.61
Generator		171,456.72	171,456.72
Motors		7,682.74	7,682.74
Non-unitized		1,675,994.90	1,675,994.90
PRV		18,515.31	18,515.31
Raw Water Pipes		77,970.10	77,970.10
Sedimentation or coagulation basin		6,054,121.31	6,054,121.31
Softening plant		3,722.93	3,722.93
Starter		2,712.99	2,712.99
Tanks, part of building		359,739.30	359,739.30
tools - Misc		3,081.96	3,081.96
Treatment System		24,866,677.25	24,866,677.25
Valves and vaults		36,401.81	36,401.81
Water piping within station, includ		2,076,632.77	2,076,632.77
(blank)			
(blank)			
Grand Total	**5,819,619.99**	**292,629,096.80**	**298,448,716.79**

Account 311.2- Pumping Equipment
Retirement Data
Placement Band 1894-2021
Experience Band 1955-2021

Age at	Retirements	Transactio	Vintage
36.5	16,559.21	1984	1947
		1989	1952
		2001	1964
		2011	1974
37.5	190.07	1988	1950
38.5	6,858.94	1989	1950
39.5	44,650.80	1991	1951
		2015	1975
		1999	1959
		2019	1979
40.5	75,590.34	2015	1974
		2016	1975
		2017	1976
		2019	1978
		2020	1979
41.5	7,166.87	1989	1947
		2017	1975
		2015	1973
		2019	1977
42.5	10,344.19	2001	1958
		2019	1976
		2015	1972
43.5	10,712.57	1994	1950
		1973	1929
		2015	1971
44.5	5,682.00	2003	1958
45.5	3,276.00	1996	1950
46.5	1,069.15	1974	1927
		2015	1968
47.5	14,325.56	1974	1926
		2015	1967
		1998	1950
48.5	24,862.90	1999	1950
		2015	1966
49.5	4,581.06	2015	1965
		1976	1926
		2000	1950
50.5	5,070.49	1978	1927
		1980	1929
		2015	1964
51.5	19,723.63	1983	1931

Account 311.2- Pumping Equipment
Retirement Data
Placement Band 1894-2021
Experience Band 1955-2021

Age at	Retirements	Transactio	Vintage
		1979	1927
		1981	1929
		1973	1921
		1998	1946
		2015	1963
52.5	6863.27	1980	1927
		2011	1958
		2015	1962
		1989	1936
53.5	5,654.26	2015	1961
		1983	1929
54.5	63	2015	1960
		1979	1924
55.5	689.2	1993	1937
		2006	1950
		2015	1959
		1975	1919
56.5	2,796.21	2015	1958
57.5	418.54	1990	1931
58.5	54.00	2015	1955
59.5	1,535.26	2015	1954
60.5	531.22	2015	1954
62.5	56	2015	1952
		1984	1921
63.5	8.20	2015	1951
64.5	12,152.80	2015	1950
67.5	67.68	2015	1947
68.5	356.23	1993	1924
		2015	1946
69.5	2,200.36	2015	1945
		1998	1928
71.5	178.16	2015	1943
73.5	138.00	1993	1919
78.5	0.11	2015	1936
83.5	0.36	2015	1931
86.5	1,003.84	2015	1928
87.5	128.30	2015	1927
88.5	1,024.23	2015	1926
89.5	27.57	1984	1894
90.5	0.18	2015	1924
93.5	7,232.40	2015	1921

Account 311.2- Pumping Equipment
Retirement Data
Placement Band 1894-2021
Experience Band 1955-2021

Age at	Retirements	Transactio	Vintage
94.5	6.70	1989	1894
95.5	113.25	2015	1919
		1990	1894
105.5	720	2000	1894

Account 320.3- Chemcial Treatment
Retirement Data
Placement Band 1927-2021
Experience Band 1968-2021

Age	Retirement	Tran Yr	Vint Yr
32.5	38,258.90	2015	1982
33.5	14,278.29	2016	1984
		2015	1983
34.5	60,785.64	2015	1980
35.5	4,084.00	2021	1985
		2015	1979
36.5	1,736.66	1993	1956
		1968	1931
		2015	1978
37.5	100	2015	1977
38.5	8,945.86	1968	1929
		2015	1976
39.5	7,361.17	2015	1975
40.5	10,341.80	2015	1974
41.5	4,009.29	2015	1973
		2006	1964
42.5	81,409.16	2015	1972
		1974	1931
43.5	583	2015	1971
46.5	3,273.15	2015	1968
		1974	1927
47.5	1,487.95	2015	1967
50.5	729.96	2015	1964
51.5	812.89	2015	1963
56.5	119.48	2015	1958
59.5	23.27	2015	1955
60.5	289.6	2015	1954
63.5	57	2015	1951
75.5	100	2015	1939

Account 331 Transmision and Distiburtion Mains
Retirement Data
Placement Band 1880-2021
Experience Band 1968-2021

Acct	Amount	Transaction Yr	vintage Year
60.5	1,462.41	1983	1922
		1985	1924
		1991	1930
		1993	1932
		1994	1933
		1996	1935
		1997	1936
		2001	1940
		2010	1949
61.5	7,817.55	1975	1913
		1977	1915
		1987	1925
		1994	1932
		1996	1934
		1997	1935
		2007	1945
		2012	1950
62.5	2,228.36	1972	1909
		1975	1912
		1985	1922
		1987	1924
		1994	1931
		2000	1937
		2001	1938
		2002	1939
		2008	1945
		2013	1950
63.5	1,251.33	1977	1913
		1987	1923
		1992	1928
		2001	1937
		2001	1937
		2010	1946
		2011	1947
64.5	1,901.73	1975	1910
		1978	1913
		1979	1914
		1987	1922
		1997	1932

Account 331 Transmision and Distiburtion Mains
Retirement Data
Placement Band 1880-2021
Experience Band 1968-2021

Acct	Amount	Transaction Yr	vintage Year
		2010	1945
		2011	1946
		2012	1947
		2013	1948
65.5	2,843.72	1994	1928
		1997	1931
		2005	1939
		2009	1943
66.5	486.83	1997	1930
		2006	1939
		2007	1940
		2008	1941
		2012	1945
		2018	1951
67.5	3,181.78	1978	1910
		1992	1924
		1992	1924
		1994	1926
		1997	1929
		2005	1937
		2007	1939
		2008	1940
		2009	1941
		2017	1949
		2018	1950
68.5	148,672.39	1977	1908
		1994	1925
		1996	1927
		1997	1928
		2010	1941
		2017	1948
69.5	5,203.36	1977	1908
		1994	1925
		1996	1927
		1997	1928
		2010	1941
		2017	1948
70.5	3,529.36	1978	1908
		1984	1914

Account 331 Transmision and Distiburtion Mains
Retirement Data
Placement Band 1880-2021
Experience Band 1968-2021

Acct	Amount	Transaction Yr	vintage Year
		1997	1927
		2011	1941
		2012	1942
		2017	1947
71.5	2,329.26	1993	1922
		1996	1925
		2001	1930
		2003	1932
		2012	1941
		2014	1943
		2016	1945
		2017	1946
72.5	8,233.42	1978	1906
		1994	1922
		1996	1924
		2011	1939
		2017	1945
73.5	2,439.72	1983	1910
		1987	1914
		1996	1923
		1998	1925
		2010	1937
		2012	1939
74.5	3,636.45	1974	1900
		1982	1908
		1984	1910
		1994	1920
		1996	1922
		1996	1922
		2009	1935
		2011	1937
		2016	1942
		2017	1943
75.5	2,235.30	1983	1908
		1991	1916
		1999	1924
		2000	1925
		2013	1938
		2016	1941

Account 331 Transmision and Distiburtion Mains
Retirement Data
Placement Band 1880-2021
Experience Band 1968-2021

Acct	Amount	Transaction Yr	vintage Year
76.5	6,353.33	1984	1908
		1985	1909
		2001	1925
		2008	1932
		2010	1934
		2013	1937
		2016	1940
77.5	2,068.77	1985	1908
		1986	1909
		1987	1910
		1999	1922
		2002	1925
		2007	1930
		2009	1932
		2011	1934
78.5	641.06	1979	1901
		1987	1909
		2003	1925
		2008	1930
		2010	1932
		2012	1934
		2013	1935
79.5	1,806.82	1978	1898
		1980	1900
		1981	1901
		1987	1907
		1988	1908
		1994	1914
		2001	1921
		2010	1930
		2013	1933
80.5	2,062.82	1976	1895
		1981	1900
		1982	1901
		1986	1905
		1989	1908
		2000	1919
		2006	1925
		2013	1932

Account 331 Transmision and Distiburtion Mains
Retirement Data
Placement Band 1880-2021
Experience Band 1968-2021

Acct	Amount	Transaction Yr	vintage Year
81.5	1,089.94	1972	1890
		1982	1900
		2001	1919
		2005	1923
		2007	1925
		2008	1926
		2010	1928
		2012	1930
		2013	1931
82.5	8,933.48	1978	1895
		1983	1900
		1986	1903
		1987	1904
		1991	1908
		1995	1912
		1997	1914
		2007	1924
		2008	1925
		2010	1927
		2011	1928
		2012	1929
		2013	1930
83.5	4,215.22	1974	1890
		1984	1900
		1985	1901
		2007	1923
		2008	1924
		2009	1925
		2010	1926
		2011	1927
		2012	1928
		2013	1929
84.5	1,899.18	1985	1900
		1993	1908
		1997	1912
		2007	1922
		2008	1923
		2009	1924
		2010	1925

Account 331 Transmision and Distiburtion Mains
Retirement Data
Placement Band 1880-2021
Experience Band 1968-2021

Acct	Amount	Transaction Yr	vintage Year
		2012	1927
85.5	15,864.53	1976	1890
		1986	1900
		1987	1901
		1994	1908
		1995	1909
		2000	1914
		2012	1926
86.5	642	1982	1895
		1987	1900
		1988	1901
		2001	1914
		2002	1915
		2006	1919
		2007	1920
87.5	403.99	1978	1890
		1988	1900
		1989	1901
		1989	1901
		1997	1909
		2001	1913
		2002	1914
		2013	1925
88.5	3,491.04	1979	1890
		1989	1900
		1997	1908
		2001	1912
		2007	1918
		2013	1924
89.5	422	1985	1895
		1991	1901
		2002	1912
		2005	1915
90.5	1,109.62	1991	1900
		1992	1901
		2005	1914
		2006	1915
		2013	1922
91.5	1,327.08	1981	1889

Account 331 Transmision and Distiburtion Mains
Retirement Data
Placement Band 1880-2021
Experience Band 1968-2021

Acct	Amount	Transaction Yr	vintage Year
		1982	1890
		1987	1895
		1988	1896
		1992	1900
		1993	1901
		1996	1904
92.5	2,472.56	1983	1890
		1988	1895
		1991	1898
		1993	1900
		2001	1908
		2002	1909
93.5	1,969.70	1974	1880
		1984	1890
		1989	1895
		1994	1900
		2002	1908
		2007	1913
		2013	1919
		2014	1920
94.5	3,507.67	1985	1890
		1995	1900
		1996	1901
		2003	1908
95.5	4,912.00	1986	1890
		2012	1916
		1994	1898
		2010	1914
96.5	102.32	1987	1890
		2012	1915
97.5	7,590.00	1988	1890
		2001	1903
		2006	1908
		2011	1913
		2012	1914
98.5	248.84	1989	1890
		1994	1895
		2000	1901
		2012	1913

Account 331 Transmision and Distiburtion Mains
Retirement Data
Placement Band 1880-2021
Experience Band 1968-2021

Acct	Amount	Transaction Yr	vintage Year
		2013	1914
99.5	2,162.63	1989	1889
		1999	1899
		2000	1900
		2001	1901
		2009	1909
		2010	1910
		2011	1911
100.5	1,059.18	1981	1880
		1991	1890
		1990	1889
		2001	1900
101.5	1,497.00	1992	1890
		1997	1895
		2002	1900
		2003	1901
		2010	1908
		2012	1910
102.5	5,157.64	1993	1890
		1996	1893
		1997	1894
		2001	1898
		2003	1900
		2011	1908
103.5	3,142.00	1994	1890
		2004	1900
		2012	1908
104.5	926	1985	1880
		1993	1888
		1994	1889
		2000	1895
		2010	1905
105.5	1,679.00	1986	1880
		2001	1895
		2007	1901
106.5	1,032.69	1987	1880
		1997	1890
		2002	1895

Account 331 Transmision and Distiburtion Mains
Retirement Data
Placement Band 1880-2021
Experience Band 1968-2021

Acct	Amount	Transaction Yr	vintage Year
		2006	1899
		2007	1900
		2012	1905
107.5	2,271.52	1990	1882
		1996	1888
		1997	1889
		2005	1897
		2007	1899
		2008	1900
		2009	1901
108.5	252.58	2006	1897
		2007	1898
		2019	1910
109.5	9,744.43	1990	1880
		2000	1890
		2007	1897
		2010	1900
		2011	1901
		2013	1903
		2019	1909
		2020	1910
110.5	1,523.10	2000	1889
		2007	1896
		2010	1899
		2012	1901
		2019	1908
111.5	2,717.76	2001	1889
		2002	1890
		2007	1895
		2008	1896
		2010	1898
		2012	1900
		2013	1901
		2019	1907
112.5	13,437.87	2000	1887
		2001	1888
		2002	1889
		2003	1890
		2006	1893

Account 331 Transmision and Distiburtion Mains
Retirement Data
Placement Band 1880-2021
Experience Band 1968-2021

Acct	Amount	Transaction Yr	vintage Year
		2007	1894
		2021	1908
113.5	4,150.95	1994	1880
		2001	1887
		2002	1888
		2003	1889
		2004	1890
		2005	1891
		2006	1892
		2021	1907
114.5	9,110.95	1995	1880
		2000	1885
		2002	1887
		2005	1890
		2006	1891
		2007	1892
		2021	1906
115.5	9,042.78	1996	1880
		2005	1889
		2006	1890
		2007	1891
		2009	1893
		2010	1894
		2011	1895
		2021	1905
116.5	4,745.80	1997	1880
		2010	1893
		2011	1894
		2012	1895
		2013	1896
		2021	1904
117.5	6,785.75	1997	1880
		1998	1880
		2000	1882
		2001	1883
		2007	1889
		2008	1890
		2013	1895
		2021	1903

Account 331 Transmision and Distiburtion Mains
Retirement Data
Placement Band 1880-2021
Experience Band 1968-2021

Acct	Amount	Transaction Yr	vintage Year
118.5	1,857.96	2008	1889
		2013	1894
		2021	1902
119.5	42,492.45	2000	1880
		2007	1887
		2009	1889
		2010	1890
		2013	1893
		2020	1900
		2021	1901
120.5	20,836.66	2001	1880
		2008	1887
		2009	1888
		2010	1889
		2011	1890
		2021	1900
121.5	6,111.00	2002	1880
		2010	1888
		2011	1889
		2012	1890
122.5	3,548.96	2013	1890
123.5	529.72	2013	1889
		2007	1883
124.5	1,181.00	2005	1880
		2007	1882
125.5	775.00	2006	1880
126.5	962.00	2007	1880
134.5	1,340.40	2015	1880
135.5	4,513.76	2016	1880

VWPA STATEMENT NO. 6

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

PREPARED DIRECT TESTIMONY

OF

JAMES CAGLE

REGARDING

TAXES (TAX CUT & JOBS ACT, CONSOLIDATED INCOME TAX ADJUSTMENT),

RATEMAKING TREATMENT OF CUSTOMER ASSISTANCE PROGRAM COSTS, AND

COMPLIANCE WITH THE REQUIREMENTS OF THE VEOLIA/SUEZ MERGER

VEOLIA WATER PENNSYLVANIA, INC.

February 2024

Q. What is your name and business address?

A. I am James C. Cagle. My business address is 461 From Road, Paramus, NJ 07652.

Q. By whom and in what capacity are you employed?

A. I am the Vice President, Rates and Regulatory Affairs for Veolia Water M&S (Paramus), Inc. ("VWM&S").

Q. What are your job responsibilities?

A. I am primarily responsible for the oversight of rate case filings for Veolia Water Pennsylvania, Inc. ("VWPA" or the "Company"). I am also responsible for oversight of certain rate related compliance and reporting requirements as prescribed by the various regulatory commissions having jurisdiction over the Veolia companies.

Q. Please outline your educational and professional qualifications.

A. I received a Bachelor of Accountancy degree from the University of Oklahoma in 1987 and am a Certified Public Accountant licensed in the State of Texas. I was initially employed by United Water M&S as Director, Regulatory Business in October of 2007 and have held my current position since March 2010. Previous to that, I was employed by Atmos Energy Corporation, a natural gas utility operating in twelve states, as Manager, Rates and Revenue Requirements. I

have testified before the Pennsylvania Public Utility Commission and several other state commissions on various regulatory issues.

Purpose and Outline

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony in this case is to present support for the following:

- Adjustments related to the amounts amortized since the last case of the protected regulatory liability balance created by the Tax Cuts and Jobs Act ("TCJA") as it relates to the current amortization and the calculation of the amounts utilizing the Average Rate Assumption Method ("ARAM").
- The appropriate level of amortization of the protected portion of the liability balance created by the TCJA .
- The applicability of a Consolidated Income Tax adjustment as related to this filing.
- Ratemaking treatment of the costs of the proposed Customer Assistance Program ("CAP").
- Description of the Company's compliance with the requirements of the Veolia/SUEZ merger, Dockets A-2021-3026515, A-2021-3026522, and A-2021-3026523[1].

[1] Joint Application of Veolia Environnement S.A.,Veolia North America, Inc., SUEZ S.A., SUEZ Water Pennsylvania Inc. and SUEZ Water Bethel Inc. for all approvals pursuant to Sections 1102(a)(3), (4), and 1103 of the Pennsylvania Public Utility Code, and as otherwise required under the Pennsylvania Public

Q. Please summarize how the TCJA was addressed in the Company's previous rate case filing (Docket No. R-2018-3000834).

A. In the Company's previous rate case filing, the amount of the TCJA regulatory liability was determined to be $10,065,841 to be amortized over a 38 year period or $264,891 annually. This amortization amount was based upon a straight line amortization pending further analyses of the Company's utilization of the ARAM. The Company has recorded the amortization as required since rates became effective in that proceeding.

As required for inclusion in the current case, a calculation has been made of the difference between the amortization above and the cumulative amount which was eligible to be returned to ratepayers based on the ARAM. This difference is calculated to be $530,793 which the Company proposes to return to customers via the Federal Tax Adjustment Credit ("FTAC") tariff mechanism during the 12 months after rates are effective from this rate case filing.

As required, tax savings resulting from TCJA prior to the effective date of new rates pursuant to the Settlement in the last case was returned to customers through the FTAC for a period of 12 months after rates went into effect from the last case and there was a balance remaining to be returned to customers. The remaining balance has been calculated and included by Mr. Herbert as a component of

Utility Code for the change in control of SUEZ Water Pennsylvania Inc and SUEZ Water Bethel Inc. (Order entered December 2, 2021).

Adjustment 22.1 as shown in his Workpaper GRH-2-1. The remaining balance, including interest, is calculated to be $1,248,742 as of September 30, 2024 and the Company is proposing to amortize this balance over a three-year period.

Q. Is the Company proposing to change the amortization amount of the protected Excess Deferred Income Taxes ("EDIT") as a result of the ARAM?

A. Yes. The amortization period for the amount of the regulatory liability which arose from normalized amounts is considered "protected" and, per the Internal Revenue Code, shall be amortized no faster than over the period in which Accumulated Deferred Income Taxes ("ADIT") would have otherwise reversed. Reflective of the estimated amount of reversal based upon the ARAM, the Company is proposing to reduce the level of EDIT at $300,000 per year. This is somewhat less than the projected amounts for 2024 and 2025 of around $333,000. However, the actual level of reversal based on the ARAM will not be known until after the tax returns are filed for the calculation periods and the Company believes it is prudent to be conservative in its reversals based upon projections so as not to inadvertently reverse too much during a future period. As was provided for in the last case, a similar true-up mechanism as earlier described could be utilized in the next rate case filing, or any difference could be considered in future reversing amounts.

Q. Please describe the consolidated tax adjustment calculation provided as a requirement of MFR IV-14 (CONFIDENTIAL) and the rate making treatment of such an adjustment in this case.

A. A consolidated tax adjustment is no longer required to be made for ratemaking purposes as a result of Pennsylvania's Act 40. But, as I understand the Act, if there is an applicable difference relating to the ratemaking methodologies utilized prior to Act 40 becoming effective and current methodologies, the difference would be used such that fifty percent would support reliability or infrastructure related to capital investment and fifty percent for general corporate purposes. The calculation indicates there is a differential amounting to approximately $1.7M. As described in Mr. Finnicum's testimony, the Company is making capital investments approximating $85.7 million through the end of the fully projected future test year ("FPFTY"). It is clear that many times the level of this calculated differential is being invested. As a result, the Company has included no related amounts in its revenue requirement computations.

Q. Please summarize the costs related to the Company's Customer Assistance Program ("CAP").

A. The proposed CAP is fully described in the testimony of Company witness Jordan and includes several components of costs. These are cost associated with the bill discounts and arrearage forgiveness, costs associated with the repair portion of the program, and administrative and other costs. At the present time, the levels of

such costs are unknown and will likely not be fully known until the program is rolled-out to customers; the cost of the program will depend primarily upon program eligibility at the different levels of bill discount, and customer participation. As a result, the Company is proposing to include an estimated or "target" amount of costs for the program of $1 million to cover the above costs once the program is implemented. The Company anticipates that, while successful, it will take some time to reach all eligible customers.

Q. As the costs are uncertain at this time, please describe the Company's proposed rate making treatment.

A. The Company proposes ratemaking treatment that would track the difference between the overall costs of the program and the proposed target amount as a regulatory asset or liability, to be addressed in the Company's next rate case filing. After such experience with the program is gained, adjustments to the level of costs included in base rates would be adjusted to reflect the costs of the program more accurately in that future case. Additionally, the Veolia shareholder contribution commitment of $300,000 to support the low-income program would be included in the reconciliation as a direct offset of the overall program costs.

Q. Please describe the Company's compliance with the requirements of the Veolia/SUEZ merger (the "Transaction")

A. There were numerous requirements described in the Order adopting the Recommended Decision and Joint Stipulation in those Dockets further described as follows:

Operational Stability (I Terms of the Stipulation 1, a through c)

No changes in employment levels or compensation have been impacted by the Transaction. Compensation and benefits are at least as favorable in the aggregate as previous to the Transaction and changes in management have been filled with qualified applicants. The collective bargaining agreements have been honored in full, and the administrative office remains in Harrisburg, PA.

Rate Stability (I Terms of the Stipulation 2, a through n)

As related to this section, this rate case is filed well after 12 months post consummation of the Transaction (January 18, 2023) and no transaction or transition costs directly associated with the Transaction are included in this filing for recovery from customers. ADIT or EDIT have not changed nor has there been an impact to the Company's books and records as a result of the Transaction.

The Company has complied with the remaining requirements in the Rate Stability section of the Joint Stipulation including those related to debt, cost of capital, capital

structure and dividends. No goodwill has been recorded which would impact the Company.

Low income Programming (I Terms of the Stipulation 3, a. through d.) and Customer Service Policies (1 Terms of the Stipulation 4, a)

As described in Ms. Jordan's testimony, a Low Income Advisory Committee ("LIAC") has been established whose input assisted in the development of the proposed CAP which includes the components required in the joint settlement agreement. In addition, the requirements related to Customer Service Policies were provided to the LIAC.

Arrearage/COVID-19 Relief (I Terms of the Stipulation 5, a through d)

As proposed by VWPA, its shareholders contributed an amount equal to 30% of residential and commercial arrears that were more than 60 days overdue, as of the date of a Commission Order approving the Transaction, through bill credits. Other terms of this section were fulfilled.

Affiliate Interest Agreements (1 Terms of the Stipulation 6, a through c)

No changes have been made to the affiliate interest agreement with Veolia Water M&S (Paramus), Inc. or other affiliate agreements. As a result, no further approval of affiliate interest agreements have been sought.

Service Quality and Capital Plans. (1 Terms of the Stipulation 7, a through e)

As related to the Company's capital plan, the capital plans existing prior to the Transaction are in place and are adequate to maintain water quality, pressure, and quality of service standards. VWPA's Long-Term Infrastructure Improvement Plan remains in place. The evaluation of any utilization of Actiflo and Hubgrade are ongoing.

Community Benefits (1 Terms of the Stipulation 8, a through c)

Community benefits are discussed in the testimony of Mr. Finnicum.

Records (1 Terms of the Stipulation 9, a and b)

Information provided to the Commission has included English language copies where needed and, VWPA will provide any translation into English as required.

Ring-Fencing (1 Terms of the Stipulation 10, a through d)

Ring-fencing measures and reporting requirements described in this section of the Joint Stipulation remain in place and no changes have been made to those measures which would require notification. Additionally, the reporting requirements related to the common equity ratio have not been triggered and the long-term debt financial covenants remain in place.

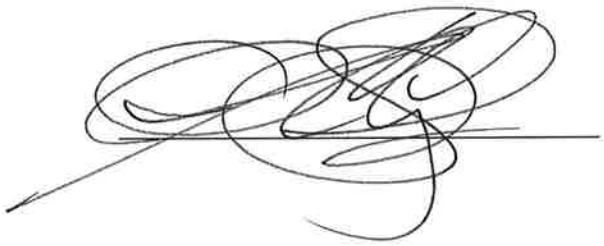
Q. Does this conclude your direct testimony?

A. Yes, it does. However, I reserve the right to supplement my testimony as additional issues and facts arise during the course of the proceeding.

VERIFICATION

I, James C. Cagle, hereby state that the facts set forth above are true and correct to the best of my knowledge, information and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: 4/20/24



VWPA STATEMENT NO. 6-R

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NOS. R-2024-3045192-Water R-2024-3045193 WW

REBUTTAL TESTIMONY

OF

JAMES CAGLE

REGARDING

COMPLIANCE WITH THE REQUIREMENTS OF THE VEOLIA/SUEZ MERGER,

RATEMAKING TREATMENT OF CUSTOMER ASSISTANCE PROGRAM COSTS,

RECOMMENDATIONS OF OCA RELATING TO CYBERSECURITY

VEOLIA WATER PENNSYLVANIA, INC.

June 7, 2024

PUBLIC VERSION

Q. What is your name and business address?

A. I am James C. Cagle. My business address is 461 From Road, Paramus, NJ 07652.

Q. Are you the same James Cagle that submitted direct testimony in this docket?

A. Yes.

Purpose and Outline

Q. What is the purpose of your rebuttal testimony in this proceeding?

A. The purpose of my rebuttal testimony in this case is to present support for the ratemaking treatment of the costs of the proposed Customer Assistance Program ("CAP") as well as to provide a clarification related to the costs of the CAP program proposed in compliance with the requirements of the Veolia/SUEZ merger, Docket Nos. A-2021-3026515, A-2021-3026522, and A-2021-3026523[1].

BEGIN CONFIDENTIAL

[redacted]

END CONFIDENTIAL

[1] *Joint Application of Veolia Environnement S.A.,Veolia North America, Inc., SUEZ S.A., SUEZ Water Pennsylvania Inc. and SUEZ Water Bethel Inc. for all approvals pursuant to Sections 1102(a)(3), (4), and 1103 of the Pennsylvania Public Utility Code, and as otherwise required under the Pennsylvania Public Utility Code for the change in control of SUEZ Water Pennsylvania Inc and SUEZ Water Bethel Inc.* (Order entered Dec. 2, 2021) (the "*Merger Order*").

Q. Please summarize your rebuttal testimony related to the ratemaking treatment of the costs of the proposed CAP.

A. In my direct testimony, I described the uncertainties surrounding the CAP costs beginning on page 6 and the Company's proposal on page 7. The mechanism is designed to provide a stop gap measure to provide a measure of insulation for both ratepayers and the Company from the uncertainties surrounding the implementation of the CAP.

As stated in my direct testimony: "The Company proposes ratemaking treatment that would track the difference between the overall costs of the program and the proposed target amount as a regulatory asset or liability, to be addressed in the Company's next rate case filing." I would however, like to clarify that the intention of the mechanism is that it could end with the Company's next rate case. By that time, enough experience with the program should have been gained that the costs of the program would be more accurately known in that future case.

Q. How does the proposed mechanism insulate ratepayers?

A. It will take some time for the program to reach all eligible customers and for those eligible to apply and begin receiving benefits of the program. In the interim, the Company is receiving funding for the program through rates.

Q. Please respond to Ms. Okum's recommendation as to the level of costs to be included in rates as well as the concerns surrounding the mechanism.

A. Ms. Okum recommends an allowance of $700,000 be included in rates for the FPFTY. The adjustment accepts the Company's proposed amount of $1,000,000 and reduces this by the full $300,000 amount of the Veolia S.A. contribution arising from the Settlement approved in the *Merger Order*.[2] As described in that Settlement, the $300,000 shareholder contribution is a one-time contribution. The calculation of $700,000 includes this amount as if it were to be made on an annual contribution, which is not in keeping with the terms of the Settlement and, therefore, the *Merger Order*. As the CAP program is intended to be ongoing, reducing the Company's proposal by the full amount in the FPFTY is not appropriate. I believe the most effective way to make sure that the full $300,000 amount is utilized by the CAP program to benefit customers is to utilize the reconciliation mechanism proposed by the Company in this case.

Q. Please summarize your understanding of Ms. Okum's objections related to the proposed reconciliation mechanism.

A. Ms. Okum recommends that the Company's proposed mechanism not be allowed because the Commission has previously ruled that deferred accounting treatment may be granted if the expense is: (1) extraordinary; (2) unanticipated; (3) non-recurring; and (4) substantial. It is my belief that the Commission should allow the

[2] The *Merger Order* adopted a Recommended Decision that approved a Joint Petition for Approval of Settlement ("Settlement"). The $300,000 contribution was part of that Settlement. *See Joint Application of Veolia Environnement S.A.,Veolia North America, Inc., SUEZ S.A., SUEZ Water Pennsylvania Inc. and SUEZ Water Bethel Inc. for all approvals pursuant to Sections 1102(a)(3), (4), and 1103 of the Pennsylvania Public Utility Code, and as otherwise required under the Pennsylvania Public Utility Code for the change in control of SUEZ Water Pennsylvania Inc and SUEZ Water Bethel Inc*. (Recommended Decision issued Nov. 10, 2021) p. 18.

mechanism on these bases. Ms. Okum states that, on an industry basis, such costs have been, over a number of years, normalized in the costs of companies offering such programs. However, this is a significant change for VWPA and such costs have not previously been incurred for an ongoing low-income CAP program. The costs of the CAP program have not in fact been normalized into the costs of VWPA. As to whether the costs are unanticipated, that there will be costs for the program is known and, from that standpoint, are anticipated but the level of the costs can only be estimated based upon data (*e.g.*, number of program participants, the need of those participants, and participant usage behaviors) that will become more certain and therefore only able to be anticipated over time. Likewise, future CAP costs will be recurring but the level of costs will be changing until the program is fully established. Finally, I fully agree with Ms. Okum that the costs may be considered substantial for VWPA.

Q. What cost fluctuations could occur as a result of implementing the program.

A. As with any new program, there is much uncertainty as to the level of costs. Generally, there is slow uptake as the program begins, but there is a risk of significantly greater participation than estimated. Finally, as there is no currently approved VWPA CAP program, the determination in this case by the Commission establishing the program could significantly change the estimated costs.

Q. Please discuss further.

A. If the up-take rate is less than anticipated, more costs would be recovered through base rates than would be provided in CAP benefits and the administration costs. In that instance, I believe it patently unfair to the customers of VWPA who would be bearing these costs.

If there is significantly greater participation than is estimated, the costs of the program could be significantly higher than estimated. For example, in Ms. Jordan's testimony on page 24, she discusses the costs of the program at the participation rates suggested by Mr. DeMarco and Mr. Ballenger which represent 170% ($1.7M) to 860% ($8.6M) of the Company's target costs of $1M, which is unreasonable for the Company to bear.

Finally, the program is not established and the requirements which will be approved by the Commission are not yet known, emphasizing the uncertainty of the costs and their extraordinary, unanticipated, non-recurring, and substantial natures.

The Company continues to recommend the mechanism be approved as it is proposed in this case.

BEGIN CONFIDENTIAL

[redacted]

[redacted]

[redacted]

END CONFIDENTIAL

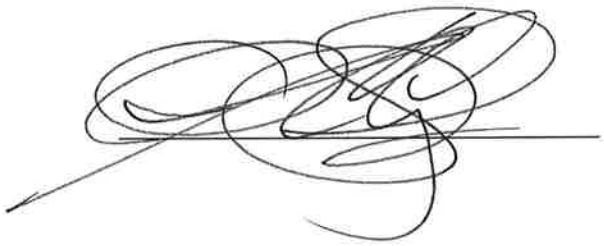
Q. Does this conclude your rebuttal testimony?

A. Yes, it does. However, I reserve the right to supplement my testimony as additional issues and facts arise during the course of the proceeding. Thank you.

VERIFICATION

I, James C. Cagle, hereby state that the facts set forth above are true and correct to the best of my knowledge, information and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: 4/20/24



VWPA STATEMENT NO. 7

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

PREPARED DIRECT TESTIMONY

OF

JUDITH MCCOY JORDAN

REGARDING

LOW INCOME PROGRAM

VEOLIA WATER PENNSYLVANIA, INC.

February 2024

Q. What is your name and business address?

A. My name is Judith McCoy Jordan. My business address is 6310 Allentown Blvd., Harrisburg, PA 17112.

Q. By whom are you employed and in what capacity?

A. I am employed by Veolia Water Pennsylvania, Inc. ("VWPA" or the "Company") as Director of Programs.

Q. Please describe your educational background.

A. I received a Bachelor of Arts in Administration of Justice from the University of Pittsburgh.

Q. Please describe your work experience.

A. I have been employed by VWPA since 2014, when I was hired as a Customer Service Manager and have held the positions of both Customer Service Manager and Director of Customer Service. Prior to VWPA I was employed at Pennsylvania-American Water Company ("Pennsylvania American Water") for 30 years as both Customer Service Supervisor and Manager of Collections and Compliance along with the management of their low income program.

Q. Have you testified previously in any regulatory proceeding?

A. Yes, I have testified on behalf of Pennsylvania American Water before the Pennsylvania Public Utility Commission ("Commission").

Q. What is the purpose of your direct testimony in this proceeding?

A. My testimony provides an overview of the Company's commitments with respect to low-income programs per the Commission's decision in the Veolia/SUEZ change in control dockets[1]; the Company's Customer Assistance Program ("CAP") proposal in the instant proceeding, and funding for the CAP proposal.

Q. What is your understanding of the Company's commitments under the terms of the settlement approved by the Commission in the Veolia/SUEZ change in control dockets, with respect to low-income programming?

A. As agreed-to in the settlement; the Company was to establish a Low-Income Advisory Committee ("LIAC") and utilize input from the committee to develop improvements to its low-income programs, to be proposed in the next base rate case.

Additionally, Veolia committed to providing shareholder contributions of $300,000 to support the low-income changes presented herein. These funds

[1] *Joint Application of Veolia Environnement S.A., Veolia North America, Inc., SUEZ S.A., SUEZ Water Pennsylvania Inc. and SUEZ Water Bethel Inc. for all approvals pursuant to Sections 1102(a)(3), (4), and 1103 of the Pennsylvania Public Utility Code, and:as otherwise required under the Pennsylvania Public Utility Code for the change in control of SUEZ Water Pennsylvania Inc. and SUEZ Water Bethel Inc.*, Docket Nos. A-2021-3026515, A-2021-3026522, and A2021-3026523 (Order entered Dec. 2, 2021).

have been earmarked and are available to support the improvements to the CAP proposed herein.

Additionally, the Company agreed to increase the annual grant assistance program from $150.00 to $300.00 for water and $150 for wastewater customers.

Q. Please summarize the Company's CAP proposal.

A. The proposed CAP is modeled on other programs currently offered by other Commission-regulated investor-owned water utilities in the Commonwealth. The proposal includes a bill discount program, a service line repair program, and an arrearage forgiveness program. Each of these CAP proposal elements will be discussed in more detail below. The Veolia Cares program, as further described below, will continue.

Q. What is a customer assistance program?

A. Generally speaking, CAPs are intended to assist low-income customers and are an alternative to traditional collection methods. Customers are placed on payment arrangements based on their gross household income. Upon obtaining the gross household income the Company can determine if the customer is eligible for the CAP programs and refer the customer to the Company's selected administrator. In addition, the Company can take steps to set up the arrearage forgiveness portion of the program if the customer meets the qualifications.

Q. Does the Company currently have any programs, outside of the proposed CAP, designed to assist customers that have difficulty paying their bills?

A. Yes. Veolia Cares offers assistance to customers that are experiencing a hardship such as job loss or illness or an unforeseen circumstance that prevents a customer from paying their water and/or wastewater bills. This program is funded by VWPA shareholders to provide assistance to those in need. This program provides assistance to customers having difficulty paying their bills for a variety of reasons. Qualification is not based on the customer's income levels as related to the Federal Poverty Level ("FPL"). Qualifying customers may receive grants of up to $300.00 annually toward their water and up to $150.00 toward their wastewater bills. The program is currently administered by New Jersey Shares. In addition, in 2023, the Company started sending conservation kits to grant recipients to assist them in reducing their monthly water consumption. The kits include water saving devices such as a low flow shower head, aerators, a toilet fill cycle diverter, dye tablets (toilet leak detection tablets), and a shower timer to assist families in reducing their shower time.

VWPA's hardship grant program will continue in addition to the proposed CAP discussed herein. Consistent with the settlement approved by the Commission in the Veolia/SUEZ change in control dockets, the Company continues to work with the LIAC Committee to identify areas of improvement to its existing low-income programs.

Q. Does the CAP proposal apply to both water and wastewater services?

A. No. The Company's CAP proposal applies only to water services; however the company will continue providing grants to its wastewater customers. As discussed herein, the proposal is new and therefore, the Company's experience is limited. The Company wishes to propose and implement a program successfully, allowing for learning and corrections as necessary, before expanding it to wastewater services.

Q. Has the Company been able to use government funds to assist customers in need?

A. Yes, the company has participated in the Low Income Housing Water Assistance Program ("LIHWAP"), Emergency Rental Assistance Program ("ERAP") and the Pennsylvania Homeowner Assistance Fund (PAHFA) Program. These programs were crucial for our low income customers especially during COVID. The Company recognizes there is still a need within the communities we serve and our proposed program will assist with this need.

Q. How were the components of the proposed CAP identified and selected to be part of the Company's proposal in this case?

A. Based on a review of CAPs provided by other Commission-regulated water utilities in the state, the Company identified an opportunity to include customer discounts, arrearage forgiveness and a service line repair program to its

proposed CAP. The Company's CAP proposal was largely modeled on this review.

After the December 7, 2022 LIAC Committee meeting, a few committee members provided guidance supporting a tiered approach based on the Federal Poverty Guidelines for the volumetric components of the CAP proposal, establishing a needs-based discount structure. During the October 31, 2023 meeting, the LIAC Committee also requested that the Company contact the PUC for data on low income customers in Pennsylvania based on Federal Poverty Guidelines by county. The LIAC Committee and the Company met again on January 19, 2024 for further guidance and feedback on the proposal discussed herein. .

Q. Please describe the proposed discounts for the participants in the proposed VWPA CAP program.

A. To address water affordability issues for its customers, the Company is proposing a tiered discount structure, providing the most financial relief to those who need it the most. The discount will be presented as a credit on eligible customers' bills. This proposed discount structure is similar to those offered by Aqua Pennsylvania, Inc. and Pennsylvania American Water. All customers participating in the program at or below 200% of the Federal Poverty Level ("FPL") will receive a full discount on their monthly service charge. Customers at 0% -100% FPL will receive a full discount on the first 2,000 gallons consumed

per month. Customers at 101% -150% FPL will receive a full discount on the first 1,000 gallons consumed per month. Customers at 151% -200% FPL will not receive any volumetric discount. The proposed discounts are illustrated in the chart below:

Poverty Level	Service Charge Discount	Volumetric Discount
0-100%	$0 fixed charge	First 2,000 gallons
101-150%	$0 fixed charge	First 1,000 gallons
151-200%	$0 fixed charge	0

As a conservation component to the discounts, customers below 150% of the FPL will receive:

- Conservation Education;
- Conservation Kits; and
- Installation of Kits by plumbers for Seniors if needed (65 and older) or those with a disability.

The goal of this element of the program is to provide suggestions and tools to assist customers save money and water.

Q. Please discuss the arrearage forgiveness portion of the proposal.

A. Customers at or below 200% of the FPL who are unable to pay their past due bills are eligible for flexible payment arrangements that allow an opportunity for forgiveness of $25 per month of the outstanding balance each time the customer pays their current monthly bill by the due date. Bills are due 20 days after the date the bill is mailed to residential customers and the Company will allow a five day grace period for timely payments.

Q. Please discuss the service line repair/conservation portion of the proposal.

A. VWPA proposes that the Company hire contractors to provide plumbing repairs of up to $1,500 (for each occurrence) to eligible low income residential customers at or below 150% of the FPL. To be eligible, the customer must be in threat of termination, or have been terminated, and the leak must occur on an exposed internal line and/or consist of minor plumbing repairs such as faucets and toilets. External customer service side leaks will be repaired from the curb box to the face of the customer's home. The Company proposes that this program will be budgeted for up to $100,000.

Q. Will customers participating in the program need to recertify their eligibility?

A. Yes. Those customers that are participating in the discount program will be required to recertify their eligibility every two years.

Q. What costs are associated with the CAP proposal?

A. Costs of the CAP proposal include:

- CAP bill discounts;
- CAP arrearage forgiveness benefits ($25 credit for timely payments made);
- Service line repairs (budgeted for up to $100,000 annually);
- CAP administration by a third party; and

- One-time A&G costs for program establishment.

Because the CAP proposal is new, enrollment levels and therefore total costs are at best difficult to estimate and more realistically, unknown.

Q. Did the Company attempt to quantify program enrollment and costs?

A. Yes. The Company relied on statistics estimating poverty levels for Pennsylvania Counties as provided by Commission staff. The statistics estimate the number of customers served by VWPA that are at or below 200% of the FPL, and therefore might be eligible for CAP participation. The study suggests that up to 32% percent of the households in counties, a portion of which is served by VWPA, are at or below 200% of the federal poverty level and may be eligible for the program. However, potential eligibility does not equate to enrollment, and the Company would expect enrollment numbers to be significantly lower based on the Company's experience with other programs. For example, currently less than one percent of all residential customers, or about three percent of all customers estimated to be at or below 200% of the FPL, served by VWPA are on a payment plan. Relying on payment plan participation experience, the Company estimated costs for the CAP assuming that approximately three percent of eligible customers will actually enroll in the program.

Q. How does the Company propose to recover those costs?

A. Considering the estimated 3% of customers that are likely to be eligible and participatory, the costs related to the arrearage forgiveness component, contractor costs for repairs, costs to set-up the program, and administrative costs etc., the Company proposes that, based on the estimated costs and newness of the program, a target budget of $1,000,000 for CAP costs be included in the requested revenue requirement. Company witness James Cagle will discuss cost recovery of the program in his testimony.

Q. Will the Company engage in outreach activities to increase awareness of CAP availability?

A. Yes, the Company will continue to participate in community events and work with local agencies and also work with the customer service team to provide awareness to the customers we serve. I believe our customers will be reaching out to the Company for assistance on payment arrangements and termination notifications, and our customer service staff will be available to assist. In addition, the Company's website will be updated and the Company will provide bill inserts with program information.

Q. Does this conclude your testimony?

A. Yes. However, I reserve the right to supplement my testimony as additional issues and facts arise during the course of the proceeding.

VERIFICATION

I, Judith McCoy Jordan, hereby state that the facts set forth above are true and correct to the best of my knowledge, information and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: 6/25/24

Judith McCoy Jordan

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NOS. R-2024-3045192-Water R-2024-3045193 WW

REBUTTAL TESTIMONY

OF

JUDITH MCCOY JORDAN

REGARDING

LOW INCOME PROGRAM

VEOLIA WATER PENNSYLVANIA, INC.

June 7, 2024

Q. What is your name and business address?

A. My name is Judith McCoy Jordan. My business address is 6310 Allentown Blvd., Harrisburg, PA 17112.

Q. Are you the same Judith Jordan that prefiled direct testimony in this docket?

A. Yes

Q. What is the purpose of your rebuttal testimony in this proceeding?

A. My testimony responds to criticisms and recommendations made in this proceeding regarding VWPA's proposed Customer Assistance Program.

I. Consideration of Affordability and CAP Design

Q. Please summarize VWPA's Customer Assistance Program proposal.

A. As presented in my direct testimony the proposal for VWPA 's Customer Assistance Program ("CAP") consists of four components encompassing a Bill Discount Program ("BDP"), conservation kit mailing, arrearage forgiveness, and a service line repair program. This is a new program, not currently in existence at VWPA, and will be made available to customers from 0 - 200% of the Federal Poverty Levels ("FPL"). VWPA proposes that the CAP apply only to water services before potentially expanding it to wastewater services.

In addition to the CAP Program, VWPA will continue the Veolia Cares Program which does not take income levels into consideration, but works with customers that are experiencing a hardship situation such as loss of job/income or a medical

condition that prevents the customer from making payment towards their water and/or wastewater bill by providing hardship grants of up to $300.00 for water and $150.00 for wastewater on an annual basis. The Veolia Cares program is funded by Veolia shareholders.

Q. Please summarize VWPA's proposed BDP.

A. VWPA proposes a three-tiered design; 0 to 100%, 101% to 150%, 151% to 200% FPL. All customers participating in the program at or below 200% of the FPL will receive a full discount on their monthly service charge. Customers at 0% - 100% FPL will receive a full discount on the first 2,000 gallons consumed per month. Customers at 101% - 150% FPL will receive a full discount on the first 1,000 gallons consumed per month. Customers at 151% -200% FPL will not receive any volumetric discount. This program design is intended to deliver the highest percentage of discounts to customers with the lowest incomes. The proposed discounts are illustrated in Table 2 below:

Table 2 - VWPA Proposed Bill Discount Program

Poverty Level	Service Charge Discount	Volumetric Discount
0-100%	$0 fixed charge	First 2,000 gallons
101-150%	$0 fixed charge	First 1,000 gallons
151-200%	$0 fixed charge	0

Q. Please summarize the recommendations made by OCA and CAUSE-PA regarding the structure of VWPA's proposed BDP.

A. Recommendations made by OCA and CAUSE-PA on the BDP appear to be based primarily on the interpretation of affordability of VWPA's bills, as well as statistics provided during discovery by VWPA and are based on a small, limited low-income data set.

OCA witness DeMarco argues that there appears to be no analytical basis for VWPA's proposed discounts and that the proposal is not sufficient to meet the needs of its low income customers.[1] Mr. DeMarco contends that the FPL is not a realistic measure for affordability and utilizes the Asset Limited, Income, and Employed ("ALICE") index to measure a household's self-sufficiency or survival budget and to determine that approximately fifteen thousand (approximately 23%) of VWPA's customers are at or below the ALICE threshold for survival and self-sufficiency.[2] Later in his testimony, Mr. DeMarco utilizes a 2%-2.5% Bill to Income Ratio ("BTI"), based on a 2001 U.S. Environmental Protection Agency ("USEPA") publication to conclude that VWPA's proposal is not sufficient to meet the needs of its low income customers.[3] Based on this affordability metric, OCA recommends an alternative low-income discount program, illustrated in Table 2 below. OCA's proposal adds a tier by splitting the Company's proposed 1-100% FPL tier into two: 0-50% and 51-100% FPL; includes a 40% fixed charge discount, and increases the volumetric charge discount and underlying structure.

[1] OCA St. 6 at p. 16.
[2] OCA St. 6 at p. 3.
[3] OCA St. 6 at p. 12 and at p. 16.

Table 2- OCA Proposed Alternative Low-Income Discount[4]

Income % of FPL	Fixed Charge Discount	Fixed Charge	Volumetric Charge Discount	Monthly bill based on 3,500 gallons
0-50	40%	$11.88	$0 for first 6,000 gallons	$11.88
51-100	40%	$11.88	$0 for first 5,500 gallons	$11.88
101-150	40%	$11.88	$0 for first 4,000 gallons	$11.88
151-200	40%	$11.88	$0 for first 2,500 gallons	$23.58

CAUSE-PA witness Ballenger contends that the FPL fails to capture all customers within VWPA's service territory whose income is inadequate to afford basic needs, discusses a self-sufficiency standard, and suggests that a household's combined water and wastewater burden should not exceed 4% of household income.[5] Witness Ballenger utilizes the 4% standard to conclude that VWPA's proposed discounts may be expected to deliver affordable bills effectively for many customers, with the notable exception of very low income, high usage households.[6] Accordingly, Mr. Ballenger recommends an alternative low-income discount program, illustrated in Table 3 below.

[4] OCA St. 6 at p. 17, Table 8.
[5] CAUSE-PA St. 1 at p. 11,13

[6] CAUSE-PA St. 1 at p. 3

Table 3 – CAUSE-PA Proposed Changes to Veolia Bill Discounts

Poverty Level	Service Charge Discount	Volumetric Discount
0-50% FPL	$0 fixed charge	First 3,000 Gallons
51-100% FPL	$0 fixed charge	First 2,000 Gallons
101-150% FPL	$0 fixed charge	First 1,000 Gallons
151-200% FPL	$0 fixed charge	None
* $6 per month minimum bill		

Q. Do you agree with OCA's claim that the Company's proposal is not supported?

A. No. As stated in my direct testimony, VWPA's proposal is largely based on the review of programs provided by other Commission-regulated water utilities in the state, as well as input provided by the LIAC committee over the course of several meetings. As will be discussed in more detail below, I have been advised by counsel that the Commission has not adopted an affordability standard for water utilities. The four LIAC meetings held provided an opportunity for participants to discuss VWPA's CAP proposal. Representatives from the PUC, OCA, CAUSE-PA (The Pennsylvania Utility Law Project, "PULP"), and the Company were invited to participate in the LIAC meetings and elements of the program were discussed; see Exhibit JMJ-1-R (OCA-2-5 and OCA-8-6). The Company's estimation of customers that may need assistance is based on data provided by the PUC, as suggested by LIAC participants.

Q. Does the CAP or BDP proposed by VWPA in this case differ from what was discussed during the LIAC meetings?

A. No.

Q. Did any LIAC participant oppose VWPA's proposal during the meetings?

A. While contours of the proposal were discussed, no LIAC participant appeared to be opposed VWPA's proposal.

Q. Do parties to this proceeding find that VWPA's proposal will help low-income customers?

A. Yes. OCA witness DeMarco finds that "Veolia's proposed plan would reduce water bill burdens for households and, in that sense, would help promote affordability.[7] CAUSE-PA witness Ballenger believes that Veolia's proposal will substantially improve rate affordability for most low- income program participants.[8]

Q. Are the affordability standards utilized by OCA and CAUSE-PA the same?

A. No. They appear to be different standards, each based on different data sets.

Q. Has the Commission adopted an affordability standard for water and wastewater utilities?

A. I am advised by counsel that the Commission has not adopted an affordability standard for water and wastewater utilities. CAUSE-PA witness Ballenger also noted that the Commission has not adopted such a standard.[9] If the Commission

[7] OCA St. 6 at p. 12.
[8] CAUSE-PA St. 1 at p. 24
[9] CAUSE-PA St. 1 at p. 13

wishes to adopt such a standard, it should apply state-wide, and the determination should be reached in a different forum than the instant base-rate case proceeding.

Q. Please discuss the small low-income data set that VWPA provided during the discovery process.

A. In discovery, OCA requested a number of statistics for recorded customers from 0-200% FPL broken down into increments of 50% FPL. The Company does not collect income or number of household data except in instances where bill payment assistance has been requested (because it does not currently have a CAP program). The Company identified approximately 662 known residential customers at 0 to 200% of the Federal Poverty Level since 2019 based on payment arrangement plans. The Company also cautioned that it is a small, limited dataset. [10] When asked to provide calculations for water bills based on proposed low-income discount tiers, the Company cautioned that "disaggregating data by the low-income discount tiers proposed, i.e., further portioning an already small data set, will not render meaningful results as, for example, small data sets can produce skewed statistics due to a single or a few extreme observations."[11]

Q. Did any parties to the proceeding request additional information to explore the data set, potential skewness, or extreme observations?

A. No.

[10] Exhibit NAD-8 at p. 21.

[11] Exhibit JMJ-3-R

Q. Please explain why the Company expressed concerns about the small data set and the potential for skewed statistics.

A. As shown in Table 4 below, the 662 identified customers from 0-200% FPL identified since 2019 represents approximately 1% of the Company's entire residential customer base of approximately 65,000 residential customers. Partitioning known residential customers from 0-100%, 100-150%, and 150-200% yields smaller and less representative sample sizes, as shown in Table 4 below. The number of observations is small, particularly for those at 100-150% and 150-200% of the FPL, averaging 53 and 16, respectively for twelve months ending February 2024. Each low-income tier represents less than 1%, or a fraction of a percent, of the total residential population. Smaller sample sizes, particularly those with only 53 and 16 observations as shown in Table 4 below, can lead to statistics that are skewed due to outliers and lead to misleading conclusions. Accordingly, statistics utilized by OCA and CAUSE-PA related to FPL, household occupants, and consumption may lead to misleading conclusions about income level tiers and tier based consumption patterns. As an example, for customers at 150-200% of FPL, with only 16 observations, average consumption levels can easily skew upward if even one customer in this group experiences a significant leak. Witness DeMarco recognized that "while the data could be skewed due to a few low-income customers with higher usage for a number of reasons" he nonetheless based his recommendations on the data.[12]

[12] OCA St. 6 at p. 18.

Table 4

Number of Known Customers, By Tier, by Observation Count and Percentage of Total Residential Customer Population			
	# of Observations	% of Total Residential Customer Base	Notes:
Total Residential Customer Count	69,061	100%	CAUSE PA St. 1 pg. 7, CAUSE-PA I-2
Known Residential Customers 0-100% FPL	436	0.631%	Average count, March 2023 through Feb 2024
Known Residential Customers 100-150% FPL	53	0.077%	" "
Known Residential Customers 150-200% FPL	16	0.023%	" "

Q. Do you believe that the recommendations made by witnesses DeMarco and Ballenger based on the limited data set are reasonable?

A. No. Because the data set is so small, especially for certain income tiers, I believe designing the discount program based on potentially misleading conclusions regarding number of customers in each tier, as well as average consumption patterns, is incorrect. It is reasonable to assume that as the program is rolled out and enrollment increases, more data will be collected and thus, more credible conclusions can be drawn to inform additional future refinements.

Q. What concerns do you have about OCA's proposed discount design?

A. There are several. First, it is premature to add an additional income tier, as the BDP is a new program and very little data exists to assess need or associated cost. Each additional income tier requires additional programming of the Company's billing system, and has associated costs that will be borne by all VWPA's customers.

Secondly, the proposed 40% fixed charge discount is arbitrary. Additionally, administering a discount design as proposed by the OCA as well as CAUSE-PA

will likely cause significant programming to the Company's shared billing system related to the discounted fixed charge, the costs for which would be borne by VWPA's customers.

Third, the OCA volumetric charge discount levels of 6,000 gallons, 5,500 gallons, 4,000 gallons, and 2,500 gallons are based on potentially misleading conclusions drawn from the limited data set the Company was able to provide in discovery and that the OCA witness acknowledged may be skewed. While it is possible that low-income customers may have somewhat different usage patterns than other customers, the volumes suggested by OCA are quite large when compared to the much larger data set of all VWPA's residential customers. Exhibit LKF-3-R demonstrates that only 11% of all residential customers consumed 6,500 gallons per month or more; approximately 14% of all residential customers used 5,500 gallons per month or more, and approximately 29% of all residential customers used 4,000 gallons per month or more. The probability that low-income customers will reach the consumption levels in OCA's discount design is low. It is much more probable that customers (63%) will consume approximately 3,500 gallons or less. This means that for the overwhelming majority of low-income customers, under OCA's proposal they will have no volumetric charge and will only be charged the fixed meter charge. Such a price signal is not consistent with conservation goals.

Fourth, in response to goals articulated during LIAC committee meetings, VWPA's proposal is designed to provide the most assistance to those customers with the

lowest incomes. Because of its structure, OCA's proposal does not accomplish this, as demonstrated by the same estimated monthly bill of $11.88 for the 0-50%, 51-100%, and 101-150% FPL tiers.

Finally, while OCA attempted to quantify the costs associated with its proposed BDP changes, the calculation is internally inconsistent with reasoning used elsewhere in its analysis.[13] For example, OCA's cost estimate is based on 3,500 gallons per month, which is the system average monthly usage for all residential customers (regardless of income level) yet OCA's volumetric discount recommendation increases to 6, 5.5, and 4 thousand gallons per month based on the "low-income usage rates that were 'nearly twice' that of the overall population."[14] If OCA indeed believes this is the case, it is unclear why its cost analysis was performed at the system average of 3.5 thousand gallons per month (and resulting in a lower cost estimate) and not OCA's identified low-income usage levels. As another example, OCA estimates that within VWPA's service territory, 15,155 customers are at or below the ALICE threshold and are therefore in need. In providing a cost estimate, however, OCA adopted VWPA's much lower estimated CAP participant level of 1,625 customers, than a refined and likely increased number based on OCA's own ALICE threshold. OCA's BDP cost estimates are not consistent. If OCA's estimates are to be considered, the

[13] OCA St. 6 at p. 19.
[14] OCA St. 6 at p. 17.

additional cost to ratepayers resulting from the assumed increased participation should also reflect those estimates..

Q. What concerns do you have about CAUSE-PA's proposed discount design?

A. As stated above it is premature to add an additional income tier, as this is a new program and very little data to assess if there is a need for it, nor the associated administrative costs. Each additional income tier adds complexity to the billing system, requires additional programming of the Company's shared billing system, and has associated costs that will be borne by VWPA's customers. Additionally, CAUSE-PA did not assess the cost impacts of the BDP proposal changes including the estimated participation rates discussed above, which would be borne by all VWPA customers.

Q. Should the BDP program changes recommended by OCA or CAUSE-PA be adopted by the Commission?

A. No. The recommendations by OCA and CAUSE-PA should be rejected by the Commission.

Q. Would you like to clarify VWPA's arrearage forgiveness program?

A. Yes. It appears that there may have been a misunderstanding about VWPA's arrearage forgiveness proposal as it was articulated in my direct testimony. A large part of the misunderstanding, I believe, lies in differentiating two separate arrearage/payment programs as well as interchangeably used vocabulary. As a

result, Mr. Ballenger and Mr. DeMarco raised some concerns that I would like to alleviate, thus mitigating the need for some of their recommendations.

VWPA currently has an existing "payment arrangement plan" that is required by regulation, is available to all customers (regardless of income level) with past due bills, and is not part of the proposed CAP. This program provides flexible payment arrangements utilizing a payment scale based on the FPL, with plan durations of up to five years.[15] Program participants must pay their current bill *plus* the negotiated payment plan amount.

As part of the CAP, the Company is proposing a separate arrearage forgiveness program for participants of the CAP. To receive arrearage forgiveness, the customer must be enrolled in the CAP, which is available to customers at 0-200% FPL. Upon enrollment, arrearage balances will be frozen, not subject to a "payment arrangement plan" requiring minimum monthly payments. Rather, for each timely payment (inclusive of a 5 day payment grace period) of the current monthly bill, the customer will receive $25 toward the arrearage balance. As an example, if a customer enrolled in the CAP program with $250 in arrearages, that balance would be frozen, and should the customer pay all their current bills on time, the balance would be paid off in ten months (250/25 = 10). Additionally, the Company will consider all payments received by the Company made on behalf of

[15] Exhibit JMJ-2-R

the customer, such as grants from any state or federal assistance program or community based organization payment, as a payment made.

For clarity, a summary comparison of the two programs is provided in **Table 5** below.

Table 5.

Not Part of the CAP	Element of the CAP
Existing Payment Arrangement	**Arrearage Forgiveness Payments**

• Required by Regulation
• Available to customers regardless of income level
• Flexible payment arrangement
  ○ Up to 5 years to pay off balance in accordance with Exhibit JMJ-2
• Payment arrangement scale is based on FPL
• Must pay current bill PLUS the payment plan
	• Must be enrolled in CAP
	• Eligibility 0- 200% FPL
	• Freezes the amount in arrears at time of enrollment
	  ○ Arrears are not required to be paid down by a payment arrangement
	• Must pay *current* bill on time to receive $25 arrearage forgiveness
	• Allows for a 5 day payment grace period

I believe that with this clarification, the Company's proposal is consistent with Mr. D'Angelo's recommendations at page 22 and Mr. Ballenger's recommendations at page 29.

Q. Does the explanation alleviate all differences between the Company's proposal and the recommendations made by Mr. DeMarco and Mr. Ballenger?

A. No. Mr. Ballenger recommends that "each payment (or payments, in the case of partial payments) sufficient to satisfy a monthly CAP bill earn credit for forgiveness

of arrears, even if payment is not made within the five-day grace period."[16] Mr. DeMarco recommends that the Company should "credit arrearage forgiveness for each in full payment regardless of whether it is timely."[17]

Q. Do you agree with these recommendations?

A. No, for several reasons. First, accepting late payments is administratively burdensome and unwieldy to manage. For example, if a payment is weeks or months late, what month's previous bill should the payment actually apply to? Second, if payments are late, arrearages accrue, contrary to the goal of the program. Third, one of the goals of the program is to get customers on a regular payment cycle. While it is true that there may be customers with income instability that can have challenges paying bills on time, it is unreasonable to expect the Company to accommodate every individual circumstance. Finally, the BDP will reduce customer bills, reducing some of the challenges with timely payments in full.

Q. Witness Ballenger at page 30 recommends that Veolia convert to time- based arrearage forgiveness that will eliminate arrears ratably, in 1/24 increments, over a maximum of 24 bill payments, with $25 set as the minimum monthly arrearage forgiveness. Do you agree with this recommendation?

A. No. The Commission should reject this recommendation because Mr. Ballenger did not estimate costs for this recommendation; the recommendation would be

[16] CAUSE-PA St. 1 at p. 30.
[17] OCA St. 6 at p. 24.

administratively burdensome, requiring significant manual entry; as discussed elsewhere in this testimony the frameworks used by electric and natural gas utilities based on universal service programs (with cost recovery mechanisms) do not apply to water and wastewater utilities; and income recertification at 24-month intervals is not and should not be related to arrearage forgiveness timelines.

Q. Witness DeMarco at page 28 recommends that Veolia should adopt a program under which at the end of 36 in-full payments, the remainder of any outstanding preprogram arrears would be forgiven. Do you agree with this recommendation?

A. No, Mr. DeMarco's recommendation should not be adopted. Mr. DeMarco relies, in part, on the Commission's CAP Policy Statement for Pennsylvania's energy utilities. He also acknowledges that the policy statement is not binding.[18] As discussed above, the universal service framework for electric distribution companies ("EDCs") and natural gas distribution companies ("NDCs") is not applicable to water and wastewater utilities. To support his position, he states that at $25 forgiveness per month, one customer would need 8.5 years and another customer 9.5 years to achieve full forgiveness without broader context. Two customers with lengthy payment timelines are exceptions, not the rule, and should not be used as parameters for program design.

[18] OCA St. 6 at p. 28.

Q. Please summarize CAUSE-PA Witness Ballenger's recommendations for VWPA's Line Repair Program.

A. Witness Ballenger recommends that the Company should develop separate budgets for the program to perform internal repairs (from and after the meter) and external repairs (before and to the meter). He also makes a series of recommendations linking internal leaks and a comprehensive usage reduction strategy to the BDP and arrearage management components of the program. [19]

Q. Please respond to these recommendations.

A. Mr. Ballenger's recommendations are similar to those commonly found in a low-income usage reduction program ("LIURP") construct that was established for EDCs and NGDCs. Such requirements are part of EDC and NGDC universal service programs, which include cost recovery mechanisms and encompass obligations of the utility, which do not apply to water utilities. It is inappropriate to mandate such requirements on VWPA.

To implement these recommendations, VWPA would require additional staff, and manage both the liability and costs associated with repairing and replacing the infrastructure of low-income customers. Witness Ballenger does not assess the costs of this program or impacts on all VWPA's customers.

II. Program Administration

[19] CAUSE-PA St. 1 at p. 32

Q. CAUSE-PA witness Ballenger made several recommendations starting at page 33, recommending LIAC input for: RFP search parameters for the CAP administrator; characteristics of the administrator; and steps to ensure that the administrator's policies, procedures, and training materials related to its administration of Veolia's assistance programming support the data collection and review recommendations made in his testimony, and do not impose additional administrative or programmatic barriers to CAP access. Please discuss.

A. Mr. Ballenger's recommendations should not be accepted. First, LIAC involvement in VWPA's procurement process is inappropriate as these are legitimate business decisions that lie solely with the Company. Second, with respect to data collection and analysis related recommendations, VWPA does not believe that the Commission should mandate them, as the Company is making a significant stride by voluntarily proposing the CAP. The Company believes it should be afforded an opportunity to establish the program, develop some experience, and then assess opportunities for improvements and best-practices

B.

III. Community Education and Outreach

Q. **Please discuss the statement at page 11 of witness DeMarco's testimony: "this seems to mean that the Company will inform customers of the CAP program when they approach the Company when they have a difficult time paying their bill."**

A. Mr. DeMarco mischaracterizes my direct testimony, construing it to mean that the Company will only inform customers about the CAP program when they have problems paying their bill. Here is the full excerpt from my testimony:

> *Yes, the Company will continue to participate in community events and work with local agencies and also work with the customer service team to provide awareness to the customers we serve. I believe our customers will be reaching out to the Company for assistance on payment arrangements and termination notifications, and our customer service staff will be available to assist. In addition, the Company's website will be updated and the Company will provide bill inserts with program information.*

Informing customers of the CAP program when they reach out to the Company is but one example of how the Company intends to communicate with customers. Approaches to continually promoting low-income programs were discussed during the LIAC meetings as seen in Exhibit JMJ-1-R, recommendations were provided, and the Company intends to utilize these methods. VWPA will design a marketing plan to provide outreach to our customers utilizing various methods, which include and are not limited to community events, agency and community partnering, bill inserts, bill messaging, website notification and Customer Service notification.

Q. On pages 21-22 of his Direct Testimony, Mr. DeMarco discusses the Commission's Policy Statement on Customer Assistance Programs (52 Pa. Code §§ 69.261-69.267) with a focus on arrearage copayments and universal service programs, and claims "the principles articulated in that policy statement are equally applicable to water and wastewater as they would be to energy programs." Please respond.

A. By its own terms, the Commission's policy statement only applies to electric utilities and natural gas utilities. I am advised by counsel that the general rule of construction is that the expression or inclusion of one thing implies the exclusion of other things that are not mentioned. In other words, the presumption is that, by limiting the policy statement to the electric and gas industries, the Commission did not intend that it would apply to other industries, such as the telecommunications industry or the water and wastewater industry. The Commission no doubt had reasons for limiting the scope of its policy statement. Mr. DeMarco cannot ignore those reasons by claiming that the principles articulated in the policy statement are equally applicable to the water and wastewater industries.

Similarly, on pages 24-25 of his Direct Testimony, Mr. DeMarco discusses a Commission policy on pre-program arrearages and asserts "[i]n my view, this policy is persuasive as applied to water customers as well." While that may be Mr. DeMarco's view, but it is not the Commission's view as the Commission's policy statement does not apply to water customers.

I note, in this regard, that in *Review of All Jurisdictional Fixed Utilities' Universal Service Programs*, Docket No. M-2023-3038944, the Commission

requested that commenters address the following question: "Should the Customer Assistance Program ('CAP') Policy Statement be amended to include jurisdictional water public utilities, and, if so, what barriers if any exist to doing so and how can those barriers be overcome?" The Commission has not yet issued a decision in this matter.

While the Commission might modify the policy statement to apply to water utilities in the future, it has not done so yet. Even if the Commission does amend the policy statement to apply to water utilities in the future, it is unclear how the Commission will amend the policy statement to apply to water utilities. It should not be presumed that the Commission will reach all of the same conclusions regarding water utilities' customer assistance programs that it did for energy utilities' customer assistance programs. The Commission should state its policy first, and then rate case decisions should implement that policy, rather than rate cases trying to force the Commission's hand in establishing policy.

IV. CAP Program Participation and Costs

Q. Please discuss the challenges around estimating program participation and estimating program costs.

A. As stated in my direct testimony, the Company relied on statistics estimating poverty levels for Pennsylvania Counties as provided by Commission staff, as well as payment plan participation experience to estimate program enrollment and costs. Because this is a new program, it is difficult to estimate program

participation, which is exhibited by the significant differences in program participation estimated by various proceeding participants.

Q. What differences in program participation have been observed?

A. The Company estimates that approximately 3% of customers, or about 1,625, are likely to be eligible and participate.[20] Estimates based on statistics provided by CAUSE-PA and OCA are significantly higher. CAUSE-PA witness Ballenger states that the Company's estimate is low.[21] Mr. Ballenger estimates that approximately 22,100 customers could be potentially eligible to participate.[22] As a point of comparison, Mr. Ballenger states that Pennsylvania American Water Company and Pittsburgh Water and Sewer Authority each indicated that approximately 24% of estimated low income customers enrolled in CAP.[23] Using Mr. Ballenger's statistics, an estimated 5,304 (22,100*24%) customers are likely to participate in the program.

OCA witness DeMarco estimates that within VWPA's service territory, 15,155 customers are at or below the ALICE threshold and are therefore in need.[24] Witness DeMarco did not estimate program participation. However, if Mr.

[20] VWPA St. No. 7 at p. 11,
[21] CAUSE-PA at p. 26
[22] CAUSE-PA at p. 8
[23] CAUSE-PA at p. 26
[24] OCA St. 6 at p. 4.

Ballenger's 24% enrollment statistic is applied to Mr. DeMarco's estimate, an estimated 3,637 (15,155*24%) customers are likely to participate in the program.

Differences in program participation estimates are summarized in **Table 6** below.

Table 6 – Comparison of Number of Customers Likely To Participate in the CAP

	# of Participating Customers	% over VWPA Estimate
VWPA Estimate	1,625	
CAUSE PA Estimate	5,304	326%
OCA Estimate	3,637	224%

Q. Why do differences in program participation raise concerns related to cost recovery?

A. Based on the estimates provided above, program participation, and therefore, costs, may vary significantly. For example, utilizing the cost-estimate parameters that were used to derive the approximate $1M cost for the program discussed in VWPA Statement No. 6, Direct Testimony of James Cagle at a participation level of 3,637 as described above, the program cost would escalate to $1.7 million, or 70% more than initially estimated. At a participation level of 5,304, also described above the program costs would escalate to $2.4 million, or 135% more than initially estimated. If the program reached 100% enrollment for 22,100 customers, without changing any of the parameters of VWPA's proposal, costs could escalate to as high as $8.6 million, or 755% more than initially estimated.

It is precisely because of these significant variances, and the fact that such a program is new for VWPA, that the Company proposes a cost deferral until the next base rate case. The cost deferral treatment is addressed by Company witness Cagle.

Q. Page 30 of Mr. DeMarco's testimony states that "the costs of Veolia's bill discounts and arrearage forgiveness programs are not 'new' costs to the company." Please respond.

A. I&E witness Okum also made a similar statement: "this is a new program for VWPA with no historic data on which to base a budget." VWPA believes that the very nature of a new program entails new costs.

Mr. DeMarco states that VWPA "already engages in many of the activities which would be needed to implement the bill discount and arrearage forgiveness programs" citing an example that VWPA "already has processes in place through which it determines a customer's income for purposes of calculating a payment arrangement." However, Mr. DeMarco does not consider that the payment arrangement plan is small, facilitated by manual entries and is not sustainable for a larger-scale CAP. Additionally, the Company does not have an established arrearage forgiveness program. A PUC Bureau of Consumer Services report cited by Mr. DeMarco includes a comprehensive list of CAP administrative costs, many of which will be newly incurred by the Company.[25] Administrative costs include

[25] OCA St. 6 at footnote 77.

contract and staffing, account monitoring, intake, outreach, consumer education and conservation training, recertification processing, computer programming, program evaluation and other fixed overhead costs. Account monitoring costs include collection expenses, as well as other operation and maintenance expenses.

Q. At page 33 of his direct testimony, Mr. DeMarco recommends a downward adjustment to Veolia's proposed administrative cost from $200,000 to $118,445. Please discuss.

A. Mr. DeMarco recommends this downward adjustment on the contention that the estimate is not supported. He calculated the administrative cost of 28%, which he believes is "unreasonably high" when compared to those of Penn Power and costs associated by the Commonwealth of Pennsylvania in its distribution of federal Low-Income Home Energy Program (LIHEAP) funds.

Mr. Demarco's calculated administrative cost rate of 28% ($200,000/$714,445 of bill discount and arrearage forgiveness credits) is based on the Company's estimated costs based on approximately 1,600 customers. As discussed, estimating program enrollment is, at this time challenging. Both Mr. DeMarco and Mr. Ballenger contend that more customers than estimated by the Company will need assistance which would, logically, increase the denominator and reduce the calculated cost rate. As discussed above, utilizing participation estimates that Mr. DeMarco and Mr. Ballenger presented in their testimony would significantly increase the costs of the program. Comparing VWPA to Penn Power

or other entities in the cited PUC Bureau of Consumer Services report may not be appropriate as those EDCs and NGDCs are operating under a universal service construct (not applicable to water and wastewater utilities) with cost recovery mechanisms and size differences (e.g., Penn Power reports roughly double VWPA's residential customer count.).[26] In a similar vein, because of size and program differences, the Company believes it is not appropriate to compare VWPA administrative costs to Commonwealth-wide LIHEAP administrative cost ratios. It is not clear that Mr. DeMarco is comparing apples to apples. As a result, the Company's estimate is appropriate to utilize in this Case.

V. Veolia Cares

Q. Please summarize the recommendations for the Veolia Cares program made by CAUSE-PA.

A. CAUSE- PA witness Ballenger recommends that VWPA Maintain its $50,000 per year contribution to the Veolia Cares program, with unspent funds rolling over to the following year; VWPA work with its LIAC to establish objective criteria for program eligibility to guide disbursement of these limited funds; VWPA target Cares funds to help resolve large balances, bill spikes due to leaks, customers whose service has been terminated, customers with medical needs, and customers suffering domestic violence issues. [27]

[26] *Id.*

[27] CAUSE-PA St. 1 at p. 21.

Q. Please summarize the recommendations for the Veolia Cares program made by OCA.

A. OCA witness DeMarco recommends that VWPA emergency sewer grant should be increased from $150 to $300.

Q. Please respond to these recommendations.

A. As Mr. Ballenger acknowledged, as a result of the settlement in the Veolia/SUEZ acquisition proceeding, Veolia committed to contributing $50,000 to the SUEZ Pennsylvania Utilities' Cares grant program annually until its next base rate case (i.e., the current case). Thereafter, Veolia committed to contributing a minimum of $20,000 annually, though a higher annual contribution level may be established as part of this proceeding. Because voluntary shareholder contributions are utilized to fund Veolia Cares, I am advised by counsel that the Commission cannot order a utility to increase such contributions. VWPA has not proposed to increase shareholder funding levels in this proceeding but has committed to maintaining the $20,000 annual contribution level as agreed upon in the acquisition settlement. Because Veolia Cares is shareholder funded, VWPA also believes that it is inappropriate for the Commission to direct how these funds are administered.

No wastewater customer has requested assistance from the Veolia Cares program and, given the small number of wastewater customers, it is premature to increase wastewater grants.

Q. Should the recommendations of CAUSE-PA and OCA be adopted by the Commission?

A. No.

VI. Wastewater

Q. What recommendations have been made regarding a wastewater CAP?

A. Witness Ballenger recommends that the Company provide a 50% discount to wastewater customers with income between 51% and 200% FPL, and 75% discount to wastewater customers with income at or below 50% FPL.[28] Witness DeMarco appears to not oppose the Company's proposal to refrain from offering a wastewater program until after the water program is rolled out, and the Company can learn from the water program.

Q. Do you believe that Mr. Ballenger's recommendations should be adopted?

A. No. It is premature to offer a wastewater customer assistance program, as need has not been established. As articulated previously, VWPA currently has Veolia Cares available for wastewater customers and no grants have been requested or rendered since its ordination. Finally, there would be additional administrative costs associated with this program, which would reach, at maximum, 268 wastewater only customers and 1,220 combined water and wastewater customers.[29]

Q. Do you have any closing remarks?

[28] CAUSE-PA St. 1 at p. 25.

[29] OCA St. 6 at p. 2.

A. Yes. Many of the recommendations made in this proceeding, particularly those related to community outreach, program eligibility requirements, low-income conservation proposal (line repairs), etc., are attempts to impose principles of the universal service framework on VWPA despite the fact that there are no universal service requirements (or cost recovery mechanisms) applicable to water or wastewater utilities.

The costs associated with implementing the multitude of CAP recommendations made in this proceeding are significant. For example additional staff may be needed to administer the program, track data and metrics, and engage in all of the community outreach recommended in this proceeding.

It is the Company's position that bill affordability should be balanced against increased cost burdens on all other customers, as well as the interests of the Company.

Q. Does this conclude your rebuttal testimony?

A. Yes. However, I reserve the right to supplement my testimony as additional issues and facts arise during the course of the proceeding. Thank you.

VERIFICATION

I, Judith McCoy Jordan, hereby state that the facts set forth above are true and correct to the best of my knowledge, information and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: 6/25/24

Judith McCoy Jordan

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

EXHIBITS TO ACCOMPANY REBUTTAL TESTIMONY

OF

JUDITH MCCOY JORDAN

REGARDING

LOW INCOME PROGRAM

VEOLIA WATER PENNSYLVANIA, INC.

June 2024

OCA-2-5 In the Recommended Decision for the Joint Application of Veolia Environment S.A., et al., for approval under the Pa. Public Utility Code for the change in control of Suez Water Pennsylvania, Inc and Suez Water Bethel Inc., docketed at A-2021-3026515, and adopted by the Pa. Public Utility Commission in an order dated December 2, 2021, a settlement was approved that stipulated that Veolia would establish a Low Income Advisory Committee ("LIAC"). Related to the LIAC, please answer the following questions. How often and on what dates has the LIAC met since its inception?

a. How often and on what dates has the LIAC met since its inception?

b. What members have participated in the LIAC?

c. What changes to the Company's low-income programs have been proposed by the LIAC, including:
   i. Bill discount programs based on a percentage of the bill, percentage of specific charges, or percentage of household income?
   ii. Arrearage management components?
   iii. CARES grant components?
   iv. Service Line Leak Repair and Conservation Components for low-income customers?

d. If there are any future LIAC meetings scheduled, please give the dates and any known topics to be discussed.

e. What amount of money has Veolia shareholders proposed to contribute to support low-income program changes in the current Base Rate Case?

f. What amount of money has Veolia shareholders contributed to support low- income program changes since its acquisition of SUEZ?

g. Describe any promotion through public advertising and community outreach within the Veolia service territory of the CARES program and other low-income programs that Veolia has made since its acquisition of SUEZ.

Answer:

a. The LIAC convened on the following dates: June 10, 2022; December 7, 2022; October 31, 2023; and January 19, 2024.

b. The members and member alternates that have been invited to participate in the meetings are as follows:

Allison Kaster - Bureau of Investigation and Enforcement (PUC)
Christine Maloni Hoover - Office of Consumer Advocate (OCA)
Teresa Wagner - Office of Consumer Advocate (OCA)
Megan Evans Klemick - Office of Consumer Advocate (OCA)

Christian Morris - Office of Consumer Advocate (OCA)
Erin Gannon - Office of Consumer Advocate (OCA)
Erin Fure- Office of Small Business (OSBA)
Joseph Magee - PA Bureau of Consumer Services (PUC)
Jen Johnson - PA Bureau of Consumer Services (PUC)
Nathan Froehlich- PA Bureau of Consumer Services (PUC)
John Sweet - The Pennsylvania Utility Law Project (PULP)
Elizabeth Marx - The Pennsylvania Utility Law Project (PULP)
Ria Pereira - The Pennsylvania Utility Law Project (PULP)

Committee Participants:
Kay Pickering - Harrisburg Center for Peace & Justice
Matthew Rich - Mid Penn Legal Services
Jonathan Nase - Cozen O'Connor - Attorney
Larry Finnicum - Vice President/General Manager Veolia Water Pennsylvania
James Cagle - Vice President, Rates and Regulatory Affairs - Veolia
Kevin Loncar - Customer Service Manager - Veolia
Leigh Ann M. Urban - Community and Community Relations Manager - Veolia
Judith McCoy Jordan - Director of Programs - Veolia

c. The Company collaborated with the CIAC by providing a proposal, soliciting feedback, and incorporating the feedback in the proposed CAP. All elements of the proposed CAP were discussed.

d. Currently future LIAC meetings have not yet been scheduled.

e. Please refer to VWPA Statement No. 7, Direct Testimony of Judith Jordan, page 3 line 17 through page 4 line 4.

f. See response to sub-part e above. The $300,000 earmarked funds have not yet been spent, as there is not yet a Commission approved CAP on which to spend the funds.

g. Veolia utilizes a variety of resources for public advertising and community outreach within the Veolia service territory to promote the Veolia Cares Program including:
- The Company website, MYWATER.VEOLIA.US; the homepage (landing page) provides an option for additional information on financial assistance.
- Veolia Water Facebook Page monthly posts.

- All residential customers receive a monthly billing onsert "Get Help Paying Overdue Water Bills," which connects the customer to information about the Veolia Cares Program.
- At Community events, Veolia distributes Veolia Cares Brochures.
- Veolia works with some of our Community Giving Partners to promote Veolia Cares including Salvation Army Harrisburg & AGAPE Love from Above (in Bloomsburg). These agencies promote Veolia Cares to their clients in need.
- In 2023 the company began sending conservation kits to customers that received Veolia Cares Grants.

Answer provided by:	Judith Jordan
Title:	Director of Programs
Address:	6310 Allentown Blvd. Suite 104 Harrisburg, PA 17112
Date:	March 11, 2024

OCA-8-6 For each Low-Income Advisory Committee (LIAC) meeting since January 2021, please provide:

a. The written agenda for the meeting;

b. The written minutes of the meeting;

c. A copy of all written materials distributed to LIAC members prior to the meeting;

d. A copy of all materials distributed or discussed at the meeting;

e. A copy of all written input received from a LIAC member either at or between meetings.

Answer:

a) See Data Request OCA-8-6 a Attachment.
b) N/A
c) See response to Data Request OCA-8-6 a.
d) See Data Request OCA-8-6 d Attachment.
e) See Data Request OCA-8-6 e Attachment.

Answer provided by:	Judith Jordan
Title:	Director of Programs
Address:	6310 Allentown Blvd. Harrisburg, PA 17112
Date:	3/22/24

Agenda
LIAC Committee Meeting
October 31, 2023
10:00 AM

I. Welcome

II. Low Income Program Participation Review

- Veolia Cares
- Conservation Kit Distribution
- LIHWAP Participation
- ERAP Participation
- PHFA Participation

III. Community Outreach & Program Participation

IV. Future Low Income Program Plan Discussion

- Bill Discount Program
- Arrearage Forgiveness
- SUEZ Cares Grant Component
- Conservation
- Service Line Repair

Good Afternoon LIAC Committee Members and Participants,
The Agenda link is listed above for our meeting scheduled for
December 7, 2022 for our 2nd LIAC Committee Meeting for the year.
This meeting is virtual and alternates have also been included to this invite.

Thank You,
Judy McCoy Jordan

SAVE THE DATE!

Good Afternoon LIAC Committee Members,
Veoila Water Pennsylvania Inc. f/k/a SUEZ Water Pennsylvania Inc. proposes June 10th for our first LIAC Committee Meeting. A virtual meeting is being proposed.
Alternates have also been included in this invite.
The Agenda will follow closer to the scheduled date.

Thank You,
Judy McCoy Jordan

SAVE THE DATE!

Good Afternoon LIAC Committee Members,
Veoila Water Pennsylvania Inc. f/k/a SUEZ Water Pennsylvania Inc. proposes June 10th for our first LIAC Committee Meeting. A virtual meeting is being proposed.
Alternates have also been included in this invite.
The Agenda will follow closer to the scheduled date.

Thank You,
Judy McCoy Jordan

AGENDA

I. Introductions

II. Invitation List for future meetings

- **Community based organizations, social service providers, and other interested parties' recommendations**

III. Customer Service Policies

- **Language Access**
- **Protection from Abuse (PFA)**
- **Discontinuance of service to leased premises (Leased Premises Act)**

IV. Low Income Program participation

- **Veolia Cares**
- **LIHWAP Participation**
- **ERAP Participation**

V. Future Low Income Program Plan Discussion

- **Bill Discount Program**
- **Arrearage Forgiveness**
- **Veolia Cares Grant Component**
- **Conservation**
- **Service Line Repair**

VI. Next scheduled meeting

Good Afternoon,

This is a friendly reminder of our LIAC Committee meeting scheduled for October 31, 2023. The agenda is attached; please let me know if you are unable to open the document.

Thank You, Judy McCoy Jordan

AGENDA

I. Introductions

II. Welcome of New Committee Participants

III. Low Income Program Participation Review

- Veolia Cares
- LIHWAP Participation
- ERAP Participation
- PHFA Participation

IV. Outreach Recommendations from Committee

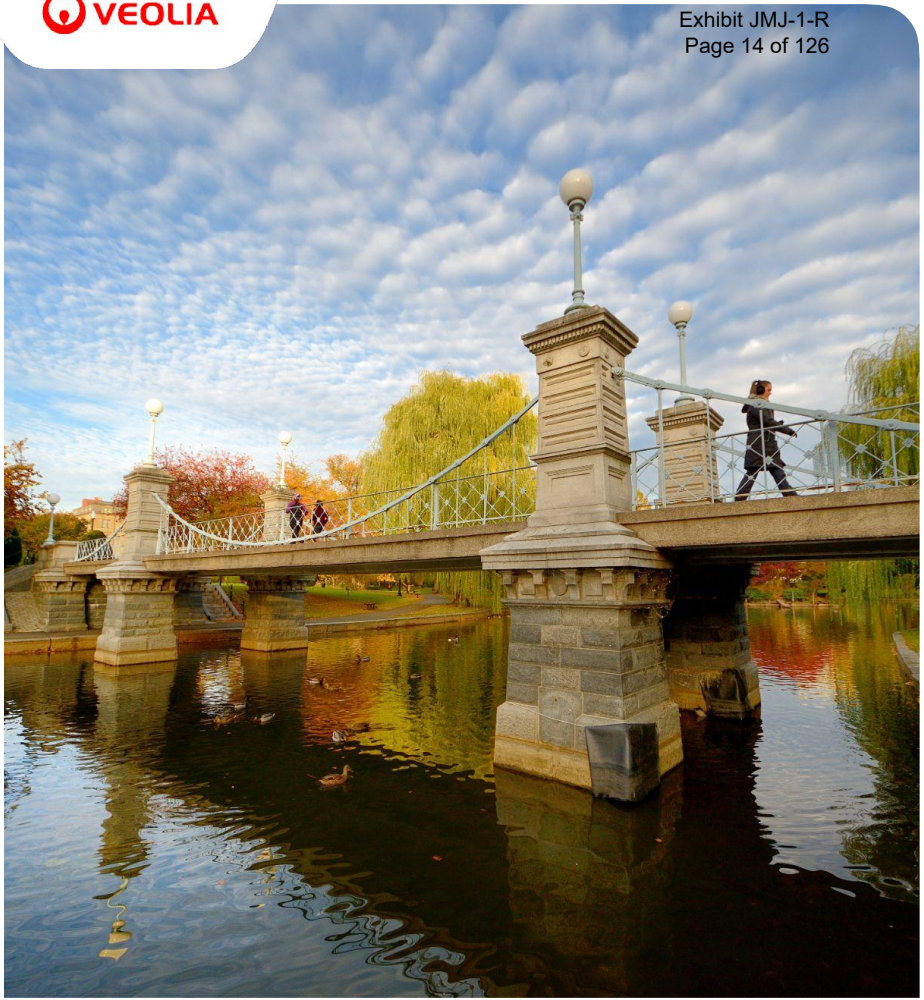
V. Future Low Income Program Plan Discussion

- Bill Discount Program
- Arrearage Forgiveness
- SUEZ Cares Grant Component
- Conservation
- Service Line Repair

Veolia North America Low Income Advisory Committee (LIAC)

June 10, 2022

2022



AGENDA

01 Introductions

02 Customer Service Policies

03 Low Income Program Participation

04 Future Low Income Program Plan Discussion

05 Invitation List for Future Meetings

06 Next Scheduled Meeting

Introductions

Interested Parties

- Office of Consumer Advocates Office (OCA)
- CAUSE-PA
- PA Office of Small Business Advocate (OSBA)
- Bureau of Consumer Services (BCS)
- Investigation & Enforcement (I&E)
- Veolia Attorney Representation - Cozen O’Connor
- Veolia Representatives

Customer Service Policies

Language Line for Interpretation Services

Overview: Those customers that have been identified as speaking Spanish please refer to our Spanish Speaking Customer Service Representatives. If they are not available, please utilize the language line for Spanish and all other languages that require assistance.

Quick Reference for over the phone Interpretation Services:

- Step 1: Dial 1-866-8743972
- Step 2: Enter the 6-digit Client ID
- Step 3: Press 1 for Spanish
- Step 4: Press 2 for all other languages and speak the name of the language you need at the prompt.
- Step 5: Provide a summary to the interpreter and inform them what you wish to accomplish.

Customer Service Policies cont.

Protection From Abuse – PFA

Overview: If a customer informs the company, they have a Protection From Abuse order (PFA) please handle all information confidentially. This order is issued because someone has been experiencing domestic violence. The protection from abuse order can be sent to our collection representative who will work with the supervisor or manager.

- Step 1: Immediately set up a PFA alert and cancel any collection activity to prevent the customer from receiving termination notices
- Step 2: If services have been shut off; restore immediately
- Step 3: Provide the customer with programs that can assist them with their water bill
    - Veolia Cares (New Jersey Shares)
    - LIHWAP
    - ERAP

Please Note: The collection representative, supervisor or manager will contact the customer and assist them in maintaining their services. This is a lengthy process which may be in place for a long period of time.

Customer Service Policies cont.

Discontinuance of service to leased premises (Leased Premises Act)

Overview: Tenant landlord accounts- when the account is in the landlord's name and residential tenants live within the premise. Typically, this is one meter servicing various units.

- Step 1: A reminder notice will be mailed to the Landlord
- Step 2: A “Health Monitor” report is provided daily to the CSR handling collection activities which identifies those landlords that have a past due balance
- Step 3: Those landlords that are behind 2 bills are to be reached and informed that payment must be made to avoid contacting the occupants (tenants) of the property directly.
- Step 4: If payment can not be made, set up a payment arrangement to be paid off within 18 months, amount towards arrears plus current bills.
- Step 5: If payment is not made in accordance to the agreement proceed with the steps below: (the goal is to avoid collection processing which may require a tenant to pay the past due amount of the past due current bill.

Customer Service Policies cont.

Discontinuance of service to leased premises (Leased Premises Act)

Collection Processing:

- A 37- day notice will be sent certified mail to the landlord or hand delivered to the landlord's place of business.
- The Landlord is responsible for paying the bill within 10 days or providing the company with the tenant names.
- Step 2: A 30- day notice of termination will be mailed if tenant names are received; otherwise, each individual unit of the property will be posted. In addition, a notice will be posted in the common area of the property. If tenant is not home during the time of the visit, a second attempt will be made after hours or over the weekend.
- Tenants can come together to pay one month's bill and deduct if from their rent; their notice will indicate the amount they can pay.

Customer Service Policies cont.

Residential Termination Processing for Medical Certificates:

- Customers are entitled to a total of 5 medical certificates. (previously 1 med cert and 2 renewals were accepted for a total of 3)
- Medical certificates are accepted on the doctor's/medical facility's letterhead
- Customers have 14 days to provide the medical documentation
- Notify collections to place a temporary hold on the account until the documentation is received
- Set up payment arrangements in accordance to the customers income
- Please have the customer text, fax or email to the customer service portal email group. Once received upload the document to the account.
- Once documentation is uploaded send a copy to the collection team to cancel the collection process for 30 days.
- Please document the medical certificate and mark it for 30 days out.

Low Income Program Participation

Veolia Cares

- Provides assistance to past due customers experiencing a financial crisis
- Administered by New Jersey Shares

LIHWAP

- A low-income program that assist past due customers with their water and sewer bills
- Administered by the Department of Human Services

ERAP

- An emergency rental assistance program that provides rental and utility assistance
- Administered by the department of Human Services

Veolia Cares Company Contributions (formerly SUEZ Cares)

Veolia Increased Grant Amount of Company Contributions in December of 2021

- Households can now obtain grants up to $300.00 per year
- Funds continue to remain available
- Customers are currently utilizing LIHWAP funding in 2022

	2020	2021	2022
Customers	52	109	13
Veolia Contributions	$6,990	$15,100	$1,664

Veolia Cares Customer Brochure

Need Help With Your Water Bills?

A financial crisis can happen to anyone, regardless of age, income or family situation.

These challenges are often due to unforeseen circumstances, such as a job loss or illness. We understand, and we're here to help. Veolia Cares, a water assistance program created by Veolia and New Jersey SHARES, provides relief to people facing temporary financial crisis.

Working through a network of community-based social service agencies, Veolia Cares provides limited grants to pay residents' water bills. We know you already have enough things to worry about. Paying your water bill shouldn't be one of them. All we ask is that you meet the basic eligibility requirements outlined inside.

For Additional Information

For more information about Veolia Cares, or to apply for a grant, please visit **cares.veolia.org**, or contact us toll free at **1-888-942-8080**.

Veolia Cares is supported by Veolia and administered by New Jersey SHARES.

New Jersey SHARES
4 Walter E. Foran Boulevard, Suite 105
Flemington, NJ 08822

Questions? Call toll free **1-888-942-8080** for assistance.

cares.veolia.org

Veolia Cares

Veolia Cares Customer Brochure cont.

Eligibility Requirements:

The program is available to residential customers who:

- Have established water service with Veolia
- Are experiencing a financial crisis, such as a job loss or illness
- Have made a good faith payment of at least $20 within 90 days of applying

State-specific grant thresholds determine how much you can receive.

Veolia Cares is financially supported by Veolia and administered in NY, NJ, PA, and DE by New Jersey SHARES, a non-profit organization that provides assistance to eligible households for paying their energy, telephone, broadband (internet), and water bills.

cares.veolia.org

Residence and Billing

The water bill must be in the applicant's name. Acceptable exceptions to the bill being in the applicant's name:

- The bill is in the spouse's name and the spouse still resides in the home or is deceased.
- The applicant is elderly or disabled and a volunteer, family member, or social worker who has a letter of authorization, is applying on his/her behalf.

Required Documents:

Below is the list of documents you will need in hand when you apply. NJ SHARES must receive your documents within ten business days of your submitted application.

- Proof of ID
- Signed application
- Most recent Veolia water bill

Status with Veolia

The water customer's account balance must be past due.

Good faith payment: Applicants must have paid at least $20 on their account within the last 90 days. If the good faith payment was not made in the last 90 days, applicant must make the payment before applying.

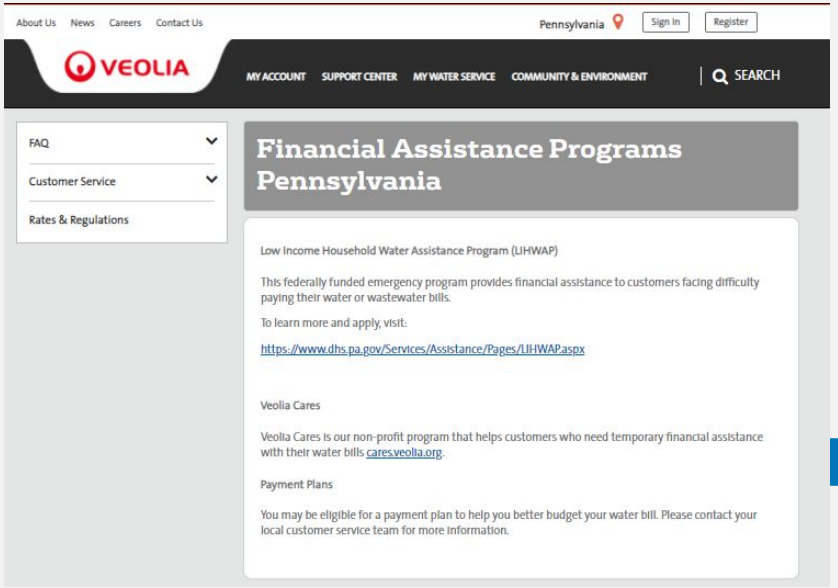
The good faith payment must clear before Veolia can verify payment has been made.

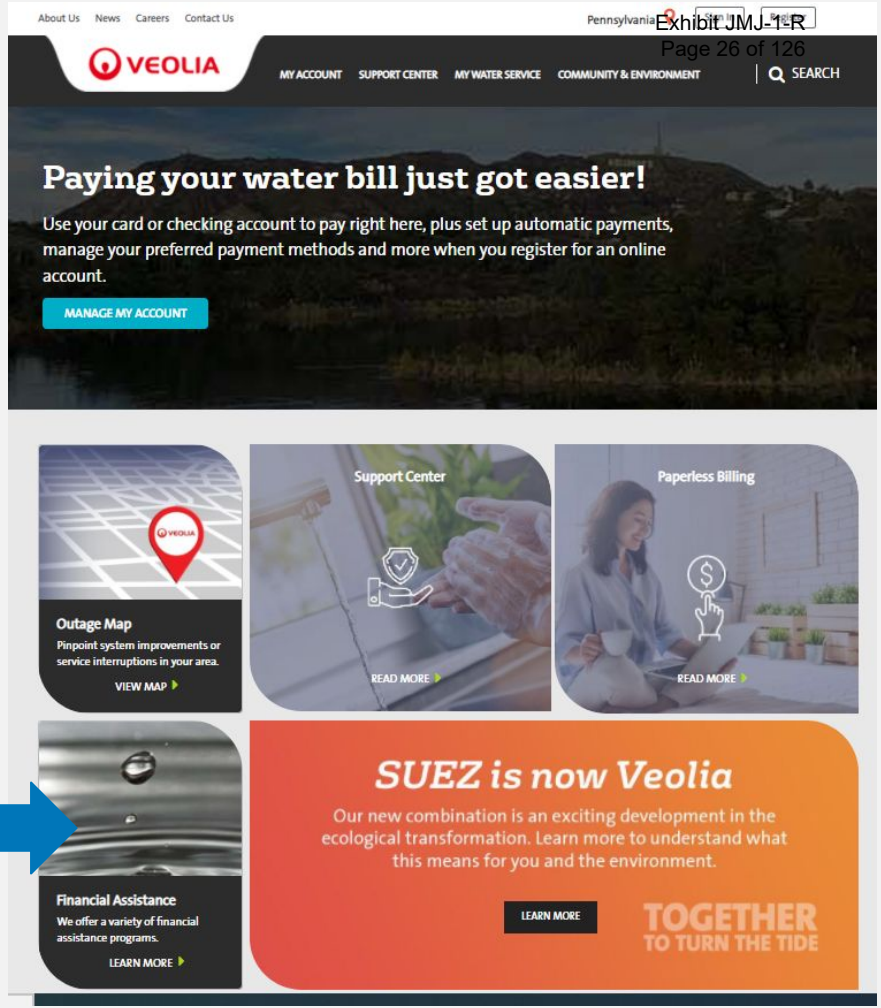
- Grants must be used for consumption charges only. They cannot be used for deposits, reconnection fees or repairs.
- Customers can apply for a grant once in a calendar year.
- Customers will not receive a credit balance.

Veolia
Cares

Web Information

Customers can easily access financial assistance information directly from the homepage of mywater.veolia.us





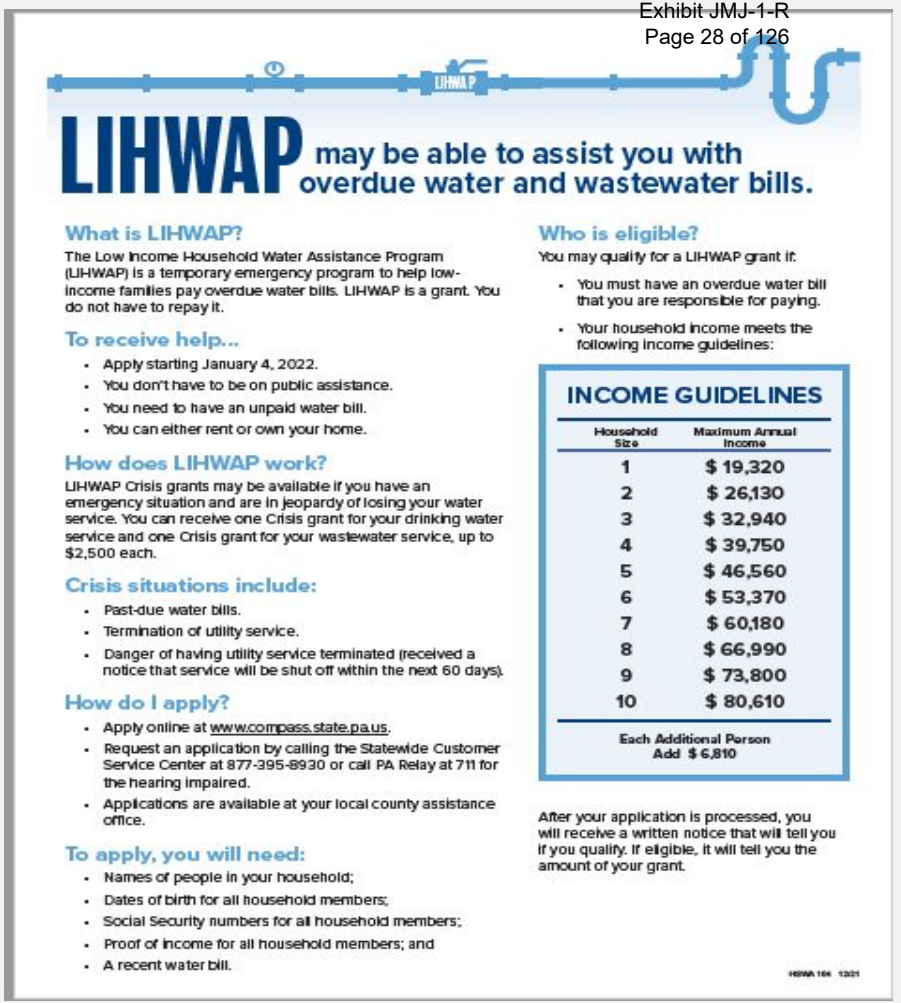
Promoting Low Income Programs Moving Forward

- Integrate program information into our automated reminder phone calls utilizing Televox
- Add messaging to Payment Plan agreements
- Include a bill insert for Veolia Cares
- Hand out brochures at community events
- Distribute brochures to libraries, town halls and community centers
- Utilize digital and social media to educate and inform customers

LIHWAP Contributions

. LIHWAP Flyer used as billing Onsert

	2020	2021	2022
Customers	0	0	235
LIHWAP Contributions	$0	$0	$77,701



LIHWAP may be able to assist you with overdue water and wastewater bills.

What is LIHWAP?

The Low Income Household Water Assistance Program (LIHWAP) is a temporary emergency program to help low-income families pay overdue water bills. LIHWAP is a grant. You do not have to repay it.

To receive help...

- Apply starting January 4, 2022.
- You don't have to be on public assistance.
- You need to have an unpaid water bill.
- You can either rent or own your home.

How does LIHWAP work?

LIHWAP Crisis grants may be available if you have an emergency situation and are in jeopardy of losing your water service. You can receive one Crisis grant for your drinking water service and one Crisis grant for your wastewater service, up to $2,500 each.

Crisis situations include:

- Past-due water bills.
- Termination of utility service.
- Danger of having utility service terminated (received a notice that service will be shut off within the next 60 days).

How do I apply?

- Apply online at www.compass.state.pa.us.
- Request an application by calling the Statewide Customer Service Center at 877-395-8930 or call PA Relay at 711 for the hearing impaired.
- Applications are available at your local county assistance office.

To apply, you will need:

- Names of people in your household;
- Dates of birth for all household members;
- Social Security numbers for all household members;
- Proof of income for all household members; and
- A recent water bill.

Who is eligible?

You may qualify for a LIHWAP grant if:

- You must have an overdue water bill that you are responsible for paying.
- Your household income meets the following income guidelines:

INCOME GUIDELINES

Household Size	Maximum Annual Income
1	$ 19,320
2	$ 26,130
3	$ 32,940
4	$ 39,750
5	$ 46,560
6	$ 53,370
7	$ 60,180
8	$ 66,990
9	$ 73,800
10	$ 80,610

Each Additional Person Add $ 6,810

After your application is processed, you will receive a written notice that will tell you if you qualify. If eligible, it will tell you the amount of your grant.

ERAP Contributions

- An emergency rental assistance program that provides rental and utility assistance
- Administered by the department of Human Services

	2020	2021	2022
Customers	0	27	37
ERAP Contributions	$0	$10,283	$6,653

Future Low Income Program Plan Discussion

- Bill Discount Program
- Arrearage Forgiveness
- Veolia Cares Grant Component
- Conservation
- Service Line Repair

Invitation List for Future Meetings

- **Recommendations of Interested Parties:**
  - Community Based Organizations
  - Social Service Providers

THANK YOU!

Veolia North America Low Income Advisory Committee (LIAC)

October 31, 2023

2023

AGENDA

01 Welcome

02 Low Income Program Participation

03 Community Outreach & Program Participation

04 Future Low Income Program Plan Discussion

Welcome

Interested Parties

- Office of Consumer Advocates Office (OCA)
- CAUSE-PA
- PA Office of Small Business Advocate (OSBA)
- Bureau of Consumer Services (BCS)
- Investigation & Enforcement (I&E)
- Veolia Representatives
- Attorney Representation - Cozen O’Connor

Low Income Program Participation Review

2023

Veolia Cares

- Provides assistance to past due customers experiencing a financial crisis
- Administered by New Jersey Shares

LIHWAP

- A low-income program that assist past due customers with their water and sewer bills
- Administered by the Department of Human Services

ERAP

- An emergency rental assistance program that provides rental and utility assistance
- Administered by the Department of Human Services

PHFA

- Housing program to assist PA homeowners facing financial hardship due to COVID-19
- Administered by the PA Housing Finance Agency

Veolia Cares Company Contributions (formerly SUEZ Cares)

Veolia Increased Grant Amount of Company Contributions in December of 2021

- Households can now obtain grants up to $300 per year for water
- Households can now obtain grants up to $150 per year for sewer
- Funds continue to remain available
- Customers are currently utilizing LIHWAP funding in 2022

	2020	2021	2022	2023
Customers	52	109	50	161
Veolia Cares Contributions	$6,990	$15,100	$10,603	$36,434

Veolia Cares Customer Brochure

Need Help With Your Water Bills?

A financial crisis can happen to anyone, regardless of age, income or family situation.

These challenges are often due to unforeseen circumstances, such as a job loss or illness. We understand, and we're here to help. Veolia Cares, a water assistance program created by Veolia and New Jersey SHARES, provides relief to people facing temporary financial crisis.

Working through a network of community-based social service agencies, Veolia Cares provides limited grants to pay residents' water bills. We know you already have enough things to worry about. Paying your water bill shouldn't be one of them. All we ask is that you meet the basic eligibility requirements outlined inside.

For Additional Information

For more information about Veolia Cares, or to apply for a grant, please visit **cares.veolia.org**, or contact us toll free at **1-888-942-8080**.

Veolia Cares is supported by Veolia and administered by New Jersey SHARES.

New Jersey SHARES
4 Walter E. Foran Boulevard, Suite 105
Flemington, NJ 08822

Questions? Call toll free **1-888-942-8080** for assistance.

cares.veolia.org

Veolia Cares

Veolia Cares Customer Brochure (continued)

Eligibility Requirements:

The program is available to residential customers who:

- Have established water service with Veolia
- Are experiencing a financial crisis, such as a job loss or illness
- Have made a good faith payment of at least $20 within 90 days of applying

State-specific grant thresholds determine how much you can receive.

Veolia Cares is financially supported by Veolia and administered in NY, NJ, PA, and DE by New Jersey SHARES, a non-profit organization that provides assistance to eligible households for paying their energy, telephone, broadband (internet), and water bills.

cares.veolia.org

Residence and Billing

The water bill must be in the applicant's name. Acceptable exceptions to the bill being in the applicant's name:

- The bill is in the spouse's name and the spouse still resides in the home or is deceased.
- The applicant is elderly or disabled and a volunteer, family member, or social worker who has a letter of authorization, is applying on his/her behalf.

Required Documents:

Below is the list of documents you will need in hand when you apply. NJ SHARES must receive your documents within ten business days of your submitted application.

- Proof of ID
- Signed application
- Most recent Veolia water bill

Status with Veolia

The water customer's account balance must be past due.

Good faith payment: Applicants must have paid at least $20 on their account within the last 90 days. If the good faith payment was not made in the last 90 days, applicant must make the payment before applying.

The good faith payment must clear before Veolia can verify payment has been made.

- Grants must be used for consumption charges only. They cannot be used for deposits, reconnection fees or repairs.
- Customers can apply for a grant once in a calendar year.
- Customers will not receive a credit balance.

Veolia
Cares

Conservation Kit Distribution

Dear Valued Customer:

Our records indicate you were a recipient of a *Veolia Cares Grant*. We are here to support you, and to show our support, you will be receiving a water conservation box to further help you in reducing your future water bills.

This conservation box includes several products to help in reducing water usage, such as a low flow showerhead and faucet aerators that reduce the amount of water you utilize by maintaining the same amount of pressure. Please install these items at your earliest convenience so that you can start your monthly savings.

Look for your box in the mail shortly after receiving this letter.

Sincerely,
Veolia Water Customer Service
888-299-8972

LIHWAP Contributions

	2020	2021	2022	2023
Customers	0	0	390	58
LIHWAP Contributions	$0	$0	$131,168	$15,437

ERAP Contributions

- An emergency rental assistance program that provides rental and utility assistance
- Administered by the Department of Human Services

	2020	2021	2022	2023
Customers	0	27	43	0
ERAP Contributions	$0	$10,283	$7,270	$0

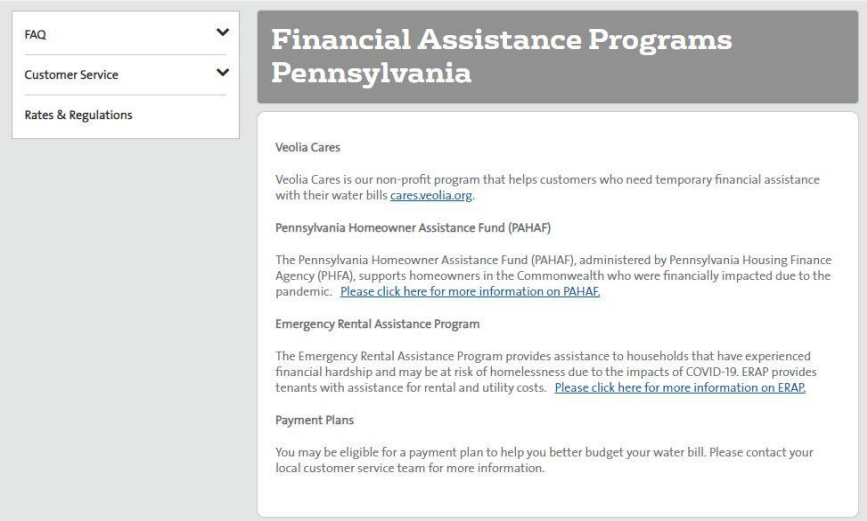
PHFA Contributions

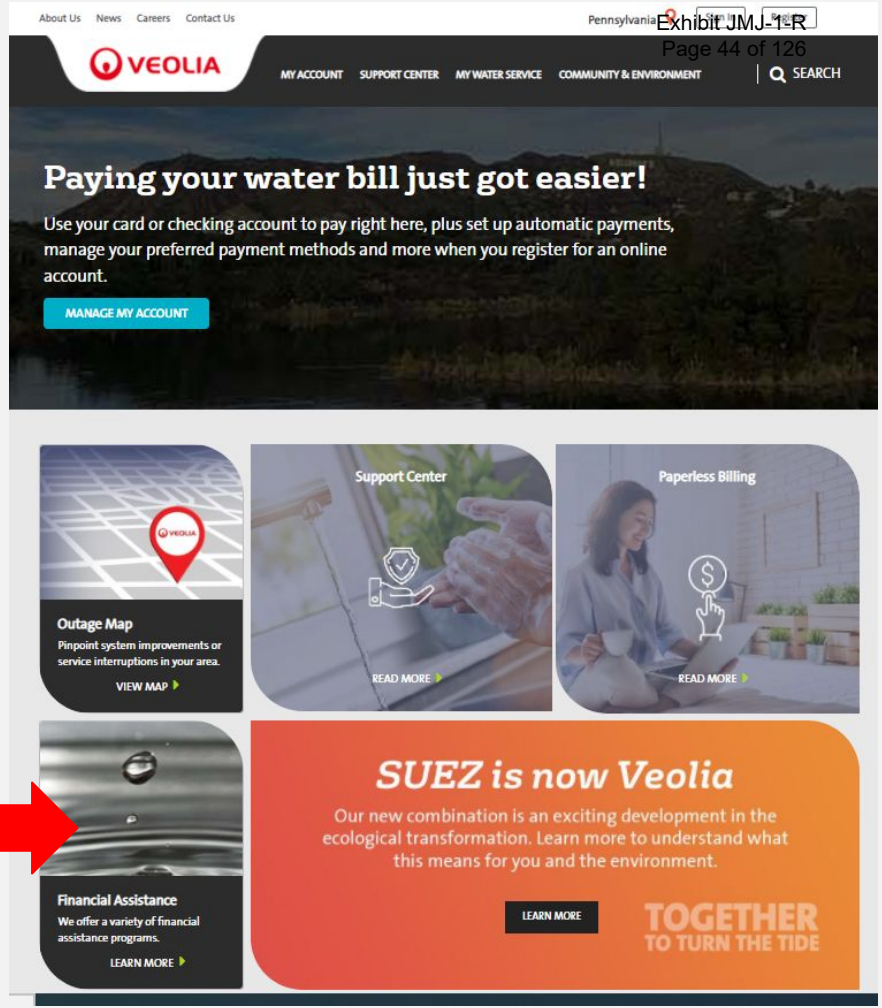
- The Pennsylvania Homeowner Assistance Fund (PAHAF) is administered by Pennsylvania Housing Finance Agency (PHFA). This program helps homeowners prevent mortgage delinquencies, default, foreclosure, displacement, and utility disconnection. The maximum amount of assistance for any homeowner under the PAHAF is $50,000 or up to 24 months of assistance, and the utility assistance cap is $10,000.
- Utility Payment Assistance: Funds to resolve delinquent payments for utility services, particularly if no other assistance program currently exists, and that there is imminent loss of utility disconnection, liens, possible foreclosure, or homeowner displacement.

	2022	2023
Customers	3	5
PHFA Contributions	$333	$1,901

Web Information

Customers can easily access financial assistance information directly from the homepage of mywater.veolia.us





Continuously Promoting Low Income Programs

- Integrate Veolia Cares program information into our automated reminder phone calls utilizing Televox
- Add Veolia Cares messaging to Payment Plan agreements
- Include a bill insert for Veolia Cares
- Hand out brochures at community events
- Distribute brochures to libraries, town halls and community centers
- Utilize digital and social media to educate and inform customers
- Building relationships with local community organizations like Salvation Army, Central PA Food Bank and others

Community Participation

Jubilee Day - June 15 - Mechanicsburg Borough
70,000+ attendees - Distributed Veolia Cares Info

Representative Fleming's Senior Fair - September 14
Susquehanna Township, Lower Paxton Township
175 attendees - Distributed Veolia Cares Info

Community Participation

Salvation Army Youth Summer Enrichment Job Fair

June 27, 2023

Salvation Army Contribution & Support of Community Garden Program

Summer 2023 - $35,000

Working Together to Promote Consumer Awareness

Future Low Income Program Plan Discussion

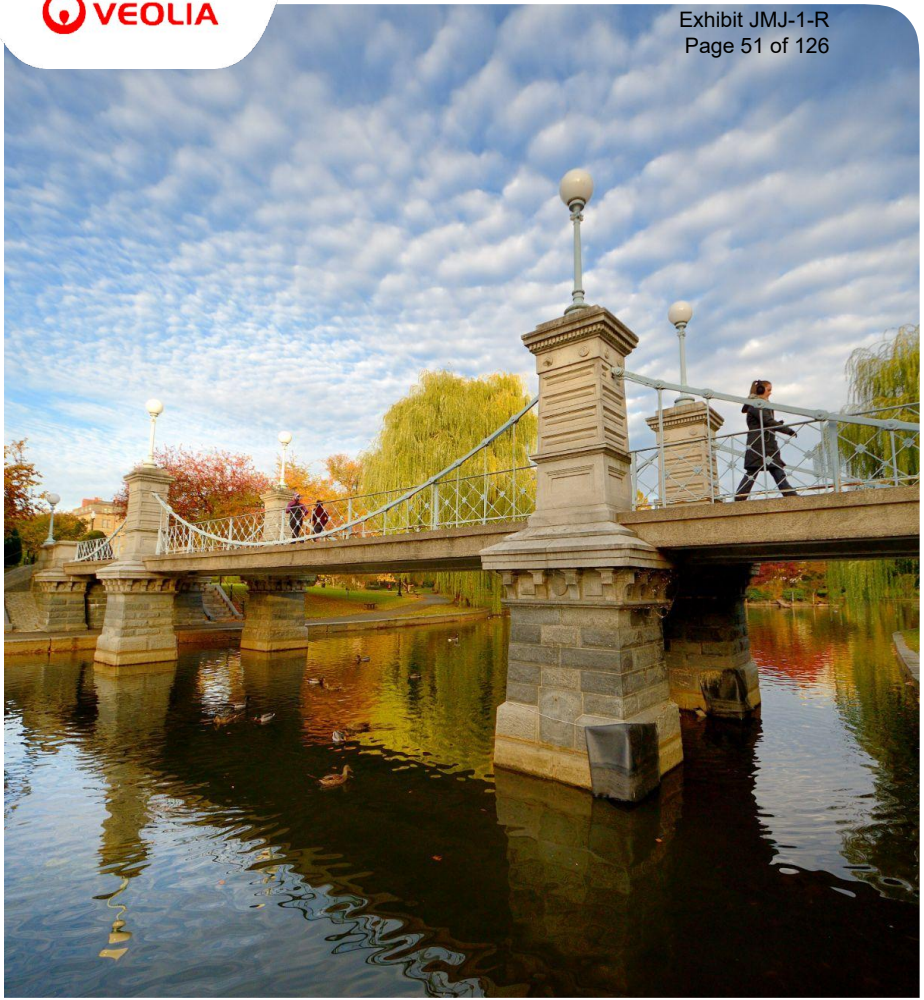
- Bill Discount Program
- Consumption Adjustment
- Arrearage Forgiveness
- Veolia Cares Grant Component
- Conservation
- Service Line Repair

THANK YOU!

Veolia North America Low Income Advisory Committee (LIAC)

December 7, 2022

2022



AGENDA

01 Introduction

02 Welcome Of New Committee Participants

03 Low Income Program Participation

04 Outreach Recommendations From Committee

05 Future Low Income Program Plan Discussion

Introductions

Interested Parties

- Office of Consumer Advocates Office (OCA)
- CAUSE-PA
- PA Office of Small Business Advocate (OSBA)
- Bureau of Consumer Services (BCS)
- Investigation & Enforcement (I&E)
- Veolia Attorney Representation - Cozen O’Connor
- Veolia Representatives

Welcome

New Committee Participants

- Kay Pickering, Harrisburg Center for Peace
- Matthew Rich, Mid Penn Legal Services

Low Income Program Participation Review

2022

Veolia Cares

- Provides assistance to past due customers experiencing a financial crisis
- Administered by New Jersey Shares

LIHWAP

- A low-income program that assist past due customers with their water and sewer bills
- Administered by the Department of Human Services

ERAP

- An emergency rental assistance program that provides rental and utility assistance
- Administered by the Department of Human Services

PHFA

- Housing program to assist PA homeowners facing financial hardship due to COVID-19
- Administered by the PA Housing Finance Agency

Veolia Cares Company Contributions (formerly SUEZ Cares)

Veolia Increased Grant Amount of Company Contributions in December of 2021

- Households can now obtain grants up to $300 per year for water
- Households can now obtain grants up to $150 per year for sewer
- Funds continue to remain available
- Customers are currently utilizing LIHWAP funding in 2022

	2020	2021	2022
Customers	52	109	35
Veolia Cares Contributions	$6,990	$15,100	$7,771

Veolia Cares Customer Brochure

Need Help With Your Water Bills?

A financial crisis can happen to anyone, regardless of age, income or family situation.

These challenges are often due to unforeseen circumstances, such as a job loss or illness. We understand, and we're here to help. Veolia Cares, a water assistance program created by Veolia and New Jersey SHARES, provides relief to people facing temporary financial crisis.

Working through a network of community-based social service agencies, Veolia Cares provides limited grants to pay residents' water bills. We know you already have enough things to worry about. Paying your water bill shouldn't be one of them. All we ask is that you meet the basic eligibility requirements outlined inside.

For Additional Information

For more information about Veolia Cares, or to apply for a grant, please visit **cares.veolia.org**, or contact us toll free at **1-888-942-8080**.

Veolia Cares is supported by Veolia and administered by New Jersey SHARES.

New Jersey SHARES
4 Walter E. Foran Boulevard, Suite 105
Flemington, NJ 08822

Questions? Call toll free **1-888-942-8080** for assistance.

cares.veolia.org

Veolia Cares

Veolia Cares Customer Brochure cont.

Eligibility Requirements:

The program is available to residential customers who:

- Have established water service with Veolia
- Are experiencing a financial crisis, such as a job loss or illness
- Have made a good faith payment of at least $20 within 90 days of applying

State-specific grant thresholds determine how much you can receive.

Veolia Cares is financially supported by Veolia and administered in NY, NJ, PA, and DE by New Jersey SHARES, a non-profit organization that provides assistance to eligible households for paying their energy, telephone, broadband (internet), and water bills.

cares.veolia.org

Residence and Billing

The water bill must be in the applicant's name. Acceptable exceptions to the bill being in the applicant's name:

- The bill is in the spouse's name and the spouse still resides in the home or is deceased.
- The applicant is elderly or disabled and a volunteer, family member, or social worker who has a letter of authorization, is applying on his/her behalf.

Required Documents:

Below is the list of documents you will need in hand when you apply. NJ SHARES must receive your documents within ten business days of your submitted application.

- Proof of ID
- Signed application
- Most recent Veolia water bill

Status with Veolia

The water customer's account balance must be past due.

Good faith payment: Applicants must have paid at least $20 on their account within the last 90 days. If the good faith payment was not made in the last 90 days, applicant must make the payment before applying.

The good faith payment must clear before Veolia can verify payment has been made.

- Grants must be used for consumption charges only. They cannot be used for deposits, reconnection fees or repairs.
- Customers can apply for a grant once in a calendar year.
- Customers will not receive a credit balance.

Veolia
Cares

LIHWAP Contributions

	2020	2021	2022
Customers	0	0	388
LIHWAP Contributions	$0	$0	$129,775

ERAP Contributions

- An emergency rental assistance program that provides rental and utility assistance
- Administered by the Department of Human Services

	2020	2021	2022
Customers	0	27	43
ERAP Contributions	$0	$10,283	$7,270

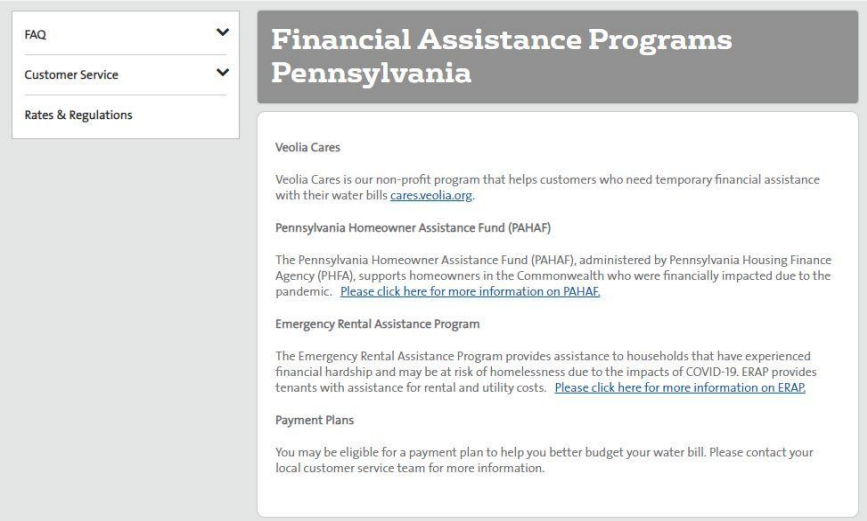
PHFA Contributions

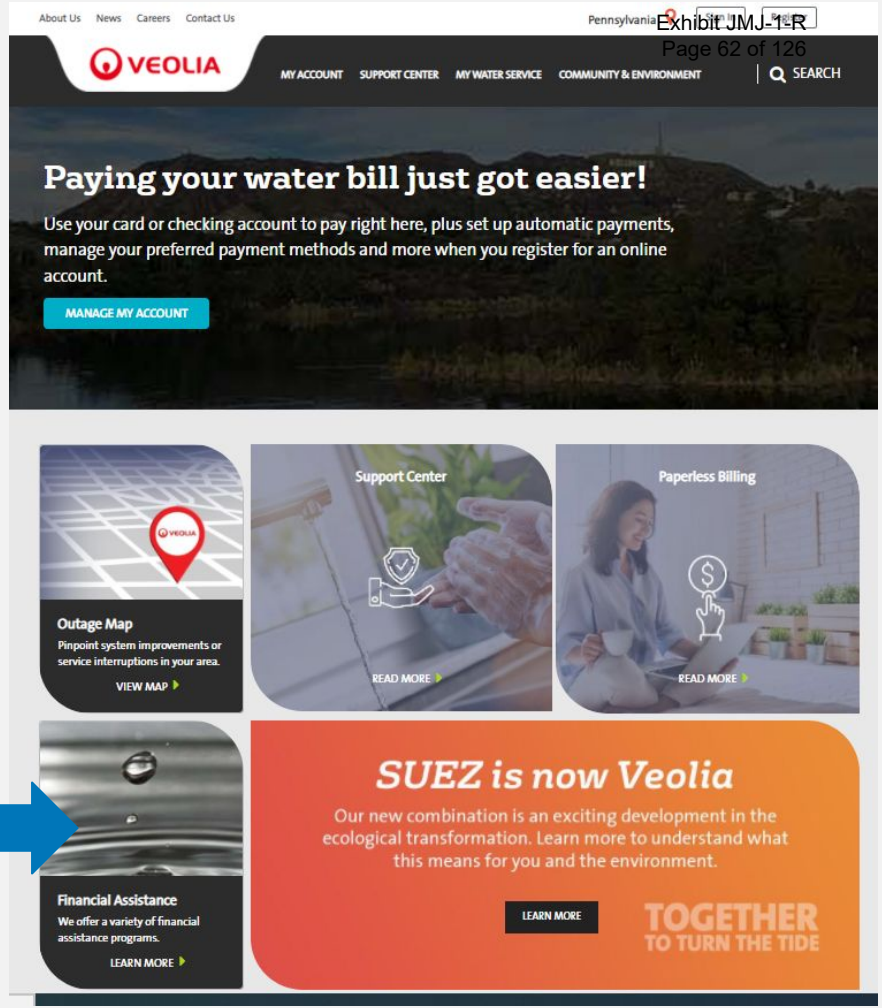
- The Pennsylvania Homeowner Assistance Fund (PAHAF) is administered by Pennsylvania Housing Finance Agency (PHFA). This program helps homeowners prevent mortgage delinquencies, default, foreclosure, displacement, and utility disconnection. The maximum amount of assistance for any homeowner under the PAHAF is $50,000 or up to 24 months of assistance, and the utility assistance cap is $10,000.
- Utility Payment Assistance: Funds to resolve delinquent payments for utility services, particularly if no other assistance program currently exists, and that there is imminent loss of utility disconnection, liens, possible foreclosure, or homeowner displacement.

	2022
Customers	3
PHFA Contributions	$333

Web Information

Customers can easily access financial assistance information directly from the homepage of mywater.veolia.us





Continuously Promoting Low Income Programs

- Integrate Veolia Cares program information into our automated reminder phone calls utilizing Televox
- Add Veolia Cares messaging to Payment Plan agreements
- Include a bill insert for Veolia Cares
- Hand out brochures at community events
- Distribute brochures to libraries, town halls and community centers
- Utilize digital and social media to educate and inform customers
- Building relationships with local community organizations like Salvation Army, Central PA Food Bank and others

Outreach Recommendations from Committee

Harrisburg Area groups:

- Beacon Clinic for Health and Hope
- BcmPEACE
- Bethesda Mission
- Bhutanese Community
- Boys and Girls Club
- Brethren Housing Association
- Capital Area Head Start
- Catholic Charities Harrisburg
- Central PA Food Bank
- Christian Churches United
- Church World Service
- Community Justice Project
- Contact Helpline
- Downtown Daily Bread
- Family Promise
- Habitat for Humanity of Greater Harrisburg
- Hamilton Health
- International Service Center
- Latino Hispanic American Community Center
- MidPenn Legal Services
- Pennsylvania Immigrant and Refugee Women's Network (PAIRWN)
- RASE Project
- Salvation Army
- Shalom House
- Tri County Community Action
- Vision Resources of Central Pennsylvania
- YWCA of Greater Harrisburg

Future Low Income Program Plan Discussion

- Bill Discount Program
- Arrearage Forgiveness
- Veolia Cares Grant Component
- Conservation
- Service Line Repair

THANK YOU!

Veolia North America Low Income Advisory Committee (LIAC)

January 19,2024

AGENDA

01
Welcome

02
Low Income Program Participation

03
Community Outreach & Program Participation

04
Future Low Income Program Plan Discussion

Welcome

Interested Parties

- Office of Consumer Advocates Office (OCA)
- CAUSE-PA
- PA Office of Small Business Advocate (OSBA)
- Bureau of Consumer Services (BCS)
- Investigation & Enforcement (I&E)
- Veolia Representatives
- Attorney Representation - Cozen O’Connor

Low Income Program Participation Review

2023/2024

Veolia Cares

- Provides assistance to past due customers experiencing a financial crisis
- Administered by New Jersey Shares

LIHWAP

- A low-income program that assist past due customers with their water and sewer bills
- Administered by the Department of Human Services

ERAP

- An emergency rental assistance program that provides rental and utility assistance
- Administered by the Department of Human Services

PHFA

- Housing program to assist PA homeowners facing financial hardship due to COVID-19
- Administered by the PA Housing Finance Agency

Veolia Cares Company Contributions (formerly SUEZ Cares)

Veolia Increased Grant Amount of Company Contributions in December of 2021

- Households can now obtain grants up to $300 per year for water
- Households can now obtain grants up to $150 per year for sewer
- Funds continue to remain available
- Customers are currently utilizing LIHWAP funding in 2022

	2020	2021	2022	2023	2024
Customers	52	109	50	190	18
Veolia Cares Contributions	$6,990	$15,100	$10,603	$41,592	$3,653

Veolia Cares Customer Brochure

Need Help With Your Water Bills?

A financial crisis can happen to anyone, regardless of age, income or family situation.

These challenges are often due to unforeseen circumstances, such as a job loss or illness. We understand, and we're here to help. Veolia Cares, a water assistance program created by Veolia and New Jersey SHARES, provides relief to people facing temporary financial crisis.

Working through a network of community-based social service agencies, Veolia Cares provides limited grants to pay residents' water bills. We know you already have enough things to worry about. Paying your water bill shouldn't be one of them. All we ask is that you meet the basic eligibility requirements outlined inside.

For Additional Information

For more information about Veolia Cares, or to apply for a grant, please visit **cares.veolia.org**, or contact us toll free at **1-888-942-8080**.

Veolia Cares is supported by Veolia and administered by New Jersey SHARES.

New Jersey SHARES
4 Walter E. Foran Boulevard, Suite 105
Flemington, NJ 08822

Questions? Call toll free **1-888-942-8080** for assistance.

cares.veolia.org

Veolia Cares

Veolia Cares Customer Brochure (continued)

Eligibility Requirements:

The program is available to residential customers who:

- Have established water service with Veolia
- Are experiencing a financial crisis, such as a job loss or illness
- Have made a good faith payment of at least $20 within 90 days of applying

State-specific grant thresholds determine how much you can receive.

Veolia Cares is financially supported by Veolia and administered in NY, NJ, PA, and DE by New Jersey SHARES, a non-profit organization that provides assistance to eligible households for paying their energy, telephone, broadband (internet), and water bills.

cares.veolia.org

Residence and Billing

The water bill must be in the applicant's name. Acceptable exceptions to the bill being in the applicant's name:

- The bill is in the spouse's name and the spouse still resides in the home or is deceased.
- The applicant is elderly or disabled and a volunteer, family member, or social worker who has a letter of authorization, is applying on his/her behalf.

Required Documents:

Below is the list of documents you will need in hand when you apply. NJ SHARES must receive your documents within ten business days of your submitted application.

- Proof of ID
- Signed application
- Most recent Veolia water bill

Status with Veolia

The water customer's account balance must be past due.

Good faith payment: Applicants must have paid at least $20 on their account within the last 90 days. If the good faith payment was not made in the last 90 days, applicant must make the payment before applying.

The good faith payment must clear before Veolia can verify payment has been made.

- Grants must be used for consumption charges only. They cannot be used for deposits, reconnection fees or repairs.
- Customers can apply for a grant once in a calendar year.
- Customers will not receive a credit balance.

Veolia
Cares

Conservation Kit Distribution

Dear Valued Customer:

Our records indicate you were a recipient of a *Veolia Cares Grant*. We are here to support you, and to show our support, you will be receiving a water conservation box to further help you in reducing your future water bills.

This conservation box includes several products to help in reducing water usage, such as a low flow showerhead and faucet aerators that reduce the amount of water you utilize by maintaining the same amount of pressure. Please install these items at your earliest convenience so that you can start your monthly savings.

Look for your box in the mail shortly after receiving this letter.

Sincerely,
Veolia Water Customer Service
888-299-8972

LIHWAP Contributions

	2020	2021	2022	2023	2024
Customers	0	0	390	58	259
LIHWAP Contributions	$0	$0	$131,168	$15,437	$10,458

ERAP Contributions

- An emergency rental assistance program that provides rental and utility assistance
- Administered by the Department of Human Services

	2020	2021	2022	2023
Customers	0	27	43	0
ERAP Contributions	$0	$10,283	$7,270	$0

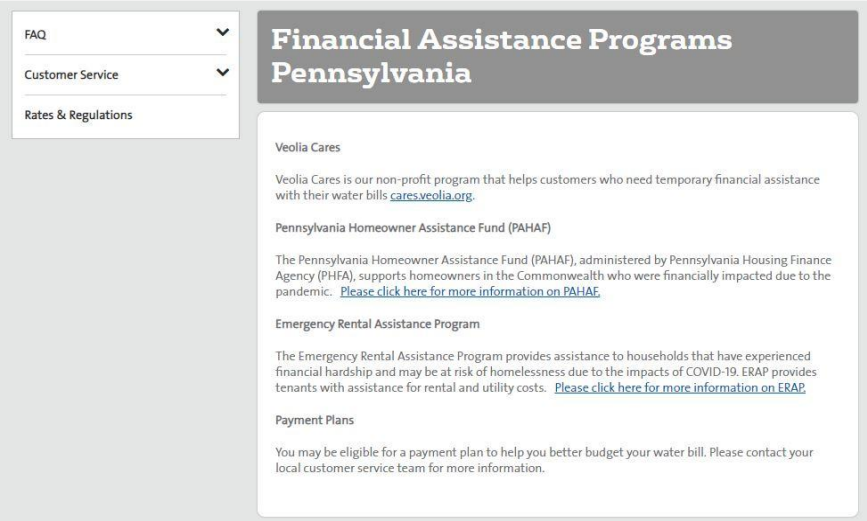
PHFA Contributions

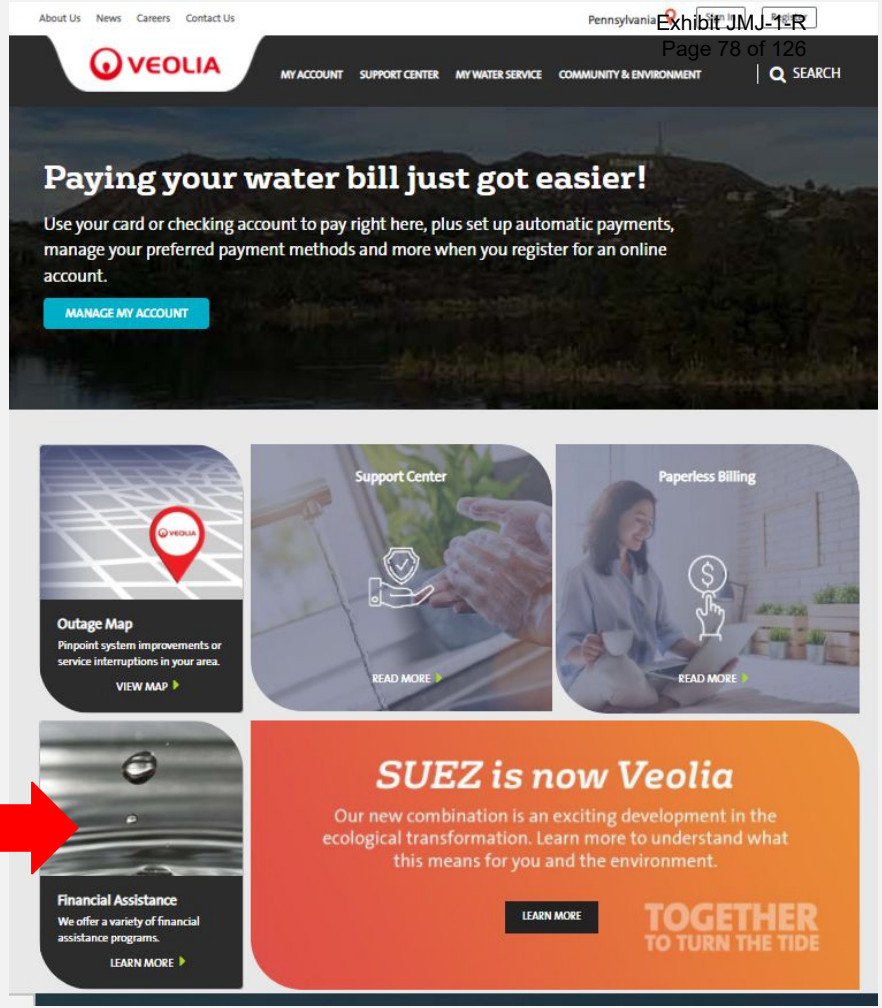
- The Pennsylvania Homeowner Assistance Fund (PAHAF) is administered by Pennsylvania Housing Finance Agency (PHFA). This program helps homeowners prevent mortgage delinquencies, default, foreclosure, displacement, and utility disconnection. The maximum amount of assistance for any homeowner under the PAHAF is $50,000 or up to 24 months of assistance, and the utility assistance cap is $10,000.
- Utility Payment Assistance: Funds to resolve delinquent payments for utility services, particularly if no other assistance program currently exists, and that there is imminent loss of utility disconnection, liens, possible foreclosure, or homeowner displacement.

	2022	2023
Customers	3	10
PHFA Contributions	$333	$3,394.97

Web Information

Customers can easily access financial assistance information directly from the homepage of mywater.veolia.us





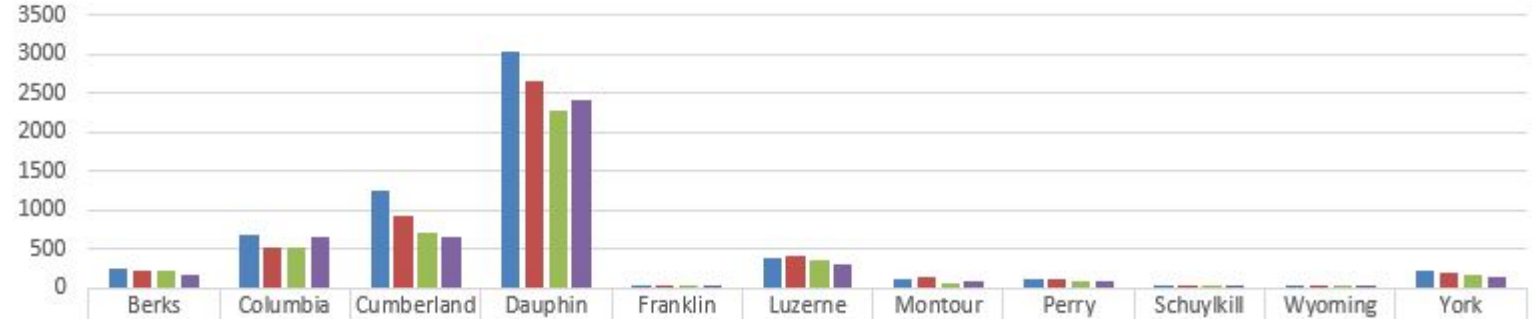
Continuously Promoting Low Income Programs

- Integrate Veolia Cares program information into our automated reminder phone calls utilizing Televox
- Add Veolia Cares messaging to Payment Plan agreements
- Include a bill insert for Veolia Cares
- Hand out brochures at community events
- Distribute brochures to libraries, town halls and community centers
- Utilize digital and social media to educate and inform customers
- Building relationships with local community organizations like Salvation Army, Central PA Food Bank and others

Future Low Income Program
Program Implementation

- Evaluation of Administrators for the Program
  - ➢ New Jersey Shares
  - ➢ Dollar Energy
- Assessing internal Modifications of our Billing Systems
- Identifying Technology required
- Identifying Resources to Manage the Program
- Data Exchange
- Community Partners

Future Low Income Program Plan Discussion - Affordability Study



	Berks	Columbia	Cumberland	Dauphin	Franklin	Luzerne	Montour	Perry	Schuylkill	Wyoming	York
<200	243	676	1246	3020	9	369	120	121	14	11	214
<150	223	505	918	2642	8	405	137	121	13	8	195
<100	212	508	696	2265	5	349	68	74	12	8	152
<50	171	652	657	2409	4	304	72	72	8	6	128

Future Low Income Program
Bill Discount Component for Water

Low Income Discount Program for Water

Three Tiered Approach:

Service Charge Discount

0-100%	101-150%	151-200%
fixed charge credited	fixed charge credited	fixed charge credited

Volumetric Discount

0-100%	101-150%	151-200%
First 2,000 gallons	First 1,000 gallons	0

Future Low Income Program Conservation Component

Provide low income customers at or below 150% education to assist in reducing monthly water usage; Veolia will provide the following:

- Conservation Education
- Conservation Kits
  - ➢ Installation for those unable to install kits:
    - Seniors (65 and older)
    - Those with a Disability
- Survey 10% of the qualified customers of installation of the kits

Future Low Income Program
Service Line Leak Repair

Veolia will hire contractors to provide plumbing repairs to eligible low income customers homes at or below 150%.

- Leak must occur on an exposed internal line
- Minor plumbing repairs to toilets
- Customer must be in threat of termination or have been terminated to be eligible
- Customer side service line leakage from the curb box to the face of the customers home
- Leak repairs up to $1,500.00

Note: Program will be budgeted for up to $100,000.00

Future Low Income Program
Arrearage Forgiveness Component

Customers at or below 200% of the federal poverty guidelines are eligible for a payment arrangement that allows for forgiveness of $25 per month of the outstanding balance each time the customer pays their current monthly bill by the due date. Veolia will allow the 5 day grace period to be considered a timely payment.

Future Low Income Program
Hardship Fund Grant for Water & Wastewater (*Remains in place*)

Eligibility Requirements:

- A residential customer receiving water service
- A financial crisis such as job loss or illness
- A good faith payment of $20.00 within the last 90 days
- One grant per year

Company Contributions - *(based on past due amounts)*

- Up to $300 for water
- Up to $150 for wastewater

Future Low Income Program Outreach

- Website Updated with Programs
- Bill Inserts Defining Programs
- Customer Service Representatives & Employees Educating Customers on Programs
- Community Partners
- Community Participation with Handouts of our Programs
- Senior and Community Fairs
- Be Utility Wise Events
- Continue to Build Relationships with Local Community Organizations like Salvation Army, Central PA Food Bank, YMCA, YWCA and others.

THANK YOU!

LIAC Meeting Agenda

External

Inbox
Search for all messages with label Inbox
Remove label Inbox from this conversation

K

Kaster, Allison <akaster@pa.gov>

Tue, 31 Oct 2023, 08:31

to me

Morning, Judy! Do you mind sending over the agenda for the LIAC meeting this morning in PDF or Word form? I was blocked from opening it via the link in the meeting invite. Thanks so much and I look forward to talking to you in a few hours!

Allison

www.puc.pa.gov

Allison Curtin Kaster
Deputy Chief Prosecutor
Bureau of Investigation and Enforcement
Phone: 717-783-7998
Email: akaster@pa.gov

RE: [External] December 28th LIAC Committee Meeting

External

Inbox
Search for all messages with label Inbox
Remove label Inbox from this conversation
PRESERVE
Search for all messages with label PRESERVE
Remove label PRESERVE from this conversation

K

Kaster, Allison <akaster@pa.gov>

Wed, 20 Dec 2023, 07:45

to me

So sorry, Judy! As you suspected, I will be out that entire week and have a feeling other folks are taking the week off as well. I'm flexible in January and will defer to the rest of the group. I hope you have a wonderful holiday season and I look forward to seeing you in January!

Allison

www.puc.pa.gov

Allison Curtin Kaster
Deputy Chief Prosecutor
Bureau of Investigation and Enforcement

Phone: 717-783-7998
Email: akaster@pa.gov

From: Jordan, Judith <judith.jordan@veolia.com>
Sent: Tuesday, December 19, 2023 5:54 PM
To: Elizabeth Marx <emarx@pautilitylawproject.org>; John Sweet <jsweet@pautilitylawproject.org>; Kaster, Allison <akaster@pa.gov>; choover@paoca.org; Morris, Christian <christmorr@pa.gov>; Zambito, David <DZambito@cozen.com>; efure@pa.gov; Egannon@paoca.org; Magee, Joseph <jmagee@pa.gov>; kaypick@comcast.net; Evans Klemick, Megan <mevansklem@pa.gov>; Matthew Rich <MRich@midpenn.org>; Wagner, Teresa <tereswagne@pa.gov>; Jonathan Nase <jnase@cozen.com>
Cc: Maryanne Hatch <maryanne.hatch@veolia.com>; Cagle, James <james.cagle@veolia.com>; Larry Finnicum <larry.finnicum@veolia.com>
Subject: [External] December 28th LIAC Committee Meeting

Good Afternoon LIAC Committee Members and Participants,

According to the calendar invite for 10:00 AM December 28, 2023; our next LIAC Committee Meeting I show no acceptance.
With the Holidays upon us, it is my understanding that some of you are off during this scheduled time.
I ask that we consider postponing this meeting until January when most of you are available to attend.

Please provide suggested dates for our next meeting.
Please note I have included alternates as well on this invite.

Thank You in Advance for your consideration.
Happy Holidays!

Judy McCoy Jordan

--
Judith A. McCoy Jordan
Director of Customer Service
VEOLIA NORTH AMERICA, UNITED STATES

telephone 717-901-6322

6310 Allentown Blvd
Harrisburg, PA 17112
Judith.Jordan@veolia.com
Resourcing the world VEOLIA

Re: Pa. PUC Sample - No Income Form

J

Jordan, Judith <judith.jordan@veolia.com>

Fri, 15 Dec 2023, 11:19

to John

Thank you John; greatly appreciated!!

On Fri, 15 Dec 2023 at 11:14, John Sweet <jsweet@pautilitylawproject.org> wrote:
Hi Judith,
Thank you so much for taking the time to meet with us today. Attached is the sample No Income Form that I mentioned on the call. Sorry it is not in editable format. The PUC attached it to the order as an image file for some reason.

Have a great holiday!

- John

--
Judith A. McCoy Jordan
Director of Customer Service
VEOLIA NORTH AMERICA, UNITED STATES

telephone 717-901-6322

6310 Allentown Blvd
Harrisburg, PA 17112
Judith.Jordan@veolia.com
Resourcing the world VEOLIA

Zero Income Claim Form
_____ (Company Name and Logo)

Customer Information:

Name: _____
Service Address

Household Zero Income Claim:

I, _____, state that no adult member of my household is
(print name)
currently receiving income from any source.

Household Expenses:

Identify how you and your household meet monthly living expenses, such as those expenses for housing (mortgage or rent), food, and utilities (electric, gas, water, and/or phone bill). Check all that apply:

☐ I am using money from savings.

☐ I receive financial support from friends/family/community.

☐ Other. Please explain below:

Affidavit:

I certify that the information presented in this application is true and accurate to the best of my knowledge. I understand that providing false information in this application is grounds for denial and dismissal of my application. I acknowledge that I am responsible for notifying
_____ if my household or income information changes.
(utility)

Signature:_____ Date: _____

Please send this form to _____ by FAX, email or U.S. Mail:
(utility)

FAX: _____
E-Mail: _____
Mail: _____

Re: December 28th LIAC Committee Meeting

External

Inbox
Search for all messages with label Inbox
Remove label Inbox from this conversation
PRESERVE
Search for all messages with label PRESERVE
Remove label PRESERVE from this conversation

H

Hoover, Christine Maloni <CHoover@paoca.org> Fri, 22 Dec 2023, 12:26

to me

You're welcome. Happy holidays to you too.

Christine Maloni Hoover
Deputy Consumer Advocate

From: Jordan, Judith <judith.jordan@veolia.com>
Sent: Friday, December 22, 2023 12:17:14 PM
To: Hoover, Christine Maloni <CHoover@paoca.org>
Subject: Re: December 28th LIAC Committee Meeting

Thank You Christine,

Happy Holidays!

On Fri, 22 Dec 2023 at 11:53, Hoover, Christine Maloni <CHoover@paoca.org> wrote:

John's suggested dates will work for OCA.

From: John Sweet <jsweet@pautilitylawproject.org>
Sent: Friday, December 22, 2023 11:09 AM
To: Jordan, Judith <judith.jordan@veolia.com>; Elizabeth Marx <emarx@pautilitylawproject.org>; Kaster, Allison C. <akaster@pa.gov>; Hoover, Christine Maloni <CHoover@paoca.org>; christmorr@pa.gov; Zambito, David P. <dzambito@cozen.com>; Fure, Erin K. <efure@pa.gov>; Gannon, Erin L. <EGannon@paoca.org>; Magee, Joseph <jmagee@pa.gov>; kaypick@comcast.net; mevansklem@pa.gov; Matthew Rich <MRich@midpenn.org>; Teresa Wagner <tereswagne@pa.gov>; Nase, Jonathan

<jnase@cozen.com>
Cc: Maryanne Hatch <maryanne.hatch@veolia.com>; Cagle, James <james.cagle@veolia.com>; Larry Finnicum <larry.finnicum@veolia.com>
Subject: RE: December 28th LIAC Committee Meeting

Hi Judith,

Our office is closed on Dec. 28th. We would prefer to meet after the New Year. Some potential times that work for us would be:

- Jan 4 anytime
- Jan 5 anytime
- Jan 8 anytime after 12pm
- Jan 9 anytime
- Jan 10 anytime
- Jan 19 anytime

Hope you have a great Holiday Season!

- John

From: Jordan, Judith <judith.jordan@veolia.com>
Sent: Tuesday, December 19, 2023 5:54 PM
To: Elizabeth Marx <emarx@pautilitylawproject.org>; John Sweet <jsweet@pautilitylawproject.org>; Kaster, Allison <akaster@pa.gov>; choover@paoca.org; christmorr@pa.gov; Zambito, David <DZambito@cozen.com>; efure@pa.gov; Egannon@paoca.org; Magee, Joseph <jmagee@pa.gov>; kaypick@comcast.net; mevansklem@pa.gov; Matthew Rich <MRich@midpenn.org>; Wagner, Teresa <tereswagne@pa.gov>; Nase, Jonathan <jnase@cozen.com>
Cc: Maryanne Hatch <maryanne.hatch@veolia.com>; Cagle, James <james.cagle@veolia.com>; Larry Finnicum <larry.finnicum@veolia.com>
Subject: December 28th LIAC Committee Meeting

Good Afternoon LIAC Committee Members and Participants,

According to the calendar invite for 10:00 AM December 28, 2023; our next LIAC Committee Meeting I show no acceptance.

With the Holidays upon us, it is my understanding that some of you are off during this scheduled time.

I ask that we consider postponing this meeting until January when most of you are available to attend.

Please provide suggested dates for our next meeting.

Please note I have included alternates as well on this invite.

Thank You in Advance for your consideration.

Happy Holidays!

Judy McCoy Jordan

--

Judith A. McCoy Jordan
Director of Customer Service
VEOLIA NORTH AMERICA, UNITED STATES

telephone 717-901-6322

6310 Allentown Blvd
Harrisburg, PA 17112
Judith.Jordan@veolia.com
Resourcing the world VEOLIA

RE: Veolia Cares Programs

External

Inbox
Search for all messages with label Inbox
Remove label Inbox from this conversation
PRESERVE
Search for all messages with label PRESERVE
Remove label PRESERVE from this conversation

E

Elizabeth Marx <emarx@pautilitylawproject.org> Mon, 11 Dec 2023, 14:31

to me

Hi, Judith –

I'd be happy to connect. My availability is limited, but I have 9-11 on Friday. Fingers crossed that might work!

From: Jordan, Judith <judith.jordan@veolia.com>
Sent: Monday, December 11, 2023 1:23 PM
To: Elizabeth Marx <emarx@pautilitylawproject.org>
Subject: Veolia Cares Programs

> You don't often get email from judith.jordan@veolia.com. Learn why this is important

Good Afternoon Elizabeth,

I was wondering if you had a little time for us to chat about our programs.
Do you have any availability later this week?

Please let me know.....!

Thanks,
Judy

--
Judith A. McCoy Jordan
Director of Customer Service
VEOLIA NORTH AMERICA, UNITED STATES

telephone 717-901-6322

6310 Allentown Blvd

Harrisburg, PA 17112
Judith.Jordan@veolia.com
Resourcing the world VEOLIA

From: **John Sweet** <jsweet@pautilitylawproject.org>
Date: Fri, 15 Jul 2022 at 16:08
Subject: RE: LIAC Committee
To: Jordan, Judith <judith.jordan@veolia.com>

Hi Judith,

Thank you for the great first LIAC meeting! I am sorry it has taken me so long to circle back on this. Below is a list of community groups in the Harrisburg and Northeast PA areas where we believe Veolia now provides service. We are still working on a summary of water assistance programs offered by other regulated water utilities. We hope to get that to you soon.

- John Sweet

Northeast PA groups:	**Harrisburg Area groups:**
• ACE of NEPA - https://www.acenepa.org/ • Bergen County Housing - https://www.bcfsainfo.org/ • CASA - https://wearecasa.org/ • Catholic Social Services - https://www.dioceseofscranton.org/css/catholic-social-services/ • Catherine McAuley Center - catherinemcauleycenter.org/home.aspx • Commission on Economic Opportunity - https://www.ceopeoplehelpingpeople.org/ • City of Scranton OECD - https://scrantonpa.gov/office-of-economic-and-community-development-oecd/ • CJP - https://www.communityjusticeproject.org/ • Crossroads Community Services - https://www.rhd.org/program/crossroads-housingcommunity-services/ • Community Intervention Center - http://www.communityinterventioncenter.net/	• Beacon Clinic for Health and Hope - https://beaconclinicpa.org/ • BcmPEACE - https://bcm-pa.org/ • Bethesda Mission - http://www.bethesdamission.org/ • Bhutanese Community - https://www.bcharrisburgpa.org/ • Boys and Girls Club - https://bgchbg.org/ • Brethren Housing Association - https://www.bha-pa.org/ • Capital Area Head Start - https://www.khs.org/what-we-do/head-start-services/ • Catholic Charities Harrisburg - http://www.cchbg.org/ • Central PA Food Bank - https://www.centralpafoodbank.org/ • Christian Churches United - https://www.ccuhbg.org/ • Church World Service - https://cwsharrisburg.org/ • Community Justice Project - https://www.communityjusticeproject.org/

• Domestic Violence Service Center - https://domesticviolenceservice.org/ • Friends of the Poor - https://friendsofthepoorscranton.com/ • Lehigh Valley Regional Homeless Advisory Board - https://lvrhab.org/ • Monroe County NAACP - http://www.monroecountynaacp.org/ • NeighborWorks - https://www.nwnepa.org/ • North Penn Legal Services - https://www.nplspa.org/ • Outreach - https://outreachworks.org/ • PIRC - https://www.pirclaw.org/ • Salvation Army - https://pa.salvationarmy.org/scranton • Scranton Area Ministerium - https://www.scrantonareaministerium.org/ • Scranton Tomorrow - https://www.scrantontomorrow.org/ • St. Joseph's Center - https://stjosephscenter.org/ • TREHAB - https://trehab.org/ • United Neighborhood Centers - https://www.uncnepa.org/ • Union-Snyder Community Action Agency - https://www.union-snydercaa.org/ • Women's Resource Center - https://wrcnepa.org/	• Contact Helpline - http://www.contacthelpline.org/ • Downtown Daily Bread - https://downtowndailybread.org/ • Family Promise - https://www.familypromisehcr.org/ • Habitat for Humanity of Greater Harrisburg - https://harrisburghabitat.org/ • Hamilton Health - https://www.hamiltonhealthcenter.com/ • International Service Center - http://www.isc76.org/ • Latino Hispanic American Community Center - https://www.lhacc.org/ • MidPenn Legal Services - https://www.midpenn.org/ • Pennsylvania Immigrant and Refugee Women's Network (PAIRWN) - https://www.pairwn.org/ • RASE Project - https://raseproject.org/ • Salvation Army - https://pa.salvationarmy.org/harrisburg-pa/ • Shalom House - https://shalomhouse.net/ • Tri County Community Action - https://cactricounty.org/ • Vision Resources of Central Pennsylvania - https://vrocp.org/ • YWCA of Greater Harrisburg - http://www.ywcahbg.org/

From: Jordan, Judith <judith.jordan@veolia.com>
Sent: Thursday, June 23, 2022 6:19 PM
To: Larry Finnicum <larry.finnicum@veolia.com>; Cagle, James <james.cagle@veolia.com>; Kevin Loncar <kevin.loncar@veolia.com>; choover@paoca.org; efure@pa.gov; akaster@pa.gov; John Sweet

<jsweet@pautilitylawproject.org>; jmagee@pa.gov; christmorr@pa.gov; Egannon@paoca.org; Elizabeth Marx <emarx@pautilitylawproject.org>; jnase@cozen.com; Zambito, David <DZambito@cozen.com>
Subject: LIAC Committee

Good Afternoon LIAC Committee Members:

Thank you for your feedback during our first committee meeting.
I am attaching the presentation from the June 10, 2022 meeting.
In addition, I am providing our Veolia Representatives contact information along with the Interested Parties names and alternates. All members and alternates will receive this information.

Thank your for your participation!

Judy

--
Judith A. McCoy Jordan
Director of Customer Service
VEOLIA NORTH AMERICA, UNITED STATES

telephone 717-901-6322

6310 Allentown Blvd
Harrisburg, PA 17112
Judith.Jordan@veolia.com
Resourcing the world VEOLIA

Fw: [External] Household Poverty - PA Counties (2017-2021) - Estimated Based on Census Tables

External
Inbox
Search for all messages with label Inbox
Remove label Inbox from this conversation
PRESERVE
Search for all messages with label PRESERVE
Remove label PRESERVE from this conversation

M

Magee, Joseph <jmagee@pa.gov> Fri, 17 Nov 2023, 13:11

to Tawana, me

Joseph Magee | Energy Policy Manager
Pennsylvania Public Utility Commission | Bureau of Consumer Services
400 North Street | 2nd Floor | Harrisburg, PA 17120
Tel: 717-772-1204 | Fax: 717-265-8273 | Email: jmagee@pa.gov
www.puc.pa.gov | **Consumer Hotline** 1-800-692-7380

One attachment • Scanned by Gmail

Poverty Levels for Pennsylvania Counites (Low Income - < 50 and Higher Income 50 >): 2017-2021.
Poverty Levels Shown for Households, Families and Individuals.
Source: 2017-2021 American Community Survey 5-Year Estimates - United States Census Bureau

	Poverty Level of Households (a)					Poverty Level of Families (b)				
		< 50		50 >			< 50		50 >	
County	Total N	N *	% *	N *	% *	Total N	N	%	N	%
Adams	39908	2067	5.18%	37841	94.82%	28029	596	2.13%	27433	97.87%
Allegheny	545763	39948	7.32%	505815	92.68%	304744	9724	3.19%	295020	96.81%
Armstrong	27704	1530	5.52%	26174	94.48%	18466	469	2.54%	17997	97.46%
Beaver	71717	4364	6.09%	67353	93.91%	44919	1486	3.31%	43433	96.69%
Bedford	19334	1044	5.40%	18290	94.60%	12690	332	2.62%	12358	97.38%
Berks	160065	11147	6.96%	148918	93.04%	106948	4104	3.84%	102844	96.16%
Blair	50264	3597	7.16%	46667	92.84%	31494	1144	3.63%	30350	96.37%
Bradford	24287	1713	7.05%	22574	92.95%	15860	614	3.87%	15246	96.13%
Bucks	245200	9530	3.89%	235670	96.11%	175007	2700	1.54%	172307	98.46%
Butler	78365	4347	5.55%	74018	94.45%	51302	1026	2.00%	50276	98.00%
Cambria	55519	4329	7.80%	51190	92.20%	34009	1232	3.62%	32777	96.38%
Cameron	2131	134	6.29%	1997	93.71%	1262	21	1.66%	1241	98.34%
Carbon	26312	2088	7.94%	24224	92.06%	16661	762	4.57%	15899	95.43%
Centre	57834	9375	16.21%	48459	83.79%	32234	686	2.13%	31548	97.87%
Chester	198159	8979	4.53%	189180	95.47%	140564	2361	1.68%	138203	98.32%
Clarion	14632	1569	10.72%	13063	89.28%	9404	268	2.85%	9136	97.15%
Clearfield	31195	2325	7.45%	28870	92.55%	20392	807	3.96%	19585	96.04%
Clinton	14620	1017	6.96%	13603	93.04%	9421	235	2.49%	9186	97.51%
Columbia	25717	2856	11.11%	22861	88.89%	15711	481	3.06%	15230	96.94%
Crawford	33225	2156	6.49%	31069	93.51%	21813	643	2.95%	21170	97.05%
Cumberland	102532	4983	4.86%	97549	95.14%	65166	1123	1.72%	64043	98.28%
Dauphin	115703	9078	7.85%	106625	92.15%	70948	3179	4.48%	67769	95.52%
Delaware	214252	13260	6.19%	200992	93.81%	142610	4011	2.81%	138599	97.19%
Elk	13499	802	5.94%	12697	94.06%	8299	135	1.63%	8164	98.37%
Erie	108861	9996	9.18%	98865	90.82%	66305	3038	4.58%	63267	95.42%
Fayette	54097	4473	8.27%	49624	91.73%	33600	1778	5.29%	31822	94.71%
Forest	1786	145	8.12%	1641	91.88%	1003	48	4.79%	955	95.21%
Franklin	61854	3777	6.11%	58077	93.89%	42775	1102	2.58%	41673	97.42%
Fulton	5990	331	5.53%	5659	94.47%	4137	87	2.10%	4050	97.90%
Greene	13957	1109	7.95%	12848	92.05%	9269	430	4.64%	8839	95.36%
Huntingdon	15588	869	5.57%	14719	94.43%	10696	404	3.78%	10292	96.22%
Indiana	32425	2984	9.20%	29441	90.80%	19835	584	2.94%	19251	97.06%
Jefferson	17745	1677	9.45%	16068	90.55%	11308	576	5.09%	10732	94.91%
Juniata	8756	466	5.32%	8290	94.68%	5941	131	2.21%	5810	97.79%
Lackawanna	87217	7216	8.27%	80001	91.73%	53635	2081	3.88%	51554	96.12%

Lancaster	207291	11564	5.58%	195727	94.42%	145256	3071	2.11%	142185	97.89%
Lawrence	36111	2578	7.14%	33533	92.86%	23367	835	3.57%	22532	96.43%
Lebanon	54758	3286	6.00%	51472	94.00%	37203	1164	3.13%	36039	96.87%
Lehigh	141775	9606	6.78%	132169	93.22%	95653	2946	3.08%	92707	96.92%
Luzerne	131556	11136	8.46%	120420	91.54%	81344	3870	4.76%	77474	95.24%
Lycoming	45504	3379	7.43%	42125	92.57%	29201	1098	3.76%	28103	96.24%
McKean	15776	1404	8.90%	14372	91.10%	9878	495	5.01%	9383	94.99%
Mercer	45798	2630	5.74%	43168	94.26%	28805	1072	3.72%	27733	96.28%
Mifflin	18641	817	4.38%	17824	95.62%	13008	414	3.18%	12594	96.82%
Monroe	59208	3825	6.46%	55383	93.54%	42719	1615	3.78%	41104	96.22%
Montgomery	327065	14194	4.34%	312871	95.66%	222514	3666	1.65%	218848	98.35%
Montour	7476	431	5.77%	7045	94.23%	4766	155	3.25%	4611	96.75%
Northampton	119208	6495	5.45%	112713	94.55%	80594	1857	2.30%	78737	97.70%
Northumberland	37369	2813	7.53%	34556	92.47%	23742	962	4.05%	22780	95.95%
Perry	17823	991	5.56%	16832	94.44%	12536	422	3.37%	12114	96.63%
Philadelphia	646608	87790	13.58%	558818	86.42%	347858	27801	7.99%	320057	92.01%
Pike	23351	1126	4.82%	22225	95.18%	15944	522	3.27%	15422	96.73%
Potter	6385	463	7.25%	5922	92.75%	4231	103	2.43%	4128	97.57%
Schuylkill	56763	3817	6.72%	52946	93.28%	36687	1263	3.44%	35424	96.56%
Snyder	14373	665	4.63%	13708	95.37%	10016	224	2.24%	9792	97.76%
Somerset	28857	1362	4.72%	27495	95.28%	19448	488	2.51%	18960	97.49%
Sullivan	2398	190	7.92%	2208	92.08%	1449	37	2.55%	1412	97.45%
Susquehanna	15430	1128	7.31%	14302	92.69%	10103	350	3.46%	9753	96.54%
Tioga	16340	1059	6.48%	15281	93.52%	11033	355	3.22%	10678	96.78%
Union	13880	912	6.57%	12968	93.43%	9046	156	1.72%	8890	98.28%
Venango	21033	1376	6.54%	19657	93.46%	13734	438	3.19%	13296	96.81%
Warren	16070	1098	6.83%	14972	93.17%	10470	233	2.23%	10237	97.77%
Washington	86028	4607	5.36%	81421	94.64%	55522	1508	2.72%	54014	97.28%
Wayne	19379	1148	5.92%	18231	94.08%	12866	246	1.91%	12620	98.09%
Westmoreland	152288	9063	5.95%	143225	94.05%	96485	2679	2.78%	93806	97.22%
Wyoming	10600	615	5.80%	9985	94.20%	6970	146	2.09%	6824	97.91%
York	176428	9330	5.29%	167098	94.71%	121186	3077	2.54%	118109	97.46%
Total (for 67 counties)	5147783	376179	7.31%	4771604	92.69%	3270091	111666	3.41%	3158425	96.59%

	Poverty Level of Individuals (c)				
		< 50		50 >	
County	Total N	N	%	N	%
Adams	99662	3581	3.59%	96081	96.41%
Allegheny	1214621	66579	5.48%	1148042	94.52%
Armstrong	65296	2636	4.04%	62660	95.96%
Beaver	165585	7829	4.73%	157756	95.27%
Bedford	47081	1851	3.93%	45230	96.07%
Berks	414193	22156	5.35%	392037	94.65%
Blair	120244	6508	5.41%	113736	94.59%
Bradford	59503	3243	5.45%	56260	94.55%
Bucks	634873	16730	2.64%	618143	97.36%
Butler	187410	7043	3.76%	180367	96.24%
Cambria	127785	7302	5.71%	120483	94.29%
Cameron	4561	188	4.12%	4373	95.88%
Carbon	63568	4049	6.37%	59519	93.63%
Centre	140304	16735	11.93%	123569	88.07%
Chester	518825	16004	3.08%	502821	96.92%
Clarion	36359	2624	7.22%	33735	92.78%
Clearfield	74757	4251	5.69%	70506	94.31%
Clinton	36235	1793	4.95%	34442	95.05%
Columbia	60912	4510	7.40%	56402	92.60%
Crawford	80833	3773	4.67%	77060	95.33%
Cumberland	243950	8134	3.33%	235816	96.67%
Dauphin	279554	17313	6.19%	262241	93.81%
Delaware	553285	24031	4.34%	529254	95.66%
Elk	30634	1163	3.80%	29471	96.20%
Erie	258780	18123	7.00%	240657	93.00%
Fayette	124503	8544	6.86%	115959	93.14%
Forest	4289	289	6.74%	4000	93.26%
Franklin	153466	6522	4.25%	146944	95.75%
Fulton	14478	541	3.74%	13937	96.26%
Greene	32746	2046	6.25%	30700	93.75%
Huntingdon	38963	1807	4.64%	37156	95.36%
Indiana	78184	4887	6.25%	73297	93.75%
Jefferson	43655	3158	7.23%	40497	92.77%
Juniata	23339	843	3.61%	22496	96.39%

Lackawanna	207975	12640	6.08%	195335	93.92%
Lancaster	538672	20331	3.77%	518341	96.23%
Lawrence	84136	4505	5.35%	79631	94.65%
Lebanon	138899	6276	4.52%	132623	95.48%
Lehigh	363394	17686	4.87%	345708	95.13%
Luzerne	313228	20784	6.64%	292444	93.36%
Lycoming	107625	6100	5.67%	101525	94.33%
McKean	37803	2631	6.96%	35172	93.04%
Mercer	104210	4939	4.74%	99271	95.26%
Mifflin	45425	1708	3.76%	43717	96.24%
Monroe	165844	8291	5.00%	157553	95.00%
Montgomery	829578	24295	2.93%	805283	97.07%
Montour	17346	774	4.46%	16572	95.54%
Northampton	300063	11760	3.92%	288303	96.08%
Northumberland	88023	5103	5.80%	82920	94.20%
Perry	45259	1999	4.42%	43260	95.58%
Philadelphia	1554202	170253	10.95%	1383949	89.05%
Pike	57946	2337	4.03%	55609	95.97%
Potter	16227	787	4.85%	15440	95.15%
Schuylkill	135952	6874	5.06%	129078	94.94%
Snyder	37434	1249	3.34%	36185	96.66%
Somerset	69162	2484	3.59%	66678	96.41%
Sullivan	5730	312	5.45%	5418	94.55%
Susquehanna	38415	2052	5.34%	36363	94.66%
Tioga	40613	1963	4.83%	38650	95.17%
Union	34501	1406	4.08%	33095	95.92%
Venango	49672	2445	4.92%	47227	95.08%
Warren	38151	1728	4.53%	36423	95.47%
Washington	203921	8252	4.05%	195669	95.95%
Wayne	47474	1833	3.86%	45641	96.14%
Westmoreland	347950	15345	4.41%	332605	95.59%
Wyoming	25520	1029	4.03%	24491	95.97%
York	445469	17327	3.89%	428142	96.11%
Total (for 67 counties)	12568252	684284	5.44%	11883968	94.56%

Notes:

* Imputed figures.

(a) Poverty levels for "Households" are imputed from four tables of the American Community Survey 2017-2021 data release:
Table C17002. Ratio of Income to Poverty Level in the Past 12 Months (Universe - Population) - 5 Year Estimates.
Table B17026. Ratio of Income to Poverty Level in the Past 12 Months of Families by Family Type (Universe - Families) - 5 Year Estimates.
Table B11001. Household Type (Including Living Alone) (Universe - Households) - 5 Year Estimates.
Table B11002. Household Type by Relatives and Nonrelatives for Population in Households (Universe - Population) - 5 Year Estimates.

(b) Poverty levels for "Families" is from following American Community Survey 2017-2021 data release table:
Table B17026. Ratio of Income to Poverty Level in the Past 12 Months of Families by Family Type (Universe - Families) - 5 Year Estimates.

(c) Poverty levels for "Individuals" is from following American Community Survey 2017-2021 data release table:
Table C17002. Ratio of Income to Poverty Level in the Past 12 Months (Universe - Population) - 5 Year Estimates.

Clarification note for Table B11002: Household Type is designated as "Family" or "Non-Family". Within both Family & Non-family household types, there are designations for "Relatives" & "Non-Relatives". A "Non-Relative" in a "Family" household is anyone living in the household but not related to the household head by birth, marriage, or adoption (i.e. step-children or foster children).

Compiled by
Mollie Van Loon
CSIS Project
Penn State Univ.
2023-03-23

Household Poverty - PA Counties (2018-2022) - Estimated Based on Census Tables

External

Inbox
Search for all messages with label Inbox
Remove label Inbox from this conversation
PRESERVE
Search for all messages with label PRESERVE
Remove label PRESERVE from this conversation

M

Magee, Joseph

8 Mar 2024, 11:14

to Tawana, Julie, me

Good Morning,

Attached are the updated household poverty estimates for PA counties based on the Census Bureau tables for the 5-year estimates spanning 2018-2022.

The attached file includes estimated household poverty for “less than 50% poverty”, “less than 100% poverty, “less than 150% poverty”, and “less than 200% poverty. In the file, there is a sheet with the estimates for each poverty level. Along with the “Household” estimates, there is poverty level data for “Families” and “Individuals” for comparison on each sheet.

Have a great weekend.

www.puc.pa.gov

Joseph Magee
Energy Policy Manager
Bureau of Consumer Services

Phone: 717-772-1204
Email: jmagee@pa.gov
Consumer Hotline:
1-800-692-7380

not accept liability for any errors or omissions in the contents of this message, which arise as a result of email transmission.

One attachment • Scanned by Gmail

J ReplyReply to allForward

Poverty Levels for Pennsylvania Counites (Low Income - < 50 and Higher Income 50 >): 2018-2022.
Poverty Levels Shown for Households, Families and Individuals.
Source: 2018-2022 American Community Survey 5-Year Estimates - United States Census Bureau

	Poverty Level of Households (a)					Poverty Level of Families (b)				
		< 50		50 >			< 50		50 >	
County	Total N	N *	% *	N *	% *	Total N	N	%	N	%
Adams	40006	2296	5.74%	37710	94.26%	28008	604	2.16%	27404	97.84%
Allegheny	545637	41865	7.67%	503772	92.33%	302324	9796	3.24%	292528	96.76%
Armstrong	27767	1608	5.79%	26159	94.21%	18198	390	2.14%	17808	97.86%
Beaver	71999	4537	6.30%	67462	93.70%	45103	1611	3.57%	43492	96.43%
Bedford	19571	1032	5.27%	18539	94.73%	12778	352	2.75%	12426	97.25%
Berks	161174	11138	6.91%	150036	93.09%	107561	4158	3.87%	103403	96.13%
Blair	50587	3703	7.32%	46884	92.68%	31567	1095	3.47%	30472	96.53%
Bradford	24361	1709	7.02%	22652	92.98%	15782	637	4.04%	15145	95.96%
Bucks	246834	9727	3.94%	237107	96.06%	175775	2600	1.48%	173175	98.52%
Butler	79466	4172	5.25%	75294	94.75%	51687	1041	2.01%	50646	97.99%
Cambria	55541	4599	8.28%	50942	91.72%	33602	1440	4.29%	32162	95.71%
Cameron	2210	129	5.84%	2081	94.16%	1299	35	2.69%	1264	97.31%
Carbon	26662	2002	7.51%	24660	92.49%	16956	680	4.01%	16276	95.99%
Centre	58285	8992	15.43%	49293	84.57%	32260	711	2.20%	31549	97.80%
Chester	200622	8883	4.43%	191739	95.57%	141500	2445	1.73%	139055	98.27%
Clarion	14808	1345	9.08%	13463	90.92%	9628	287	2.98%	9341	97.02%
Clearfield	31741	2073	6.53%	29668	93.47%	20562	720	3.50%	19842	96.50%
Clinton	14877	966	6.49%	13911	93.51%	9555	255	2.67%	9300	97.33%
Columbia	25878	2866	11.08%	23012	88.92%	15850	475	3.00%	15375	97.00%
Crawford	33191	2139	6.44%	31052	93.56%	21661	604	2.79%	21057	97.21%
Cumberland	104053	5555	5.34%	98498	94.66%	65295	1392	2.13%	63903	97.87%
Dauphin	117907	9273	7.86%	108634	92.14%	72307	3673	5.08%	68634	94.92%
Delaware	215833	13163	6.10%	202670	93.90%	142548	4222	2.96%	138326	97.04%
Elk	13485	827	6.13%	12658	93.87%	8129	142	1.75%	7987	98.25%
Erie	109474	9775	8.93%	99699	91.07%	66235	2922	4.41%	63313	95.59%
Fayette	54937	4584	8.34%	50353	91.66%	33848	1714	5.06%	32134	94.94%
Forest	1844	147	7.97%	1697	92.03%	1033	69	6.68%	964	93.32%
Franklin	62576	3620	5.78%	58956	94.22%	42855	1153	2.69%	41702	97.31%
Fulton	6126	324	5.29%	5802	94.71%	4112	105	2.55%	4007	97.45%
Greene	13957	1043	7.47%	12914	92.53%	9237	445	4.82%	8792	95.18%
Huntingdon	15771	793	5.03%	14978	94.97%	10661	390	3.66%	10271	96.34%
Indiana	32285	2753	8.53%	29532	91.47%	19462	614	3.15%	18848	96.85%
Jefferson	18018	1585	8.80%	16433	91.20%	11417	486	4.26%	10931	95.74%
Juniata	8852	395	4.46%	8457	95.54%	6099	159	2.61%	5940	97.39%
Lackawanna	87896	7346	8.36%	80550	91.64%	53783	2089	3.88%	51694	96.12%

Lancaster	208988	11606	5.55%	197382	94.45%	145561	2936	2.02%	142625	97.98%
Lawrence	35933	2575	7.17%	33358	92.83%	22927	746	3.25%	22181	96.75%
Lebanon	55236	3121	5.65%	52115	94.35%	37704	1117	2.96%	36587	97.04%
Lehigh	142160	9266	6.52%	132894	93.48%	96164	2937	3.05%	93227	96.95%
Luzerne	132608	11762	8.87%	120846	91.13%	81984	4310	5.26%	77674	94.74%
Lycoming	45705	3664	8.02%	42041	91.98%	28974	1221	4.21%	27753	95.79%
McKean	15931	1539	9.66%	14392	90.34%	10088	523	5.18%	9565	94.82%
Mercer	45890	2948	6.42%	42942	93.58%	29035	1121	3.86%	27914	96.14%
Mifflin	18612	882	4.74%	17730	95.26%	12671	450	3.55%	12221	96.45%
Monroe	59113	4125	6.98%	54988	93.02%	42191	1746	4.14%	40445	95.86%
Montgomery	329680	15564	4.72%	314116	95.28%	223129	4120	1.85%	219009	98.15%
Montour	7633	369	4.83%	7264	95.17%	5099	162	3.18%	4937	96.82%
Northampton	120384	6650	5.52%	113734	94.48%	80718	2013	2.49%	78705	97.51%
Northumberland	37775	2909	7.70%	34866	92.30%	23926	888	3.71%	23038	96.29%
Perry	18066	894	4.95%	17172	95.05%	12601	465	3.69%	12136	96.31%
Philadelphia	659129	88659	13.45%	570470	86.55%	350182	27642	7.89%	322540	92.11%
Pike	23780	1365	5.74%	22415	94.26%	15746	552	3.51%	15194	96.49%
Potter	6595	455	6.90%	6140	93.10%	4356	105	2.41%	4251	97.59%
Schuylkill	56987	3751	6.58%	53236	93.42%	36804	1168	3.17%	35636	96.83%
Snyder	14430	598	4.14%	13832	95.86%	9969	148	1.48%	9821	98.52%
Somerset	28956	1332	4.60%	27624	95.40%	19326	441	2.28%	18885	97.72%
Sullivan	2462	243	9.87%	2219	90.13%	1496	53	3.54%	1443	96.46%
Susquehanna	15641	1112	7.11%	14529	92.89%	10203	323	3.17%	9880	96.83%
Tioga	16583	1132	6.83%	15451	93.17%	11065	416	3.76%	10649	96.24%
Union	14172	749	5.29%	13423	94.71%	9156	146	1.59%	9010	98.41%
Venango	21323	1450	6.80%	19873	93.20%	13861	496	3.58%	13365	96.42%
Warren	16209	1171	7.22%	15038	92.78%	10276	209	2.03%	10067	97.97%
Washington	87200	5546	6.36%	81654	93.64%	55273	1514	2.74%	53759	97.26%
Wayne	19747	1104	5.59%	18643	94.41%	12759	317	2.48%	12442	97.52%
Westmoreland	153237	9515	6.21%	143722	93.79%	96524	2675	2.77%	93849	97.23%
Wyoming	10788	638	5.91%	10150	94.09%	7058	180	2.55%	6878	97.45%
York	178543	9944	5.57%	168599	94.43%	122391	3251	2.66%	119140	97.34%
Total (for 67 counties)	5193727	383602	7.39%	4810125	92.61%	3277894	113902	3.47%	3163992	96.53%

	Poverty Level of Individuals (c)				
		< 50		50 >	
County	Total N	N	%	N	%
Adams	100237	3930	3.92%	96307	96.08%
Allegheny	1212023	69136	5.70%	1142887	94.30%
Armstrong	64856	2611	4.03%	62245	95.97%
Beaver	164856	8174	4.96%	156682	95.04%
Bedford	47012	1873	3.98%	45139	96.02%
Berks	415500	22144	5.33%	393356	94.67%
Blair	119234	6471	5.43%	112763	94.57%
Bradford	59426	3293	5.54%	56133	94.46%
Bucks	636367	16753	2.63%	619614	97.37%
Butler	189482	6879	3.63%	182603	96.37%
Cambria	127056	7996	6.29%	119060	93.71%
Cameron	4501	201	4.47%	4300	95.53%
Carbon	63983	3758	5.87%	60225	94.13%
Centre	139187	15747	11.31%	123440	88.69%
Chester	523110	16049	3.07%	507061	96.93%
Clarion	36064	2284	6.33%	33780	93.67%
Clearfield	74728	3738	5.00%	70990	95.00%
Clinton	36293	1717	4.73%	34576	95.27%
Columbia	60824	4555	7.49%	56269	92.51%
Crawford	80087	3674	4.59%	76413	95.41%
Cumberland	248034	9397	3.79%	238637	96.21%
Dauphin	281414	18329	6.51%	263085	93.49%
Delaware	554170	24339	4.39%	529831	95.61%
Elk	30494	1212	3.97%	29282	96.03%
Erie	257534	17509	6.80%	240025	93.20%
Fayette	123997	8435	6.80%	115562	93.20%
Forest	4594	340	7.40%	4254	92.60%
Franklin	154000	6420	4.17%	147580	95.83%
Fulton	14480	557	3.85%	13923	96.15%
Greene	32604	1995	6.12%	30609	93.88%
Huntingdon	39133	1685	4.31%	37448	95.69%
Indiana	77854	4672	6.00%	73182	94.00%
Jefferson	43479	2817	6.48%	40662	93.52%
Juniata	23259	808	3.47%	22451	96.53%

Lackawanna	207878	12810	6.16%	195068	93.84%
Lancaster	540062	20124	3.73%	519938	96.27%
Lawrence	83608	4358	5.21%	79250	94.79%
Lebanon	139477	5947	4.26%	133530	95.74%
Lehigh	364847	17241	4.73%	347606	95.27%
Luzerne	313804	22320	7.11%	291484	92.89%
Lycoming	107523	6685	6.22%	100838	93.78%
McKean	37789	2806	7.43%	34983	92.57%
Mercer	103728	5334	5.14%	98394	94.86%
Mifflin	45396	1874	4.13%	43522	95.87%
Monroe	165482	9000	5.44%	156482	94.56%
Montgomery	835381	26914	3.22%	808467	96.78%
Montour	17376	696	4.01%	16680	95.99%
Northampton	302042	12230	4.05%	289812	95.95%
Northumberland	87681	5013	5.72%	82668	94.28%
Perry	45398	1949	4.29%	43449	95.71%
Philadelphia	1548400	168652	10.89%	1379748	89.11%
Pike	58476	2717	4.65%	55759	95.35%
Potter	16150	755	4.67%	15395	95.33%
Schuylkill	136269	6644	4.88%	129625	95.12%
Snyder	37048	1003	2.71%	36045	97.29%
Somerset	69340	2375	3.43%	66965	96.57%
Sullivan	5636	386	6.85%	5250	93.15%
Susquehanna	38100	1950	5.12%	36150	94.88%
Tioga	40516	2151	5.31%	38365	94.69%
Union	34497	1175	3.41%	33322	96.59%
Venango	49524	2594	5.24%	46930	94.76%
Warren	37855	1770	4.68%	36085	95.32%
Washington	204201	9362	4.58%	194839	95.42%
Wayne	47959	1932	4.03%	46027	95.97%
Westmoreland	347295	15813	4.55%	331482	95.45%
Wyoming	25401	1104	4.35%	24297	95.65%
York	448114	18273	4.08%	429841	95.92%
Total (for 67 counties)	12582125	693455	5.51%	11888670	94.49%

Notes:

* Imputed figures.

(a) Poverty levels for "Households" are imputed from four tables of the American Community Survey 2018-2022 data release:
Table C17002. Ratio of Income to Poverty Level in the Past 12 Months (Universe - Population) - 5 Year Estimates.
Table B17026. Ratio of Income to Poverty Level in the Past 12 Months of Families by Family Type (Universe - Families) - 5 Year Estimates.
Table B11001. Household Type (Including Living Alone) (Universe - Households) - 5 Year Estimates.
Table B11002. Household Type by Relatives and Nonrelatives for Population in Households (Universe - Population) - 5 Year Estimates.

(b) Poverty levels for "Families" is from following American Community Survey 2018-2022 data release table:
Table B17026. Ratio of Income to Poverty Level in the Past 12 Months of Families by Family Type (Universe - Families) - 5 Year Estimates.

(c) Poverty levels for "Individuals" is from following American Community Survey 2018-2022 data release table:
Table C17002. Ratio of Income to Poverty Level in the Past 12 Months (Universe - Population) - 5 Year Estimates.

Clarification note for Table B11002: Household Type is designated as "Family" or "Non-Family". Within both Family & Non-family household types, there are designations for "Relatives" & "Non-Relatives". A "Non-Relative" in a "Family" household is anyone living in the household but not related to the household head by birth, marriage, or adoption (i.e. step-children or foster children).

Compiled by
Mollie Van Loon
CSIS Project
Penn State Univ.
2023-03-23

Re: [External] Re: Household Poverty - PA Counties (2018-2022) - Estimated Based on Census Tables

J

Jordan, Judith <judith.jordan@veolia.com> Fri, 8 Mar, 12:10

to Joseph

I believe he was on one of the calls.

Thanks,

Enjoy your weekend!

On Fri, 8 Mar 2024 at 12:08, Magee, Joseph <jmagee@pa.gov> wrote:
Jen Johnson confirmed she is on the distribution list and I know I am. I don't believe Nathan is. If he attended a meeting, I would have forwarded him the invitation. I will have to check with him about that.

Joseph Magee | Energy Policy Manager
Pennsylvania Public Utility Commission | Bureau of Consumer Services
400 North Street | 2nd Floor | Harrisburg, PA 17120
Tel: 717-772-1204 | Email: jmagee@pa.gov
www.puc.pa.gov | **Consumer Hotline** 1-800-692-7380

From: Jordan, Judith <judith.jordan@veolia.com>
Sent: Friday, March 8, 2024 12:05 PM
To: Magee, Joseph <jmagee@pa.gov>
Subject: Re: [External] Re: Household Poverty - PA Counties (2018-2022) - Estimated Based on Census Tables

Thank You, I don't have them in my email distribution list; have you been forwarding and maybe I'm not seeing them?

On Fri, 8 Mar 2024 at 11:58, Magee, Joseph <jmagee@pa.gov> wrote:
Hi Judy,

Yes, we were given the all-clear to email with Veolia again, so I hope that means that all is well with you. 🙂

Jen Johnson has been attending the LIAC meetings for my staff (and maybe Nathan Froehlich as well). I hope to attend future LIAC meetings as well.

Joseph Magee | Energy Policy Manager
Pennsylvania Public Utility Commission | Bureau of Consumer Services
400 North Street | 2nd Floor | Harrisburg, PA 17120
Tel: 717-772-1204 | Email: jmagee@pa.gov
www.puc.pa.gov | **Consumer Hotline** 1-800-692-7380

From: Jordan, Judith <judith.jordan@veolia.com>
Sent: Friday, March 8, 2024 11:49 AM
To: Magee, Joseph <jmagee@pa.gov>
Subject: [External] Re: Household Poverty - PA Counties (2018-2022) - Estimated Based on Census Tables

Thank you so much Joe.
I see we can now communicate.
Also, was there someone that you had to represent your department for the LIAC Committee Meeting with Veolia.
For some reason I remember someone attending; however I don't remember their name.

Thanks,

Judy

On Fri, 8 Mar 2024 at 11:14, Magee, Joseph <jmagee@pa.gov> wrote:
Good Morning,

Attached are the updated household poverty estimates for PA counties based on the Census Bureau tables for the 5-year estimates spanning 2018-2022.

The attached file includes estimated household poverty for “less than 50% poverty”, “less than 100% poverty, “less than 150% poverty”, and “less than 200% poverty. In the file, there is a sheet with the estimates for each poverty level. Along with the “Household” estimates, there is poverty level data for “Families” and “Individuals” for comparison on each sheet.

Have a great weekend.

www.puc.pa.gov

Joseph Magee
Energy Policy Manager
Bureau of Consumer Services

Phone: 717-772-1204
Email: jmagee@pa.gov
Consumer Hotline:
1-800-692-7380

--
Judith A. McCoy Jordan
Director of Programs
VEOLIA NORTH AMERICA, UNITED STATES

telephone 717-901-6322

6310 Allentown Blvd
Harrisburg, PA 17112
Judith.Jordan@veolia.com

Follow up on LIHWAP question

External

Inbox

J

John Sweet <jsweet@pautilitylawproject.org> 19 Jan 2024, 11:18

to me

Hi Judith,

Thanks for the presentation today. We were happy to see the work that Veolia has been doing on its low income programs. I asked Liz about why there was a discrepancy in the number of supplemental LIHWAP grants you received. She explained that the Supplementals only went to VULNERABLE households - which includes families with Seniors (over 60), young children (under 5), or individuals with a disability (receiving disability assistance). This would explain why there were only about 290 supplemental grants versus the 390 initial grants.

Thanks
John

Re: Fw: [External] Household Poverty - PA Counties (2017-2021) - Estimated Based on Census Tables

External

Inbox
Search for all messages with label Inbox
Remove label Inbox from this conversation
PRESERVE
Search for all messages with label PRESERVE
Remove label PRESERVE from this conversation

M

Magee, Joseph <jmagee@pa.gov> Fri, 17 Nov 2023, 15:12

to me

Hi Judy,

You are very welcome. It was great meeting you too. Hope you have a wonderful Thanksgiving!

Joseph Magee | Energy Policy Manager
Pennsylvania Public Utility Commission | Bureau of Consumer Services
400 North Street | 2nd Floor | Harrisburg, PA 17120
Tel: 717-772-1204 | Fax: 717-265-8273 | Email: jmagee@pa.gov
www.puc.pa.gov | **Consumer Hotline** 1-800-692-7380

From: Jordan, Judith <judith.jordan@veolia.com>
Sent: Friday, November 17, 2023 2:47 PM
To: Magee, Joseph <jmagee@pa.gov>
Subject: Re: Fw: [External] Household Poverty - PA Counties (2017-2021) - Estimated Based on Census Tables

Joseph it was great meeting you in person today.
Thank you so much for the data you provided.

Thanks,
Judy

On Fri, 17 Nov 2023 at 13:11, Magee, Joseph <jmagee@pa.gov> wrote:

Joseph Magee | Energy Policy Manager
Pennsylvania Public Utility Commission | Bureau of Consumer Services
400 North Street | 2nd Floor | Harrisburg, PA 17120
Tel: 717-772-1204 | Fax: 717-265-8273 | Email: jmagee@pa.gov
www.puc.pa.gov | **Consumer Hotline** 1-800-692-7380

--
Judith A. McCoy Jordan
Director of Customer Service
VEOLIA NORTH AMERICA, UNITED STATES

telephone 717-901-6322

6310 Allentown Blvd
Harrisburg, PA 17112
Judith.Jordan@veolia.com
Resourcing the world VEOLIA

RE: December 28th LIAC Committee Meeting

External

Inbox
Search for all messages with label Inbox
Remove label Inbox from this conversation
PRESERVE
Search for all messages with label PRESERVE
Remove label PRESERVE from this conversation

M

Matthew Rich <mrich@midpenn.org> Fri, 29 Dec 2023, 18:12

to me

Judy,

The 19th works for me, as I'll be in the office today and, as of now, don't have anything on my calendar. The dates I'd listed in my previous e-mail were the days that did not work for me – so, the 19th is good.

Thanks very much. Hope you're enjoying the holidays. Happy New Year!

Matt

Matthew S. Rich
Staff Attorney
Pronouns: He/Him

213-A North Front Street | Harrisburg, Pennsylvania 17101
Phone: 717.232.0581 Extension 2108 | Fax: 717.234.0496 | http://www.midpenn.org

From: Jordan, Judith <judith.jordan@veolia.com>
Sent: Friday, December 29, 2023 5:49 PM
To: Matthew Rich <mrich@midpenn.org>
Subject: Re: December 28th LIAC Committee Meeting

> You don't often get email from judith.jordan@veolia.com. Learn why this is important

Good Evening Matthew,

I am trying to work around everyones schedules. Is there anyway we can have this meeting the 19th at 10:00 AM.
I wanted to check with you prior to sending the invite as that seems to be the date that works best for everyone.
Is there an alternate that can sit in for you if you can not make it?

Thanks
Judy

On Wed, 20 Dec 2023 at 08:49, Matthew Rich <mrich@midpenn.org> wrote:
Judy,

I accepted the invite so that the meeting went to my calendar but I must have chosen the option that didn't respond to you to let you know – my apologies. I am certainly on board with moving the meeting to another date. As of now, I can make most days in January work except the following: The 9th, 10th, 11th, 29th, 30th, and 31st.

Happy Holidays!

Thanks,

Matt

Matthew S. Rich
Staff Attorney
Pronouns: He/Him

213-A North Front Street | Harrisburg, Pennsylvania 17101
Phone: 717.232.0581 Extension 2108 | Fax: 717.234.0496 | http://www.midpenn.org

From: Jordan, Judith <judith.jordan@veolia.com>
Sent: Tuesday, December 19, 2023 5:54 PM
To: Elizabeth Marx <emarx@pautilitylawproject.org>; John Sweet <jsweet@pautilitylawproject.org>; Kaster, Allison <akaster@pa.gov>; choover@paoca.org; christmorr@pa.gov; Zambito, David <DZambito@cozen.com>; efure@pa.gov; Egannon@paoca.org; Magee, Joseph <jmagee@pa.gov>; kaypick@comcast.net; mevansklem@pa.gov; Matthew Rich <mrich@midpenn.org>; Wagner, Teresa <tereswagne@pa.gov>; Nase, Jonathan <jnase@cozen.com>
Cc: Maryanne Hatch <maryanne.hatch@veolia.com>; Cagle, James <james.cagle@veolia.com>; Larry Finnicum <larry.finnicum@veolia.com>
Subject: December 28th LIAC Committee Meeting

Good Afternoon LIAC Committee Members and Participants,

According to the calendar invite for 10:00 AM December 28, 2023; our next LIAC Committee Meeting I show no acceptance.
With the Holidays upon us, it is my understanding that some of you are off during this scheduled time.
I ask that we consider postponing this meeting until January when most of you are available to attend.

Please provide suggested dates for our next meeting.
Please note I have included alternates as well on this invite.

Thank You in Advance for your consideration.
Happy Holidays!

Judy McCoy Jordan

--
Judith A. McCoy Jordan
Director of Customer Service
VEOLIA NORTH AMERICA, UNITED STATES

telephone 717-901-6322

6310 Allentown Blvd
Harrisburg, PA 17112
Judith.Jordan@veolia.com

RE: December 28th LIAC Committee Meeting

External

Inbox
Search for all messages with label Inbox
Remove label Inbox from this conversation
PRESERVE
Search for all messages with label PRESERVE
Remove label PRESERVE from this conversation

J

John Sweet <jsweet@pautilitylawproject.org> Fri, 22 Dec 2023, 11:09

to me, Elizabeth, Allison, choover@paoca.org, christmorr@pa.gov, David, efure@pa.gov, Egannon@paoca.org, Joseph, kaypick@comcast.net, mevansklem@pa.gov, Matthew, Teresa, Jonathan, Maryanne, James, Larry

Hi Judith,

Our office is closed on Dec. 28th. We would prefer to meet after the New Year. Some potential times that work for us would be:

- Jan 4 anytime
- Jan 5 anytime
- Jan 8 anytime after 12pm
- Jan 9 anytime
- Jan 10 anytime
- Jan 19 anytime

Hope you have a great Holiday Season!

- John

From: Jordan, Judith <judith.jordan@veolia.com>
Sent: Tuesday, December 19, 2023 5:54 PM
To: Elizabeth Marx <emarx@pautilitylawproject.org>; John Sweet <jsweet@pautilitylawproject.org>; Kaster, Allison <akaster@pa.gov>; choover@paoca.org; christmorr@pa.gov; Zambito, David <DZambito@cozen.com>; efure@pa.gov; Egannon@paoca.org; Magee, Joseph <jmagee@pa.gov>; kaypick@comcast.net; mevansklem@pa.gov; Matthew Rich <MRich@midpenn.org>; Wagner, Teresa <tereswagne@pa.gov>; Nase, Jonathan <jnase@cozen.com>
Cc: Maryanne Hatch <maryanne.hatch@veolia.com>; Cagle, James <james.cagle@veolia.com>; Larry Finnicum <larry.finnicum@veolia.com>
Subject: December 28th LIAC Committee Meeting

Good Afternoon LIAC Committee Members and Participants,

According to the calendar invite for 10:00 AM December 28, 2023; our next LIAC Committee Meeting I show no acceptance.
With the Holidays upon us, it is my understanding that some of you are off during this scheduled time.
I ask that we consider postponing this meeting until January when most of you are available to attend.

Please provide suggested dates for our next meeting.
Please note I have included alternates as well on this invite.

Thank You in Advance for your consideration.
Happy Holidays!

Judy McCoy Jordan

Pa. P.U.C. v. Veolia Water Pennsylvania, Inc.
Docket Nos. R-2024-3045192 (Water) R-2024-3045193 (Wastewater)
Interrogatories of the Office of Consumer Advocate
Set 5 to Veolia

OCA-5-23 Please provide how the Company calculates what a customer's payment arrangement will be.

Answer: Please see OCA-5-23 Attachment.xlsx

Answer provided by:	Judith McCoy Jordan
Title:	Director of Programs
Address:	6310 Allentown Blvd Suite 104 Harrisburg, PA 17112
Date:	3/12/24

Veolia Water Pennsylvania Inc.

Docket No. R-2024-3045192 / 3045193

2024 Residential Monthly Income Guidelines

Eff Mar 2024

# in Household	FEDERAL POVERTY INCOME GUIDELINES (FPIG) 100%	125%	150%	175%	200%	250%	300%	Yearly Income
1	$ 1,255	$ 1,569	$ 1,883	$ 2,196	$ 2,510	$ 3,138	$ 3,765	$ 15,060
2	$ 1,703	$ 2,129	$ 2,555	$ 2,981	$ 3,407	$ 4,258	$ 5,110	$ 20,440
3	$ 2,152	$ 2,690	$ 3,228	$ 3,765	$ 4,303	$ 5,379	$ 6,455	$ 25,820
4	$ 2,600	$ 3,250	$ 3,900	$ 4,550	$ 5,200	$ 6,500	$ 7,800	$ 31,200
5	$ 3,048	$ 3,810	$ 4,573	$ 5,335	$ 6,097	$ 7,621	$ 9,145	$ 36,580
6	$ 3,497	$ 4,371	$ 5,245	$ 6,119	$ 6,993	$ 8,742	$ 10,490	$ 41,960
7	$ 3,945	$ 4,931	$ 5,918	$ 6,904	$ 7,890	$ 9,863	$ 11,835	$ 47,340
8	$ 4,393	$ 5,492	$ 6,590	$ 7,688	$ 8,787	$ 10,983	$ 13,180	$ 52,720
For each additional HH member add:	$ 448	$ 560	$ 673	$ 785	$ 897	$ 1,121	$ 1,345	$ 5,380

Payment Arrangements Utilizing the Monthly Poverty Guidelines	$25/mo towards arrears not to exceed 60 months	$30/mo towards arrears not to exceed 60 months	$40/mo towards arrears not to exceed 60 months	$50/mo towards arrears not to exceed 48 months	$75/mo towards arrears not to exceed 36 months	$100/mo towards arrears not to exceed 24 months	$150/mo towards arrears not to exceed 12 months	Note: Customers > 300% should not exceed 6 months

Commercial: Not to exceed 6 months

Pa. P.U.C. v. Veolia Water Pennsylvania, Inc.
Docket Nos. R-2024-3045192 (Water) R-2024-3045193 (Wastewater)
Interrogatories of the Office of Consumer Advocate
Set 5 to Veolia

OCA-5-28 Please provide by month for the most recent 36 months, disaggregated by the low-income discount tiers proposed by Veolia in this proceeding:

a. The residential water bill at existing rates at the mean low-income water usage;

b. The residential water bill at existing rates at the median low-income water usage;

c. The residential water bill at proposed rates at the mean low-income water usage;

d. The residential water bill at proposed rates at the median low-income water usage.

NOTE: If Veolia does not have a mean or median low-income usage, provide the bills using the mean and median residential usage.

Answer: Please see OCA-5-28 Attachment.xlsx. Bills are estimated based on the low-income mean and median water usage provided in response to OCA-5-26. It is the Company's position that disaggregating data by the low-income discount tiers proposed, i.e., further portioning an already small data set, will not render meaningful results as, for example, small data sets can produce skewed statistics due to a single or a few extreme observations. Please also refer to OCA-5-1. However, the limited low-income data currently available indicates that the overwhelming majority of the observations fall into the 0-100% Federal Poverty Level tier.

Answer provided by:	Judith McCoy Jordan
Title:	Director of Programs
Address:	6310 Allentown Blvd Suite 104 Harrisburg, PA 17112
Date:	3/12/24

Veolia Water Pennsylvania, Inc.
Docket No. R-2024-3045192 / 3045193

Year	Month	a.The residential water bill at existing rates at the mean residential water usage	b.The residential water bill at existing rates at the median residential water usage;	c. The residential water bill at proposed rates at the mean residential water usage;			d.The residential water bill at proposed rates at the median low-income water usage.		
				0-100% FPL	101-150% FPL	151-200%FPL	0-100% FPL	101-150% FPL	151-200%FPL
2021	March	$ 79.23	$ 64.08	$ 56.28	$ 67.99	$ 79.70	$ 37.63	$ 49.34	$ 61.05
2021	April	$ 81.87	$ 65.36	$ 59.54	$ 71.25	$ 82.96	$ 39.20	$ 50.91	$ 62.62
2021	May	$ 79.93	$ 67.90	$ 57.15	$ 68.86	$ 80.57	$ 42.33	$ 54.04	$ 65.75
2021	June	$ 84.03	$ 67.90	$ 62.20	$ 73.91	$ 85.62	$ 42.33	$ 54.04	$ 65.75
2021	July	$ 85.03	$ 67.90	$ 63.43	$ 75.14	$ 86.85	$ 42.33	$ 54.04	$ 65.75
2021	August	$ 94.89	$ 67.90	$ 75.56	$ 87.27	$ 98.98	$ 42.33	$ 54.04	$ 65.75
2021	September	$ 85.05	$ 65.36	$ 63.46	$ 75.17	$ 86.88	$ 39.20	$ 50.91	$ 62.62
2021	October	$ 88.83	$ 69.94	$ 64.92	$ 76.63	$ 88.34	$ 42.33	$ 54.04	$ 65.75
2021	November	$ 80.28	$ 67.32	$ 54.70	$ 66.41	$ 78.12	$ 39.20	$ 50.91	$ 62.62
2021	December	$ 82.28	$ 69.94	$ 57.09	$ 68.80	$ 80.51	$ 42.33	$ 54.04	$ 65.75
2022	January	$ 88.61	$ 68.30	$ 63.14	$ 74.85	$ 86.56	$ 39.20	$ 50.91	$ 62.62
2022	February	$ 76.59	$ 64.31	$ 48.97	$ 60.68	$ 72.39	$ 34.50	$ 46.21	$ 57.92
2022	March	$ 67.72	$ 64.31	$ 38.53	$ 50.24	$ 61.95	$ 34.50	$ 46.21	$ 57.92
2022	April	$ 70.29	$ 64.31	$ 41.55	$ 53.26	$ 64.97	$ 34.50	$ 46.21	$ 57.92
2022	May	$ 74.15	$ 65.64	$ 46.10	$ 57.81	$ 69.52	$ 36.07	$ 47.78	$ 59.49
2022	June	$ 82.24	$ 69.63	$ 55.63	$ 67.34	$ 79.05	$ 40.77	$ 52.48	$ 64.19
2022	July	$ 82.33	$ 66.97	$ 55.74	$ 67.45	$ 79.16	$ 37.63	$ 49.34	$ 61.05
2022	August	$ 81.66	$ 69.63	$ 54.94	$ 66.65	$ 78.36	$ 40.77	$ 52.48	$ 64.19
2022	September	$ 82.56	$ 68.30	$ 56.01	$ 67.72	$ 79.43	$ 39.20	$ 50.91	$ 62.62
2022	October	$ 78.66	$ 65.64	$ 51.41	$ 63.12	$ 74.83	$ 36.07	$ 47.78	$ 59.49
2022	November	$ 73.79	$ 62.98	$ 45.67	$ 57.38	$ 69.09	$ 32.94	$ 44.65	$ 56.36
2022	December	$ 71.07	$ 64.31	$ 42.47	$ 54.18	$ 65.89	$ 34.50	$ 46.21	$ 57.92
2023	January	$ 74.74	$ 67.41	$ 46.21	$ 57.92	$ 69.63	$ 37.63	$ 49.34	$ 61.05
2023	February	$ 67.30	$ 63.40	$ 37.50	$ 49.21	$ 60.92	$ 32.94	$ 44.65	$ 56.36
2023	March	$ 75.64	$ 64.74	$ 47.26	$ 58.97	$ 70.68	$ 34.50	$ 46.21	$ 57.92
2023	April	$ 77.53	$ 67.41	$ 49.47	$ 61.18	$ 72.89	$ 37.63	$ 49.34	$ 61.05
2023	May	$ 79.01	$ 67.41	$ 51.21	$ 62.92	$ 74.63	$ 37.63	$ 49.34	$ 61.05
2023	June	$ 84.85	$ 71.43	$ 58.05	$ 69.76	$ 81.47	$ 42.33	$ 54.04	$ 65.75
2023	July	$ 88.77	$ 74.14	$ 60.70	$ 72.41	$ 84.12	$ 43.90	$ 55.61	$ 67.32
2023	August	$ 87.38	$ 71.42	$ 59.10	$ 70.81	$ 82.52	$ 40.77	$ 52.48	$ 64.19
2023	September	$ 83.09	$ 71.42	$ 54.17	$ 65.88	$ 77.59	$ 40.77	$ 52.48	$ 64.19
2023	October	$ 75.42	$ 65.97	$ 45.37	$ 57.08	$ 68.79	$ 34.50	$ 46.21	$ 57.92
2023	November	$ 77.98	$ 70.05	$ 48.30	$ 60.01	$ 71.72	$ 39.20	$ 50.91	$ 62.62
2023	December	$ 79.70	$ 70.05	$ 50.28	$ 61.99	$ 73.70	$ 39.20	$ 50.91	$ 62.62
2024	January	$ 80.68	$ 72.71	$ 51.49	$ 63.20	$ 74.91	$ 42.33	$ 54.04	$ 65.75
2024	February	$ 78.58	$ 68.63	$ 49.07	$ 60.78	$ 72.49	$ 37.63	$ 49.34	$ 61.05

Note: Bills are based on mean and median usage provided in OCA-5-26. Bills at current rates include DSIC and STAS charges.

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NO. R-2024-3045192

AND

DOCKET NO. R-2024-3045193

PREPARED DIRECT TESTIMONY

OF

ANUPA JACOB

REGARDING

MANAGEMENT & SERVICES FEES

VEOLIA WATER PENNSYLVANIA, INC.

February 2024

Q. What is your name and business address?

A. My name is Anupa Jacob and my business address is Veolia Water M&S (Paramus), Inc. ("VWM&S"), 461 From Road, Suite 400, Paramus, NJ 07652.

Q. By whom are you employed and in what capacity?

A. I am the VP/Controller & Chief Accounting Officer at VWM&S (formerly SUEZ Water Management & Services Inc.) with the overall responsibility of the company's financial accounting records of the regulated companies.

Q. Please describe your work experience

A. I have over fifteen years of experience in accounting and auditing regulated utilities, publicly traded companies, and private companies. Previous to my current role, I was the Director of Utility Accounting for VWM&S, Manager of Technical Accounting and Derivatives Accounting at National Grid, Plc., and held various roles within the Assurance practice at PwC.

Q. Please summarize your educational background and other qualifications.

A. I received a Bachelor Degree in Electronics and Communication Engineering from Cochin University of Science and Technology, India and a Master of Business Administration with a concentration in Accounting from Baruch College, City University of New York. I am a Certified Public Accountant licensed in the State of New York.

Q. In what regulatory agencies have you previously presented testimony?

A. I have previously presented testimony before the Idaho Public Utilities Commission, Delaware Public Service Commission and the New Jersey Board of Public Utilities.

Q. What is the purpose and nature of your testimony in this proceeding?

A. The purpose of my testimony is to describe the nature of the Management and Services Fee and its intended benefits to Veolia Water Pennsylvania, Inc. ("VWPA").

Q. What services does the Management and Services Fee represent?

A. VWM&S fee represents the services provided to VWPA by VWM&S employees. These services include administrative, engineering, legal, operations, accounting, finance, human resources, purchasing, insurance, data processing, customer service, billing, public relations, planning and ratemaking services and other general services necessary in the proper conduct of business.

Q. What are the benefits of centralizing services provided by VWM&S?

A. Through the centralization of certain specialized services, VWPA is able to enjoy economies of scale and realize savings over the cost of providing the same services at each individual operating utility.

Q. How are these costs allocated and have there been any changes to the allocation methodology since the last general rate case?

A. The company continues to use the same cost allocation methodology described in the Agreement between Veolia Water Management & Services (Paramus), Inc. (formerly SUEZ Water Management & Services Inc.), which was approved by the Commission in Dockets G-2016-2546454 and G-2016-2557846, as further detailed the Cost Allocation Manual ("CAM"). Refer to the CAM document attached to 53.53 Exhibit D, III.06 Attachment C. The shared services allocation methodology did not change as a result of the merger with Veolia. When significant organizational changes occur during the year that may affect the allocation of shared costs between affiliated entities, the Company reviews the nature of the changes and determines the necessary updates to the allocation factors in accordance with the CAM. As a result of the merger with Veolia in the first quarter of 2022, there were announcements made regarding the scope and responsibilities of certain employees within the shared services. We reviewed these changes with each department, and we recalculated the new allocation percentages using the three-factor formula described in the CAM depending on the scope of responsibilities for each employee within a department.

Q. Please describe the Exhibits you are presenting in support of the Management and Services Expense.

A. Exhibit No. GRH-3 Schedule-12 Adjustment No.11 shows the Management and Services Fees for the Historic Test Year ("HTY") 12 months ended 9/30/2023, the Future Test Year ("FTY"), and the Fully Projected Future Test Year ending Ocboter 31, 2025. VWM&S costs for 12 months ended 9/20/23 were normalized to remove one time costs and then adjusted upwards by a factor of 3% to account for a general increase in costs of services provided to arrive at the future test year. The future test year was then adjusted upwards by a factor of 3% to arrive at the fully projected future test year.

Q. What other components are included in the Management & Services fee?

A. In addition to the services fees discussed above, VWM&S also includes an allocated portion of depreciation expense for Shared Assets as described in the CAM. VWM&S makes capital expenditures, generally related to investments in information technology hardware and software, as well as other assets which benefit the utility customers of VWPA as well as the utility customers of affiliates of VWPA in other states. In the absence of the VWM&S investments in these assets, VWPA would have needed to make these investments on a standalone basis in order to support its operations and the delivery of reliable services to its customers. Because these investments are utilized to provide utility service, a computation of a return on such shared asset investments is also included in this filing. The return on such shared asset investments is not a part of the VWM&S

cost allocation for accounting purposes and is retained by VWPA. Previous to the CAM, capital expenditures generally related to such investments would have been allocated to each company and reflected on that company's balance sheet. As such, it would have increased the operating company's rate base and been recovered in rates through depreciation expense and return. With the current methodology, the asset appropriately remains on VWM&S's balance sheet and a portion of the costs are allocated to the operating companies and recovered through deprecation and a return. As a result, the revenue requirement is designed to be the same for these assets under either scenario. Please note, shared assets balances included in the calculation of depreciation expense for the future test year and the fully projected future test year includes projections of VWM&S assets expected to be put into service within that period.

Q. Does this conclude your direct testimony?

A. Yes, it does. However, I reserve the right to supplement my testimony as additional issues and facts arise during the course of the proceeding.

VERIFICATION

I, Anupa Jacob, hereby state that the facts set forth above are true and correct to the best of my knowledge, information and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: 6/25/2024

Anupa Jacob

VWPA STATEMENT NO. 8-R

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NOS. R-2024-3045192-Water R-2024-3045193 WW

REBUTTAL TESTIMONY

OF

ANUPA JACOB

REGARDING

MANAGEMENT & SERVICES FEES

AND

MAHONING WATER ADJUSTMENTS

VEOLIA WATER PENNSYLVANIA, INC.

June 7, 2024

Q. What is your name and business address?

A. I am Anupa Jacob. My business address is 461 From Road, Paramus, NJ 07652.

Q. Are you the same Anupa Jacob that submitted direct testimony in this docket?

A. Yes, I am.

Q. What is the purpose of your rebuttal testimony in this proceeding?

A. The purpose of my testimony is to respond to the comments and recommendations made by Vanessa Okum on behalf of Bureau of Investigation and Enforcement ("I&E") related to Management and Services ("M&S") fees and by Esyan A. Sakaya on behalf of I&E related to Mahoning water adjustments.

Q. Please summarize I&E's position on the M&S fees for the Future Test Year ("FTY") and the Fully Projected Future Test Year ("FPFTY") proposed by you in your testimony.

A. First, witness Okum does not agree with VWPA's assertion that the FTY forecast is based on a 3% increase over the Historic Test Year ("HTY") since the forecast is 11% higher than the HTY amount. Second, witness Okum does not agree with VWPA's use of a generic 3% per year adjustment when VWPA has already conducted an inflation study as part of the rate case which is being used in other O&M adjustments. Instead, witness Okum proposed applying the calculated

inflation factors to HTY amounts to calculate the FTY and FPFTY M&S Fees amounts.

Q. Can you further explain how VWPA arrived at the M&S Fees FTY forecast from the HTY amount?

A. In general, VWPA's assertion that the M&S Fees FTY forecast was based on a 3% inflation rate to the HTY is accurate with the exception of fees related to insurance, customer experience and the allocated portion of depreciation expense for shared assets (Refer to MFR III-06 Attachment A). Insurance costs are primarily made up of insurance premiums and the FTY amount was determined using the best available information rather than a 3% increase. Customer experience costs are related to a newly created department and these costs do not exist in the HTY. The method used to calculate depreciation expense related to shared assets in the FTY is documented in my direct testimony. Depreciation expense increased by 8% in the FTY when compared to the HTY.

Q. Do you agree with witness Okum's recommendation of using VWPA's calculated inflation factors to calculate FTY and FPFTY M&S Fees amounts?

A. No. While the use of calculated inflation factors is appropriate in calculating the FTY amounts of other O&M expenses, VWPA believes that the use of 3% is more appropriate for M&S fees amounts except for the costs explained above. Personnel costs make up approximately 58% of M&S Fees and the recent year

over year increase in base salaries has been approximately 3.5% overall. Therefore, we believe that using 3% is appropriate.

Q. Please summarize I&E's position regarding the inclusion of acquisition costs for Mahoning.

A. Witness Sakaya recommends that the Commission reject the Company's FPFTY acquisition adjustment claims of $1,104,896 for Water and $1,377,307 for Wastewater, finding that there should be no acquisition adjustment in rate base since the original cost of the acquisition should have been adjusted to reflect the purchase price within specific asset categories per the original fair market valuation.

Q. Can you explain how the acquisition adjustment was calculated at the time of the acquisition?

A. In the Commission's Order approving the Mahoning acquisition the full amount of the acquisition price was approved for inclusion in rate base. However, the Order did not include an Ordering paragraph which stated the amount of net plant in service to be recorded. Since the Company's acquisition, VWPA has noted this statement has been included in the Orders for other Section 1329 acquisitions in Pennsylvania. At the time of the recording of the acquisition, the Company accounted for the transaction as it believed was appropriate, referencing the estimated original cost of the acquired assets and the estimated remaining book

value. The difference between the estimated remaining book value and the purchase price was then recorded as acquisition adjustment.

The Company believes, absent an Order to the contrary, that this accounting was appropriate and complies with the Uniform System of Accounts. However, accepting witness Sakaya's interpretation, the Company has included this adjustment as a part of Company witness Herbert's workpapers whereby the Company would reclassify the acquisition adjustment amount as an addition to plant in service and an elimination of the related acquisition adjustment which would then be depreciated at the proposed depreciation rates in this case. Consequently, if the recommendation to reject the Mahoning acquisition adjustment is adopted, VWPA recommends that the Commission adopt the Company's rebuttal adjustment.

Q. Does this conclude your direct testimony?

A. Yes, it does. However, I reserve the right to supplement my testimony as additional issues and facts arise during the course of the proceeding. Thank you.

VERIFICATION

I, Anupa Jacob, hereby state that the facts set forth above are true and correct to the best of my knowledge, information and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: 6/25/2024

Anupa Jacob

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	Docket Nos. R-2024-3045193 *et al.*
	:	(Wastewater)
v.	:	
	:	Docket Nos. R-2024-3045192, *et al.*
Veolia Water Pennsylvania, Inc.	:	(Water)

DIRECT TESTIMONY OF ROBERT W. BALLENGER, ESQ.

ON BEHALF OF

THE COALITION FOR AFFORDABLE UTILITY SERVICES AND ENERGY EFFICIENCY IN PENNSYLVANIA ("CAUSE-PA")

May 17, 2024

Corrected - June 7, 2024

TABLE OF CONTENTS

CAUSE-PA STATEMENT 1
PREPARED DIRECT TESTIMONY OF ROBERT W. BALLENGER, ESQ.

I. INTRODUCTION

Q: Please state your name, occupation, and business address.

A: Robert W. Ballenger. I am currently a Senior Supervising Staff Attorney at Community Legal Services of Philadelphia (CLS). My office is located at 1424 Chestnut Street, Philadelphia, PA 19102.

Q: Briefly outline your education and professional background.

A: I received a Bachelor's degree, Master's Degree in Social Work (concentration in social policy and practice), and Juris Doctor from the University of Pennsylvania.

From 2004 to 2010, I was employed as an Associate Attorney in the Employee Benefits and Executive Compensation Group at Dechert LLP. My practice involved advising employee benefit plan sponsors of Federal tax and Department of Labor requirements, evaluating and negotiating provisions in corporate transactions, and assisting with securities law disclosures and filings relevant to employee benefit plan offerings and executive compensation. In 2010, I accepted a position as a Staff Attorney in the Energy Unit at Community Legal Services. Over the past 14 years, I have provided advice and legal representation to thousands of low income customers seeking assistance with home utilities. I have litigated on behalf of individual utility consumers in local administrative proceedings, state administrative proceedings before the Pennsylvania Public Utility Commission, state trial and appellate courts, as well as the Eastern District of Pennsylvania Bankruptcy Court. Additionally, I have litigated on behalf of

organizations whose members are low- and moderate-income Philadelphia utility consumers in state administrative proceedings and appellate courts.

I also serve as lead counsel in CLS's two contractual roles as Public Advocate, a position I have held for over a decade. Regarding the Public Advocate's natural gas contract, I represent the interests of all residential customers in annual Philadelphia Gas Works budget oversight proceedings before the Philadelphia Gas Commission. Regarding the Public Advocate's water contract, I represent the interests of all residential and small commercial customers in base rate proceedings, special rate proceedings, and annual reconciliation proceedings regarding the Philadelphia Water Department's Tiered Assistance Program Rate Rider (TAP-R). I have also litigated appeals regarding Philadelphia Water rates in state courts.

As illustrated more thoroughly in my resume, I have written and presented extensively regarding utility affordability issues and utility consumer rights over the past fourteen years. My resume is attached as Appendix A.

Q: Please describe the focus of your work over the past fourteen years, including relevant work experience on issues of low income families' ability to afford essential services such as utilities.

A: Over the last 14 years, I have focused my legal practice primarily on issues affecting the affordability, continuity, and safety of utility services provided to consumers in their homes. In my direct client practice, I primarily represent individual utility consumers with household incomes typically not exceeding 250% of the Federal Poverty Level (FPL), however the majority of my clients have incomes not exceeding 150% FPL. I have become intimately familiar with the experiences my clients face due to poverty. More specifically, due to utility insecurity, my clients frequently face loss of habitable housing, experience disruption in educational and occupational

activities, relate feelings of overwhelming stress and concomitant physical and mental health challenges, and risk loss of family unity and other disruptive interventions. In many cases, the laws, policies, and programs that exist to help families struggling with economic hardship are simply inadequate.

Through my work, I have developed extensive knowledge of the patchwork of state, federal, and utility-run programs designed to assist low-income families with maintaining essential utility services. I assisted in drafting the 2015 City Council ordinance authorizing the establishment of Philadelphia's Tiered Assistance Program (TAP) and have worked with outside consultants to improve the operation of TAP over the seven years since the program successfully launched. I have also participated in the review of Universal Services and Energy Conservation Programs maintained by PECO Energy Company and the Philadelphia Gas Works, as well as the Pennsylvania Public Utility Commission's (PUC) multi-year proceedings to update its Customer Assistance Program Policy Statement. I have provided testimony before state agencies and the Pennsylvania legislature and other governmental bodies on affordability of water and other home utility services.

Q: Have you testified in any proceedings before the Pennsylvania PUC?

A: I have not.

Q. For whom are you testifying in this proceeding?

A. I am testifying on behalf of the Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania (CAUSE-PA).

Q: What is the purpose of your testimony?

A: CAUSE-PA intervened in this proceeding to ensure that the proposed rate increase, rate design, and tariff changes will not adversely affect the ability of low income customers of Veolia

Water Pennsylvania, Inc. (Veolia or the Company) to connect to, maintain, and afford water and wastewater service, which is a critical component to a safe and healthy home.

In furtherance of these stated intentions for intervention, the purpose of my testimony is to assess Veolia's existing and proposed rates, tariff, rules, procedures, and programs to determine whether they are just, reasonable, and appropriately designed to ensure that low income consumers within Veolia's service territory are able to equitably access and maintain safe and affordable utility services.

Q: How is your testimony organized?

A: My testimony is in five sections. Following this Introduction section, section II provides background on water affordability and describes the consequences of unaffordable service (including the risk higher rates presents for customers with low income). This section also presents some basic recommendations regarding data collection and tracking in order to better assess the needs of low-income Veolia customers in the future. In section III, I discuss customer service issues affecting low income customers, including proposed low income programs, and my recommendations for modifications to Veolia's proposals to better meet low income customers' needs in Veolia's service territory. In section IV, I describe several provisions of Veolia's tariff that do not align with the PUC's regulations and recommend further review and appropriate adjustment. Finally, in section V, I provide a summary of the recommendations and proposals which I provided throughout this testimony.

II. RATE IMPACT ON LOW INCOME HOUSEHOLDS

Q: Please summarize Veolia's requested rate increase as it applies to residential customers.

A: In this proceeding, Veolia proposes to increase rates by approximately $16 million, or approximately 26.7%, based on a fully projected future test year ending October 31, 2025.[1] According to the Company, if the entire rate request is approved as filed, the total bill for a typical residential water customer using an average of 3,500 gallons per month would increase from $49.64 to $60.97 per month, or by 22%.[2] The total wastewater bill for a typical residential customer would increase from a flat rate of $56.20 to $77.00, or by 37%.[3]

Veolia's Main Division residential rate structure consists of a fixed monthly customer charge and a uniform ("single block") volumetric rate.[4] The current residential volumetric rate for main division water customers is $9.0510 per thousand gallons. Veolia has proposed to increase the volumetric charge to $11.7100 per thousand gallons.[5] The current customer charge for main division residential water customers with a 5/8"-3/4" meter size is $14.50 per month, which Veolia has proposed to increase to $19.80 per month.[6]

Veolia has also proposed to consolidate Mahoning, Overbrook, and Kensington divisions to be the same as the rates proposed for the Main Division, and to bring the Bethel Division rates closer to Main Division.[7] These proposed consolidations will result in a steeper increase for customers in the Mahoning, Overbrook, Kensington, and Bethel Divisions.

[1] Statement of Reasons, Veolia St. No. 1 at 6.
[2] Statement of Reasons.
[3] *Id*.
[4] Veolia St. 2 at 18.
[5] Veolia Ex. No. GHR-2, Sched. 11.
[6] *Id*.
[7] Veolia St. 1 at 7.

Q: How do utilities typically identify the number of low income households in their service territory?

Pennsylvania's large electric and natural gas public utilities are required to track and report their low income customer population two ways: "estimated low income" customers and "confirmed low income" customers.[8] Pennsylvania's large, regulated water companies have also begun tracking their low income customers according to these metrics.[9]

The "estimated low income" customer number is derived by the utilities using local census data compiled by Pennsylvania State University annually, utilizing a comparative methodology developed by the Bureau of Consumer Services.[10] The "confirmed low income" customer number is a count of those customers from whom the utility has obtained information that would reasonably place the customer in a low income designation, including but not limited to payment arrangements, low income program applications, or self-certification by the customer.[11]

Q: How many low income customers does Veolia serve?

A: Veolia estimates that approximately 32% of its residential water customers have income at or below 200% of the Federal Poverty Level (FPL), which is the maximum income level for its proposed customer assistance program (CAP).[12] Veolia reports having 69,061 residential

[8] 52 Pa. Code §§ 62.2, 62.4, 62.5, 54.72, 54.75, 54.76.
[9] *See Pa. PUC v. Aqua Pennsylvania, Inc*., R-2021-3027385, CAUSE-PA St. 1 at 13 (submitted Nov. 10, 2021). (explaining Aqua reported 106,823 estimated low income customers); *Pa. PUC v. Pa. American Water Co*., R-2023-3043189, CAUSE-PA St. 1 at 23 (submitted Feb. 1, 2024) (explaining PAWC reported 122,379 estimated low income customers); *Pa. PUC v. Pittsburgh Water and Sewer Authority*, R-2023-3039920, CAUSE-PA St. 1 at 9 (explaining PWSA reported 20,000 estimated low income customers).
[10] *See* Pa. PUC Universal Service Programs and Collections Performance 2022 Report at 9.
[11] *See* 52 Pa. Code §§ 62.2, 54.2 (electric and gas definitions of "confirmed low income customer").
[12] Veolia St. 7 at 10.

customers in March 2024.[13] Applying Veolia's estimate, one would expect approximately 22,100 customers to be potentially eligible to participate in its proposed low income programs.

As part of the settlement in the in the Veolia/SUEZ acquisition proceeding, Veolia agreed that after its next base rate case (i.e., the current case), it will make best efforts to begin tracking its "Number of confirmed low-income customers (defined as the number of customers for whom SUEZ has information indicating household income at or below 150% FPL)."[14] In response to discovery, Veolia indicates that it does not yet actively track confirmed low income customers, nor does it maintain a definition of the term for these purposes.[15] Veolia indicated that it does not collect income or household composition data from customers except in instances where bill payment assistance has been requested and that it "does not have 'confirmed low income customers.'"[16] In response to OCA's discovery requests, the Company indicated that it has identified approximately 662 known residential customers at 0-200% of the FPL since 2019 based on payment arrangement plans.[17] This is a very low number considering the number of residential customers served by Veolia and unlikely to be reflective of the actual number of low income customers in the Company's service territory.

Q: Would Veolia benefit from improved confirmed low income data tracking?

A: Yes. In addition to fulfilling its settlement obligations, tracking low income customers will help evaluate outreach and enrollment policies for its low income programs and will help determine whether those programs are effective in reducing payment trouble and termination for

[13] CAUSE-PA I-2.
[14] *Joint App. of Veolia North America, Inc., et seq. for all approvals for change in control of SUEZ Water PA*., A-2021-3026515, A-2021-3026522, A-2021-3026523, Joint Pet. for Approval of Settlement, Append. A Stip. P. 7-8 ¶ 3.a.v.1(submitted Oct. 27, 2021) (approved via Final Order Dec. 21, 2021).
[15] CAUSE-PA I-3.
[16] *Id*.
[17] OCA 5-1 (Revised).

participants. Data tracking will also help evaluate Veolia's outreach efforts to identify and enroll low income customers in the appropriate programs.

Q: Do you have recommendations about how Veolia can better track its confirmed low income customers?

A: I recommend that Veolia adopt a definition of confirmed low income customers that includes any information provided by the customer that reasonably places the customer in a low income designation, consistent with the manner of identification and tracking used by other large electric, gas, and water utilities. At minimum, Veolia's definition of confirmed low income customers should include collection of customer information through the income and CAP screening process that I recommend later in my discussion about CAP enrollment,[18] as well as:

- Enrollment or participation in any of Veolia's universal service programs.
- Receipt of other utility assistance, such as a grant from a local, state, or federal water or wastewater assistance program.
- Data provided by the Department of Human Services (DHS) or another local or state agency indicating the customer is low income.
- Indication by the customer of inability to pay current bill and/or requests for income based payment arrangements.
- Self-certification of low income status by the customer.

Regarding my recommendation that the company accept self-certification of low income status for purposes of confirmed low income designation, which is in line with the Commission's standards for universal service reporting,[19] Veolia should develop a process to routinely screen during relevant customer contacts, including contacts immediately prior to termination, medical

[18] *See infra* p. 26-27.
[19] *See* 52 Pa. Code §§ 62.2, 54.2 (electric and gas definitions of "confirmed low income customer")

certificate submission, and new and moving customers. I recommend that Veolia work with the LIAC to develop a list of potentially relevant customer contacts that should trigger income screening and a process for inquiring as to income status during such contacts. Any customers self-certifying as low income during these contacts should be tracked as a confirmed low income customer and referred to the low income program administrator so that they can apply for the appropriate programs for their circumstances.

Veolia should seek to partner with local and state agencies in its service territory that can verify the customer's low income status and should participate in any available data sharing programs or processes to help streamline identification of low income households and enrollment in Veolia's rate assistance program.

I further recommend that Veolia track and maintain confirmed low income customer information separately by income tiers ((1) at or below 50% FPL, (2) 51-100% FPL (3) 101-150% FPL, and (4) 150-200% FPL), together with data regarding terminations, payment arrangements, usage information, and participation in low income programs within each tier.

I note here that, for the purposes of evaluating the extent to which Veolia's proposed Customer Assistance Program (CAP) reaches those in need of assistance, Veolia should continue utilizing the *"estimated low income customer"* count as its denominator, reflecting the number of CAP participants as the numerator. This will provide a more appropriate estimation of how those programs are serving Veolia's low income population.

Q: What level of income qualifies a household as a "low income"?

A: With some exceptions, most utility assistance programs in Pennsylvania require households to have income that is not greater than 150% FPL to qualify. Veolia's proposed low

income programming will serve customers up to 200% FPL.[20] The FPL is a measure of poverty based exclusively on income and household size, but not the composition of the household (i.e., whether the household consists of adults or children) or geography. As a baseline, in 2024, a family of four at 150% FPL has a gross annual income of just $46,800.[21] This is insufficient income to support a family of this size and is substantially less than the household needs to meet their basic expenses in Pennsylvania.[22]

Defining low income by FPL fails to capture all customers residing in Veolia's service territory whose income is inadequate to afford basic needs. To assess actual levels of economic hardship across a given region, poverty experts often use the Self Sufficiency Standard which is a benchmark developed to determine how much income a household needs to afford life's most basic necessities (food, rent, clothing, medicine/medical care, childcare, utilities, transportation, and taxes) without assistance.[23] The Self Sufficiency Standard is a better measure because it adjusts based on average costs at the county level. In 2024, the average Self Sufficiency Standard for a family of four (two adults and two school-aged children) living in the counties served by Veolia was $81,606.[24] This requires income of $34,806 more per year than a four-person household with income at 150% FPL makes. In other words, a family of four at 150% FPL will be expected to have a household budget deficit, below the Self Sufficiency Standard, of approximately $2,900 per month.

[20] Veolia St. 7 at 10.
[21] U.S. Dept. of Health and Human Services, *2024 U.S. Federal Poverty Guidelines*, available at https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines
[22] Self Sufficiency Standard, http://www.selfsufficiencystandard.org/Pennsylvania.
[23] *Id*.
[24] *See id.* (2024 Pennsylvania Data Set).

Q: What are the income levels of low income households identified by Veolia?

A: As I explained above, Veolia does not actively track income levels or number of confirmed low income households. However, in response to discovery, Veolia was able to provide information about a limited number of households from which it has received income information. These low income customers have income levels far below both the Self Sufficiency Standard and the Commission's low income threshold of 150% FPL. The average annual income for Veolia's currently identified confirmed low income customers is $20,999 per year.[25]

Q: What are the usage levels for Veolia's low income customers?

A: Veolia has only provided very limited data about the usage levels for low income customers. However, the limited data provided shows that the low income customers identified have had substantially higher average usage than residential customers generally. From March 2021 to February 2024, on a monthly basis, the average (mean) usage for residential customers ranged from a low of 3,200 gallons to a high of 4,000 gallons (rounded).[26] Over that same period, the average (mean) usage for identified low income customers ranged from a low of 5,300 gallons to a high of 8,500 gallons (rounded).[27]

While this is a relatively small sample size for low income usage (which underscores the need for Veolia to begin actively tracking confirmed low income customer usage), the contrast in usage is quite stark with the lowest months of average usage among low income customers exceeding even the highest months of average usage among residential customers generally. It is difficult to determine the exact cause of the large discrepancy in usage rates among low income customers. However, Veolia indicates it could be partially attributable to leaks, number of

[25] CAUSE-PA I-6.
[26] OCA 5-26 A.
[27] OCA 5-26 C.

household occupants, usage patterns of this group of customers, and the limited sample size.[28] Another likely cause is the discrepancy in housing stock among low income customers, who more frequently live in older housing with aging and less efficient fixtures and plumbing.

Q: How should water and wastewater affordability be measured?

A: Individualized affordability of water and wastewater service is most accurately measured as a percentage of adult household income, known as a household's water or wastewater burden.[29] This is consistent with the methodology commonly used to determine housing affordability, which dictates that consumers should spend no more than 30% of their income on housing expenses, including utilities.[30] While Pennsylvania has not adopted statewide combined water and wastewater burden standards, it is generally accepted that to be affordable, a household's combined water and wastewater burden should not exceed 4% of household income.[31] As I will explain in more detail below, Veolia's proposed rates would impose combined water and wastewater household bill burdens that exceed these levels of affordability for many customers, especially those at the lowest levels of income. It is therefore critical that Veolia take necessary steps to address this affordability gap. I will discuss recommended improvements to Veolia's proposed low income programing later in my testimony.

---

[28] OCA 12-2.

[29] *See also* Roger Colton, *The Affordability of Water and Wastewater Service in Twelve U.S. Cities: A Social, Business and Environmental Concern*, The Guardian, (May 2020), available at: https://www.theguardian.com/environment/2020/jun/23/full-report-read-in-depth-water-poverty-investigation.

[30] *See* National Foundation for Credit Counseling, *How Much of Your Income Should Be Spent on Housing?*, (Aug. 3, 2023) available at: https://www.nfcc.org/blog/how-much-of-your-income-should-be-spent-on-housing/

[31] NRDC, *Water Affordability Toolkit: Affordability and Assistance Programs*, at 73, available at: https://www.nrdc.org/sites/default/files/water-affordability-toolkit-section-8.pdf; Roger Colton, *The Affordability of Water and Wastewater Service in Twelve US Cities*, The Guardian (May 2020), available at: https://www.theguardian.com/environment/2020/jun/23/full-report-read-in-depth-water-poverty-investigation; NAACP Legal Defense and Educational Fund, Inc., *Water/Color: A Study of Race & The Water Affordability Crisis in America's Cities* (2019), available at: https://www.naacpldf.org/wp-content/uploads/Water_Report_FULL_5_31_19_FINAL_OPT.pdf.

Q: What are the water burdens for Veolia's low income customers at current versus proposed rates?

A: Even at current rates, Veolia's lowest income customers are subject to unaffordable water and wastewater burdens. CAUSE-PA Exhibit 1, attached to my testimony, provides a snapshot of the applicable water and wastewater burdens for low income customers in Veolia's Main Division, both at present and proposed rates. CAUSE-PA Exhibit 1 breaks down the relative water and wastewater burden for households at different income and usage levels. For example, at current rates, a two-person household at 50% FPL using 4,000 gallons of water each month has a water burden of 6%. A four person household at 50% FPL using 8,000 gallons of water each month has a water burden of 7%. If Veolia's rate increase proposal is approved, the relative burden of these households would increase to 8% and 8%, respectively. These levels far exceed accepted affordability standards, leaving very little income for families to pay for other basic necessities.

Q: What are the wastewater burdens for Veolia's low income customers at current versus proposed rates?

A: Veolia charges wastewater customers a flat fee, thus customers' water burdens are not affected by usage. Nonetheless, the current wastewater burdens for Veolia's lowest income customers are not affordable and this unaffordability will be worsened if the proposed rate increase is approved. For example, as shown in Exhibit 1, at current rates, a two-person household at 50% FPL has a wastewater burden of 7%, and a four-person household at 50% FPL has a wastewater burden of 4%. If Veolia's rate increase were approved as proposed, the relative wastewater burden for these households would increase to 9% and 6%, respectively.

Q: Do you have concerns about the water and wastewater burdens for Veolia's low income customers?

A: Yes. As I explained above, to be considered affordable, a household's *combined* water and wastewater burden should be no more than 4%. Using the above examples, at Veolia's proposed rates for water and wastewater services, a 2 person household at 50% FPL using an average of 4,000 gallons a month would face a combined 15% water and wastewater burden, while a 4 person household at 50% FPL using an average of 8,000 gallons a month would face a combined water and wastewater burden of 12%. As discussed more fully below, these excessive water/wastewater burdens pose significant obstacles for low income families to afford their monthly bills and stay connected to essential and life-sustaining water services in their homes. My testimony provides several recommendations about how Veolia can adjust its low income programs to properly assist these customers.

Q: Aside from high water and wastewater burdens, is there other evidence that low income customers struggle to afford service?

A: Yes. Although Veolia does not separately track its low income terminations, it has provided some limited data about the arrearages held by low income customers. The average arrears for Veolia's low income customers are higher than those of residential customers generally. In 2023, the average arrears among residential customers generally was $81.25. In contrast, the average arrears for households identified as low income was $127.63 and the average arrears for Veolia Cares recipients was $144.57.[32]

[32] CAUSE-PA II-16.

Q: How would Veolia's proposed rate increase impact low income households?

A: The substantial rate increase proposed by Veolia is likely to exacerbate unaffordability of water and wastewater services for low income customers, leading those customers to either experience increased payment trouble or forgo other critical life necessities such as healthy food, medicine, and other essential goods and services. The inability to afford to maintain water and wastewater services is one form of water insecurity.

Q: How does water insecurity affect low income households?

A: Water security is defined as the ability to reliably access and benefit from safe and accessible water and has been recognized by the Pennsylvania Constitution[33] and the United Nations as a human right.[34] In contrast, the inability to reliably access and benefit from safe and acceptable water services, whether based on unaffordability, access impediments, poor water quality or insufficient quantity, is referred to as water insecurity.[35] Large disparities in water security exist across racial and ethnic groups, regions, and socioeconomic status. Black and Hispanic households are less likely to have piped water, and lower income households are more likely to experience water contamination.[36]

The inability to maintain water service adversely impacts the affected household, causing missed school, missed work, and potential loss of housing. Water termination can also be detrimental to mental and physical health of the entire family.[37] The loss of water service means people can't wash their hands or their dishes, or prepare their food, and have limited use of toilets

[33] Pennsylvania Constitution, Article 1, Section 27.
[34] Laura A. Gibson, PhD, Eliza Kinsey, PhD, Christina A. Roberto, PhD, & Louise Russell, PhD, *The Costs of Water Insecurity in Philadelphia*, Perelman School of Medicine, University of Pennsylvania (May 2022), available at: https://peachlab.org/wp-content/uploads/2022/06/PennAltarumPhilllyWaterInsecurityReport_2022-05-04.pdf
[35] *Id.*
[36] *Id.* at 2.
[37] *Id.*

and bathing.[38] Water shutoffs can disrupt family unity, as unaffordable utility bills resulting in involuntary service terminations are frequently cited as the identified bases for children to be removed from a home and placed in foster care.[39] As debt accumulates from water shutoffs, it can lead to financial ruin and a downward spiral to long-term housing insecurity and homelessness. Utility indebtedness can disqualify a household from public and private subsidized housing options.

Q: How do water terminations affect the community?

A: Water terminations pose a serious threat to public health and human dignity. Without access to running water, families are unable to cook, bathe, clean, or flush the toilet.[40] As explained above, access to water service is tied directly to the health and well-being of the household, and the habitability of the home.[41] Water terminations are akin to eviction from a home, as the home may be considered uninhabitable or unsafe following termination of water service, forcing families to vacate.[42] Termination of service to the home can also jeopardize a parent's custody of their children, can result in the loss of housing assistance, and is often cited as a catalyst for homelessness.[43]

---

[38] Christina A. Roberto, PhD Laura Gibson, PhD Robert W. Ballenger, *Water is a Basic Human Right. So Why is Philly Resuming Shutoffs*, Philadelphia Inquirer, (May 16, 2023) available at: https://ldi.upenn.edu/our-work/research-updates/water-is-a-basic-human-right-so-why-is-philly-resuming-shutoffs-may-24/

[39] *Id*.

[40] Coty Montag, *Water/Color: A Study of Race and the Water Affordability Crisis in America's Cities*, NAACP Legal Defense and Educational Fund, Inc, May 2019, at p. 28, (hereinafter "Water/Color Report") available at: https://www.naacpldf.org/wp-content/uploads/Water_Report_FULL_5_31_19_FINAL_OPT.pdf Water/Color Report at 28.

[41] *Id*.

[42] *Id*.

[43] See Joint State Government Commission, Pa. General Assembly, *Homelessness in Pennsylvania: Causes, Impacts, and Solutions: A Task Force and Advisory Committee Report* (2016), available at: http://jsg.legis.state.pa.us/resources/documents/ftp/documents/HR550%201%20page%20summary%204-6-2016.pdf.

A recent study[44] of the impacts of water shut offs in Philadelphia identified and began to quantify the associated social costs of involuntary termination, including:

- Financial and employment costs (mental/physical health care costs, cost of buying water, time and missed work)
- Family/Educational costs (children removed, missed school, poor hygiene)
- Physical and Mental costs (increased stress, decreased mental health, dehydration, disease)
- Housing costs (relocation, water liens)
- Community costs (vacant homes, homelessness, legal services)
- City costs (staff/labor, childcare, public safety)
- Water utility costs (loss of revenues from off customers)

Notably, recognizing the various social costs associated with shut offs, particularly in the context of the COVID-19 pandemic, at least five major U.S. cities (Chicago, Buffalo, Oakland, Detroit, Phoenix) decided to permanently ban payment-based water terminations.[45]

Even before COVID-19 and recent historically high levels of inflation, approximately one-third of households experienced income volatility.[46] Analysis of material hardship for low and moderate income consumers experiencing income volatility found much higher rates of inability

[44] *The Costs of Water Insecurity in Philadelphia* at 5.
[45] *Id.* at 2.
[46] Daniel Schneider and Kristen Harknett, *Income Volatility in the Service Sector: Contours, Causes and Consequences* (July 2017) at p.3, (hereinafter "Income Volatility in the Service Sector") available at: https://www.aspeninstitute.org/wp-content/uploads/2017/07/ASPEN_RESEARCH_INCOME_VOLATILITY_WEB.pdf; Board of Governors of the Federal Reserve, *Report on the Economic Well-Being of U.S. Households in 2018* (May 2019) at p.2, , available at: https://www.federalreserve.gov/consumerscommunities/files/2018-report-economic-well-being-us-households-201905.pdf.

to afford bills, medical care, housing payments and food,[47] and a higher likelihood of use of expensive payday loans to pay for basic living expenses.[48] Even at Veolia's current rates, many families already must make difficult choices between paying for utility services and other basic necessities – raising rates for such consumers will make their ability to afford and/or obtain and retain such necessities more difficult.

III. LOW INCOME CUSTOMER SERVICE ISSUES

a. Low Income Programs

Q: Please describe Veolia's existing and proposed low income programs.

A: Veolia currently offers its Veolia Cares program, which is a hardship fund that is available to customers that are experiencing a job loss, illness, or unforeseen circumstance that prevents a customer from paying their water and/or wastewater bills.[49] Additionally, as a result of the settlement approved by the Commission in the Veolia/SUEZ acquisition proceeding,[50] Veolia has proposed a number of improvements to its low income programs as part of this base rate case. Veolia has proposed a program that is akin to the PUC approved comprehensive universal service programs operated by electric and natural gas utilities, which it has labeled as its Customer Assistance Program (CAP). Veolia's proposed CAP includes a bill discount component, an

[47] Stephen Roll, David S. Mitchell, Krista Holub et al., *Responses to and Repercussions from Income Volatility in Low- and Moderate-Income Households: Results from a National Survey, Aspen Institute EPIC, Center for Social Development, Intuit Tax & Financial Center* (Dec. 2017) at pp 6-7, available at: https://www.aspeninstitute.org/publications/responses-repercussions-income-volatility-low-moderate-income-households-results-national-survey/.

[48] *Income Volatility in the Service Sector* at p. 9 (almost a quarter of consumers reporting week-to-week volatility report using payday lenders).

[49] Veolia St. 7 at 5.

[50] *Joint Application of Veolia Environment S.A., Veolia North America, Inc., SUEZ S.A., SUEZ Water Pennsylvania Inc. and SUEZ Water Bethel Inc. for all approvals for the change in control of SUEZ Water Pennsylvania Inc. and SUEZ Water Bethel Inc.*; Docket Nos. A-2021-3026515, A-2021-3026522 and A-2021-3026523, Joint Petition for Approval of Settlement (submitted Oct. 27, 2021) (approved via Final Order Dec. 21, 2021).

arrearage forgiveness component, a conservation component, and a service line repair component.[51]

Veolia indicates that it developed its proposals based on a review of CAPs provided by other Commission-regulated water utilities in the state and with input from its Low Income Advisory Committee (LIAC).[52] Veolia indicates that it limited its CAP proposal to water service customers, and explains that the Company's intention is to implement a program successfully before expanding it to wastewater services.[53] Veolia will continue to provide hardship fund grants to wastewater customers.

Q: Please describe Veolia's existing hardship fund.

A: Veolia's hardship fund, also known as Veolia Cares, is funded by Veolia shareholders and provides assistance to customers having difficulty paying their bills for a variety of reasons. There are no income qualifications, as the program is focused on providing assistance to customers that are experiencing a hardship such as job loss or illness or an unforeseen circumstance.[54] Veolia Cares provides qualifying customers with grants of up to $300.00 annually toward their water bills and up to $150.00 annually toward their wastewater bills. As a result of the settlement in the Veolia/SUEZ acquisition proceeding, Veolia committed to contributing $50,000 to the SUEZ Pennsylvania Utilities' Cares grant program annually until its next base rate case (i.e. the current case).[55] Thereafter, Veolia committed to contributing a minimum of $20,000 annually, though a

[51] Veolia St. 7 at 6-7.
[52] *Id.*
[53] *Id.*
[54] Veolia St. 7 at 6.
[55] *Joint App. of Veolia North America, Inc., et seq. for all approvals for change in control of SUEZ Water PA.*, A-2021-3026515, A-2021-3026522, A-2021-3026523, Joint Pet. for Approval of Settlement, Append. at Stip. P.8 ¶ 3.b (submitted Oct. 27, 2021) (approved via Final Order Dec. 21, 2021).

higher annual contribution level may be established as part of this proceeding.[56] All unspent funds will be rolled over and added to the budget for the Cares program in the following year.

Q: Do you have recommendations to make Veolia's hardship fund more effective?

A: Yes. First, I recommend that Veolia maintain its $50,000 per year Cares contribution, with unspent funds rolling over to the following year. Veolia rolled out its updated Cares budget in the October 2021-September 2022 fiscal year.[57] First year participation was relatively low with most of the funds rolling over, likely due to the continuation of COVID-19 era utility assistance.[58] However, in the 2022-2023 program year, once that assistance had largely expired, Cares program participation grew substantially with Veolia providing over $40,000 in grants to 181 households in need. This demonstrates a substantial need for assistance, justifying continued funding at the current level of $50,000 per year.[59]

Second, I recommend that Veolia work with its LIAC to establish objective criteria for program eligibility to guide disbursement of these limited funds. While I recommend that back balances held by low income customers are best resolved through the newly proposed CAP, there should be some guidelines and screening to ensure that the funds are allocated to customers with the most need who are incapable of utilizing other resources or quickly rebounding from a hardship. Specifically, the Company should prioritize resolving large balances and helping customers who are off or at imminent risk of termination, have medical needs, or have members who are survivors of domestic violence.

[56] *Id*.
[57] I&E RE-40.
[58] *Id*.
[59] *Id*.

Q: Please describe the components of Veolia's proposed CAP program.

A: Consistent with other Pennsylvania utility CAPs that provide monthly rate assistance and debt forgiveness over time, Veolia's proposed CAP program has a bill discount component and an arrearage management component.[60] The Company also lists its conservation and leak repair components as part of its proposed CAP.[61]

Q: Please describe the bill discount component of the Company's CAP proposal.

A: Veolia proposes a tiered monthly bill discount program, with various levels of rate discounts based on the income level of a participating household. Pursuant to Veolia's proposal, all participants (those with income up to 200% FPL) will receive a 100% discount on the fixed residential customer charge.[62] Additionally, customers with income between 101-150% FPL will not be charged for their first 1,000 gallons of usage, and customers with income at or below 100% FPL will not be charged for their first 2,000 gallons. Veolia witness Judith Jordan's testimony provides the following chart showing the discounts:

Table 1: Veolia Proposed Bill Discounts[63]

Poverty Level	Service Charge Discount	Volumetric Discount
0-100% FPL	$0 fixed charge	First 2,000 gallons
101-150 % FPL	$0 fixed charge	First 1,000 gallons
151-200% FPL	$0 fixed charge	none

Veolia proposes that participants in the discount program be required to recertify their eligibility every two years.

[60] Veolia St. 7 at 7-8.
[61] *Id*.
[62] *Id*.
[63] *Id*.

Q: Will Veolia's discounts provide affordable rates to low income households?

A: While there is limited data available regarding the specific usage levels for low income households, the available data indicates that Veolia's proposed discounts will bring the water service portion of the household's water and wastewater burden for most groups of participants within the zone of affordability, delivering bills at or below 2% of income. However, the data indicates that high usage households with income at or below 50% FPL will continue to have higher than affordable water service bills. For example, a family of four who enrolls in Veolia's CAP with income at or below 50% FPL, and an average usage of 8,000 gallons per month, would have a water burden of 5%. With 10,000 gallons of usage, this same household would face a 7% burden, just for water charges. Thus, at Veolia's proposed rates, the water burden alone would exceed the maximum affordable combined water and wastewater burden of 4% for some low income Veolia CAP participants – especially those at the lowest end of the poverty scale having high usage.

While Veolia's water customers largely receive only water service from the Company, the bill discount needs to be structured to provide customers with a water bill that is substantially less than 4% of household income to leave room for wastewater costs. Based on the data provided, and not considering any potential changes in household income, household composition, or water consumption, the proposed discounts may be expected to deliver affordable bills effectively for many customers, with the notable exception of very low income, high usage households.

Q. Why do you say the discounts "may be expected" to deliver affordable bills?

A. I am mindful that as a new program, Veolia's CAP design has not been implemented and its results have not been measured. With limited data, I can only express my preliminary

conclusion that this program design may effectively produce affordable water bills for many CAP participants.

Q: Do you have recommendations about how to improve Veolia's discount program?

A: Yes. I believe Veolia's proposal will substantially improve rate affordability for most low income program participants. However, poverty and water use are not constants and Veolia's proposed CAP will not provide predictable monthly bill amounts for all customers, as both usage and income can fluctuate over time. Bill discount program designs, like the one Veolia proposes, provide meaningful assistance and reduce the amount of the water bill. But, unlike a percentage of income based program, tiered discount programs like the one Veolia proposes to implement do not provide precisely and consistently affordable bills. Because of this limitation, Veolia should utilize the data I recommend be collected above (i.e., confirmed low income customers by FPL tier, comparing terminations, payment arrangements, and usage information disaggregated based on whether the customers participate in CAP or not) to perform periodic analysis of the impacts of its CAP on low income households. Veolia should review and analyze this data at least annually and should share its data and analysis with its LIAC. Doing so will enable Veolia, with the assistance of its LIAC, to assess whether other program designs or adjustments to the bill discounts should be adopted.

In the meantime, to address concerns about persistent unaffordability for very low income households, I recommend Veolia extend the discount for customers at or below 50% FPL to the first 3,000 gallons of water per month. This will reduce bills for these very low income customers, resulting in appropriate water burdens for many more households, with the exception of very high usage customers for whom I make additional recommendations, below. Table 2 shows the revised discounts.

Table 2: CAUSE-PA Proposed Changes to Veolia Bill Discounts

Poverty Level	Service Charge Discount	Volumetric Discount
0-50% FPL	$0 fixed charge	First 3,000 gallons
51-100% FPL	$0 fixed charge	First 2,000 gallons
101-150 % FPL	$0 fixed charge	First 1,000 gallons
151-200% FPL	$0 fixed charge	None

Additionally, because application of the volumetric discounts proposed by Veolia, as well as the modified volumetric discounts I propose, would result in some low income, low usage CAP participants having no billed charges, I propose a minimum bill amount of $6 per month, which is approximately half of the volumetric charge for 1,000 gallons. This ensures that all low income customers have some payment responsibility which aligns with the incentive to earn forgiveness of arrears, discussed below.

Q: Do you agree with Veolia's proposal to limit its CAP bill discounts to water customers only?

A: No. Veolia is proposing a substantial increase in residential wastewater rates, which it proposes to recover through a fixed monthly fee that cannot be mitigated through conservation. Accordingly, to provide a discount on wastewater fees, Veolia's CAP would need to utilize a different approach. As I explained above, and as illustrated in Exhibit 1, Veolia's proposed wastewater rate increase will result in unaffordable wastewater burdens, especially for customers in the lowest income tier with income at or below 50% FPL, who would have a proposed bill burden of 9% for wastewater alone. As a result, I believe it is appropriate to extend Veolia's CAP to wastewater bills now, rather than waiting until after assessing initial CAP performance. Considering the limited number of Veolia's wastewater customers and the fact that they are generally billed a flat rate, the implementation of a discount does not need to be overly complex.

I recommend that the Company provide a 50% discount to wastewater customers with income from 51% to 200% FPL and 75% discount for customers at or below 50% FPL. Using Veolia's proposed rates, this would bring the monthly bill down from $77.00 per month to $38.50 and $19.25, respectively. As Exhibit 1 shows, this level of discount would bring the wastewater burden for all bill discount rate for all participants within the 2% range of affordability.

Q: What is Veolia's projected enrollment for its bill discount program?

A: Veolia estimates that up to 32% of customers may be eligible for its program. However, based on the number of customers who have payment agreements, Veolia estimates that only 3% of eligible customers will participate.[64] As I explained above, Veolia reported 69,061 residential customers as of March 2024, of which approximately 22,100 are estimated to be at or below 200% FPL. This means approximately 663 customers would participate based on Veolia's projections.

Q: Do you agree with Veolia's projections?

A: While I understand that enrollment during the initial rollout of the program may be low, 3% enrollment of estimated customers is an extremely low number. I believe if Veolia properly establishes and promotes the program, enrollment will increase beyond this enrollment projection within the first year.

As a point of comparison, in their most recent rate cases, Pennsylvania American Water Company and Pittsburgh Water and Sewer Authority each indicated that had approximately 24% of estimated low income customers enrolled in CAP.[65] Veolia's projected 3% enrollment of

[64] Veolia St. 7 at 10.

[65] *See Pa. PUC v. Pa. American Water Co*., R-2023-3043189, CAUSE-PA St. 1 at 23, 46 (submitted Feb. 1, 2024) (explaining PAWC reported 122,379 estimated low income customers and 28,844 customers were enrolled in the BDP); Pa. PUC v. Pittsburgh Water and Sewer Authority, R-2023-3039920, CAUSE-PA St. 1 at 9, 15 (explaining PWSA reported 20,000 estimated low income customers and 4,751 BDP customers).

estimated low income customers is an untenably low projection and Veolia should strive to reach as close as possible to full enrollment of the estimated low income population.

Q: What are your recommendations for improving program enrollment?

A: First, Veolia should follow my recommendations above to actively screen for and track its confirmed low income customers. While the estimated low income count is the best way to measure the need for assistance, screening and tracking confirmed low income customers is the best way to identify specific customers in need of assistance. At a minimum, all customers requesting payment arrangements should be screened for income eligibility and referred to the program. This is not only good policy, but also a statutory requirement imposed by the Public Utility Code.[66]

Second, and importantly, I recommend that Veolia focus its outreach on high usage households with histories of late or missed payments. These customers have a demonstrated need for assistance due to unaffordable bills resulting from high usage and are more likely to suffer termination if that need goes unaddressed. Thus, targeting high usage payment troubled customers for bill discount assistance, in combination with conservation and leak repair measures, will be effective at helping reduce terminations and payment trouble among these groups of customers.

Veolia should also work with the LIAC to develop affirmative customer outreach for the purpose of identifying and enrolling low income customers in the bill discount program. This affirmative outreach should include telephone contacts, mailings, and forms of electronic communication (with customer consent). Veolia should use census data to directly target areas with higher percentages of low income and otherwise vulnerable populations. Veolia should also

[66] 66 Pa. C.S. § 1410.1.

track and report relevant data regarding its progress to its LIAC to help refine outreach efforts based on LIAC feedback.

Q: Please describe the proposed arrearage forgiveness component of Veolia's CAP.

A: Pursuant to Veolia's proposal, customers who enter CAP with a back balance will be "eligible for flexible payment arrangements" that would enable them to earn $25 per month in debt forgiveness each time the customer "pays their current monthly bill by the due date."[67] Bills are due 20 days after the date the bill is mailed to residential customers and the Company will allow a five day grace period for timely payments.[68]

Q: Will Veolia's proposed arrearage forgiveness structure resolve customer arrearages within a reasonable timeframe?

A: Based on the available data, Veolia's $25 monthly arrearage forgiveness proposal appears likely to resolve the arrearages held by most currently identified low income customers within a reasonable timeframe. Though, I again note the limited data available regarding the arrearage levels of Veolia's low income customers. Based on the limited information provided in discovery, in 2023, the average arrears for households identified as low income was $127.63 and the average arrears for Veolia Cares recipients was $144.57.[69] Thus, at $25 per month, these levels of arrears would be resolved in five to six months, on average.

However, some customers, particularly those who have been terminated, have much higher balances. In 2023, the average arrears for low income customers at the time of termination was nearly $1100 in some months.[70] These balances would take approximately 44 months to resolve

[67] Veolia St. 7 at 8.
[68] *Id*.
[69] CAUSE-PA II-16.
[70] OCA 5-29 (Revised).

using Veolia's approach. As these are only average numbers based on a limited sample of low income households, I am concerned that customers with even higher balances due to leaks or extended payment trouble may have balances even greater that would not be resolved within a reasonable period.

Q: Do you have any concerns about the structure of the arrearage forgiveness component?

A: I am concerned that Veolia is proposing that participants enter into payment arrangements in order to access arrearage forgiveness, requiring additional payment over and above the participant's discounted CAP bill. While Veolia does not specify what the terms of the "flexible payment arrangement" will be, I am concerned that Veolia will require applicants to agree to make additional payments towards their arrearage balance, analogous to what is often referred to as a 'co-pay' amount. This structure would require a CAP participant to pay both the CAP rate as well as a payment arrangement installment in order to earn forgiveness on their arrears. This concerns me because any amount charged above the CAP discounted bill rate will negatively impact the customer's ability to afford their bill, thus undercutting the effectiveness of the bill discount to improve payment frequency and coverage rates and making it more likely the customer will fall further behind.

Q: Do you have recommendations to improve the arrearage forgiveness component?

A: Yes. Primarily, I recommend that customers only be required to pay their discounted CAP bill to be credited for arrearage forgiveness. They should not be charged any co-pay or installment toward their arrears to earn forgiveness credit. This will preserve the levels of affordability provided by the bill discount component and help ensure that customers can afford their monthly payments and earn forgiveness over time.

I also recommend that each payment (or payments, in the case of partial payments) sufficient to satisfy a monthly CAP bill earn credit for forgiveness of arrears, even if payment is not made within the five-day grace period. Low income consumers may receive income irregularly or inconsistently and lack reserve funds to cover their bills. Providing additional flexibility will help customers continue to resolve their debts and provide a meaningful incentive to catch up with their CAP bills even if they miss the deadline or fall behind. In turn, I note that payments made on behalf of a customer, including grant assistance from a local, state, or federal assistance program, should be treated the same as a direct customer payment for purposes of arrearage forgiveness.

Also, though Veolia's proposed arrearage forgiveness structure will help some customers resolve balances within a reasonable period, customers with higher balances will not be able to resolve their arrears over an appropriate time frame. I recommend that Veolia convert to time-based arrearage forgiveness that will eliminate arrears ratably, in 1/24 increments, over a maximum of 24 bill payments, with $25 set as the minimum monthly arrearage forgiveness. Ratable monthly arrearage forgiveness is provided by electric and natural gas CAPs as well as the Philadelphia Water Department's Tiered Assistance Program. I note that my proposed 24-monthly bill forgiveness period aligns with Veolia's proposed recertification timing.

Q: Please describe Veolia's proposed conservation component.

A: In 2023, Veolia began sending conservation kits to hardship fund grant recipients to assist in reducing their monthly water consumption. These kits include devices such as a low flow shower head, faucet aerators, a toilet fill cycle diverter, dye tablets (toilet leak detection tablets), and a shower timer.[71] Through its conservation program, Veolia proposes to expand the program

[71] Veolia St. 7 at 9-10.

to CAP participants with income at or below 150% FPL. CAP participants in this income bracket will receive conservation education and conservation kits. Seniors (65 and older) and those with a disability will also receive assistance with direct installation of measures included in the kit.[72]

Veolia indicates that the goal of this element of the program is to provide suggestions and tools to assist customers save money and water. Veolia does not formally measure water and bill savings achieved through the program; however, Veolia has reviewed a few customer accounts where conservation kits were distributed to review water usage patterns.[73]

Q: Do you have recommendations about the conservation program?

A: I recommend that the conservation program work in tandem with the internal line repair program to address the underlying causes of high usage among low income customers. Households that have persistent high usage after the initial provision of the conservation kits and measures should be provided a plumbing inspection to see if leaks can be identified and, if so, should be referred to the leak repair program. I also recommend that Veolia review pretreatment and post treatment usage data to determine the effectiveness of the conservation measures.

Q: Please discuss Veolia's proposed service line repair program.

A: Veolia proposes that the Company hire contractors to provide plumbing repairs of up to $1,500 (for each occurrence) to eligible low income residential customers at or below 150% FPL. To be eligible, the customer must be in threat of termination, or have been terminated, and the leak must occur on an exposed internal line and/or consist of minor plumbing repairs such as faucets and toilets. External customer service side leaks will be repaired from the curb box to the face of

[72] *Id.*
[73] OCA 8-3

the customer's home. The Company proposes that this program will be budgeted for up to $100,000.[74]

Q: What do you recommend?

A: The company should develop separate budgets for the program to perform internal repairs (from and after the meter) and external repairs (before and to the meter). Internal leaks may be hard to detect and lead to unexpectedly high bills for consumers in the period before the consumer can identify and repair the leak. External leaks often do not lead to bill spikes to consumers because the water is lost before registering on the meter, however, external repairs can be more costly than interior plumbing repairs due to the necessity of excavation, and customers are typically disconnected until the repair is performed. A separate allocation of funds should be set aside for external repairs.

Internal repairs should run in conjunction with the conservation program, as internal leaks can lead to uncontrolled metered usage and should be addressed as part of a comprehensive usage reduction strategy to complement bill discounts. Indeed, it is to be anticipated that customers with internal leaks will not receive adequate CAP bill discounts unless and until unnecessarily high water usage associated with a leak is rectified.

Providing this level of comprehensive usage reduction strategy along with the bill discount and arrearage management components of the program will help provide affordable bills and address low income customer arrearages, while addressing the root causes that lead to high bills and arrearages in the first place.

Also, the Company does not specifically indicate whether tenants who are Veolia customers will be eligible to participate in the line repair program. I recommend that customers

[74] Veolia St. 7 at 9.

who are tenants and who are experiencing high bills due to leaks they cannot afford to repair, or who are at risk of termination due to external leaks, should be eligible to receive leak repairs.

Q: What are Veolia's plans for administration of its expanded universal service programs?

A: Veolia has not yet identified an administrator, but states that it expects to select an administrator that would provide quality customer service, timely deliverables, and monthly reporting with key indicators demonstrating effective company, customer and community partnership and outreach.[75] Veolia indicates that it will look for a vendor or administrator that comes highly qualified to work with utility companies to support customers who are in need of maintaining their utility services by receiving assistance with their utility bill.[76] Veolia also indicates that it will evaluate a variety of factors, including benefits, cost, and ease of implementation and integration of required systems.[77] Veolia plans to establish monthly reporting to determine the continual needs and success of the program as well as any regulatory requirements.[78]

Q: Do you have recommendations about the administrator?

A: Veolia should select a contractor through a robust RFP process and should work with its LIAC to seek input on the parameters for its RFP. I recommend that Veolia's RFP specifically seek trusted community-based non-profit program administrators that have experience working with low income families. Use of community based partners in the delivery of services can help ensure the availability of wrap-around services that can help resolve other intersectional issues impacting the customer's financial stability. In turn, in addition to the monitoring Veolia has

[75] CAUSE-PA II-9.
[76] CAUSE-PA II-5.
[77] *Id*.
[78] *Id*.

proposed, I recommend Veolia take steps to ensure that the administrator's policies, procedures, and training materials related to its administration of Veolia's assistance programming support the data collection and review recommendations made in my testimony and do not impose additional administrative or programmatic barriers to CAP access.

Q: Has Veolia provided a timeline for the launching of its proposed universal service programs?

A: Veolia has not provided a timeline for implementation of the program. I recommend that Veolia begin the process of selecting an administrator as soon as possible, with the goal of launching the program within six months of a final decision in this proceeding. During this process, Veolia should provide monthly status updates to its LIAC.

Q: Do you have any recommendations about the operation of the LIAC?

A: Yes. In the Veolia/SUEZ acquisition settlement, where Veolia agreed to establish the LIAC, Veolia agreed that the LIAC would meet semiannually until the filing of its next rate case (i.e. the current case), during which the frequency of future meetings would be determined. I support continuing the ongoing meetings between Veolia and LIAC. Such meetings provide an opportunity for exchanging important information that can help ensure the effectiveness of low income programs, as discussed herein. Thus, I recommend that they continue to meet, at a minimum, on a semi-annual basis.

IV. TARIFF ISSUES

Q: Do you have any concerns with Veolia's proposed tariff?

A: Yes. Based on my brief review of Veolia's proposed tariff, I believe the tariff includes a number of provisions that are inconsistent with the Commission's regulations. Some of the

discrepancies may be due to reliance upon outdated regulations while others may reflect company policies that are out of alignment with Commission guidance.

Q: Please provide some examples.

A Given the time constraints in this proceeding, I cannot be certain that the examples I identify constitute the full range of potential differences or discrepancies between Veolia's tariff language and Commission regulations. However, I believe the following examples illustrate the basis for my concern:

- The Company's proposed definition of "customer" states that it means "a customer of record, or end user, or both" and appears to include some typographical errors. For residential customers, in contrast, Commission regulations define the customer as "a natural person at least 18 years of age in whose name a residential service account is listed and who is primarily responsible for payment" as well as "an adult occupant whose name appears on the mortgage, deed or lease of the property" where service is requested.

- Paragraph 28(4) of the tariff authorizes estimated billing "so long as the Company has undertaken reasonable alternative measures to obtain a meter reading." Section 56.12 of the Commission's regulations permits estimated billing every other month, and only if the utility provides the customer the opportunity to read the meter and report the quantity of usage registered.

- Paragraph 33 of the tariff, titled "Procedures Upon Customer or Occupant Prior to Termination," appears intended to align with Section 56.97 of the Commission's regulations, "Procedures upon customer or occupant ***contact*** prior to termination." However, there are several notable differences, including the tariff's omission of the ability to avoid termination by catching up on a prior payment arrangement and the tariff's omission of the requirement to provide information about universal services programs. The tariff also describes explanation of procedures

for "information complaints," which appears to be a typographical error since the Commission's regulations require explanation of procedures for "informal complaints."

- Paragraph 41 of the tariff, under the heading "Emergency Provisions" appears intended to incorporate the Commission's medical certification regulation but fails to authorize the provision of a medical certificate by a physician assistant or nurse practitioner as provided in Regulation 56.111. Paragraph 41 appears to rely upon 76 P.R.M.D.-10, the Commission's Consumer Standards and Billing Practices for Residential Service, adopted in April 1978. Standards and billing practices were subsequently adopted as formal Commission regulations in Title 52, Chapter 56 of the Pennsylvania Code and amended multiple times thereafter.

- Paragraph 42 of the tariff, entitled "Termination At Any Premises Than the Customer Residence," appears intended to incorporate the requirements of Subchapter B of Chapter 15 of the Public Utility Code (Discontinuance of Service to Leased Premises) as well as the 10 day notice required when the customer requests discontinuance at a dwelling other than the customer's residence as provided by Commission Regulation 56.72(2). However, among other things, this tariff provision fails to address obligations under both laws to post notice conspicuously and fails to explicitly apply to nonpayment terminations and voluntary relinquishment of service. Finally, this tariff provision fails to address the requirements of 66 Pa. C.S. § 1529.1 in their entirety.

- The tariff makes no mention whatsoever of the statutory and regulatory provisions extending additional protections to survivors of domestic violence. 66 Pa. C.S. § 1417; Pennsylvania Code Title 52, Chapter 56 (Subchapters L-U).

Q. What do you recommend?

A. I recommend the Company carefully review the provisions of its tariff to ensure that its language does not conflict with, or authorize Company actions in violation of, the applicable

Commission customer service Regulations in Chapter 56 of Title 52 of the Pennsylvania Code. In many instances, it may be appropriate to simply incorporate, by reference, the applicable provisions of Chapter 56.

V. CONCLUSION

Q: Please summarize your recommendations.

A: I have made several recommendations throughout my testimony, each with the goal of improving the services provided to low income households and ensuring that Veolia's low income customers can reasonably afford service in the face of the proposed rate increase. Specifically, I recommend that the Commission order Veolia to:

- Begin actively tracking confirmed low income customers and screening for income levels during the contact points that I describe in my testimony.[79]
- Work with the LIAC to develop a process to routinely screen during relevant customer contacts, mark any customers identified as low income during these contacts as a confirmed low income customer, and refer the customer to the universal service program administrator.
- Maintain its $50,000 dollar per year contributions to Veolia Cares program, with unspent funds rolling over to the following year.
- Work with its LIAC to establish objective criteria for Cares program eligibility that guide disbursement of hardship funds.
- Target Cares funds to help resolve large balances, bill spikes due to leaks, customers who are off, customers with medical needs, and customers suffering domestic violence issues.
- Provide an additional discount tier for customers at or below 50% FPL, discounting an additional 1,000 gallons, and incorporate a minimum bill requirement of $6.
- Provide a 50% discount to wastewater customers with income between 51% and 200% FPL, and 75% discount to wastewater customers with income at or below 50% FPL.
- Screen all customers requesting payment arrangements for income eligibility and refer potentially eligible customers to the CAP program.

[79] *See* p. 9-10 *supra*.

- Perform a periodic analysis of the impacts of its CAP on low income households, review and analyze this data at least annually, and share the data and analysis with LIAC.
- Treat payments made on behalf of a customer, including grant assistance from a local, state, or federal assistance program, the same as a direct customer payments for purposes of arrearage forgiveness.
- Focus CAP outreach on high usage households with histories of late or missed payments.
- Work with the LIAC to design affirmative customer outreach for the purpose of identifying and enrolling low income customers in the bill discount program.
- Adopt ratable arrearage forgiveness, in 1/24 increments, with a minimum of $25 per month, for each full payment (or partial payments) on the discounted CAP bill, without imposing an additional co-payment or payment arrangement installment.
- Operate the conservation program in tandem with the internal line repair program to address the underlying causes of high usage among low income customers.
- Provide households that have persistent high usage after the initial provision of the conservation kits and measures a plumbing inspection to see if leaks can be identified and referred to the leak repair program component.
- Obtain pretreatment and post treatment usage data to determine the effectiveness of the usage reduction services and track that data according to the type of measure provided.
- Develop separate budgets for the program to internal repairs (from and after the meter) and external repairs (before and to the meter).
- Run the internal repairs program in conjunction with the conservation program as these repairs should reduce metered usage to complement CAP discounts and promote affordability.
- Take steps to ensure that the administrator's policies, procedures, and training materials related to its administration of Veolia's assistance programming support the data collection and review recommendations made in my testimony and do not create additional administrative barriers to enrollment.
- Seek trusted community-based non-profit program administrators that have experience working with low income families.
- Begin the process of selecting an administrator as soon as possible with the goal of launching the program within six months of a final decision in this proceeding and provide monthly status updates to its LIAC.
- Continue semi-annual meetings of the LIAC.
- Revise its tariff to reflect the language in the Commission's regulations at 52 Pa. Code Ch. 56.

Q: Does that conclude your direct testimony?

A: Yes.

THE COALITION FOR AFFORDABLE UTILITY SERVICE AND ENERGY EFFICIENCY IN PENNSYLVANIA

EXHIBIT 1

WATER AND WASTEWATER BURDEN CHARTS

Corrected - June 7, 2024

CAUSE-PA Exhibit 1 - a

Water - Current Full Tariff, Proposed Full Tariff, and Veolia Proposed BDP, CAUSE-PA Proposed BDP

*income levels represent 50%, 100%, 150%, and 200% FPL, using 2024 federal poverty guidelines.
See HHS Poverty Guidelines for 2024, https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines

2 Person Household

	Income	Monthly Full Tariff CURRENT	Annual Full Tariff CURRENT	Burden - Full Tariff CURRENT	Monthly Full Tariff PROPOSED	Annual Full Tariff PROPOSED	Burden - Full Tariff PROPOSED	Monthly BDP PROPOSED	Annual BDP PROPOSED	Burden - BDP PROPOSED	Monthly -- CAUSE-PA Recommended BDP	Annual -- CAUSE-PA Recommended BDP	Burden - CAUSE-PA Recommended BDP
						2000 Gal.							
50% FPL	$ 10,220	$ 32.60	$ 391.20	4%	$ 43.22	$ 518.64	5%	$ -	$ -	0%	$ 6.00	$ 72.00	1%
100% FPL	$ 20,440	$ 32.60	$ 391.20	2%	$ 43.22	$ 518.64	3%	$ -	$ -	0%	$ 6.00	$ 72.00	0%
150% FPL	$ 30,660	$ 32.60	$ 391.20	1%	$ 43.22	$ 518.64	2%	$ 11.71	$ 140.52	0%	$ 11.71	$ 140.52	0%
200% FPL	$ 40,880	$ 32.60	$ 391.20	1%	$ 43.22	$ 518.64	1%	$ 23.42	$ 281.04	1%	$ 23.42	$ 281.04	1%
						4000 Gal							
50% FPL	$ 10,220	$ 50.70	$ 608.40	6%	$ 66.64	$ 799.68	8%	$ 23.42	$ 281.04	3%	$ 11.70	$ 140.40	1%
100% FPL	$ 20,440	$ 50.70	$ 608.40	3%	$ 66.64	$ 799.68	4%	$ 23.42	$ 281.04	1%	$ 23.42	$ 281.04	1%
150% FPL	$ 30,660	$ 50.70	$ 608.40	2%	$ 66.64	$ 799.68	3%	$ 35.12	$ 421.44	1%	$ 35.12	$ 421.44	1%
200% FPL	$ 40,880	$ 50.70	$ 608.40	1%	$ 66.64	$ 799.68	2%	$ 46.84	$ 562.08	1%	$ 46.84	$ 562.08	1%
						6000 Gal							
50% FPL	$ 10,220	$ 68.81	$ 825.72	8%	$ 90.06	$ 1,080.72	11%	$ 46.84	$ 562.08	5%	$ 35.13	$ 421.56	4%
100% FPL	$ 20,440	$ 68.81	$ 825.72	4%	$ 90.06	$ 1,080.72	5%	$ 46.84	$ 562.08	3%	$ 46.84	$ 562.08	3%
150% FPL	$ 30,660	$ 68.81	$ 825.72	3%	$ 90.06	$ 1,080.72	4%	$ 58.55	$ 702.60	2%	$ 58.55	$ 702.60	2%
200% FPL	$ 40,880	$ 68.81	$ 825.72	2%	$ 90.06	$ 1,080.72	3%	$ 70.26	$ 843.12	2%	$ 70.26	$ 843.12	2%
						8000 Gal							
50% FPL	$ 10,220	$ 86.91	$ 1,042.92	10%	$ 100.97	$ 1,211.64	12%	$ 70.26	$ 843.12	8%	$ 58.55	$ 702.60	7%
100% FPL	$ 20,440	$ 86.91	$ 1,042.92	5%	$ 100.97	$ 1,211.64	6%	$ 70.26	$ 843.12	4%	$ 70.26	$ 843.12	4%
150% FPL	$ 30,660	$ 86.91	$ 1,042.92	3%	$ 100.97	$ 1,211.64	4%	$ 81.97	$ 983.64	3%	$ 81.97	$ 983.64	3%
200% FPL	$ 40,880	$ 86.91	$ 1,042.92	3%	$ 100.97	$ 1,211.64	3%	$ 93.68	$ 1,124.16	3%	$ 93.68	$ 1,124.16	3%
						10,000 Gal							
50% FPL	$ 10,220	$ 105.01	$ 1,260.12	12%	$ 137.00	$ 1,644.00	16%	$ 93.68	$ 1,124.16	11%	$ 81.97	$ 983.64	10%
100% FPL	$ 20,440	$ 105.01	$ 1,260.12	6%	$ 137.00	$ 1,644.00	8%	$ 93.68	$ 1,124.16	5%	$ 93.68	$ 1,124.16	5%
150% FPL	$ 30,660	$ 105.01	$ 1,260.12	4%	$ 137.00	$ 1,644.00	5%	$ 105.39	$ 1,264.68	4%	$ 105.39	$ 1,264.68	4%
200% FPL	$ 40,880	$ 105.01	$ 1,260.12	3%	$ 137.00	$ 1,644.00	4%	$ 117.10	$ 1,405.20	3%	$ 117.10	$ 1,405.20	3%

3 Person Household

	Income	Monthly Full Tariff CURRENT	Annual Full Tariff CURRENT	Burden - Full Tariff CURRENT	Monthly Full Tariff PROPOSED	Annual Full Tariff PROPOSED	Burden - Full Tariff PROPOSED	Monthly BDP PROPOSED	Annual BDP PROPOSED	Burden - BDP PROPOSED	Monthly -- CAUSE-PA Recommended BDP	Annual -- CAUSE-PA Recommended BDP	Burden - CAUSE-PA Recommended BDP
						2000 Gal.							
50% FPL	$ 12,910	$ 32.60	$ 391.20	3%	$ 43.22	$ 518.64	4%	$ -	$ -	0%	$ 6.00	$ 72.00	1%
100% FPL	$ 25,820	$ 32.60	$ 391.20	2%	$ 43.22	$ 518.64	2%	$ -	$ -	0%	$ 6.00	$ 72.00	0%
150% FPL	$ 38,730	$ 32.60	$ 391.20	1%	$ 43.22	$ 518.64	1%	$ 11.71	$ 140.52	0%	$ 11.71	$ 140.52	0%
200% FPL	$ 51,640	$ 32.60	$ 391.20	1%	$ 43.22	$ 518.64	1%	$ 23.42	$ 281.04	1%	$ 23.42	$ 281.04	1%
						4000 Gal							
50% FPL	$ 12,910	$ 50.70	$ 608.40	5%	$ 66.64	$ 799.68	6%	$ 23.42	$ 281.04	2%	$ 11.70	$ 140.40	1%
100% FPL	$ 25,820	$ 50.70	$ 608.40	2%	$ 66.64	$ 799.68	3%	$ 23.42	$ 281.04	1%	$ 23.42	$ 281.04	1%
150% FPL	$ 38,730	$ 50.70	$ 608.40	2%	$ 66.64	$ 799.68	2%	$ 35.12	$ 421.44	1%	$ 35.12	$ 421.44	1%
200% FPL	$ 51,640	$ 50.70	$ 608.40	1%	$ 66.64	$ 799.68	2%	$ 46.84	$ 562.08	1%	$ 46.84	$ 562.08	1%
						6000 Gal							
50% FPL	$ 12,910	$ 68.81	$ 825.72	6%	$ 90.06	$ 1,080.72	8%	$ 46.84	$ 562.08	4%	$ 35.13	$ 421.56	3%
100% FPL	$ 25,820	$ 68.81	$ 825.72	3%	$ 90.06	$ 1,080.72	4%	$ 46.84	$ 562.08	2%	$ 46.84	$ 562.08	2%
150% FPL	$ 38,730	$ 68.81	$ 825.72	2%	$ 90.06	$ 1,080.72	3%	$ 58.55	$ 702.60	2%	$ 58.55	$ 702.60	2%
200% FPL	$ 51,640	$ 68.81	$ 825.72	2%	$ 90.06	$ 1,080.72	2%	$ 70.26	$ 843.12	2%	$ 70.26	$ 843.12	2%
						8000 Gal							
50% FPL	$ 12,910	$ 86.91	$ 1,042.92	8%	$ 100.97	$ 1,211.64	9%	$ 70.26	$ 843.12	7%	$ 58.55	$ 702.60	5%
100% FPL	$ 25,820	$ 86.91	$ 1,042.92	4%	$ 100.97	$ 1,211.64	5%	$ 70.26	$ 843.12	3%	$ 70.26	$ 843.12	3%
150% FPL	$ 38,730	$ 86.91	$ 1,042.92	3%	$ 100.97	$ 1,211.64	3%	$ 81.97	$ 983.64	3%	$ 81.97	$ 983.64	3%
200% FPL	$ 51,640	$ 86.91	$ 1,042.92	2%	$ 100.97	$ 1,211.64	2%	$ 93.68	$ 1,124.16	2%	$ 93.68	$ 1,124.16	2%
						10,000 Gal							
50% FPL	$ 12,910	$ 105.01	$ 1,260.12	10%	$ 137.00	$ 1,644.00	13%	$ 93.68	$ 1,124.16	9%	$ 81.97	$ 983.64	8%
100% FPL	$ 25,820	$ 105.01	$ 1,260.12	5%	$ 137.00	$ 1,644.00	6%	$ 93.68	$ 1,124.16	4%	$ 93.68	$ 1,124.16	4%
150% FPL	$ 38,730	$ 105.01	$ 1,260.12	3%	$ 137.00	$ 1,644.00	4%	$ 105.39	$ 1,264.68	3%	$ 105.39	$ 1,264.68	3%
200% FPL	$ 51,640	$ 105.01	$ 1,260.12	2%	$ 137.00	$ 1,644.00	3%	$ 117.10	$ 1,405.20	3%	$ 117.10	$ 1,405.20	3%

4 Person Household

	Income	Monthly Full Tariff CURRENT	Annual Full Tariff CURRENT	Burden - Full Tariff CURRENT	Monthly Full Tariff PROPOSED	Annual Full Tariff PROPOSED	Burden - Full Tariff PROPOSED	Monthly BDP PROPOSED	Annual BDP PROPOSED	Burden - BDP PROPOSED	Monthly -- CAUSE-PA Recommended BDP	Annual -- CAUSE-PA Recommended BDP	Burden - CAUSE-PA Recommended BDP
						2000 Gal.							
50% FPL	$ 15,600	$ 32.60	$ 391.20	3%	$ 43.22	$ 518.64	3%	$ -	$ -	0%	$ 6.00	$ 72.00	0%
100% FPL	$ 31,200	$ 32.60	$ 391.20	1%	$ 43.22	$ 518.64	2%	$ -	$ -	0%	$ 6.00	$ 72.00	0%
150% FPL	$ 46,800	$ 32.60	$ 391.20	1%	$ 43.22	$ 518.64	1%	$ 11.71	$ 140.52	0%	$ 11.71	$ 140.52	0%
200% FPL	$ 62,400	$ 32.60	$ 391.20	1%	$ 43.22	$ 518.64	1%	$ 23.42	$ 281.04	0%	$ 23.42	$ 281.04	0%
						4000 Gal							
50% FPL	$ 15,600	$ 50.70	$ 608.40	4%	$ 66.64	$ 799.68	5%	$ 23.42	$ 281.04	2%	$ 11.70	$ 140.40	1%
100% FPL	$ 31,200	$ 50.70	$ 608.40	2%	$ 66.64	$ 799.68	3%	$ 23.42	$ 281.04	1%	$ 23.42	$ 281.04	1%
150% FPL	$ 46,800	$ 50.70	$ 608.40	1%	$ 66.64	$ 799.68	2%	$ 35.12	$ 421.44	1%	$ 35.12	$ 421.44	1%
200% FPL	$ 62,400	$ 50.70	$ 608.40	1%	$ 66.64	$ 799.68	1%	$ 46.84	$ 562.08	1%	$ 46.84	$ 562.08	1%
						6000 Gal							
50% FPL	$ 15,600	$ 68.81	$ 825.72	5%	$ 90.06	$ 1,080.72	7%	$ 46.84	$ 562.08	4%	$ 35.13	$ 421.56	3%
100% FPL	$ 31,200	$ 68.81	$ 825.72	3%	$ 90.06	$ 1,080.72	3%	$ 46.84	$ 562.08	2%	$ 46.84	$ 562.08	2%
150% FPL	$ 46,800	$ 68.81	$ 825.72	2%	$ 90.06	$ 1,080.72	2%	$ 58.55	$ 702.60	2%	$ 58.55	$ 702.60	2%
200% FPL	$ 62,400	$ 68.81	$ 825.72	1%	$ 90.06	$ 1,080.72	2%	$ 70.26	$ 843.12	1%	$ 70.26	$ 843.12	1%
						8000 Gal							
50% FPL	$ 15,600	$ 86.91	$ 1,042.92	7%	$ 100.97	$ 1,211.64	8%	$ 70.26	$ 843.12	5%	$ 58.55	$ 702.60	5%
100% FPL	$ 31,200	$ 86.91	$ 1,042.92	3%	$ 100.97	$ 1,211.64	4%	$ 70.26	$ 843.12	3%	$ 70.26	$ 843.12	3%
150% FPL	$ 46,800	$ 86.91	$ 1,042.92	2%	$ 100.97	$ 1,211.64	3%	$ 81.97	$ 983.64	2%	$ 81.97	$ 983.64	2%
200% FPL	$ 62,400	$ 86.91	$ 1,042.92	2%	$ 100.97	$ 1,211.64	2%	$ 93.68	$ 1,124.16	2%	$ 93.68	$ 1,124.16	2%
						10,000 Gal							
50% FPL	$ 15,600	$ 105.01	$ 1,260.12	8%	$ 137.00	$ 1,644.00	11%	$ 93.68	$ 1,124.16	7%	$ 81.97	$ 983.64	6%
100% FPL	$ 31,200	$ 105.01	$ 1,260.12	4%	$ 137.00	$ 1,644.00	5%	$ 93.68	$ 1,124.16	4%	$ 93.68	$ 1,124.16	4%
150% FPL	$ 46,800	$ 105.01	$ 1,260.12	3%	$ 137.00	$ 1,644.00	4%	$ 105.39	$ 1,264.68	3%	$ 105.39	$ 1,264.68	3%
200% FPL	$ 62,400	$ 105.01	$ 1,260.12	2%	$ 137.00	$ 1,644.00	3%	$ 117.10	$ 1,405.20	2%	$ 117.10	$ 1,405.20	2%

CAUSE-PA Exhibit 1 -b

Wastewater - Current Full Tariff, 2024 Proposed Full Tariff, and CAUSE-PA Proposed BDP

*income levels represent 50%, 100%, 150%, and 200% FPL, using 2024 federal poverty guidelines.

See HHS Poverty Guidelines for 2024, https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines

	2 Person Household									
	Income	Monthly Full Tariff CURRENT	Annual Full Tariff CURRENT	Burden - Full Tariff CURRENT	Monthly Full Tariff PROPOSED	Annual Full Tariff PROPOSED	Burden - Full Tariff PROPOSED	Monthly -- CAUSE-PA Recommended BDP	Annual -- CAUSE-PA Recommended BDP	Burden - CAUSE-PA Recommended BDP
50% FPL	$ 10,220	$ 56.20	$ 674.40	7%	$ 77.00	$ 924.00	9%	$ 19.25	$ 231.00	2%
100% FPL	$ 20,440	$ 56.20	$ 674.40	3%	$ 77.00	$ 924.00	5%	$ 38.50	$ 462.00	2%
150% FPL	$ 30,660	$ 56.20	$ 674.40	2%	$ 77.00	$ 924.00	3%	$ 38.50	$ 462.00	2%
200% FPL	$ 40,880	$ 56.20	$ 674.40	2%	$ 77.00	$ 924.00	2%	$ 38.50	$ 462.00	1%

s

	3 Person Household									
	Income	Monthly Full Tariff CURRENT	Annual Full Tariff CURRENT	Burden - Full Tariff CURRENT	Monthly Full Tariff PROPOSED	Annual Full Tariff PROPOSED	Burden - Full Tariff PROPOSED	Monthly -- CAUSE-PA Recommended BDP	Annual -- CAUSE-PA Recommended BDP	Burden - CAUSE-PA Recommended BDP
50% FPL	$ 12,910	$ 56.20	$ 674.40	5%	$ 77.00	$ 924.00	7%	$ 19.25	$ 231.00	2%
100% FPL	$ 25,820	$ 56.20	$ 674.40	3%	$ 77.00	$ 924.00	4%	$ 38.50	$ 462.00	2%
150% FPL	$ 38,730	$ 56.20	$ 674.40	2%	$ 77.00	$ 924.00	2%	$ 38.50	$ 462.00	1%
200% FPL	$ 51,640	$ 56.20	$ 674.40	1%	$ 77.00	$ 924.00	2%	$ 38.50	$ 462.00	1%

	4 Person Household									
	Income	Monthly Full Tariff CURRENT	Annual Full Tariff CURRENT	Burden - Full Tariff CURRENT	Monthly Full Tariff PROPOSED	Annual Full Tariff PROPOSED	Burden - Full Tariff PROPOSED	Monthly -- CAUSE-PA Recommended BDP	Annual -- CAUSE-PA Recommended BDP	Burden - CAUSE-PA Recommended BDP
50% FPL	$ 15,600	$ 56.20	$ 674.40	4%	$ 77.00	$ 924.00	6%	$ 19.25	$ 231.00	1%
100% FPL	$ 31,200	$ 56.20	$ 674.40	2%	$ 77.00	$ 924.00	3%	$ 38.50	$ 462.00	1%
150% FPL	$ 46,800	$ 56.20	$ 674.40	1%	$ 77.00	$ 924.00	2%	$ 38.50	$ 462.00	1%
200% FPL	$ 62,400	$ 56.20	$ 674.40	1%	$ 77.00	$ 924.00	1%	$ 38.50	$ 462.00	1%

THE COALITION FOR AFFORDABLE UTILITY SERVICE AND ENERGY EFFICIENCY IN PENNSYLVANIA

APPENDIX A

RESUME OF ROBERT W. BALLENGER, ESQ.

Robert W. Ballenger (he/him)

1424 Chestnut Street
Philadelphia, PA 19102

Admissions: Pennsylvania, Eastern District of PA, Third Circuit Court of Appeals

(215) 981-3788
rballenger@clsphila.org

Legal Experience

Community Legal Services, Inc., *Energy Unit Attorney* **July 2010 - Present**

Senior Supervising Attorney, Director

- Service as Public Advocate, represent all Philadelphia residential utility customers in:
  - Philadelphia Water Department Water and Wastewater Rate Increase Proceeding, FY 2024-2025 (fully litigated, obtained approximately $50 million in downward adjustments and customer service improvements)
  - Philadelphia Gas Works annual Capital and Operating Budget proceedings before the Philadelphia Gas Commission (FY 2012-2024)
  - Philadelphia Water Department Water and Wastewater Rate Increase Proceeding, FY 2022-2023 (settled, in part, saving customers $87 million in higher rates)
  - Philadelphia Water Department Water and Wastewater Rate Increase Proceeding, FY 2019-2020 (settled following Commonwealth Court decision affirming, vacating, and remanding, in part)
  - Philadelphia Water Department Water and Wastewater Rate Increase Proceeding, FY 2017-2018 (obtained more than $16 million in adjustments and favorable low income program design, approved by Philadelphia Water, Sewer and Storm Water Rate Board)
  - Philadelphia Water Department Water and Wastewater Rate Increase Proceeding, FY 2013-2016 (settlement reached that saved customers approximately $100 million)
- Represent low-income Philadelphians to maintain or restore essential utility service by:
  - Negotiating affordable payment agreement terms with utilities serving Philadelphia
  - Advocating in Public Utility Commission rate cases and regulatory proceedings to ensure the continuation of consumer protection provisions in utility tariffs
  - Direct representation in PUC formal and informal complaint proceedings
  - Direct representation in local court litigation
  - Providing testimony before City and State lawmakers to promote affordable utility service. Examples include:
    - Testimony Before City Council Special Committee on Poverty Reduction and Prevention, Resolution No. 190239 (regarding implementation of water debt forgiveness and increasing tenant access to affordable water).
    - Testimony in Support of Water Affordability Legislation, Bill 140607, April 9, 2015 (http://clsphila.org/learn-about-issues/testimony-support-water-affordability-philadelphia-city-council-bill-no-140607)
    - Testimony in Opposition to HB 1047 and to Amend HB 939, House Consumer Affairs Committee (http://clsphila.org/learn-about-issues/cls-urges-pa-house-reps-vote-no-hb-1047-and-amend-hb-939)
    - Testimony on Philadelphia Water Ratemaking Board (http://clsphila.org/learn-about-issues/testimony-bill-no-130251-water-rate-board)

- Select Cases and Matters:
  - *Purnell v. GoodLeap LLC, et al.,* Phila CCP Docket No. 220601757 (co-counseled; remanded from Federal District Court, achieved settlement concerning solar panel financing claims of fraud, unfair trade practices, trespass and conversion).
  - *Cena v. Philadelphia Gas Works,* F-2022-3033740 (confidential settlement of alleged theft of service).
  - *Butterly v. Philadelphia Gas Works,* F-2022-3030705 (confidential settlement of alleged meter programming error).
  - *Petitions of PECO Energy Company for Approval of its Default Service Plans*, PUC Dockets No. P-2012-2283641, P-2020-3019290 (maintaining CAP customer protections from excessively priced electricity from 2016-2022).
  - *Petition to Amend Philadelphia Gas Works Universal Service and Energy Conservation Plan*, PUC Docket No. 2020-3018867 (following Commonwealth Court remand, took primary responsibility for direct and rebuttal testimony, negotiating settlement to maintain affordable energy burdens and improve customer access to CRP).
  - *Johnson v. Philadelphia Gas Works,* C-2019-3017147 (confidential settlement of alleged theft of service).
  - *Public Advocate v. Philadelphia Water, Sewer and Storm Water Rate Board*, 1070 C.D. 2019, allocatur denied (obtained Commonwealth Court opinion, remanding for consideration of bias of Board member, effect of incomplete Hearing Officer Report; affirming local agency standard of review applicable to rate determinations).
  - *Review of Universal Service and Energy Conservation Programs*, Docket No. M-2017-2596907 (co-counseling with PULP; obtaining PUC policy setting affordable electric and gas at combined 6%-10% of household income).
  - *CAUSE-PA, et al. v. Pa. PUC,* 445 C.D. 2014 (obtained Commonwealth Court reversal of PUC determination; verifying that Public Utility Code permits the PUC to protect low-income PECO customers from higher prices in competitive market for electricity supply).
  - *Hess v. Philadelphia Gas Works,* C-2016-2565499 (obtained favorable settlement, protected tenant's right to continued service).
  - *McMillan v. Exelon*, Adv. No. 11-00855-ELF; Bkr. No. 11-16702-ELF, E.D. Pa. Bkr. (obtained favorable class action settlement for bankruptcy debtors).
  - *Foggy v. Philadelphia Gas Works*, C-2010-2196672 (obtained favorable settlement, eliminating nearly $6,000 in utility charges from client's bill).
  - *Lopez v. Philadelphia Gas Works*, C-2010-2198297 (obtained favorable settlement of alleged gas theft charges, enabling client to restore utility service).
  - *City of Philadelphia v. Canning*, Phila. CCP No. 110900737 (obtained favorable settlement, eliminating nearly $5,000 in water charges).
  - *Standards and Billing Practices for Residential Utility Services of the Public Utility Commission*, Pennsylvania Independent Regulatory Review Commission, Regulation #57 – 265, IRRC Docket No. 2743 (co-authored comments available at http://www.irrc.state.pa.us/regulation_details.aspx?IRRCNo=2743).

- Recognitions:
  - Best Attorney Advocate Award 2023, Pennsylvania Legal Aid Network 50th Anniversary Gala.
  - Equal Justice Award 2020 (with Josie B.H. Pickens), CLS Breakfast of Champions
- Publications and Presentations:
  - Virtual Presentation: Advancing Universal Service: Affordability in Pennsylvania & Philadelphia (to Prichard Water) (February 2024)
  - Virtual Presentation: Alternatives to PUC Complaint Proceedings for Door-to-Door Energy Scams (February 2024)
  - Virtual Presentation: Water Affordability in Philadelphia: Litigation, Legislation, and Implementation (April 2023)
  - Virtual Presentation: Tenants' Utilities Rights/Limits/Issues (September 2022).
  - Virtual Presentation: Transitioning from Grant-Based Assistance to True Water Affordability in Philadelphia, Maryland Advisory Committee to U.S. Commission on Civil Rights (November 2021).
  - Virtual Presentation (with Rebecca McCord): Keeping Your Utilities On: Affordable Energy and Water Service in Philadelphia (September 2021).
  - Virtual Presentation (with Cassidy Gruber-Baruth): CLS, Utilities and PGW (January, 2021).
  - Contributing author, Pennsylvania Real Estate Tax Sales and Municipal Claims, 4th Ed. (Bisel, 2021; 5th Ed. in process).
  - Author, *Chapter 9: Residential Utility Service*, Pennsylvania Consumer Law (Carolyn Carter, 2nd ed. 2002; updated annually).
  - Virtual Presentation (with John Sweet, Daniel Vitek): Water Affordability and Dealing with Unregulated Utilities, PLAN 2020 Conference (September 2020).
  - Co-author, with Josie B.H. Pickens, *This Pa. law on utility shutoffs unfairly impacts Black and Brown people. It must be repealed*, Penn. Capital-Star, available at https://www.penncapital-star.com/civil-rights-social-justice/this-puc-rule-on-utility-shutoffs-unfairly-impacts-black-and-brown-people-it-must-be-repealed-opinion/ (August, 2020).
  - Virtual Presentation (with Mary Grant, Food & Water Watch): New Programs to Address Water Affordability: Lessons from Philadelphia and Baltimore (July 2020).
  - Presentation: Water Affordability and Energy Advocacy, Benefits Access Coalition (October 2018).
  - Presentation: Workshop About Water Affordability and Access, Mid-Atlantic Regional Conference of the National Lawyers Guild, Baltimore (April 2018).
  - Presentation: Working Toward Safe, Affordable Water Service, with Roger Colton, NEUAC Annual Conference (June 2017).
  - Presentation: Philadelphia Water Affordability Program, Second Legal and Legislative Summit on Water, Detroit, MI (June 2017).
  - Presentation: The Right to Water: Using Human Rights Tools to Address Basic Needs, with Kevin Murray, Risa Kaufman, NLADA Annual Conference (November 2016).

- Presentation: Practical Strategies for Addressing Your Client's Utility Issues, with Elizabeth Marx, PLAN Utility Law Group (March 2017).
- Presentation: Utility Law Updates, with Joline Price, PLAN Conference (September 2016).
- Co-author, with Thu B. Tran, *Uncharted Waters: The Emergence of Low-Income Water Affordability in Philadelphia*, Clearinghouse Community (February 2016).
- Co-author, with Thu B. Tran, *Out in the Cold: Record Numbers of Pennsylvanians are Living with Utility Shutoffs*, October 2014 (http://clsphila.org/learn-about-issues/out-cold-record-numbers-pennsylvanians-are-living-utility-shut-offs).
- Presentation: Municipal Claims, Property Tax Liens and Local Strategies, with Montgomery Wilson and Roger Colton, PLAN Conference (May 2014).
- Co-author, *Select Utility Law Issues Affecting Landlords and Tenants*, PBI (2012, 2016, 2024 (forthcoming)).
- PBI, *Representing Residential Landlords and Tenants*, CLE panelist, 2012, 2016, 2024 (forthcoming) (Pittsburgh and Philadelphia).
- Tenant Union Representative Network 4th Annual Conference, *Keeping the Utilities On*, panelist, 2012.

Dechert LLP, *Associate Attorney* **September 2004 – June 2010**

Employee Benefits and Executive Compensation Group

- Represent current and former employees, shareholders and employers regarding employee compensation, incentive, severance, pension, retirement, disability, life insurance, medical benefits (including post-termination medical benefits) and other benefits, including:
  - Drafting and negotiating contracts for employee benefits
  - Advising clients regarding tax strategies in structuring compensation and benefits
  - Ensuring compliance with ERISA, COBRA, HIPAA and nondiscrimination requirements applicable to employee benefits
- Negotiate all aspects of employee benefits in corporate transactions, including private equity, debt financing and ERISA controlled group liability
- Negotiate settlements of UMWA Coal Act liability, tax controversies and IRS voluntary corrections, DOL fee assessments, multiemployer (union) plan liabilities
- Develop practice to advise and represent public companies regarding SEC-required compensation disclosures
- Draft client educational materials on SEC disclosure requirements, the Genetic Information Nondiscrimination Act of 2008, accounting for compensation, automatic 401(k) rollover requirements, Medicare Part D (co-authored two installments, published by BNA), phased retirement and HIPAA wellness programs
- Presenter at labor law symposium regarding COBRA subsidies under American Recovery and Reinvestment Act of 2009
- Pro bono representation of disabled former police officer to obtain disability and health benefits from former employer
- Pro bono representation in Pennsylvania Commonwealth and Supreme Court of retiree widow in claim against State Employee Retirement System

- Developed pro bono legislative advocacy project to require spousal consent to state and municipal employee pension benefit elections

Community Legal Services, Inc., *Public Benefits Intern* **September 2003 – May 2004**

- Legal and statistical analysis of Department of Public Welfare welfare-to-work policy
- Produced educational materials on welfare sanctions for state and federal officials
- Successfully represented individual clients to reinstate benefits terminated due to missed work for legitimate health, family, and educational exceptions

Dechert LLP, *Summer Associate* **May 2003 – August 2003**

- Conducted legal research and drafted memoranda for attorneys and clients on a variety of legal matters such as tax, employee benefits, labor and other matters

Education Law Center, *Summer Intern* **May 2002 – August 2002**

- Revised two chapters entitled "Court Proceedings" and "The Right to Special Education in Pennsylvania" for Pennsylvania Bar Association Manual
- Drafted legal memoranda on student suspension/expulsion issues, school demands for medication of students with ADHD and sunshine laws in Pennsylvania

Guild Food Stamp Clinic, *Director, Legal Advocate* **May 2001 – May 2003**

- Managed caseload for approximately 40 student advocates
- Represented individual clients in claims for benefits

Education

Concurrent Graduate Degrees in Law and Social Work **May 2004**

University of Pennsylvania Law School, *Juris Doctor*

- Law Review: Comment Editor, 2003-2004, Associate Editor, 2002-2003
- Sparer Public Interest Fellowship, 2001 & 2002
- Public Interest Recognition Award

University of Pennsylvania School of Social Work, *Master of Social Work* **May 2004**

- Concentration in social policy and practice

Other Graduate Education Activities

- Research Assistant to Professor Louis Rulli, 2003-2004
- Equal Justice Foundation: fundraiser, webmaster
- Council of Student Representatives: Communications/web committee member

Bachelor of Arts in Cultural Anthropology and Religious Studies **May 1998**

University of Pennsylvania

- C*um laude*, departmental distinction in both majors, Dean's List 1997-1998

THE COALITION FOR AFFORDABLE UTILITY SERVICE AND ENERGY EFFICIENCY IN PENNSYLVANIA

APPENDIX B

CITED DISCOVERY RESPONSES

Coalition for Affordable Utility Service and Energy Efficiency in Pennsylvania (CAUSE-PA) to Veolia Water Pennsylvania, Inc. (Veolia)

- CAUSE-PA I-2.
- CAUSE-PA I-3.
- CAUSE-PA I-6.
- CAUSE-PA II-5.
- CAUSE-PA II-9.
- CAUSE-PA II-16.

Office of Consumer Advocate (OCA) to Veolia Water Pennsylvania, Inc. (Veolia)

- OCA 5-1 (Revised)
- OCA 5-26 A.
- OCA 5-26 C.
- OCA 5-29 (Revised).
- OCA 8-3
- OCA 12-2.

Bureau of Investigation and Enforcement (I&E) to Veolia Water Pennsylvania, Inc. (Veolia)

- I&E RE-40.

INTERROGATORIES OF THE COALITION FOR AFFORDABLE UTILITY SERVICES AND ENERGY EFFICIENCY IN PENNSYLVANIA (CAUSE-PA) TO VEOLIA WATER PENNSYLVANIA, INC.

SET I

CAUSE-PA I-2 From January 2018 to present, how many residential customers does/ did Veolia serve? Please disaggregate this data by service type (i.e. water only, wastewater only, combined), month, and year as of the last day of the month.

Please provide this data in a live Excel spreadsheet.

Answer: Please see the attached excel file "CAUSE-PA 1-2" which shows the residential customers by service type and month.

Answer provided by: Larry Finnicum

Title: Vice President & General Manager

Address: 6310 Allentown Blvd, Suite 104, Harrisburg, PA 17112

Date: April 9, 2024

CAUSE-PA 1-2 Attachment

Number of Residential Customers - PA Water

	Customers		Customers		Customers		Customers
Jan-18	57,188	Jan-19	57,642	Jan-20	59,284	Jan-21	60,219
Feb-18	57,230	Feb-19	57,711	Feb-20	59,371	Feb-21	60,374
Mar-18	57,278	Mar-19	57,755	Mar-20	59,408	Mar-21	60,459
Apr-18	57,303	Apr-19	58,943	Apr-20	59,437	Apr-21	60,587
May-18	57,296	May-19	58,932	May-20	59,435	May-21	60,596
Jun-18	57,259	Jun-19	58,897	Jun-20	59,490	Jun-21	60,604
Jul-18	57,274	Jul-19	58,919	Jul-20	59,577	Jul-21	60,600
Aug-18	57,346	Aug-19	59,025	Aug-20	59,671	Aug-21	60,690
Sep-18	57,433	Sep-19	59,060	Sep-20	59,725	Sep-21	60,750
Oct-18	57,549	Oct-19	59,117	Oct-20	59,781	Oct-21	60,828
Nov-18	57,607	Nov-19	59,167	Nov-20	59,859	Nov-21	60,883
Dec-18	57,659	Dec-19	59,223	Dec-20	59,884	Dec-21	60,927

Number of Residential Customers - PA Wastewater

	Customers		Customers		Customers		Customers
Jan-18	-	Jan-19	-	Jan-20	1,340	Jan-21	1,335
Feb-18	-	Feb-19	-	Feb-20	1,339	Feb-21	1,335
Mar-18	-	Mar-19	-	Mar-20	1,340	Mar-21	1,337
Apr-18	-	Apr-19	1,388	Apr-20	1,342	Apr-21	1,338
May-18	-	May-19	1,384	May-20	1,342	May-21	1,337
Jun-18	-	Jun-19	1,369	Jun-20	1,340	Jun-21	1,339
Jul-18	-	Jul-19	1,365	Jul-20	1,340	Jul-21	1,334
Aug-18	-	Aug-19	1,362	Aug-20	1,340	Aug-21	1,339
Sep-18	-	Sep-19	1,353	Sep-20	1,345	Sep-21	1,342
Oct-18	-	Oct-19	1,356	Oct-20	1,343	Oct-21	1,341
Nov-18	-	Nov-19	1,343	Nov-20	1,338	Nov-21	1,340
Dec-18	-	Dec-19	1,347	Dec-20	1,338	Dec-21	1,338

Number of Residential Customers - PA Water, PA Wastewater Combined

	Customers		Customers		Customers		Customers
Jan-18	57,188	Jan-19	57,642	Jan-20	60,624	Jan-21	61,554
Feb-18	57,230	Feb-19	57,711	Feb-20	60,710	Feb-21	61,709
Mar-18	57,278	Mar-19	57,755	Mar-20	60,748	Mar-21	61,796
Apr-18	57,303	Apr-19	60,331	Apr-20	60,779	Apr-21	61,925
May-18	57,296	May-19	60,316	May-20	60,777	May-21	61,933
Jun-18	57,259	Jun-19	60,266	Jun-20	60,830	Jun-21	61,943
Jul-18	57,274	Jul-19	60,284	Jul-20	60,917	Jul-21	61,934
Aug-18	57,346	Aug-19	60,387	Aug-20	61,011	Aug-21	62,029
Sep-18	57,433	Sep-19	60,413	Sep-20	61,070	Sep-21	62,092
Oct-18	57,549	Oct-19	60,473	Oct-20	61,124	Oct-21	62,169
Nov-18	57,607	Nov-19	60,510	Nov-20	61,197	Nov-21	62,223
Dec-18	57,659	Dec-19	60,570	Dec-20	61,222	Dec-21	62,265

	Customers
Jan-22	61,003
Feb-22	61,074
Mar-22	61,168
Apr-22	61,264
May-22	61,288
Jun-22	61,336
Jul-22	61,377
Aug-22	61,462
Sep-22	61,570
Oct-22	61,589
Nov-22	61,677
Dec-22	61,716

	Customers
Jan-23	61,727
Feb-23	61,788
Mar-23	61,808
Apr-23	61,842
May-23	61,846
Jun-23	61,878
Jul-23	61,908
Aug-23	61,926
Sep-23	61,957
Oct-23	62,023
Nov-23	62,058
Dec-23	62,100

	Customers
Jan-24	69,879
Feb-24	69,171
Mar-24	69,061
Apr-24	
May-24	
Jun-24	
Jul-24	
Aug-24	
Sep-24	
Oct-24	
Nov-24	
Dec-24	

	Customers
Jan-22	1,336
Feb-22	1,337
Mar-22	1,336
Apr-22	1,337
May-22	1,337
Jun-22	1,335
Jul-22	1,336
Aug-22	1,333
Sep-22	1,337
Oct-22	1,337
Nov-22	1,335
Dec-22	1,337

	Customers
Jan-23	1,339
Feb-23	1,340
Mar-23	1,340
Apr-23	1,340
May-23	1,337
Jun-23	1,339
Jul-23	1,336
Aug-23	1,338
Sep-23	1,335
Oct-23	1,335
Nov-23	1,334
Dec-23	1,335

	Customers
Jan-24	1,334
Feb-24	1,335
Mar-24	1,341
Apr-24	
May-24	
Jun-24	
Jul-24	
Aug-24	
Sep-24	
Oct-24	
Nov-24	
Dec-24	

	Customers
Jan-22	62,339
Feb-22	62,411
Mar-22	62,504
Apr-22	62,601
May-22	62,625
Jun-22	62,671
Jul-22	62,713
Aug-22	62,795
Sep-22	62,907
Oct-22	62,926
Nov-22	63,012
Dec-22	63,053

	Customers
Jan-23	63,066
Feb-23	63,128
Mar-23	63,148
Apr-23	63,182
May-23	63,183
Jun-23	63,217
Jul-23	63,244
Aug-23	63,264
Sep-23	63,292
Oct-23	63,358
Nov-23	63,392
Dec-23	63,435

	Customers
Jan-24	71,213
Feb-24	70,506
Mar-24	70,402
Apr-24	-
May-24	-
Jun-24	-
Jul-24	-
Aug-24	-
Sep-24	-
Oct-24	-
Nov-24	-
Dec-24	-

INTERROGATORIES OF THE COALITION FOR AFFORDABLE UTILITY SERVICES AND ENERGY EFFICIENCY IN PENNSYLVANIA (CAUSE-PA) TO VEOLIA WATER PENNSYLVANIA, INC.

SET I

CAUSE-PA I-3 Please identify all categories or identifiers that Veolia includes when calculating its "confirmed low income customer" count.

Answer: The term "confirmed low income customer" is not defined. The Company interprets the term as meaning a residential customer where VWPA has obtained information that would reasonably place the customer in a low-income definition. This information may include self certified or validated income and occupant information. For purposes of the company's proposed Customer Assistance Program (CAP) the "low income definition" means that the residential customer's gross household income is at or below 200% of Federal poverty guidelines.

The Company does not collect income or number of household member data from customers except in instances where bill payment assistance has been requested. The company does not attain proof or confirmation of income. Thus, the Company does not have "confirmed low income customers," as it does not currently have a Customer Assistance Program ("CAP") for which verified income data is collected or Federal Poverty Levels computed. See also, VWPA Statement No. 7, Direct Testimony of Judith McCoy Jordan and also OCA 5-1.

Answer provided by: Judith McCoy Jordan

Title: Director of Programs

Address: 6310 Allentown Blvd. Harrisburg, PA 17112

Date: 4/10/24

INTERROGATORIES OF THE COALITION FOR AFFORDABLE UTILITY SERVICES AND ENERGY EFFICIENCY IN PENNSYLVANIA (CAUSE-PA) TO VEOLIA WATER PENNSYLVANIA, INC.

SET I

CAUSE-PA I-6 What is the average annual income of Veolia' current identified confirmed low income customers?

Answer: The average annual income of Veolia's current identified customers is $20,999.00. Please refer to CAUSE-PA I-3 and OCA 5-1.

Answer provided by: Judith McCoy Jordan

Title: Director of Programs

Address: 6310 Allentown Blvd. Harrisburg, PA 17112

Date: 4/11/2024

INTERROGATORIES OF THE COALITION FOR AFFORDABLE UTILITY SERVICES AND ENERGY EFFICIENCY IN PENNSYLVANIA (CAUSE-PA) TO VEOLIA WATER PENNSYLVANIA, INC.

SET II

CAUSE-PA II-5 Please describe Veolia's plan for a CAP administrator, including:

a. How will the third-party administrator be selected?
b. What specific tasks will the third-party administrator be responsible for?

Please provide copies of any and all documents, reports, and/or communications utilized in the selection process.

Answer:

a. VWPA will look for a vendor or administrator that comes highly qualified to work with utility companies to support customers who are in need of maintaining their utility services by receiving assistance to their utility bill. VWPA will evaluate a variety of factors which include benefits, cost, and ease of implementation and integration of required systems.

b. VWPA will look for the administrator to process applications to determine the eligibility of customers for VWPA's CAP program. Customers will have the ability to utilize self-service options and/or in person options with the assistance of utility partners and/or access by phone, mail; etc.

This vendor will provide reporting associated with those that meet the established qualifications and those that are rejected from the program. There must be integration of systems for electronic processing of customer data and funding distribution. In addition, monthly reporting will be established to determine the continual needs and success of the program as well as any PUC regulation requirements.

Answer provided by: Judith Jordan

Title: Director of Programs

Address: 6310 Allentown Blvd. Harrisburg, Pa 17112

Date: 4/18/24

INTERROGATORIES OF THE COALITION FOR AFFORDABLE UTILITY SERVICES AND ENERGY EFFICIENCY IN PENNSYLVANIA (CAUSE-PA) TO VEOLIA WATER PENNSYLVANIA, INC.

SET II

CAUSE-PA II-9 Regarding the third party administrator:

a. Please describe Veolia's plan for oversight and reporting on the performance of the administrator.

b. Please explain how the administrator will access Veolia customer information.

Answer:

a. VWPA has not yet selected a vendor; however, our expectation would be quality customer service, timely deliverables, monthly reporting with key indicators demonstrating company, customer and community partnership and outreach.

b. This administrator access will be determined once a vendor has been selected and the VWPA can determine methods of integration.

Answer provided by: Judith Jordan

Title: Director of Programs

Address: 6310 Allentown Blvd. Harrisburg, PA 17112

Date: 4/18/24

INTERROGATORIES OF THE COALITION FOR AFFORDABLE UTILITY SERVICES AND ENERGY EFFICIENCY IN PENNSYLVANIA (CAUSE-PA) TO VEOLIA WATER PENNSYLVANIA, INC.

SET II

CAUSE-PA II-16 From January 2019 to present, please provide the median and mean arrearages for customers:

a. Residential customers,
b. Confirmed low income customers,
c. Veolia Cares recipients.

Answer: a. Please refer to CAUSE-PA II-16 Attachment A.

b. Please refer to CAUSE-PA I-3 and CAUSE-PA II-16 Attachment B.

c. Please refer to CAUSE-PA II-16 Attachment C.

Answer provided by: Judith Jordan

Title: Director of Programs

Address: 6310 Allentown Blvd. Harrisburg, PA 17112

Date: 4/18/24

Veolia Water Pennsylvania, Inc.
Docket No. R-2024-3045192 / 3045193

2024 Mean Arrears of Residential customers	
Reporting Month	Mean Arrears Each Month
Jan-2024	$ 68.71
Feb-2024	$ 67.11
Mar-2024	$ 68.14
Average	$ 67.99

2023 Mean Arrears of Residential customers	
Reporting Month	Mean Arrears Each Month
Jan-2023	$ 69.99
Feb-2023	$ 71.45
Mar-2023	$ 72.91
Apr-2023	$ 72.61
May-2023	$ 73.83
Jun-2023	$ 72.26
Jul-2023	$ 73.74
Aug-2023	$ 72.66
Sep-2023	$ 72.02
Oct-2023	$ 71.44
Nov-2023	$ 65.11
Dec-2023	$ 66.64
Average	$ 71.22

2022 Mean Arrears of Residential customers	
Reporting Month	Mean Arrears Each Month
Jan-2022	$ 91.09
Feb-2022	$ 81.06
Mar-2022	$ 79.64
Apr-2022	$ 78.72
May-2022	$ 77.34
Jun-2022	$ 75.18
Jul-2022	$ 76.80
Aug-2022	$ 77.51
Sep-2022	$ 77.27
Oct-2022	$ 73.75
Nov-2022	$ 72.75
Dec-2022	$ 70.46
Average	$ 77.63

2021 Mean Arrears of Residential customers	
Reporting Month	Mean Arrears Each Month
Jan-2021	$ 103.20
Feb-2021	$ 109.93
Mar-2021	$ 114.20
Apr-2021	$ 114.77
May-2021	$ 115.84
Jun-2021	$ 103.97
Jul-2021	$ 100.76
Aug-2021	$ 99.22
Sep-2021	$ 96.37
Oct-2021	$ 101.49
Nov-2021	$ 96.47
Dec-2021	$ 95.48
Average	$ 104.31

2020 Mean Arrears of Residential customers	
Reporting Month	Mean Arrears Each Month
Jan-2020	$ 59.99
Feb-2020	$ 56.77
Mar-2020	$ 61.91
Apr-2020	$ 64.70
May-2020	$ 65.88
Jun-2020	$ 68.28
Jul-2020	$ 74.22
Aug-2020	$ 81.23
Sep-2020	$ 83.58
Oct-2020	$ 87.47
Nov-2020	$ 88.90
Dec-2020	$ 96.31
Average	$ 74.10

2019 Mean Arrears of Residential customers	
Reporting Month	Mean Arrears Each Month
Jan-2019	$ 54.19
Feb-2019	$ 50.36
Mar-2019	$ 56.86
Apr-2019	$ 58.67
May-2019	$ 58.95
Jun-2019	$ 58.31
Jul-2019	$ 61.81
Aug-2019	$ 58.46
Sep-2019	$ 59.23
Oct-2019	$ 57.39
Nov-2019	$ 59.34
Dec-2019	$ 57.87
Average	$ 57.62

2024 Median Arrears of Residential customers	
Reporting Month	Median Arrears Each Month
Jan-2024	$ 36.34
Feb-2024	$ 36.45
Mar-2024	$ 36.85
Median	$ 36.45

2023 Median Arrears of Residential customers	
Reporting Month	Median Arrears Each Month
Jan-2023	$ 38.37
Feb-2023	$ 38.89
Mar-2023	$ 38.75
Apr-2023	$ 38.21
May-2023	$ 39.66
Jun-2023	$ 38.10
Jul-2023	$ 39.85
Aug-2023	$ 38.58
Sep-2023	$ 38.59
Oct-2023	$ 37.43
Nov-2023	$ 36.06
Dec-2023	$ 36.46
Median	$ 38.47

2022 Median Arrears of Residential customers	
Reporting Month	Median Arrears Each Month
Jan-2022	$ 42.90
Feb-2022	$ 41.63
Mar-2022	$ 40.22
Apr-2022	$ 40.69
May-2022	$ 40.69
Jun-2022	$ 39.74
Jul-2022	$ 41.63
Aug-2022	$ 42.58
Sep-2022	$ 41.63
Oct-2022	$ 40.69
Nov-2022	$ 40.02
Dec-2022	$ 39.61
Median	$ 40.69

2021 Median Arrears of Residential customers	
Reporting Month	Median Arrears Each Month
Jan-2021	$ 47.08
Feb-2021	$ 47.08
Mar-2021	$ 46.18
Apr-2021	$ 44.37
May-2021	$ 45.27
Jun-2021	$ 43.46
Jul-2021	$ 43.46
Aug-2021	$ 44.37
Sep-2021	$ 42.56
Oct-2021	$ 41.65
Nov-2021	$ 41.97
Dec-2021	$ 41.65
Median	$ 43.92

2020 Median Arrears of Residential customers	
Reporting Month	Median Arrears Each Month
Jan-2020	$ 34.63
Feb-2020	$ 30.14
Mar-2020	$ 37.65
Apr-2020	$ 39.01
May-2020	$ 42.40
Jun-2020	$ 44.78
Jul-2020	$ 47.08
Aug-2020	$ 48.89
Sep-2020	$ 47.99
Oct-2020	$ 47.08
Nov-2020	$ 47.08
Dec-2020	$ 47.08
Median	$ 45.93

2019 Median Arrears of Residential customers	
Reporting Month	Median Arrears Each Month
Jan-2019	$ 33.95
Feb-2019	$ 30.55
Mar-2019	$ 32.72
Apr-2019	$ 34.06
May-2019	$ 32.86
Jun-2019	$ 32.10
Jul-2019	$ 34.86
Aug-2019	$ 33.59
Sep-2019	$ 34.09
Oct-2019	$ 32.72
Nov-2019	$ 32.15
Dec-2019	$ 34.27
Median	$ 33.23

Veolia Water Pennsylvania, Inc.
Docket No. R-2024-3045192 / 3045193

2024 Mean Arrears of Residential customers	
Reporting Month	Mean Arrears Each Month
Jan-2024	$ 84.58
Feb-2024	$ 83.58
Mar-2024	$ 75.95
Average	$ 81.37

2023 Mean Arrears of Residential customers	
Reporting Month	Mean Arrears Each Month
Jan-2023	$ 105.52
Feb-2023	$ 93.68
Mar-2023	$ 81.17
Apr-2023	$ 78.08
May-2023	$ 76.70
Jun-2023	$ 77.31
Jul-2023	$ 79.18
Aug-2023	$ 73.97
Sep-2023	$ 72.71
Oct-2023	$ 77.90
Nov-2023	$ 77.94
Dec-2023	$ 80.84
Average	$ 81.25

2022 Mean Arrears of Residential customers	
Reporting Month	Mean Arrears Each Month
Jan-2022	$ 65.69
Feb-2022	$ 60.22
Mar-2022	$ 66.77
Apr-2022	$ 59.10
May-2022	$ 61.90
Jun-2022	$ 62.03
Jul-2022	$ 61.30
Aug-2022	$ 60.76
Sep-2022	$ 63.19
Oct-2022	$ 67.89
Nov-2022	$ 71.78
Dec-2022	$ 69.71
Average	$ 64.20

2021 Mean Arrears of Residential customers	
Reporting Month	Mean Arrears Each Month
Jan-2021	$ 49.77
Feb-2021	$ 49.83
Mar-2021	$ 51.52
Apr-2021	$ 49.35
May-2021	$ 48.51
Jun-2021	$ 51.97
Jul-2021	$ 59.96
Aug-2021	$ 62.46
Sep-2021	$ 65.67
Oct-2021	$ 61.86
Nov-2021	$ 60.62
Dec-2021	$ 62.41
Average	$ 56.16

2020 Mean Arrears of Residential customers	
Reporting Month	Mean Arrears Each Month
Jan-2020	$ 34.56
Feb-2020	$ 35.28
Mar-2020	$ 35.21
Apr-2020	$ 33.88
May-2020	$ 39.54
Jun-2020	$ 43.52
Jul-2020	$ 48.25
Aug-2020	$ 54.69
Sep-2020	$ 50.04
Oct-2020	$ 48.56
Nov-2020	$ 49.87
Dec-2020	$ 49.51
Average	$ 43.58

2019 Mean Arrears of Residential customers	
Reporting Month	Mean Arrears Each Month
Jan-2019	$ 27.48
Feb-2019	$ 27.50
Mar-2019	$ 28.71
Apr-2019	$ 29.46
May-2019	$ 26.92
Jun-2019	$ 28.89
Jul-2019	$ 28.87
Aug-2019	$ 30.25
Sep-2019	$ 32.77
Oct-2019	$ 32.54
Nov-2019	$ 32.20
Dec-2019	$ 29.22
Average	$ 29.57

2024 Median Arrears of Residential customers	
Reporting Month	Median Arrears Each Month
Jan-2024	$ 28.17
Feb-2024	$ 26.88
Mar-2024	$ 25.60
Median	$ 26.88

2023 Median Arrears of Residential customers	
Reporting Month	Median Arrears Each Month
Jan-2023	$ 29.91
Feb-2023	$ 38.91
Mar-2023	$ 30.51
Apr-2023	$ 28.60
May-2023	$ 24.32
Jun-2023	$ 28.60
Jul-2023	$ 28.60
Aug-2023	$ 27.31
Sep-2023	$ 27.31
Oct-2023	$ 26.88
Nov-2023	$ 26.88
Dec-2023	$ 28.60
Median	$ 28.60

2022 Median Arrears of Residential customers	
Reporting Month	Median Arrears Each Month
Jan-2022	$ 26.90
Feb-2022	$ 25.62
Mar-2022	$ 26.90
Apr-2022	$ 23.90
May-2022	$ 26.47
Jun-2022	$ 26.69
Jul-2022	$ 27.33
Aug-2022	$ 24.76
Sep-2022	$ 25.19
Oct-2022	$ 27.33
Nov-2022	$ 26.90
Dec-2022	$ 26.47
Median	$ 26.58

2021 Median Arrears of Residential customers	
Reporting Month	Median Arrears Each Month
Jan-2021	$ 25.62
Feb-2021	$ 25.62
Mar-2021	$ 25.19
Apr-2021	$ 25.62
May-2021	$ 27.76
Jun-2021	$ 27.33
Jul-2021	$ 27.76
Aug-2021	$ 29.05
Sep-2021	$ 29.27
Oct-2021	$ 25.62
Nov-2021	$ 26.04
Dec-2021	$ 26.47
Median	$ 26.26

2020 Median Arrears of Residential customers	
Reporting Month	Median Arrears Each Month
Jan-2020	$ 26.03
Feb-2020	$ 25.62
Mar-2020	$ 24.58
Apr-2020	$ 25.21
May-2020	$ 28.19
Jun-2020	$ 30.55
Jul-2020	$ 28.19
Aug-2020	$ 31.19
Sep-2020	$ 29.91
Oct-2020	$ 26.04
Nov-2020	$ 29.05
Dec-2020	$ 26.47
Median	$ 27.33

2019 Median Arrears of Residential customers	
Reporting Month	Median Arrears Each Month
Jan-2019	$ 22.67
Feb-2019	$ 21.97
Mar-2019	$ 23.58
Apr-2019	$ 24.69
May-2019	$ 22.56
Jun-2019	$ 25.19
Jul-2019	$ 24.39
Aug-2019	$ 24.73
Sep-2019	$ 24.28
Oct-2019	$ 24.33
Nov-2019	$ 24.76
Dec-2019	$ 22.93
Median	$ 24.31

Veolia Water Pennsylvania, Inc.
Docket No. R-2024-3045192 / 3045193

Mean Arrears of Low Income Customers	
Reporting Year	Mean Arrears Each Month
2019	$ 78.48
2020	$ 108.67
2021	$ 159.70
2022	$ 127.11
2023	$ 127.63
2024	$ 125.00

Median Arrears of Low Income Customers	
Reporting Year	Median Arrears Each Month
2019	$ 44.10
2020	$ 57.94
2021	$ 62.47
2022	$ 59.61
2023	$ 57.28
2024	$ 50.46

Veolia Water Pennsylvania, Inc.
Docket No. R-2024-3045192 3045193

CAUSE PA II 16
Attachment C
1 of 2

Mean Arrears of Veolia Care Customers	
Reporting Year	Mean Arrears Each Month
2019	$ 85.57
2020	$ 104.51
2021	$ 115.58
2022	$ 83.99
2023	$ 144.57
2024	$ 128.29

Median Arrears of Veolia Care Customers	
Reporting Year	Median Arrears Each Month
2019	$ 43.98
2020	$ 66.09
2021	$ 57.04
2022	$ 56.76
2023	$ 60.17
2024	$ 55.32

Veolia Water Pennsylvania, Inc.
Docket No. R-2024-3045192 3045193

Mean Arrears of Veolia Care Customers	
Reporting Year	Mean Arrears Each Month
2023	$ 132.70
2024	$ 42.69

Median Arrears of Veolia Care	
Reporting Year	Median Arrears Each Month
2023	$ 29.89
2024	$ 21.74

Pa. P.U.C. v. Veolia Water Pennsylvania, Inc.
Docket Nos. R-2024-3045192 (Water) R-2024-3045193 (Wastewater)
Interrogatories of the Office of Consumer Advocate
Set 5 to Veolia

REVISED

OCA-5-1 Please provide the Company's total known number of recorded customers from 200% of poverty to 0% of poverty broken down into increments of 50% of FPL.

Answer: The Company does not collect income or number of household member data from customers except in instances where bill payment assistance has been requested. Additionally, the Company does not currently have a Customer Assistance Program ("CAP") for which income data is collected or Federal Poverty Levels computed. As stated in VWPA Statement No. 7, Direct Testimony of Judith McCoy Jordan, currently less than one percent of all residential customers are on a payment plan. The Company has, however, identified approximately 662 known residential customers at 0 to 200% of the Federal Poverty Level since 2019 based on payment arrangement plans. The Company has used this limited dataset, which varies based on number of active accounts, to estimate known poverty levels of our customers.

Answer provided by: Judith McCoy Jordan
Title: Director of Programs
Address: 6310 Allentown Blvd. Harrisburg, PA 17112
Date: 3/13/2024

Pa. P.U.C. v. Veolia Water Pennsylvania, Inc.
Docket Nos. R-2024-3045192 (Water) R-2024-3045193 (Wastewater)
Interrogatories of the Office of Consumer Advocate
Set 5 to Veolia

OCA-5-26 Please provide by month for the most recent 36 months available:

a. The mean residential water usage (in gallons);
b. The median residential water usage (in gallons);
c. The mean low-income water usage (in gallons); and
d. The median low-income water usage (in gallons)

Answer: Please see response to OCA-5-1. The requested data can be found in OCA-5-26 a Attachement.xlsx, OCA-5-26 b Attachement.xlsx, and OCA-5-26 c&d Attachement.xlsx

Answer provided by:	Judith McCoy Jordan
Title:	Director of Programs
Address:	6310 Allentown Blvd Suite 104 Harrisburg, PA 17112
Date:	3/12/24

Mean Residential Water Usage for the most recent 36 months available:

2024	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean Residential Water Usage (000's Gallons)	3.4	3.4										

2023	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean Residential Water Usage (000's Gallons)	3.5	3.2	3.2	3.4	3.3	3.9	3.9	3.6	3.7	3.6	3.3	3.6

2022	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean Residential Water Usage (000's Gallons)	3.6	3.3	3.3	3.3	3.4	3.6	3.7	3.9	3.9	3.6	3.3	3.3

2021	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean Residential Water Usage (000's Gallons)			3.2	3.4	3.7	3.6	3.8	4.0	3.7	3.6	3.4	3.3

Veolia Water Pennsylvania,Inc.
Docket No. R-2024-3045192 / 3045193

Month/Year	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
Median Consumption MGL	3.1	3	2.7	2.9	3.1	3	3.1	3.2	2.9	2.9	2.8	2.8

Month/Year	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Median Consumption MGL	3.1	2.7	2.7	2.7	2.9	2.9	2.9	3	3	2.9	2.7	2.7

Month/Year	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23
Median Consumption MGL	3	2.6	2.7	2.8	2.7	3.1	3	2.8	2.9	2.8	2.7	3

Month/Year	Jan-24	Feb-24
Median Consumption MGL	2.9	2.8

Veolia Water Pennsylvania,Inc.
Docket No. R-2024-3045192 / 3045193

(000's Gallons)

2024	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean Low-Income Residential Water Usage	6.4	6.2										
Median Low-Incom Residential Water Usage	5.6	5.2										

2023	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean Low-Income Residential Water Usage	5.95	5.20	6.0	6.2	6.4	7.0	7.2	7.0	6.6	5.9	6.1	6.3
Median Low-Incom Residential Water Usage	5.21	4.81	4.9	5.2	5.2	5.6	5.7	5.5	5.5	4.9	5.3	5.3

2022	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean Low-Income Residential Water Usage	7.4	6.2	5.3	5.5	5.9	6.8	6.8	6.7	6.8	6.4	5.9	5.6
Median Low-Incom Residential Water Usage	5.3	4.9	4.9	4.9	5.1	5.5	5.2	5.5	5.3	5.1	4.8	4.9

2021	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean Low-Income Residential Water Usage			6.8	7.1	6.9	7.3	7.4	8.5	7.4	7.5	6.7	6.9
Median Low-Incom Residential Water Usage			5.2	5.3	5.6	5.6	5.6	5.6	5.3	5.6	5.3	5.6

Pa. P.U.C. v. Veolia Water Pennsylvania, Inc.
Docket Nos. R-2024-3045192 (Water) R-2024-3045193 (Wastewater)
Interrogatories of the Office of Consumer Advocate
Set 5 to Veolia

REVISED

OCA-5-29 By month for the most recent 36 months available, in Excel format:

a. The total number of nonpayment disconnections for residential customers;

b. The total number of nonpayment disconnections for low-income customers;

c. The average arrears at the time of disconnection for residential customers;

d. The average arrears at the time of disconnection for low-income customers.

Answer: Due to COVID-19 customer protections, Veolia did not disconnect customers for nonpayment for the full 36 months requested. Accordingly, data has been provided for the months that disconnections resumed beginning in May of 2021. Please refer to the attached documents that provide a response to Data Request OCA-5-29 Attachment.xlsx. Regarding low-income customer data, please also refer to the written response to OCA-5-1.

Answer provided by: Judith McCoy Jordan
Title: Director of Programs
Address: 6310 Allentown Blvd. Harrisburg, PA 17112
Date: 3/18/2024

Residential customers	a. The total number of nonpayment disconnections for residential customers	c. The average arrears at the time of disconnection for residential customers
Month	**Disconnections**	**Average Arrears**
2021		
May	60	$ 988.05
Jun	33	$ 718.87
Jul	48	$ 425.55
Aug	57	$ 557.15
Sep	29	$ 536.94
Oct	55	$ 455.66
Nov	42	$ 459.67
Dec	21	$ 231.43
2022		
Jan	33	$ 376.01
Feb	19	$ 341.46
Mar	25	$ 370.85
Apr	37	$ 317.04
May	49	$ 233.10
Jun	57	$ 282.18
Jul	47	$ 240.68
Aug	73	$ 308.34
Sep	62	$ 272.37
Oct	55	$ 199.13
Nov	80	$ 240.02
Dec	25	$ 243.02
2023		
Jan	44	$ 251.07
Feb	19	$ 252.71
Mar	36	$ 471.21
Apr	65	$ 291.99
May	67	$ 223.79
Jun	91	$ 309.22
Jul	67	$ 305.87
Aug	85	$ 297.36
Sep	67	$ 322.75
Oct	70	$ 365.51
Nov	70	$ 241.06
Dec	16	$ 518.71
2024		
Jan	29	$ 280.64
Feb	24	$ 378.79

Low IncomeCustomers	b. The total number of nonpayment disconnections for low-income customers	d. The average arrears at the time of disconnection for low-income customers
Month	**Disconnections**	**Average Arrears**
2021		
May	9	$ 868.32
Jun	9	$ 678.55
Jul	7	$ 498.01
Aug	6	$ 1,287.35
Sep	9	$ 690.52
Oct	11	$ 800.51
Nov	11	$ 812.27
Dec		
2022		
Jan	8	$ 523.43
Feb	6	$ 801.40
Mar	7	$ 622.98
Apr	10	$ 687.74
May	5	$ 650.69
Jun	8	$ 565.45
Jul	6	$ 466.52
Aug	17	$ 754.59
Sep	16	$ 323.89
Oct	8	$ 341.92
Nov	12	$ 488.06
Dec	5	$ 440.76
2023		
Jan	8	$ 571.78
Feb	3	$ 427.41
Mar	10	$ 1,082.45
Apr	9	$ 460.62
May	10	$ 251.34
Jun	14	$ 870.92
Jul	12	$ 679.66
Aug	10	$ 1,014.53
Sep	13	$ 806.78
Oct	10	$ 951.89
Nov	6	$ 138.70
Dec	2	$ 767.85
2024		
Jan	6	$ 559.48
Feb	4	$ 333.68

Pennsylvania Public Utility Commission
v.
Veolia Water Pennsylvania, Inc.
Docket No. R-2024-3045192 (Water)
R-2024-3045193 (Wastewater)

Interrogatories of the Office of Consumer Advocate
Set 8

Water Operations

OCA-8-3 Please provide a detailed description of how, if at all, Veolia follows-up after conservation kits are distributed to determine which, if any, of the components of the kit were actually installed or used.

Answer: At this time, Veolia does not directly follow up with the customer; however, Veolia has randomly reviewed a few customer accounts where conservation kits were distributed to review water usage patterns.

Answer provided by:	Judith Jordan
Title:	Director of Programs
Address:	6310 Allentown Blvd. Harrisburg, PA 17112
Date:	3/20/24

Pa. P.U.C. v. Veolia Water Company
Docket Nos. R-2024-3045192 (Water)
R-2024-3045193 (Wastewater)
Interrogatories of the Office of Consumer Advocate
Set 12 to Veolia

OCA-12-2 Noting the Company's response to OCA-5-1, why is the low-income usage rate (see Company response to OCA-5-26 attachments A,B,C,D) so much higher than that of the average residential customer usage rate?

Answer: Please refer to OCA-12-1. It is difficult, if not impossible, to know concretely why the low-income usage rate in OCA-5-26 is higher than the residential rate due to the universe of factors at play. The observed difference could possibly be attributable to a variety of factors such as, but not limited to, the limited data set (i.e., small number of observations), leaks, number of household occupants, usage patterns of this group of customers, etc.

Answer provided by:	Judith Jordan
Title:	Director of Programs
Address:	6310 Allentown Blvd. Harrisburg, PA 17112
Date:	4/4/2024

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

VEOLIA WATER PENNSYLVANIA INC.

Docket Nos. R-2024-3045192 and R-2024-3045193

I&E-RE-40 Reference VWPA Statement No. 7, p. 5 concerning the Veolia Cares program:

A. Provide budgeted spending versus actual spending for the HTY and the years preceding the HTY.

B. Indicate cash contributions and any rollover amounts each year.

C. Indicate the number of accounts receiving grants in each year.

D. Confirm whether the funding for this program will remain separate from the funding for the proposed Customer Assistance Program (CAP).

Answer:

A, B, C:

Years	Budgeted Spending	Actual Spendng	# of accounts	Rollover Amount
10/1/2019 to 9/30/2020	Unbudgeted	$5,378	43	
10/1/2020 to 9/30/2021	Unbudgeted	$15,245	110	
10/1/2021 to 9/30/2022	$50,000	$6,277	35	$43,723
10/1/22 to 9/30/23 HTY	$50,000	$40,465	181	$53,258

D. The Funding for this program will remain separate from the funding for the proposed Customer Assistance Program (CAP).

Answer provided by: Judith Jordan

Title: Director of Programs

Address: 6310 Allentown Blvd. Harrisburg, PA 17112

Date: 4/2/2024

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	Docket Nos. R-2024-3045193 *et al.*
	:	(Wastewater)
v.	:	
	:	Docket Nos. R-2024-3045192, *et al.*
Veolia Water Pennsylvania, Inc.	:	(Water)

REBUTTAL TESTIMONY OF ROBERT W. BALLENGER, ESQ.

ON BEHALF OF

THE COALITION FOR AFFORDABLE UTILITY SERVICES AND ENERGY EFFICIENCY IN PENNSYLVANIA ("CAUSE-PA")

June 7, 2024

Corrected - June 12, 2024

CAUSE-PA STATEMENT 1-R
PREPARED REBUTTAL TESTIMONY OF ROBERT W. BALLENGER, ESQ.

Q: Please state your name, occupation, and business address.

A: Robert W. Ballenger. I am currently a Senior Supervising Staff Attorney at Community Legal Services of Philadelphia (CLS). My office is located at 1424 Chestnut Street, Philadelphia, PA 19102.

Q: Q: Did you previously submit testimony in this proceeding?

A: Yes. I submitted direct testimony pre-marked as CAUSE-PA Statement 1 on behalf of the Coalition for Affordability Utility Services and Energy Efficiency in Pennsylvania (CAUSE-PA).

Q: What is the purpose of your rebuttal testimony?

A: My rebuttal testimony responds to the direct testimony of Office of Consumer Advocate (OCA) witness Nicholas A. DeMarco regarding the accepted standards of water and wastewater affordability.[1]

Q: Please summarize the testimony you wish to address.

A: In Mr. DeMarco's testimony, he analyzes the water burdens produced by Veolia's proposed bill discount program.[2] He concludes that while Veolia's proposed plan would reduce water burdens and promote affordability, even with the proposed discounts, "households would still be paying bills that are outside of recognized guidelines for affordability."[3] In support of this

[1] OCA St. 6.
[2] *Id.* at 11-19.
[3] *Id.* at 12.

premise he cites the Federal Environmental Protection Agency's (EPA) guidelines for affordability.[4]

Q: What is your response to Mr. Demarco's testimony?

A: I agree with Mr. Demarco's conclusion. However, I note that in his testimony he cites the EPA's guidance on water standards, which to my understanding is not targeted to analyze or achieve affordability in the context of low income customer assistance programs. The EPA guidance is a population based methodology which applies *median income* for use in making decisions about water quality standards deviations. It is not an effort to determine the affordable water burden for a *low income* household participating in a Customer Assistance Program.

As I explained in my direct testimony, while Pennsylvania has not adopted statewide combined water and wastewater burden standards, the generally accepted standard of affordability is that a household's ***combined*** water and wastewater burden should not exceed 4% of household income.[5] The 4% standard, as a general rule for the maximum affordable household bill burden for water and wastewater service for low-income households, has been maintained for many years by my colleague Roger Colton, who testified in support of Philadelphia's income-based water bill program in 2016.[6] In that case, the Philadelphia Water, Sewer and

[4] *Id.*

[5] CAUSE-PA St. 1 at 13; see also NRDC, *Water Affordability Toolkit: Affordability and Assistance Programs*, at 73, available at: https://www.nrdc.org/sites/default/files/water-affordability-toolkit-section-8.pdf; Roger Colton, *The Affordability of Water and Wastewater Service in Twelve US Cities*, The Guardian (May 2020), available at: https://www.theguardian.com/environment/2020/jun/23/full-report-read-in-depth-water-poverty-investigation; NAACP Legal Defense and Educational Fund, Inc., *Water/Color: A Study of Race & The Water Affordability Crisis in America's Cities* (2019), available at: https://www.naacpldf.org/wp-content/uploads/Water_Report_FULL_5_31_19_FINAL_OPT.pdf.

[6] Philadelphia Water, Sewer and Stormwater Rate Board, *Re: Application of the Philadelphia Water Department for Increased Rates and Related Charges, Fiscal Years 2017-2018*, Public Advocate St. 3 at 27-29, available at: https://www.phila.gov/media/20200127143129/PA-St3-Colton.pdf; *see also* Roger D. Colton, *Water Affordability Plan City of Toledo (Ohio)*, at vii, 33 (identifying maximum affordable household water and wastewater burden of 4%), available at: https://cdn.toledo.oh.gov/uploads/documents/Public-Utilities/Toledo-Water-Affordability-Plan-Final-10-13-21.pdf .

Storm Water Rate Board adopted a range of monthly assistance bills calculated at 2-4% of adult household members' income. These burdens are also consistent with international standards applicable to a combined water and wastewater burdens.[7] While the percentages cited by Mr. Demarco vary only slightly from the accepted standards cited in my direct testimony, it is important that the combined water and wastewater burden be considered in the overall context of housing affordability specifically for low income consumers.

Aside from this datapoint, I agree with Mr. Demarco's conclusion that Veolia's proposed discounts would improve affordability for many households but would still render bills for some households that are above the accepted standards for affordability. It is thus important that Veolia adjust its discounts to provide affordable bills for more qualifying households - and, in turn, to adopt my recommendations for helping high usage customers with conservation and leak repair measures.

Q: Does that conclude your rebuttal testimony?

A: Yes.

[7] United Nations Development Program, *Beyond Scarcity: Power, Poverty and the Global Water Crisis*, at 97 (3% affordable standard appropriate).

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	Docket Nos. R-2024-3045193 *et al.*
	:	(Wastewater)
v.	:	
	:	Docket Nos. R-2024-3045192, *et al.*
Veolia Water Pennsylvania, Inc.	:	(Water)

SURREBUTTAL TESTIMONY OF ROBERT W. BALLENGER, ESQ.

ON BEHALF OF

THE COALITION FOR AFFORDABLE UTILITY SERVICES AND ENERGY EFFICIENCY IN PENNSYLVANIA ("CAUSE-PA")

June 21, 2024

CAUSE-PA STATEMENT 1-SR
PREPARED SURREBUTTAL TESTIMONY OF ROBERT W. BALLENGER, ESQ.

Q: Please state your name, occupation, and business address.

A: Robert W. Ballenger. I am currently a Senior Supervising Staff Attorney at Community Legal Services of Philadelphia (CLS). My office is located at 1424 Chestnut Street, Philadelphia, PA 19102.

Q: Q: Did you previously submit testimony in this proceeding?

A: Yes. I submitted direct testimony and rebuttal testimony, pre-marked as CAUSE-PA Statement 1 and CAUSE-PA Statement 1-R, on behalf of the Coalition for Affordability Utility Services and Energy Efficiency in Pennsylvania (CAUSE-PA).

Q: What is the purpose of your surrebuttal testimony?

A: My surrebuttal testimony responds to the rebuttal testimony of Veolia Water Pennsylvania, Inc. (Veolia) witness Judith Jordan.[1]

Q: Please summarize the portions of Ms. Jordan's testimony you wish to address.

A: In response to my testimony regarding the accepted standards for water and wastewater affordability, Ms. Jordan argues that the Commission has not adopted a water affordability standard, expressing her preference for a statewide proceeding if one is to be considered.[2] She also argues that the data and recommendations in my testimony were skewed because of limited sample size of confirmed low income customers.[3]

[1] Veolia St. 7-R.
[2] *Id*. at 7.
[3] *Id*. at 8-9

Regarding my recommendations to improve the Company's proposed customer assistance program (CAP), Ms. Jordan asserts that it is premature to add an additional income tier and that I did not calculate the cost impacts of additional tier.[4] She also opposes my recommendation that the Company provide arrearage forgiveness for all payments, including those made after the five-day grace period, and my recommendation that the Company consider a time-based arrearage forgiveness structure.[5] Regarding my recommendations to improve the Company's proposed Line Repair and Conservation programs, Ms. Jordan argues that my recommendations are based on electric and gas Low Income Usage Reduction Programs (LIURP), which does not apply to water utilities and that I do not provide cost estimates for my recommendations.[6]

Ms. Jordan appears to have misunderstood my testimony concerning the proposed involvement of Veolia's Low Income Advisory Committee (LIAC) in selecting a CAP program administrator. She asserts the selection of a CAP administrator is a "legitimate business decision" within the sole discretion of the Company.[7] Regarding my recommendations that the Company improve its low income customer data collection processes to better evaluate the performance of its proposed low income programs, she argues that the Commission should allow the Company to implement the programs and decide what data is necessary later.[8]

Regarding my recommendations to improve the Company's hardship fund, Ms. Jordan argues that the hardship fund is shareholder funded and it is therefore "inappropriate for the Commission to direct how these funds are administered."[9] Regarding my recommendation that the Company expand its CAP program to include wastewater customers, Ms. Jordan argues that

[4] *Id*. at 13.
[5] *Id*. at 16-17
[6] *Id*. at 18.
[7] *Id*. at 18-19.
[8] *Id*. at 19.
[9] *Id*. at 27.

establishing a wastewater CAP program is premature, and points out that the Company has relatively few wastewater customers and that, to date, no customer has requested a Veolia Cares wastewater hardship grant.[10]

Q: What is your response to Ms. Jordan's argument that there is no formal water affordability standard in Pennsylvania, and that Commission should adopt a standard through a statewide proceeding applied to all utilities?[11]

A: As I acknowledged in my direct testimony, Pennsylvania has not adopted statewide combined water and wastewater burden standards; however, it is generally accepted that, to be affordable, a household's combined water and wastewater burden should not exceed 4% of household income.[12] While this standard has not been formally adopted by the Commission on a statewide basis, it has nonetheless been applied in the evaluation of water rates and the design of water and wastewater affordability programs in Pennsylvania and throughout the country.[13]

Regarding Ms. Jordan's assertion that the Commission should adopt an affordability standard through a statewide proceeding that applies to all utilities, I generally agree that the Commission should implement a statewide standard. However, Veolia has proposed a new customer assistance program in this proceeding. It is appropriate, therefore, to examine whether Veolia's proposal will result in bills that are affordable for low income households. For purposes of this proceeding, I maintain that combined water and wastewater charges should not exceed 4% of household income to be considered affordable for low income customers.

[10] Veolia St. 7-R at 28.
[11] *Id.* at 7.
[12] CAUSE-PA St. 1 at 13.
[13] *See Id.* fn. 29-31.

Q: How do you respond to Ms. Jordan's argument that the data and recommendations in your testimony were skewed because of limited sample size of confirmed low income customers?[14]

A: First, it should be noted that the majority of my analysis and recommendations in my direct testimony were based on the *estimated* low income customer count provided by Veolia, which was based on census data proportionate to Veolia's residential customer base.[15] As I explained in my direct testimony, "the estimated low income count is the best way to measure the need for assistance, screening and tracking confirmed low income customers is the best way to identify specific customers in need of assistance."[16] In my direct testimony, I also recommended that for the purposes of evaluating the effectiveness of Veolia's CAP outreach, the Company should utilize the estimated low income customer count, which will "provide a more appropriate estimation of how those programs are serving Veolia's low income population."[17]

The limited sample size of low income customers identified by Veolia to date underscores the importance of my recommendation that the Company begin tracking confirmed low income customer data related to usage, terminations, and arrearages.[18] As I explained in my direct testimony, while Veolia provided only very limited data, that limited data shows that the low income customers identified have substantially higher average usage and higher average arrearages than residential customers generally.[19] I continue to recommend that Veolia improve its low income data tracking to help evaluate outreach and enrollment policies for its low income

[14] Veolia St. 7-R at 8-9
[15] CAUSE-PA St. 1 at 7, 10, 26-27,
[16] *Id.* at 27.
[17] *Id*. at 10.
[18] *Id.* at 8-9.
[19] *Id.* at 12, 23, 28.

programs and whether those programs are effective in reducing payment trouble and termination for participants.[20]

Q: How do you respond to Ms. Jordan's assertion that you did not provide cost estimates for your recommendations to improve Veolia's proposed CAP and its line repair and conservation programming?[21]

A: Ms. Jordan is correct. I did not provide cost projections for my recommendations. These programs have not been implemented and Veolia does not have data upon which reasonable projections could be made. This is especially true considering the very limited sample size of low income data that Veolia was able to provide. My recommendations about the programs are targeted to ensure that the programs are implemented in a just and reasonable manner and that they are effective at providing the benefits that they are targeted to achieve. It is important that Veolia track its low income data and program costs and that such information be reviewed with the LIAC on an ongoing basis to ensure that the programs are effective.

Q: How do you respond to Ms. Jordan's opposition to your recommendation that the Company grant arrearage forgiveness for every in-full payment, regardless of whether the payment is within the grace period?

A: I recognize Ms. Jordan's concerns that accepting late payments can be administratively burdensome. However, as I explained in my direct testimony, low income consumers are likely to receive income irregularly or inconsistently and lack reserve funds to cover their bills in the meantime. Accepting all in-full payments (or *payments*, in the case of partial payments) for debt forgiveness will help customers to timely resolve their debts and provide a meaningful incentive

[20] *Id*. at 37-38
[21] Veolia St. 7-R at 13, 18.

to catch up with their CAP bills if they miss the deadline.[22] Ms. Jordan acknowledges that customers with income instability face challenges to paying bills on time, but argues that it would be "unreasonable to expect the Company to accommodate every individual circumstance."[23] My recommendation is not for the Company "to accommodate every individual circumstance;" but, rather, that the Company implement program rules that reflect the common circumstances and challenges facing low-income customers. The objective of enabling catch-up payments is to encourage payment, even if late, and to promote consistent payment patterns, when possible. Plans designed to achieve these objectives benefit CAP customers, non-CAP customers, and the Company as a whole and are eminently reasonable.

Q: How do you respond to Ms. Jordan's argument that the Commission should reject your recommendation that the Company used a time-based arrearage forgiveness construct (ratable forgiveness in 1/24 increments), which allows debt to be forgiven within two years?[24]

A: It is important that any arrearage forgiveness component of a properly functioning CAP provide arrearage forgiveness within a reasonable amount of time for CAP participants to see the proverbial "light" at the end of the tunnel. As I explained in my direct testimony, while the very limited available data indicates that Veolia's proposed $25 per payment arrearage forgiveness would likely resolve the arrearages held by most currently identified low income customers within a reasonable timeframe, the very limited sample size of low income data makes it difficult to determine whether that will hold true on a larger scale.[25] As I also noted, some customers, particularly those who have been terminated, have much higher balances that would take much

[22] CAUSE-PA St. 1 at 29.
[23] *Id*. at 16.
[24] Veolia St. 7-R at 16-17.
[25] CAUSE-PA St. 1 at 28.

longer to resolve under Veolia's proposed structure. I remain concerned that customers with high balances due to leaks or extended payment trouble may have balances that would not be resolved within a reasonable period.[26] Providing arrearage forgiveness ratably as I propose would ensure that CAP participants act upon the meaningful payment incentive to eliminate water debt over a period of time that is reasonable and within a CAP customer's planning horizon.

Q: What is your response to Ms. Jordan's argument that your line repair and conservation recommendations are based on Low Income Usage Reduction Programs (LIURP) that are not applicable to water utilities?[27]

A: While water utilities are not explicitly required to provide LIURP, these programs provide a time-tested model upon which to base effective usage reduction and conservation programs and are a critical component to an effective and balanced universal service program portfolio. My recommendations were meant to use the existing models as a resource for best practices for Veolia's proposed Conservation and Line Repair programs.

Q: How do you respond to Ms. Jordan's opposition to the LIAC's involvement in selecting a CAP administrator?[28]

A: My testimony recommends that LIAC be involved in providing RFP parameters for the CAP administrator and I offer some advance recommendations to guide the Company's selection efforts.[29] I do not recommend that LIAC be involved in the Company's procurement process, contrary to Ms. Jordan's statement.[30] I am advised by counsel that the Commission is obligated

[26] *Id*. at 28-29.
[27] Veolia St. 7-R at 18.
[28] *Id.* at 19.
[29] CAUSE-PA St. 1 at 33-34.
[30] Veolia St. 7-R at 19.

to ensure that even voluntary programs operate in a just and reasonable manner. Furthermore, it is my understanding that members of the LIAC have experience with low income programming throughout Veolia's service territory as well as knowledge of various CAP administrators throughout the state. That experience can be helpful to the Company in setting out to identify appropriate criteria for selecting a suitable program administrator and reaching an expanded pool of qualified community based organizations and other entities.

Ms. Jordan also appears to oppose my recommendation regarding the CAP administrator's role in data collection and analysis (namely, that the CAP administrator functionally support the data collection and review processes I recommend).[31] She asserts that the Company "should be afforded an opportunity to establish the program, develop some experience, and then assess opportunities for improvements and best-practices."[32] Absent meaningful data collection and analysis, the Company will be unable to evaluate the program and conduct the assessment. Accordingly, the Company should undertake the data collection and analysis efforts described in my testimony and ensure that its CAP administrator supports such efforts.

Q: What is your response to Ms. Jordan's assertion that because Veolia Cares hardship fund is shareholder funded, it would be inappropriate for the Commission to direct how these funds are administered?

A: Again, I am advised by counsel that it is the Commission's obligation to ensure that customer programs, including voluntary programs, are operated in a just and reasonable manner and this is true regardless of the way in which any specific program is funded.

[31] CAUSE-PA St. 1 at 34.
[32] *Id*.

Q: What is your response to Ms. Jordan's argument that establishing a wastewater program is premature?[33]

A: I stand by my recommendation that Veolia should establish a wastewater CAP program, especially considering the impact that the proposed rate increase will have on customers who receive both water and wastewater service from Veolia. I acknowledge Ms. Jordan's testimony that there is a relatively small number of wastewater customers in comparison to the Company's overall number of water customers.[34] However, it is nonetheless important to ensure that all Veolia customers are able to afford water and wastewater service. As I explained in my direct testimony, water and wastewater service should cost no more than 4% of household income to be affordable to low income customers.[35] A water discount alone will not achieve affordability for combined water and wastewater or wastewater only customers.

Q: Does that conclude your rebuttal testimony?

A: Yes.

[33] *Id*. at 29.
[34] Veolia St. 7-R at 29.
[35] CAUSE-PA St. 1 at 13.

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	Docket Nos. R-2024-3045193 *et al.*
	:	(Wastewater)
v.	:	
	:	Docket Nos. R-2024-3045192, *et al.*
Veolia Water Pennsylvania, Inc.	:	(Water)

VERIFICATION

I, Robert W. Ballenger, Esq, verify that the following testimony was prepared by me or under my direct supervision, and are true and correct to the best of my knowledge, information, and belief:

- CAUSE-PA Statement 1 (Corrected), The Direct Testimony of Robert W. Ballenger, Esq.; CAUSE-PA Exhibit 1 (Corrected); and Appendices A and B.
- CAUSE-PA Statement 1-R, The Rebuttal Testimony of Robert W. Ballenger, Esq.
- CAUSE-PA Statement 1-SR, The Surrebuttal Testimony of Robert W. Ballenger, Esq.

I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Robert W. Ballenger, Esq.
1424 Chestnut Street,
Philadelphia, PA 191021

I&E Statement No. 1
Witness: Vanessa Okum
NON-PROPRIETARY

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

VEOLIA WATER PENNSYLVANIA, INC.

Docket No. R-2024-3045192 (Water)

and

Docket No. R-2024-3045193 (Wastewater)

Direct Testimony

of

Vanessa Okum

Bureau of Investigation and Enforcement

Concerning:

OPERATING AND MAINTENANCE EXPENSES, CAP TRACKER
CASH WORKING CAPITAL

TABLE OF CONTENTS

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Vanessa Okum. My business address is Pennsylvania Public Utility Commission, Commonwealth Keystone Building, 400 North Street, Harrisburg, PA 17120.

Q. IN WHAT CAPACITY ARE YOU EMPLOYED?

A. I am employed as a Fixed Utility Financial Analyst in the Pennsylvania Public Utility Commission's (Commission) Bureau of Investigation and Enforcement (I&E).

Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

A. My educational background and professional experience are described in the attached Appendix A.

Q. DESCRIBE THE ROLE OF I&E IN RATE PROCEEDINGS.

A. I&E is responsible for protecting the public interest in proceedings before the Commission. The I&E analysis in this proceeding is based on its responsibility to represent the public interest. This responsibility requires balancing the interests of the ratepayers, the regulated utility, and the regulated community as a whole.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my direct testimony is to review the base rate filing of Veolia Water Pennsylvania, Inc. (VWPA or Company) and make recommended adjustments to the Company's proposed operating and maintenance (O&M) expense claims and cash working capital for the fully projected future test year (FPFTY) ending October 31, 2025.

Q. DOES YOUR DIRECT TESTIMONY INCLUDE AN EXHIBIT?

A. Yes. I&E Exhibit No. 1 contains schedules relating to my direct testimony.

Q. WHAT ARE THE TEST YEARS USED BY VWPA IN THIS PROCEEDING?

A. VWPA is using the year ended September 30, 2023 as the historic test year (HTY), the year ending September 30, 2024 as the future test year (FTY), and the year ending October 31, 2025 as the FPFTY in this proceeding.[1]

Q. WHAT IS VWPA'S REQUESTED REVENUE INCREASE?

A. VWPA is requesting a total annual revenue increase of $16,063,339 (or 26.6%) based upon the FPFTY pro forma revenue requirement,[2] which reflects a total rate base claim for the combined water and wastewater operations. The revenue increase includes the recent acquisition of Mahoning Township Water (Mahoning

[1] VWPA Statement No. 2, pp. 3-4.
[2] I&E Exhibit No. 1, Schedule 1.

Water) and Mahoning Township Wastewater (Mahoning Wastewater), and is broken down into separate revenue requirements by operation as follows:

	Revenue Increase	% Increase	Reference
Main Water Division	$14,878,448	25.6%	VWPA Exhibit No. GRH-2, Schedule-1, p. 2
Mahoning Water	$616,172	96.2%	VWPA Exhibit No. GRH-2, Schedule-1, p. 3
Columbia Wastewater	$109,625	235.1%	VWPA Exhibit No. GRH-4, Schedule-1, p. 3
Mahoning Wastewater	$459,094	28.9%	VWPA Exhibit No. GRH-4, Schedule-1, p. 2
Total Company	**$16,063,339**	**26.6%**	

The requested revenue increase of $14,878,448 for the Main Water division includes $237,000 allocated from Main Water, which is intended to mitigate the rate increase to Mahoning Water customers.[3] This allocation is being addressed by I&E witness Esyan Sakaya in I&E Statement No. 3.

I&E OPERATING AND MAINTENANCE EXPENSE ADJUSTMENTS

Q. PLEASE SUMMARIZE YOUR ADJUSTMENTS.

A. The following tables summarize my recommended adjustments:

[3] VWPA Statement No. 2, p. 9.

Main Water Division:

	Company Claim	Recommended Allowance	I&E Adjustment
O&M Expenses:			
Labor Expense	$7,418,529	$7,101,016	($317,513)
Employee Group Health and Life Insurance	$1,596,912	$1,039,945	($556,967)
401k Matching and Other Benefits	$444,896	$425,857	($19,039)
Payroll Tax Expense	$918,219	$878,919	($39,300)
Management & Service Fees	$4,611,336	$4,202,062	($409,274)
Lab Testing Fees	$212,334	$199,532	($12,802)
Outside Contractors	$1,711,389	$1,617,403	($93,986)
Other O&M Expense	$164,161	$155,043	($9,118)
Rate Case Expense	$236,460	$166,913	($69,547)
Customer Assistance Program	$1,000,000	$700,000	$300,000
Total O&M Expense Adjustments			**($1,827,546)**
Rate Base:			
Cash Working Capital	$795,083	$721,316	($73,767)
Total Rate Base Adjustments			**($73,767)**

Mahoning Water:

	Company Claim	Recommended Allowance	I&E Adjustment
O&M Expenses:			
Employee Group Health and Life Insurance	$1,061	$640	($421)
Management & Service Fees	$68,840	$62,730	($6,110)
Other O&M Expense	$894	$845	($49)
Total O&M Expense Adjustments			**($6,580)**
Rate Base:			
Cash Working Capital	$5,223	$4,873	($350)
Total Rate Base Adjustments			**($350)**

Columbia Wastewater:

	Company Claim	Recommended Allowance	I&E Adjustment
O&M Expenses:			
Lab Testing Fees	$3,669	$3,592	($77)
Outside Contractors	$29,795	$29,342	($453)
Total O&M Expense Adjustments			**($530)**
Rate Base:			
Cash Working Capital	$3,438	$3,435	($3)
Total Rate Base Adjustments			**($3)**

Mahoning Wastewater:

	Company Claim	Recommended Allowance	I&E Adjustment
O&M Expenses:			
Lab Testing Fees	$108,368	$106,077	($2,291)
Outside Contractors	$880,038	$866,583	($13,455)
Total O&M Expense Adjustments			**($15,746)**
Rate Base:			
Cash Working Capital	$15,292	$15,110	($182)
Total Rate Base Adjustments			**($182)**

OVERALL I&E RECOMMENDED POSITION

Q. WHAT IS I&E'S TOTAL RECOMMENDED REVENUE REQUIREMENT FOR THE MAIN WATER DIVISION?

A. I&E's total recommended revenue requirement for the Main Water Division is $67,056,811. This recommended revenue requirement represents an increase of

$8,933,954 to present rate revenues of $58,122,857. This total recommended allowance incorporates my adjustments made in this testimony to O&M expenses and cash working capital, as well as the recommended adjustments made in the testimony of I&E witnesses D.C. Patel[4] and Esyan Sakaya.[5] A calculation of the I&E recommended revenue requirement is shown in Table I(a) below:

Veolia Main Water Division		TABLE I(a)			
R-2024-3045192		INCOME SUMMARY			
	10/31/25	INVESTIGATION & ENFORCEMENT			
	Proforma	[---]			
	Present Rates	Adjustments	Present Rates	Allowances	Proposed
	$	$	$	$	$
Operating Revenue	58,122,857	0	58,122,857	8,933,954	67,056,811
Deductions:					
O&M Expenses	24,822,808	-1,827,546	22,995,262	48,154	23,043,416
Depreciation	11,480,732	0	11,480,732		11,480,732
Taxes, Other	1,261,241	0	1,261,241	56,224	1,317,465
Income Taxes:					
Current State	619,497	147,204	766,701	716,079	1,482,780
Current Federal	1,525,139	350,260	1,875,399	1,703,834	3,579,233
Deferred Taxes	1,107,248	0	1,107,248		1,107,248
ITC	0	0	0		0
Total Deductions	40,816,665	-1,330,082	39,486,583	2,524,291	42,010,874
Income Available	17,306,192	1,330,082	18,636,274	6,409,663	25,045,937
Rate Base	349,877,351	-73,767	349,803,584	0	349,803,584
Rate of Return	4.95%		5.33%		7.16%

Q. WHAT IS I&E'S TOTAL RECOMMENDED REVENUE REQUIREMENT FOR MAHONING WATER?

A. I&E's total recommended revenue requirement for Mahoning Water is

[4] I&E Statement No. 2.
[5] I&E Statement No. 3.

$1,196,368. This recommended revenue requirement represents an increase of $555,530 to present rate revenues of $640,838. This total recommended allowance incorporates my adjustments made in this testimony to O&M expenses and cash working capital, as well as the recommended adjustments made in the testimony of I&E witnesses D.C. Patel and Esyan Sakaya. A calculation of the I&E recommended revenue requirement is shown in Table I(b) below:

Mahoning Water		TABLE I(b)			
R-2024-3045192		INCOME SUMMARY			
	10/31/25	INVESTIGATION & ENFORCEMENT			
	Proforma	[----------			---------]
	Present Rates	Adjustments	Present Rates	Allowances	Proposed
	$	$	$	$	$
Operating Revenue	640,838	0	640,838	555,530	1,196,368
Deductions:					
O&M Expenses	509,880	-6,580	503,300	2,994	506,294
Depreciation	340,733	-122,766	217,967		217,967
Taxes, Other	7,469	0	7,469	1,256	8,725
Income Taxes:					
Current State	-37,231	12,370	-24,861	44,688	19,827
Current Federal	-87,672	29,432	-58,240	105,415	47,175
Deferred Taxes	21,705	0	21,705		21,705
ITC	0	0	0		0
Total Deductions	754,884	-87,544	667,340	154,353	821,693
Income Available	-114,046	87,544	-26,502	401,177	374,675
Rate Base	6,338,138	-1,105,246	5,232,892	0	5,232,892
Rate of Return	-1.80%		-0.51%		7.16%

Q. WHAT IS I&E'S TOTAL RECOMMENDED REVENUE REQUIREMENT FOR COLUMBIA WASTEWATER?

A. I&E's total recommended revenue requirement for Columbia Wastewater is $150,401. This recommended revenue requirement represents an increase of

$103,772 to present rate revenues of $46,629. This total recommended allowance incorporates my adjustments made in this testimony to O&M expenses and cash working capital, as well as the recommended adjustments made in the testimony of I&E witnesses D.C. Patel and Esyan Sakaya. A calculation of the I&E recommended revenue requirement is shown in Table I(c) below:

Columbia Wastewater		TABLE I(c)			
R-2024-3045193		INCOME SUMMARY			
	10/31/25	INVESTIGATION & ENFORCEMENT			
	Proforma	[----------			----------]
	Present Rates	Adjustments	Present Rates	Allowances	Proposed
	$	$	$	$	$
Operating Revenue	46,629	0	46,629	103,772	150,401
Deductions:					
O&M Expenses	99,024	-530	98,494	2	98,496
Depreciation	16,891	0	16,891		16,891
Taxes, Other	48	0	48	97	145
Income Taxes:					
Current State	-10,225	47	-10,178	8,402	-1,776
Current Federal	-23,918	111	-23,807	19,580	-4,227
Deferred Taxes	9,548	0	9,548		9,548
ITC	0	0	0		0
Total Deductions	91,368	-372	90,996	28,081	119,077
Income Available	-44,739	372	-44,367	75,691	31,324
Rate Base	437,484	-3	437,481	0	437,481
Rate of Return	-10.23%		-10.14%		7.16%

Q. WHAT IS I&E'S TOTAL RECOMMENDED REVENUE REQUIREMENT FOR MAHONING WASTEWATER?

A. I&E's total recommended revenue requirement for Mahoning Wastewater is $1,695,010. This recommended revenue requirement represents an increase of $105,590 to present rate revenues of $1,589,420. This total recommended

allowance incorporates my adjustments made in this testimony to O&M expenses and cash working capital, as well as the recommended adjustments made in the testimony of I&E witnesses D.C. Patel and Esyan Sakaya. A calculation of the I&E recommended revenue requirement is shown in Table I(d) below:

Mahoning Wastewater		TABLE I(d)			
R-2024-3045193		INCOME SUMMARY			
	10/31/25	INVESTIGATION & ENFORCEMENT			
	Proforma	[----------			]
	Present Rates	Adjustments	Present Rates	Allowances	Proposed
	$	$	$	$	$
Operating Revenue	1,589,420	0	1,589,420	105,590	1,695,010
Deductions:					
O&M Expenses	1,056,124	-15,746	1,040,378	2	1,040,380
Depreciation	462,973	-153,034	309,939		309,939
Taxes, Other	4	0	4	812	816
Income Taxes:					
Current State	-13,232	16,102	2,870	8,497	11,367
Current Federal	-30,419	38,313	7,894	20,219	28,113
Deferred Taxes	24,298	0	24,298		24,298
ITC	0	0	0		0
Total Deductions	1,499,748	-114,365	1,385,383	29,530	1,414,913
Income Available	89,672	114,365	204,037	76,060	280,097
Rate Base	5,289,456	-1,377,489	3,911,967	0	3,911,967
Rate of Return	1.70%		5.22%		7.16%

Q. PLEASE SUMMARIZE I&E'S COMBINED RECOMMENDED REVENUE REQUIREMENT.

A. I&E's total recommended revenue requirement for all VWPA operations combined is $70,098,590 as shown in Table II below. This recommended revenue requirement represents an increase of $9,698,846 to the I&E-adjusted total present rate revenues of $60,399,744 for the Main Water Division, Mahoning Water,

Columbia Wastewater, and Mahoning Wastewater. As mentioned above, this total recommended allowance incorporates my adjustments made in this testimony to O&M expenses and cash working capital, as well as the recommended adjustments made in the testimony of I&E witnesses D.C. Patel and Esyan Sakaya.[6]

Q. WHAT IS I&E'S RESPONSE TO THE COMPANY'S ATTEMPT TO MITIGATE THE IMPACT OF THE REVENUE INCREASE TO MAHONING WATER VIA A REVENUE CONTRIBUTION?

A. As further discussed in his testimony,[7] I&E witness Esyan Sakaya does not support this arbitrary allocation in the instant proceeding as shown in the table below:

Table II
Veolia Water Pennsylvania, Inc
I&E Recommended - Combined Water and Wastewater Revenue Requirement Summary

		Total Company	Main Water Division	Mahoning Water	Columbia Wastewater	Mahoning Wastewater
I&E Present Rate Revenue	(1)	$ 60,399,744	$ 58,122,857	$ 640,838	$ 46,629	$ 1,589,420
I&E Recommended:						
Additional Revenue Requirement	(2)	$ 9,698,846	$ 8,933,954	$ 555,530	$ 103,772	$ 105,590
Act 11 - Wastewater &/or Other Allocation	(3)	$ -	$ -	$ -	$ -	$ -
Proposed Revenues	(4)	$ 70,098,590	$ 67,056,811	$ 1,196,368	$ 150,401	$ 1,695,010
Rate Increase/(Decrease)	(5)	$ 9,698,846	$ 8,933,954	$ 555,530	$ 103,772	$ 105,590
		16.1%	15.4%	86.7%	222.5%	6.6%

[6] I&E Statement Nos. 2 and 3.
[7] I&E Statement No. 3.

LABOR EXPENSE

Q. WHAT IS INCLUDED IN VWPA'S CLAIM FOR LABOR EXPENSE?

A. **{BEGIN PROPRIETARY}** [redacted] **{END PROPRIETARY}**[8]

Q. WHAT IS THE COMPANY'S CLAIM FOR LABOR EXPENSE?

A. The Company is claiming FPFTY labor expense broken down as follows:[9]

	FPFTY Claim
Main Water Division	$7,418,529
Mahoning Water	$4,076
Columbia Wastewater	$47,282
Mahoning Wastewater	$4,076
Total	**$7,473,963**

Q. WHAT IS THE BASIS FOR THE COMPANY'S LABOR EXPENSE CLAIM?

A. **{BEGIN PROPRIETARY}** [redacted] **{END PROPRIETARY}**[10] In response to I&E-RE-8-D[11] and I&E-RE-46,[12] the Company forecasts a total of 120 employees in the

[8] VWPA Workpaper GRH-2.1 CONFIDENTIAL.
[9] VWPA Exhibit No. GRH-3, Schedule-2 and VWPA Exhibit No. GRH-5, Schedule-2.
[10] VWPA Workpaper GRH-2-1 CONFIDENTIAL.
[11] I&E Exhibit No. 1, Schedule 2.
[12] I&E Exhibit No. 1, Schedule 3.

FPFTY, all of which are budgeted under the Main Water Division. **{BEGIN PROPRIETARY}** [redacted] **{END PROPRIETARY}**[13]

Q. DO YOU AGREE WITH THE COMPANY'S LABOR EXPENSE CLAIM?

A. No.

Q. WHAT DO YOU RECOMMEND FOR LABOR EXPENSE?

A. I recommend an allowance of $7,101,016 for Main Water Division labor expense, or a reduction of $317,513 ($7,418,529 - $7,101,016) to the Company's expense claim.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. My recommendation is based on adjusting payroll expense for the vacant positions that are budgeted in the FPFTY claim. I am not recommending a labor adjustment for Mahoning Water, Columbia Wastewater, or Mahoning Wastewater because the Company has indicated that all of its employees are budgeted under the Main Water Division, and any potential adjustments to the Company's claims would not have a significant impact on those revenue requirements.

[13] VWPA Workpaper GRH-2-1 CONFIDENTIAL.

Q. HOW DID YOU CALCULATE YOUR RECOMMENDED ALLOWANCE FOR THE MAIN WATER DIVISION LABOR EXPENSE?

A. First, I calculated a vacancy rate based on historic vacancy data provided by the Company. VWPA has indicated that it expects three employee vacancies and has included the expenses related to these positions in its budget. However, I based my calculation on data from the HTY and the two prior years,[14] as the Company did not provide support for its forecasted vacancies. The vacancy rate was calculated by comparing planned headcount to actual headcount by month. I calculated an average for each twelve-month period ended September 30, 2021, 2022, and 2023. I then averaged those three rates together resulting in a historic vacancy rate of 4.28%.

Next, I applied my calculated vacancy rate to the Company's FPFTY claim. The following table shows the calculation of my recommended Main Water Division FPFTY allowance and adjustment for labor expense:

1. VWPA FPFTY claim	$7,418,529
2. I&E Calculated Vacancy Rate	4.28%
3. I&E Vacancy Rate Adjustment (1 x 0.0428)	$317,513
4. I&E Allowance (1 - 3)	$7,101,016

[14] I&E Exhibit No. 1, Schedule 4.

Q. SUMMARIZE YOUR RATIONALE FOR THE VACANCY ADJUSTMENT.

A. In its workpapers, the Company indicates that it expects employee vacancies, yet still claims expenses that it should not actually expect to incur. It is unreasonable to charge ratepayers for labor expenses that the Company does not expect to incur.

It is unreasonable to assume that the Company will fill and maintain 100% full staffing of all budgeted positions throughout the FPFTY based on its own historic vacancy records.

There will always be a certain level of normal vacancies due to retirements, resignations, etc., on a day-to-day operating basis, and there will always be search and placement time involved in filling normal vacancies as well as newly added positions. Such vacancies will yield an annual savings in payroll costs which need to be reflected for ratemaking to eliminate an unreasonable impact on rates.

EMPLOYEE GROUP HEALTH AND LIFE INSURANCE

Q. WHAT IS INCLUDED IN VWPA'S CLAIM FOR EMPLOYEE GROUP HEALTH AND LIFE INSURANCE?

A. VWPA's claim for employee group health and life insurance includes medical insurance, dental insurance, and various levels of group life insurance.[15]

[15] VWPA Exhibit No. GRH-3, Schedule-3.

Q. WHAT IS THE COMPANY'S CLAIM FOR EMPLOYEE GROUP HEALTH AND LIFE INSURANCE?

A. The Company is claiming FPFTY employee group health and life insurance broken down as follows:[16]

	FPFTY Claim
Main Water Division	$1,596,912
Mahoning Water	$1,061
Columbia Wastewater	$6,915
Mahoning Wastewater	$596
Total	**$1,605,484**

Q. WHAT IS THE BASIS FOR THE COMPANY'S EMPLOYEE GROUP HEALTH AND LIFE INSURANCE CLAIM?

A. The Company's claim for employee group health and life insurance for Water Operations is based on HTY actuals and adjusted for the 11 new employees in addition to inflation.[17] The Company's claim for employee group health and life insurance for Wastewater Operations is based on HTY actuals and adjusted for inflation only.[18]

[16] VWPA Exhibit No. GRH-3, Schedule-3 and VWPA Exhibit No. GRH-5, Schedule-3.
[17] VWPA Statement No. 2, p. 11.
[18] VWPA Statement No. 2, p. 26.

Q. DO YOU AGREE WITH THE COMPANY'S EMPLOYEE GROUP HEALTH AND LIFE INSURANCE CLAIM?

A. No.

Q. WHAT DO YOU RECOMMEND FOR EMPLOYEE GROUP HEALTH AND LIFE INSURANCE?

A. I recommend an allowance of $1,039,945 for Main Water Division employee group health and life insurance expense, or a reduction of $556,967 ($1,596,912 - $1,039,945) to the Company's claim and an allowance of $640 for Mahoning Water, or a reduction of $421 ($1,061 - $640) to the Company's claim.

Q. WHAT IS THE BASIS AND CALCULATION FOR YOUR RECOMMENDATION?

A. My recommendation is based on the data inputs provided by VWPA in support of the Company's adjustment; [19] however, my calculations yielded a different result. The increase of eleven employees in the FTY over an average of 101 employees in the HTY represents a percentage increase of just under 11% , yet the corresponding total water increase of $642,907 claimed by the Company in the FTY over the HTY expense of $920,056 for employee group health and life insurance expense is almost 70%. As a result of this finding, I duplicated the table provided in support of the adjustment and calculated my own results,[20] which

[19] VWPA Exhibit No. GRH-3, Schedule-3.
[20] I&E Exhibit No. 1, Schedule 5.

shows a much more reasonable 15.42% increase ($141,979 / $920,056). I then added the additional expense for the eleven employees to the FTY amount for the Main Water Division only, since the labor expense for the eleven employees impacted the Main Water Division only. I calculated the FTY amount for Mahoning Water using the same 2024 inflation rate used to calculate the increase in this expense for Wastewater Operations. I then applied the Company's 2025 inflation rate to both divisions to calculate the FPFTY amount. In addition, as a result of my recommended vacancy adjustment to labor expense, I have included a corresponding adjustment to the Main Water Division claim for employee group health and life insurance expense. The tables below show the calculations in more detail:

Main Water Division	
HTY Actuals	$920,056
Add new employees	$141,979
FTY Allowance	$1,062,035
2025 Inflation (2.2%)	$23,365
Vacancy Adjustment (4.28%)	($45,455)
FPFTY Allowance	$1,039,945

Mahoning Water	
HTY Actuals	$611
2024 Inflation (2.375%)	$15
FTY Allowance	$626
2025 Inflation (2.2%)	$14
FPFTY Allowance	$640

Q. PLEASE BRIEFLY EXPLAIN WHY THERE IS NO CORRESPONDING ADJUSTMENT TO THE WASTEWATER CLAIMS.

A. As stated above, the Company's claims for employee group health and life insurance for Wastewater Operations are based on HTY actuals and adjusted for inflation only.[21] Therefore, I have no corresponding adjustment for Columbia Wastewater or Mahoning Wastewater.

401K MATCHING AND OTHER BENEFITS

Q. WHAT IS THE COMPANY'S CLAIM FOR 401K MATCHING AND OTHER BENEFITS?

A. The Company is claiming FPFTY 401k matching and other benefits broken down as follows:[22]

	FPFTY Claim
Main Water Division	$444,896
Mahoning Water	$287
Columbia Wastewater	$823
Mahoning Wastewater	$67
Total	**$446,073**

[21] VWPA Statement No. 2, p. 26.
[22] VWPA Exhibit No. GRH-3, Schedule-6.

Q. WHAT IS THE BASIS FOR THE COMPANY'S 401K MATCHING AND OTHER BENEFITS CLAIM?

A. The Company's claim for 401k matching and other benefits is primarily based on annual gross salary multiplied by the HTY 401k contribution percentage of 3.75%. There is also a small number of other benefits that are based on the HTY and adjusted for inflation.[23]

Q. DO YOU AGREE WITH THE COMPANY'S 401K MATCHING AND OTHER BENEFITS CLAIM?

A. No.

Q. WHAT DO YOU RECOMMEND FOR 401K MATCHING AND OTHER BENEFITS?

A. I recommend an allowance of $425,857 for the Main Water Division 401k matching and other benefits expense, or a reduction of $19,039 ($444,896 - $425,857) to the Company's claim.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. My recommendation corresponds to the vacancy adjustment made to labor expense above.

[23] VWPA Exhibit No. GRH-3, Schedule-6.

Q. HOW DID YOU CALCULATE YOUR RECOMMENDED ADJUSTMENT TO 401K MATCHING AND OTHER BENEFITS?

A. I calculated my adjustment by applying the same vacancy rate that was calculated for the labor adjustment to the 401k Matching portion of this expense as shown in the table.

Main Water Division	
FPFTY 401k Matching Claim	$444,828
Vacancy Adjustment (4.28%)	($19,039)
Add Other Benefits	$68
I&E FPFTY Allowance	$425,857

It should be noted that I am not addressing or making any recommendations to Mahoning Water, Columbia Wastewater, or Mahoning Wastewater since I am not recommending any adjustments to labor expense in these operational units, nor am I adjusting the Other Benefits portion of the expense. I am only adjusting the 401k Matching portion of the expense because this is the portion that is directly based on labor expense.

PAYROLL TAX EXPENSE

Q. WHAT IS INCLUDED IN THE COMPANY'S CLAIM FOR PAYROLL TAX EXPENSE?

A. The Company's claim for payroll tax expense includes its share of federal and state payroll taxes, such as Social Security, Medicare, and federal and state unemployment taxes, and is based on employee compensation.

Q. WHAT IS THE COMPANY'S CLAIM FOR PAYROLL TAX EXPENSE?

A. The Company's FPFTY payroll tax expense claim is broken down as follows:[24]

	FPFTY Claim
Main Water Division	$918,219
Mahoning Water	$468
Columbia Wastewater	$44
Mahoning Wastewater	4
Total	$918,735

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No.

Q. WHAT DO YOU RECOMMEND FOR PAYROLL TAX EXPENSE?

A. I recommend an allowance of $878,919 for Main Water Division payroll tax expense, or a reduction of $39,300 ($918,219 - $878,919) to the Company's FPFTY Main Water Division claim.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. My recommendation corresponds to the vacancy adjustment made to labor expense above.

[24] VWPA Exhibit No. GRH-3, Schedule-1, pp. 2 and 4, and VWPA Exhibit No. GRH-5, Schedule-1, pp. 2-3.

Q. HOW DID YOU CALCULATE YOUR RECOMMENDED ADJUSTMENT TO PAYROLL TAX EXPENSE?

A. I calculated my adjustment by applying the same vacancy rate to this expense that was calculated for the labor adjustment as shown in the table.

Main Water Division	
FPFTY Claim	$918,219
Vacancy Adjustment (4.28%)	$39,300
I&E FPFTY Allowance	$878,919

It should be noted that I am not addressing or making any recommendations to Mahoning Water, Columbia Wastewater, or Mahoning Wastewater since I am not recommending any adjustments to labor expense in these operational units.

MANAGEMENT AND SERVICE (M&S) FEES

Q. BRIEFLY EXPLAIN THE COMPANY'S M&S FEES.

A. The M&S fees charged to the Company represent centralized services provided to VWPA by Veolia Water Management & Services, Inc. (VWM&S). These services include administrative, engineering, legal, operations, accounting, finance, human resources, purchasing, insurance, data processing, customer service, billing, public relations, planning and ratemaking services and other general services necessary in the proper conduct of business.[25]

[25] VWPA Statement No. 8, p. 3.

Q. WHAT IS THE COMPANY'S CLAIM FOR M&S FEES?

A. The Company is claiming FPFTY M&S fees of $4,611,336 for the Main Water Division and $68,840 for Mahoning Water.

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. According to VWPA witness Anupa Jacob, M&S fees for the twelve-month period ended September 30, 2023 were normalized to remove one-time costs and then adjusted upward by a factor of 3% to account for a general increase in costs to arrive at the FTY forecast. The FTY was then adjusted an additional 3% to arrive at the FPFTY claim.[26]

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No. First, the Company's assertion that the FTY forecast is based on a 3% increase over the HTY does not appear to be accurate, as the FTY forecast is more than 11% higher than the Company's adjusted HTY historic data:

	HTY	FTY
Total M&S Fees	$4,049,242	$4,513,925
FTY Increase over HTY		$464,683 or 11.48%

Second, I disagree with the Company's use of a generic 3% per year adjustment when VWPA has already conducted an inflation study as part of its

[26] VWPA Statement No. 8, p. 5.

current rate case filing.[27] The Company has applied its calculated inflation factors to all other relevant adjustments related to O&M expenses in this case.

Q. WHAT DO YOU RECOMMEND FOR M&S FEES?

A. I recommend an FPFTY allowance of $4,202,062, or a reduction of $409,274 ($4,611,336 - $4,202,062) for the Main Water Division and $62,730, or a reduction of $6,110 ($68,840 - $62,730) for Mahoning Water.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. My recommendation is based on the Company's calculated inflation factors of 2.375% in the FTY and 2.20% in the FPFTY. I started with the Company's adjusted HTY expense, then applied the FTY inflation factor to arrive at the FTY forecast, then applied the FPFTY inflation factor to arrive at the FPFTY forecast as shown below:

	HTY	FTY Infl. Factor	FTY	FPFTY Infl. Factor	FPFTY
Main Water Division	$4,016,221	2.375%	$4,111,606	2.20%	$4,202,062
Mahoning Water	$59,956	2.375%	$61,380	2.20%	$62,730
Total	$4,049,242		$4,172,956		$4,264,792

[27] VWPA Exhibit No. GRH-3, Schedule 31.

LAB TESTING FEES

Q. WHAT IS THE COMPANY'S CLAIM FOR LAB TESTING FEES?

A. The Company is claiming FPFTY lab testing fees broken down as follows:[28]

	FPFTY Claim
Main Water	$212,334
Mahoning Water	$0
Columbia Wastewater	$3,669
Mahoning Wastewater	$108,368
Total	**$324,371**

Q. WHAT IS THE BASIS FOR THE COMPANY'S LAB TESTING FEES CLAIM?

A. The FPFTY claim for lab testing fees is calculated by applying the Company's 2025 inflation factor to the FTY forecast, which is based on a two-year historic average using data from the two most recent complete periods, or the fiscal years ended September 30, 2022 and September 30, 2023, and applying the Company's 2024 inflation factor.[29]

Q. DO YOU AGREE WITH THE COMPANY'S LAB TESTING FEES CLAIM?

A. No.

[28] VWPA Exhibit No. GRH-3, Schedule-13 and VWPA Exhibit No. GRH-5, Schedule-9.
[29] VWPA Statement No. 2, pp. 13 and 27.

Q. WHAT DO YOU RECOMMEND FOR LAB TESTING FEES?

A. I recommend a total FPFTY allowance of $309,201 for lab testing fees broken down as follows:

FPFTY	VWPA Claim	I&E Allowance	Adjustment
Main Water Division	$212,334	$199,532	($12,802)
Columbia Wastewater	$3,669	$3,592	($77)
Mahoning Wastewater	$108,368	$106,077	($2,291)
Total	$324,371	$309,201	($15,170)

Q. WHAT IS THE BASIS AND CALCULATION FOR YOUR RECOMMENDATION?

A. My recommendation is based on a three-year historic average of lab testing fees, using the years ended September 30, 2021, 2022, and 2023,[30] and applying the Company's 2024 inflation factor to calculate the FTY, then applying the Company's 2025 inflation factor to calculate the FPFTY.[31] Since the Company did not track costs by operating unit prior to the HTY, I used the totals for Water and Wastewater and then applied an allocation factor to calculate the expense at the operating unit level. I calculated the allocation factor based on the HTY amounts[32] distributed among the Water operating units and Wastewater operating units as shown below:

[30] I&E Exhibit No. 1, Schedule 6 (Water), and I&E Exhibit No. 1, Schedule 7 (Wastewater).
[31] I&E Exhibit No. 1, Schedule 8.
[32] VWPA Exhibit No. GRH-3, Schedule-13 and VWPA Exhibit No. GRH-5, Schedule-9.

	HTY Actual	Allocation
Main Water Division	$247,303	100%
Mahoning Water	$0	0%
Total	$247,303	100%

	HTY Actual	Allocation
Columbia Wastewater	$4,060	3.275%
Mahoning Wastewater	$119,905	96.725%
Total	$123,965	100%

Q. BRIEFLY EXPLAIN YOUR RATIONALE FOR USING A THREE-YEAR AVERAGE RATHER THAN A TWO-YEAR AVERAGE AS THE COMPANY HAS SUGGESTED.

A. Despite using a three-year average for several other expenses, in response to I&E-RE-19-D, the Company states that a two-year average is appropriate for this expense because the result is more representative of future lab testing costs than that of a three-year average due to increases in monitoring and testing.[33] However, the Company provides no support for this assertion that a two-year historic average is more representative of the FPFTY experience. Therefore, it is more appropriate to be consistent with the majority of the Company's other O&M expenses in using a three-year average, in the absence of any other supportable forecasting method.

[33] I&E Exhibit No. 1, Schedule 9.

OUTSIDE CONTRACTORS

Q. WHAT IS THE COMPANY'S CLAIM FOR OUTSIDE CONTRACTORS?

A. The Company is claiming FPFTY outside contractors expense broken down as follows:[34]

	FPFTY Claim
Main Water Division	$1,711,389
Mahoning Water	$0
Columbia Wastewater	$29,795
Mahoning Wastewater	$880,038
Total	**$2,621,222**

Q. WHAT IS THE BASIS FOR THE COMPANY'S OUTSIDE CONTRACTORS EXPENSE CLAIM?

A. The claim for outside contractors expense is based on a two-year historic average using data from the two most recent complete periods, or the fiscal years ended September 30, 2022 and September 30, 2023, applying the Company's 2024 inflation factor, and then applying the Company's 2025 inflation factor to arrive at the FPFTY forecast.[35]

[34] VWPA Exhibit No. GRH-3, Schedule-14 and VWPA Exhibit No. GRH-5, Schedule-10.
[35] VWPA Statement No. 2, pp. 13 and 27.

Q. DO YOU AGREE WITH THE COMPANY'S OUTSIDE CONTRACTORS CLAIM?

A. No.

Q. WHAT DO YOU RECOMMEND FOR OUTSIDE CONTRACTORS EXPENSE?

A. I recommend a total FPFTY allowance of $2,513,328 for outside contractors expense broken down as follows:

FPFTY	Company Claim	I&E Allowance	Adjustment
Main Water Division	$1,711,389	$1,617,403	($93,986)
Columbia Wastewater	$29,795	$29,342	($453)
Mahoning Wastewater	$880,038	$866,583	($13,455)
Total	$2,621,222	$2,513,328	($107,894)

Q. WHAT IS THE BASIS AND CALCULATION FOR YOUR RECOMMENDATION?

A. My recommendation is based on a three-year historic average of outside contractors expense, using the fiscal years ended September 30, 2021, 2022, and 2023,[36] and applying the Company's 2024 inflation factor to calculate the FTY, then applying the Company's 2025 inflation factor to calculate the FPFTY.[37] Since the Company did not track costs by operating unit prior to the HTY, I used

[36] I&E Exhibit No. 1, Schedule 6 (Water), and I&E Exhibit No. 1, Schedule 7 (Wastewater).
[37] I&E Exhibit No. 1, Schedule 8.

the totals for Water and Wastewater and then applied an allocation factor to calculate the expense at the operating unit level. I calculated the allocation factor based on the HTY amounts[38] distributed among the Water operating units and Wastewater operating units as shown below:

	HTY Actual	Allocation
Main Water Division	$1,723,551	100%
Mahoning Water	$0	0%
Total	$1,723,551	100%

	HTY Actual	Allocation
Columbia Wastewater	$28,292	3.275%
Mahoning Wastewater	$835,662	96.725%
Total	$863,954	100%

Q. BRIEFLY EXPLAIN YOUR RATIONALE FOR USING A THREE-YEAR AVERAGE RATHER THAN A TWO-YEAR AVERAGE AS THE COMPANY HAS SUGGESTED.

A. Despite using a three-year average for several other expenses, in response to I&E-RE-20-D, the Company states that a two-year average is appropriate for this expense because the result is closer to the estimated FTY costs compared to when using a three-year average or HTY only.[39] However, the Company provides no support for this claim. Therefore, it is more appropriate to be consistent with the

[38] VWPA Exhibit No. GRH-3, Schedule-14 and VWPA Exhibit No. GRH-5, Schedule-10.
[39] I&E Exhibit No. 1, Schedule 10.

majority of the Company's other expense claims in using a three-year average, in the absence of any other supportable forecasting method.

OTHER O&M EXPENSE

Q. WHAT IS THE COMPANY'S CLAIM FOR OTHER O&M EXPENSE?

A. The Company is claiming FPFTY other O&M expense of $164,161 for the Main Water Division and $894 for Mahoning Water.[40]

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. The Company's FPFTY claim for other O&M expense is calculated by applying the Company's 2025 inflation factor to the FTY forecast, which is based on a two-year historic average using data from the two most recent complete periods, or the fiscal years ended September 30, 2022 and 2023, and applying the Company's 2024 inflation factor.[41]

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No.

Q. WHAT IS YOUR RECOMMENDATION FOR OTHER O&M EXPENSE?

A. I recommend an FPFTY allowance of $155,043, or a reduction of $9,118 ($164,161 - $155,043) to the Company's claim for the Main Water Division, and

[40] VWPA Exhibit No. GRH-3, Schedule-28.
[41] VWPA Statement No. 2, p. 15.

$845, or a reduction of $49 ($894 - $845) to the Company's claim for Mahoning Water.

Q. WHAT IS THE BASIS AND CALCULATION FOR YOUR RECOMMENDATION?

A. My recommendation is based on a three-year historic average of other O&M expense, using the fiscal years ended September 30, 2021, 2022, and 2023,[42] and applying the Company's 2024 inflation factor to calculate the FTY, then applying the Company's 2025 inflation factor to calculate the FPFTY.[43] Since the Company did not track costs by operating unit prior to the HTY, I used the Water total and then applied an allocation factor to calculate the expense at the operating unit level. I calculated the allocation factor based on the HTY amounts[44] distributed among the Water operating units as shown below:

	HTY Actual	Allocation
Main Water Division	$145,258	99.458%
Mahoning Water	$791	0.542%
Total	$146,049	100%

[42] I&E Exhibit No. 1, Schedule 6 (Water), and I&E Exhibit No. 1, Schedule 7 (Wastewater).
[43] I&E Exhibit No. 1, Schedule 8.
[44] VWPA Exhibit No. GRH-3, Schedule-28.

Q. BRIEFLY EXPLAIN YOUR RATIONALE FOR USING A THREE-YEAR AVERAGE RATHER THAN A TWO-YEAR AVERAGE AS THE COMPANY HAS SUGGESTED.

A. Despite using a three-year average for several other expenses, in response to I&E-RE-31-D, the Company states that a two-year average is appropriate for this expense because the result is closer to anticipated costs compared to when using a three-year average.[45] However, the Company provides no support for this claim. Therefore, it is more appropriate to be consistent with the majority of the Company's other O&M expenses in using a three-year average, in the absence of any other supportable forecasting method.

RATE CASE EXPENSE

Q. DESCRIBE THE NATURE AND TYPES OF EXPENDITURES TYPICALLY ALLOWED AS PART OF A REGULATED UTILITY'S OVERALL RATE CASE EXPENSE.

A. The nature and types of individual expenditures that comprise a utility's allowable claim for rate case expense are those directly incurred to compile, present, and defend a utility's request for a base rate increase before the Commission. The actual expenditures and estimated costs typically found in an allowable rate case expense claim include legal fees for outside counsel, fees to outside consultants, and the cost of printing, document assembly, and postage.

[45] I&E Exhibit No. 1, Schedule 11.

Q. THE COMPANY REFERENCES ITS CLAIM AS AN AMORTIZED COST.[46] BRIEFLY DISCUSS THE CONCEPT OF AMORTIZATION.

A. Amortization is an accounting procedure that writes off a non-recurring or infrequently recurring expense over a reasonable period of years by expensing a pro rata share based on the selected amortization period. Although a claim for an unrecovered normalized expense would be disallowed if requested in a subsequent base rate case, an amortized expense allowance could be claimed in a succeeding rate case if there is a remaining unamortized balance.

Q. IS THE COMPANY'S PROPOSED AMORTIZATION TREATMENT PROPER?

A. No. The Company's rate case expense claim should be normalized rather than amortized.

Q. WHAT IS NORMALIZATION?

A. Normalization is a ratemaking concept that describes the transformation of an operating expense that recurs at irregular intervals into a "normal" annual test year allowance. Normalization specifically addresses the prospective recovery of an ongoing expense that recurs sporadically. Normalized expenses are no different than other O&M expenses in that the Company is given the opportunity to achieve full recovery.

[46] I&E Exhibit No. 1, Schedule 12.

Q. HOW HAS THE COMMISSION TRADITIONALLY TREATED RATE CASE EXPENSE FOR RATEMAKING PURPOSES?

A. The Commission has historically stated that it considers prudently incurred rate case expense as an ongoing expense, occurring at irregular intervals, related to the rendering of utility service. Thus, it is necessary to normalize rate case expense for ratemaking purposes. The Commission has also cited the importance of considering the involved utility's history regarding the frequency of rate case filings as an essential element in determining the normalized level of rate case expense for ratemaking purposes.

Q. HOW IS THE FREQUENCY OF RATE CASE FILINGS DETERMINED?

A. The frequency is determined by calculating the average number of months between the utility's previous rate case filings.

Q. WHAT IS THE COMPANY'S CLAIM FOR RATE CASE EXPENSE?

A. The Company is claiming FPFTY rate case expense of $236,460 for the Main Water Division. [47] VWPA is not allocating any portion of the expense to Mahoning Water, Columbia Wastewater, or Mahoning Wastewater.

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. VWPA forecasts a total rate case expense of $712,320 and deducts a regulatory

[47] VWPA Exhibit No. GRH-3, Schedule-22.

liability employee retention credit of $2,941. This results in a net rate case expense of $709,379 to be amortized over a three-year period.

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No. I disagree with the Company's use of a three-year period as well as its request to amortize the amount rather than normalize it.

Q. WHAT IS YOUR RECOMMENDATION FOR RATE CASE EXPENSE?

A. I recommend normalizing the expense over a 51-month period, resulting in an allowance of $166,913 for rate case expense, or a reduction of $69,547 ($236,640 - $166,913) to the Company's FPFTY claim.

Q. WHY ARE YOU RECOMMENDING A 51-MONTH NORMALIZATION PERIOD?

A. My recommendation is based on VWPA's historic filing frequency as provided by the Company in response to I&E-RE-26-D[48] and exact filing dates pulled from the Commission's document storage system. My calculation is shown below:

Docket No.	Date Filed	Interval (Months)	Average
R-2011-2232985	3/25/2011		51
R-2015-2462723	12/29/2014	45	
R-2018-3000834	3/28/2018	39	
R-2024-3045192	12/27/2023	69	

[48] I&E Exhibit No. 1, Schedule 12.

VWPA's proposed three-year period is not supported by historic filing frequency and is speculative in nature. In fact, the Company has not filed a base rate case since 2018, nearly six years ago. A three-year period is inappropriate and lacks the proper support, therefore, it should not be used to calculate the annual amount for rate case expense.

Additionally, my recommendation is based on normalization of rate case expense as opposed to the Company's intent to amortize the expense. This position is directly based on the Commission's traditional treatment of this expense. The practice of normalization is appropriate for ratemaking purposes when an expense is ongoing, occurs at irregular intervals, and is related to the rendering of utility service.

Q. HAVE OTHER UTILITIES BEEN GRANTED A NORMALIZATION PERIOD BASED ON SPECULATION OF FUTURE FILINGS, AND IF SO, WHAT WAS THE RESULT?

A. Yes. In 2012, the Commission granted PPL Electric Utilities Corporation (PPL) permission to normalize its rate case expense over a 24-month period based on PPL's representations regarding its expected timing of future base rate case filings.[49] That base rate case was filed on March 30, 2012; however, despite PPL's representations, PPL did not file its next rate case until March 31, 2015, which was 36 months after the 2012 rate case filing. It should be noted that I&E's

[49] *PA. PUC v. PPL Electric Utilities Corporation*, Docket No. R-2012-2290597, pp. 47-48 (Order Entered December 28, 2012).

recommended normalization period in the 2012 PPL proceeding was a 32-month interval based on PPL's historic filing frequency.[50] The I&E recommendation in that instance produced a much more accurate result than relying on PPL's stated future intention to file a rate case.

Q. ARE THERE ANY COMMISSION DECISIONS THAT SUPPORT YOUR RECOMMENDATION FOR A RATE CASE FILING INTERVAL BASED ON HISTORIC FILING FREQUENCY?

A. Yes. The following six cases are the most recent instances where the Commission used the company's historic average filing frequency.

First, in a base rate case filed by Emporium Water Company, the Commission adopted the I&E recommended historic filing frequency finding in favor of I&E's recommended five-year normalization period based on a historic average filing frequency that was rounded down from 64 months.[51]

Second, in a base rate case filed by the City of DuBois, the Commission agreed with I&E's recommendation to use a historic filing frequency finding in favor of I&E's recommended 64-month normalization period, which matched the actual historic filing frequency.[52]

---

[50] I&E Statement No. 2, pp. 13-14 at Docket No. R-2012-2290597.

[51] *PA PUC v. Emporium Water Company*, Docket No. R-2014-2402324, p. 50 (Order Entered January 28, 2015).

[52] *PA PUC v. City of DuBois - Bureau of Water*, Docket No. R-2016-2554150, pp. 65-66 (Order Entered March 28, 2017); *PA PUC v. City of DuBois - Bureau of Water*, Docket No. R-2016-2554150, p. 13 (Order Entered May 18, 2017).

Third, in a base rate case filed by Columbia Gas of Pennsylvania, Inc., the Commission held that the normalization period should align with the historic data rather than the company's intent to file its next rate case.[53]

Fourth, in a base rate case filed by PECO Energy Company – Gas Division, the Commission granted I&E's recommended five-year normalization period rather than PECO's claim based on a three-year period because the Commission determined that a normalization period based on actual historic filing frequency is more reliable than future speculation.[54]

Fifth, in a base rate case filed by Philadelphia Gas Works (PGW), the Commission agreed with I&E's recommended 53-month normalization period rather than PGW's claim based on a three-year period because the Commission determined a normalization period based on actual historic filing frequency and not based on PGW's future intention to file a rate case.[55]

Finally, in the most recent base rate case filed by Columbia Water Company, the Commission held that the normalization period should align with the historic filing frequency rather than that company's intent to file its next rate case and that the intent to file a base rate case does not justify deviating from the Commission's practice of relying on historical filing frequency.[56]

---

53 *PA PUC v. Columbia Gas,* Docket No. R-2020-3018835, Opinion and Order, pp. 78-79 (Order Entered February 19, 2021).

54 *PA PUC v. PECO Energy Company- Gas Division*, Docket No. R-2020-3018929, Opinion and Order, pp. 117-119 (Order Entered June 22, 2021).

55 *PA PUC v. Philadelphia Gas Works*, Docket No. R-2023-3037933, Opinion and Order, pp. 65-66 (Order Entered November 9, 2023).

56 *PA PUC v. Columbia Water Company*, Docket No. R-2023-3040258, Opinion and Order, p. 34 (Order Entered January 18, 2024).

Q. DO YOU HAVE ANY FURTHER RECOMMENDATIONS REGARDING THE COMPANY'S RATE CASE EXPENSE CLAIM?

A. Yes. The Company's approach in allocating all rate case expense to Main Water Division is inappropriate and should be discontinued. Rate case costs should be appropriately allocated to all divisions as opposed to requiring Main Water Division customers to bear this entire expense. I recommend that the Commission require the Company to properly allocate shared expenses across all customer divisions in future proceedings.

CUSTOMER ASSISTANCE PROGRAM AND TRACKER

Q. DOES THE COMPANY CURRENTLY UTILIZE ANY PROGRAMS DESIGNED TO HELP CUSTOMERS THAT HAVE DIFFICULTY PAYING THEIR UTILITY BILLS?

A. Yes. The Veolia Cares program, which is administered by a third party and funded entirely by shareholders, provides hardship grants and conservation kits to water and wastewater customers in need based on a variety of reasons regardless of income levels. This program is expected to continue, in addition to the proposed Customer Assistance Program (CAP).[57]

[57] VWPA Statement No. 7, p. 5.

Q. WHAT IS THE COMPANY'S PROPOSAL REGARDING THE CUSTOMER ASSISTANCE PROGRAM?

A. The Company states that the proposed CAP was based on a review of other Commission-regulated water utilities in the state and will include tiered customer discounts, arrearage forgiveness, and service line repair, in addition to conservation efforts including education, free conservation kits, and free installation of such kits for seniors. According to Veolia, the elements of this program, unlike the Veolia Cares program, will be based on income levels in relation to the Federal Poverty Level. In addition to direct customer assistance, expenses for the program will also include third-party administration and one-time setup costs.[58]

Q. WHAT IS THE COMPANY'S PROPOSED BUDGET FOR THE CAP?

A. The Company anticipates the launch of this program to occur during the FPFTY and is claiming $1,000,000 in base rates for Main Water Division. Additionally, the Company has committed to providing shareholder contributions of $300,000 to support the CAP.[59] The Company has attempted to quantify the costs of the program, but admits that, at the present time, the levels of costs are unknown and will likely not be fully known until the program is rolled out.[60]

[58] VWPA Statement No. 7, pp. 6-10.
[59] VWPA Statement No. 7, p. 3.
[60] VWPA Statement No. 6, pp. 6-7.

Q. HOW DOES THE COMPANY PROPOSE TO RECOVER THESE COSTS?

A. The Company proposes ratemaking treatment that would track the difference between the overall costs of the program and the proposed target amount as a regulatory asset or liability to be addressed in the Company's next rate case filing. The shareholder contribution of $300,000 would be included as a direct offset to the overall program cost.[61]

Q. DO YOU AGREE WITH THE COMPANY'S PROPOSAL CONCERNING THE CAP?

A. No.

Q. WHAT IS YOUR RECOMMENDATION CONCERNING THE PROPOSED CAP?

A. I recommend an FPFTY allowance of $700,000, or a reduction of $300,000 ($1,000,000 - $700,000) for the proposed CAP, as well as disallowance of the tracker and deferred accounting treatment in its entirety.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION TO REDUCE THE CAP ALLOWANCE TO $700,000?

A. My recommendation to reduce the FPFTY allowance for the CAP to $700,000 is based on the Company's estimation of expenses at $1,000,000 as well as the

[61] VWPA Statement No. 6, p. 7.

Company's assertion that shareholders will contribute $300,000 annually to the CAP. If the Company is expecting $1,000,000 in costs and $300,000 of that total will be supplied by shareholders, then only the remaining $700,000 should be charged to ratepayers.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION TO DISALLOW THE TRACKER AND DEFERRED ACCOUNTING TREATMENT FOR THE CAP?

A. While I do not dispute that the Commission has previously authorized utilities to track certain expenses via a regulatory asset, the Company's CAP expenses do not meet the requirements to be treated as a regulatory asset. Specifically, the Commission has previously ruled that deferred accounting treatment may be granted if the expense is: (1) extraordinary; (2) unanticipated; (3) non-recurring; and (4) substantial.[62]

Q. HOW DO CAP EXPENSES FAIL TO MEET THE COMMISSION'S CRITERIA?

A. First, while I agree that CAP costs may be considered substantial for VWPA, the costs are not extraordinary because they are normal expenses incurred by many other water and wastewater utilities. Second, the costs are not unanticipated

[62] *Petition of Columbia Gas of Pa., Inc. for Authority to Defer for Accounting and Financial Purposes Certain Start Up Expenses Assoc. with the Redesign of Upgrade of Financial Processes and Info. Systems*, Docket No. P-2012-2319920, p. 5 (Order Entered December 5, 2012).

because they are part of a planned program being purposefully implemented by the Company. Finally, the expenses cannot be categorized as non-recurring while also being forecasted to continue indefinitely as an ongoing annual expense. As the Company's CAP expenses meet only one of four criteria to be considered for regulatory asset treatment, it is not appropriate for the Commission to approve deferral of these expenses.

CAP expenses are normal, expected, recurring costs of which the Company cannot expect to have a virtually guaranteed dollar-for-dollar recovery. These expenses are common among regulated utilities and although this is a new program for VWPA with no historic data on which to base a budget, this data will be forthcoming over time to allow for a more refined forecast. There is no reasonable justification for the argument that the Company should be allowed to establish a regulatory asset for CAP expenses, and, therefore, I recommend that the Commission deny the Company's request.

Q. IS THERE ANYTHING ELSE YOU WOULD LIKE TO ADD CONCERNING THE COMPANY'S PROPOSED CAP BUDGET?

A. Yes. Based on the Company's budget versus actual spending as it applies to the Veolia Cares program,[63] I believe my recommendation for CAP expenses is more than fair. The Company's implementation of the Veolia Cares program was a process that took several years to get fully up and running, as is normal for the

[63] I&E Exhibit No. 1, Schedule 13.

roll-out of any new large-scale program, and I expect the same to be true of the CAP. However, having no concrete means of further adjusting this expense, I did not make an additional adjustment as it would be arbitrary.

CASH WORKING CAPITAL

Q. WHAT IS A CASH WORKING CAPITAL (CWC) ALLOWANCE FOR RATEMAKING PURPOSES?

A. CWC includes the amount of funds necessary to operate a utility during the interim period between the rendition of service, including the payment of related expenses, and the receipt of revenue in payment for services rendered by the utility.

Q. HOW DOES THE COMPANY CALCULATE ITS CWC CLAIM?

A. The Company calculates its CWC claim by using a lead/lag study. Briefly, the CWC requirement is calculated by multiplying the net leg days (revenue lag days less expense lag days) by the average operating expense per day (total operating expenses ÷ 365 days). A lead/lag study measures the differences in time between: (1) the time services are rendered until payment of those services is received; and (2) the time between the point when a utility has incurred an expense and the actual payment of the expense. Stating this in a different way, the lead/lag study measures how many days exist on average between the midpoint of the service period and the date the payment is made.

Q. DO YOU AGREE WITH THE COMPANY'S USE OF A LEAD/LAG METHOD?

A. Yes. I agree with the Company's use of this method.

Q. WHAT IS THE COMPANY'S CLAIM FOR CWC?

A. The following table shows VWPA's CWC claim broken down by business operation:[64]

	FPFTY Claim
Main Water Division	$795,083
Mahoning Water	$5,223
Columbia Wastewater	$3,438
Mahoning Wastewater	$15,292
Total (with rounding error)	**$819,040**

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No.

Q. WHAT DO YOU RECOMMEND?

A. I recommend an adjustment to the Company's FPFTY claim broken down by business operation as shown in the table below:

[64] VWPA Exhibit HW-2, Schedule HW-1.

	FPFTY Claim	I&E Allowance	Adjustment
Main Water Division	$795,083	$721,316	($73,767)
Mahoning Water	$5,223	$4,873	($350)
Columbia Wastewater	$3,438	$3,435	($3)
Mahoning Wastewater	$15,292	$15,110	($182)
Total	**$819,036**	**$744,734**	**($74,302)**

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. All O&M adjustments that are cash-based expense claims are included when determining each operating unit's overall CWC requirement. My CWC recommendation is based on my recommended adjustments to O&M expenses as discussed in this direct testimony.

I subtracted all of my recommended O&M expense adjustments from the tables above in the I&E Operating and Maintenance Expense Adjustments section that correspond to the Company's CWC calculation. I also updated the state and federal tax figures affecting the Company's CWC calculation using the tables from the Overall I&E Recommended Position section above. I did this using the Company's electronic workpapers for each operation. I&E-modified CWC schedules[65] reflect my changes for each operation's CWC allowance calculation and modified cells are indicated in gray.

[65] I&E Exhibit No. 1, Schedule 14.

Q. ARE YOUR ABOVE-RECOMMENDED CWC ALLOWANCES FINAL RECOMMENDATIONS?

A. No. All adjustments to the Company's claims for revenues, expenses, taxes, and rate base must be continually brought together for each operating unit in the Administrative Law Judge's Recommended Decision and again in the Commission's Final Order. This process, known as iteration, effectively prevents the determination of a precise calculation until all adjustments have been made to the Company's claims.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

Vanessa Okum

Professional and Educational Background

Experience:

Pennsylvania Public Utility Commission, Harrisburg, Pennsylvania
June 2022 – Present
Fixed Utility Financial Analyst, Bureau of Investigation and Enforcement

Magnolia Realty Services, Elizabethville, Pennsylvania
February 2016 – Present
Realtor

May 2015 – May 2019
Business Manager

The Vanguard Group, Malvern, Pennsylvania
October 2011 – December 2014
Financial Administrator, Corporate Financial Services

March 2010 – October 2011
Financial Analyst, Fund Financial Services

June 2008 – March 2010
Financial Associate, Fund Financial Services

Education/Professional Development:

University of Massachusetts – Amherst, Amherst, Massachusetts, 2012
Master of Business Administration

Elizabethtown College, Elizabethtown, Pennsylvania, 2008
Bachelor of Science in International Business
Concentration in Finance

Testimony Submitted:

I have submitted testimony in the following proceedings:

R-2023-3043189 et al. – Pennsylvania-American Water Company

R-2023-3039919 et al. – Pittsburgh Water and Sewer Authority

R-2023-3037428 – National Fuel Gas Distribution Corporation (1307(f))

R-2022-3037368 – UGI Utilities, Inc. – Electric Division

I have assisted with testimony in the following proceedings:

R-2022-3031704 – Borough of Ambler Water Department

R-2022-3032764 – Leatherstocking Gas Company, LLC

I&E Exhibit No. 1
Witness: Vanessa Okum

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

VEOLIA WATER PENNSYLVANIA, INC.

Docket No. R-2024-3045192 (Water)

and

Docket No. R-2024-3045193 (Wastewater)

Exhibit to Accompany

the

Direct Testimony

of

Vanessa Okum

Bureau of Investigation and Enforcement

Concerning:

OPERATING AND MAINTENANCE EXPENSES, CAP TRACKER CASH WORKING CAPITAL

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

VEOLIA WATER PENNSYLVANIA INC.

Docket Nos. R-2024-3045192 and R-2024-3045193

I&E-RE-35 Reference VWPA Statement No. 2, p. 5 and VWPA Exhibit No. GRH-1, Schedule-1 concerning the proposed overall increase in revenues. Reconcile $15,494,620 mentioned in VWPA Statement No. 2, p. 5, line 3 with $16,063,286 stated on VWPA Exhibit No. GRH-1, Schedule-1, line 1.

Answer: VWPA Exhibit No. GRH-1, Schedule-1 shows the overall revenue increase of $16,063,286 for the Company's combined water and wastewater operations. The amount listed in VWPA Statement No. 2, p. 5, line 3 was the increase for the water operations, only and is shown in detail below.

Operating Unit	Revenue Increase
Main Water (VWPA, Bethel, Overbrook, Kensington)	$14,878,448
Mahoning Water	$616,172
Total	$15,464,620

After review, the file GRH-1, Schedule-1 had not fully updated with the finalized rate design and caused the schedule to be off by $53. See 'I&E-RE-35-D Attachment' for a revised GRH-1, Schedule-1 that shows the correct overall increase of $16,063,339.

Answer provided by: Greg Herbert

Title: Assistant Project Manager, Rate Studies

Address: 207 Senate Ave. Camp Hill, PA 17011

Date: April 4, 2024

Veolia Water Pennsylvania
Docket No. R-2024-3045192 & R-2024-3045193

I&E-RE-35-D Attachment
Exhibit No. GRH-1
Schedule-1-Revised
Page 1 of 1

VEOLIA WATER PENNSYLVANIA INC.
COMBINED WATER AND WASTEWATER OPERATIONS
STATEMENT OF THE CALCULATION OF THE RATE OF RETURN UNDER PRESENT RATES FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2023, 2024 AND OCTOBER 31, 2025
AND THE ANTICIPATED RATE OF RETURN UNDER PROPOSED RATES FOR THE YEAR ENDING OCTOBER 31, 2025

Line No.	Description	12 Months Ended 30-Sep-23	Pro Forma FTY Adjustments Ref.	Pro Forma FTY Adjustments Amount	Pro Forma Present Rates, 30-Sep-24	Pro Forma FPFTY Adjustments and DSIC Adjustment Ref.	Pro Forma FPFTY Adjustments and DSIC Adjustment Amount	Pro Forma Present Rates, 31-Oct-25	Under Proposed Rates, Supplement No. to Tariff Water Pa-PUC No. 7 Ref.	Increase	Pro Forma 31-Oct-25
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)	(10)
1	Operating Revenues	$ 55,784,278	GRH-1 Sch 5	$ 368,282	$ 56,152,560	GRH-1 Sch 4,7	$ 4,247,184	$ 60,399,745	GRH-1 Sch 2,7	$ 16,063,339	$ 76,463,084
2											
3	Operating Revenue Deductions:										
4	Operation and Maintenance										
5	Expenses	$ 21,946,646	GRH-2	$ 2,555,162	$ 24,501,809	GRH-2	$ 1,986,027	$ 26,487,836	GRH-2	$ 182,157	$ 26,669,993
6	Taxes Other than Income	$ 1,152,201	GRH-2	$ 86,326	$ 1,238,527	GRH-2	$ 30,236	$ 1,268,763		$ -	$ 1,268,763
7											
8											
9	Depreciation	8,840,555	GRH-2	1,085,278	9,925,834	GRH-2	1,992,121	11,917,955	GRH-2	$ -	11,917,955
10	Amortization of Acquisition Adjustment	57,744	GRH-2	-	57,744	GRH-2	325,630	383,374	GRH-2	$ -	383,374
11	Amortization of Regulatory Asset	-	GRH-2	-	-	GRH-2	-	-	GRH-2		-
12											
13	Total Operating										
14	Revenue Deductions	$ 31,997,147	GRH-2	$ 3,726,766	$ 35,723,913	GRH-2	$ 4,334,015	$ 40,057,928		$ 182,157	$ 40,240,085
15											
16	Total Income Before Taxes and Return	$ 23,787,131		$ (3,358,484)	$ 20,428,647		$ (86,830)	$ 20,341,817		$ 15,881,182	$ 36,222,998
17											
18	Less Federal and State Taxes	$ 4,495,020	GRH-2	$ (1,173,856)	$ 3,321,164		$ (127,545)	$ 3,193,619	GRH-2	$ 4,263,064	$ 7,456,683
19											
20											
21	Net Operating Income										
22	Available for Return	$ 19,292,111		$ (2,184,628)	$ 17,107,483		$ 40,714	$ 17,148,197		$ 11,618,118	$ 28,766,315
23											
24											
25	Rate Base	$ 293,604,062	GRH-1.1	$ 39,791,873	$ 333,395,935		$ 28,546,493	$ 361,942,428		$ -	$ 361,942,428
26											
27	Rate of Return	6.57%			5.13%			4.74%			7.95%

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

VEOLIA WATER PENNSYLVANIA INC.

Docket Nos. R-2024-3045192 and R-2024-3045193

I&E-RE-8-D Reference VWPA Exhibit No. GRH-3, Schedule-2 and Exhibit No. GRH-5, Schedule-2, concerning labor expense:

A. Provide the actual or forecasted number of employees by month in Excel format for each of the four operating units for the years ended 9/30/2021 and 9/30/2022, as well as the HTY, FTY, and FPFTY.

B. Provide the actual or forecasted number of vacancies by month in Excel format for each of the four operating units for the years ended 9/30/2021 and 9/30/2022, as well as the HTY, FTY, and FPFTY.

Answer:

A. Please see I&E-RE-8-D Attachment.

B. Please see response to Part A.

Answer provided by: Greg Herbert

Title: Assistant Project Manager, Rate Studies

Address: 207 Senate Ave. Camp Hill, PA 17011

Date: March 21, 2024

Veolia Water Pennsylvania
Docket Nos. R-2024-3045192 and R-2024-3045193

I&E-RE-8-D Attachment
Page 1 of 1

VWPA Planned and Actual Headcount

12 months ending 9/30/21	**20-Oct**	**20-Nov**	**20-Dec**	**21-Jan**	**21-Feb**	**21-Mar**	**21-Apr**	**21-May**	**21-Jun**	**21-Jul**	**21-Aug**	**21-Sep**
Planned Headcount	98	98	98	98	98	98	98	98	98	98	98	98
Actual Headcount	93	94	95	94	96	95	95	96	97	94	94	97
Variance	5	4	3	4	2	3	3	2	1	4	4	1

12 months ending 9/30/22	**21-Oct**	**21-Nov**	**21-Dec**	**22-Jan**	**22-Feb**	**22-Mar**	**22-Apr**	**22-May**	**22-Jun**	**22-Jul**	**22-Aug**	**22-Sep**
Planned Headcount	98	98	98	102	102	102	102	102	103	103	103	102
Actual Headcount	98	99	97	96	97	95	96	96	97	96	97	98
Variance	0	-1	1	6	5	7	6	6	6	7	6	4

HTY 12 months ending 9/30/23	**22-Oct**	**22-Nov**	**22-Dec**	**23-Jan**	**23-Feb**	**23-Mar**	**23-Apr**	**23-May**	**23-Jun**	**23-Jul**	**23-Aug**	**23-Sep**
Planned Headcount	102	102	102	107	107	107	107	107	108	108	108	107
Actual Headcount	102	102	102	101	99	97	95	100	101	102	103	106
Variance	0	0	0	6	8	10	12	7	7	6	5	1

FTY	**23-Oct**	**23-Nov**	**23-Dec**	**24-Jan**	**24-Feb**	**24-Mar**	**24-Apr**	**24-May**	**24-Jun**	**24-Jul**	**24-Aug**	**24-Sep**
Planned Headcount	107	107	107	120	120	120	120	120	120	120	120	120
Actual Headcount	107	108	107	110	110	110	115	120	120	120	120	120
Variance	0	-1	0	10	10	10	5	0	0	0	0	0

FPFTY	**24-Oct**	**24-Nov**	**24-Dec**	**25-Jan**	**25-Feb**	**25-Mar**	**25-Apr**	**25-May**	**25-Jun**	**25-Jul**	**25-Aug**	**25-Sep**
Planned Headcount	120	120	120	120	120	120	120	120	120	120	120	120
Actual Headcount	120	120	120	120	120	120	120	120	120	120	120	120
Variance	0	0	0	0	0	0	0	0	0	0	0	0

*Highlighted months are estimated.

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

VEOLIA WATER PENNSYLVANIA, INC.

Docket Nos. R-2024-3045192 (Water) and R-2024-3045193 (Wastewater)

I&E-RE-46 Reference VWPA Response to I&E-RE-8-D and VWPA Exhibit GRH-3, Workpaper GRH-2.1 concerning labor expense:

A. State whether all 120 forecasted employees are budgeted in the Water Main Division.

A. If so, explain what constitutes the labor expense claims in Mahoning Water, Columbia Wastewater, and Mahoning Wastewater and explain how these expenses are determined.

Answer: Yes, there are 120 employees budgeted in the Water Main Division in workpaper GRH-2.1. However, workpaper GRH-2.1's projected labor costs accounts for the labor transferred out to the Mahoning Water, Columbia Wastewater and Mahoning Wastewater operating units. Therefore, there will not be any double counting of labor costs among the individual water and wastewater operating units' revenue requirements.

Answer provided by: Gregory Herbert

Title: Assistant Project Manager, Rate Studies

Address 207 Senate Ave, Camp Hill, PA 17011

Date: April 29, 2024

Vacancy Rate Calculation

Compiled by I&E from VWPA Attachment in Response to I&E-RE-8-D

Headcount	2021	2022	2023	2024	2025
October	93	98	102	107	120
November	94	99	102	108	120
December	95	97	102	107	120
January	94	96	101	110	120
February	96	97	99	110	120
March	95	95	97	110	120
April	95	96	95	115	120
May	96	96	100	120	120
June	97	97	101	120	120
July	94	96	102	120	120
August	94	97	103	120	120
September	97	98	106	120	120
1 - Average Headcount	95.00	96.83	100.83	113.92	120.00

Variance	2021	2022	2023	2024	2025
October	5	0	0	0	
November	4	-1	0	-1	
December	3	1	0	0	
January	4	6	6	10	
February	2	5	8	10	
March	3	7	10		
April	3	6	12		
May	2	6	7		
June	1	6	7		
July	4	7	6		
August	4	6	5		
September	1	4	1		
2 - Average Vacancies	3.00	4.42	5.17		
Vacancy Rate (2 / 1)	3.16%	4.56%	5.12%	Average Rate	4.28%

Veolia Water Pennsylvania
Docket No. R-2024-3045192
Employee Group Health and Life Insurance

Exhibit No. GRH-3
Schedule-3
Adjustment No. 2
Page 1 of 1

Line No.		12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 920,056	$ 1,562,536	$ 1,596,912
2	Bethel Water	-	-	-
3	Mahoning Township	611	1,038	1,061
4				
5	**Total Employee Group Health and Life Insurance**	$ 920,667	$ 1,563,574	$ 1,597,973
6				
7	Adjustment		$ 642,907	$ 34,399
8				
9			Future Test	Fully Projected
10	**Description**		**Year**	**Future Test Year**
11				
12	Medical Insurance - VW PA		$ 1,428,469 **(a)**	$ 1,459,895 **(b)**
13				
14				
15	Dental		83,095 **(a)**	84,923 **(b)**
16				
17				
18	Group Life Insurance		52,011 **(a)**	53,155 **(b)**
19				
20				
21				
22	**Total Employee Pensions & Benefits**		$ 1,563,574	$ 1,597,973
23				
24		Number of	Average HTY	Total Employees with
25	**New Employees Adjustment**	**New Employees**	**Cost of Coverage**	**Coverage (%)**
26	2023 Medical	11	$ 15,278	77%
27	2023 Dental	11	813	75%
28	2023 Group Life			
29	Basic STD	11	32	100%
30	Basic LTD	11	335	100%
31	Basic Life 1X annual	11	106	62%
32	Basic Life 3 X annual	11	322	31%
33	Basic Life 20K and 37K	11	21	4%
34				
35	**Inflation Rate:**			
36	Fully Projected Future Test Year	2.200%		
37				
38	**Refrence Notes:**			
39	**(a)** The company provided Future Test Year Employee Group Health and Life Insurance expenses are			
40	adjusted for the eleven new employees in 2024. The new employee adjustment takes the number			
41	of new hires, multiplied by the average Cost of Coverage of existing employees and the			
42	percentage of existing employees with coverage, and added to the			
43	Future Test Year Insurance expenses.			
44	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.			

I&E Modified Section				
New Empoyees Adjustment	**# New Emp**	**Avg HTY Cost**	**% Emp Covered**	**Total Cost**
2023 Medical	11	15,278	77%	129,405
2023 Dental	11	813	75%	6,707
2023 Group Life				
Basic STD	11	32	100%	352
Basic LTD	11	335	100%	3,685
1x Annual	11	106	62%	723
3x Annual	11	322	31%	1,098
20k and 37k	11	21	4%	9
				$ 141,979

Veolia Water Pennsylvania, Inc.
Docket No. R-2024-3045192
Operation and Maintenance Expenses - Combined
For the Historical, Future and Fully Projected Future Test Year

I&E Modified
Exhibit No. GRH-3
Schedule-1
Summary of Adjustments
Page 1 of 4

Line No.	Account Number	Utility Operating Expenses	Adjustment No.	VW Pennsylvania 12-Months Ending 9/30/2021	VW Pennsylvania 12-Months Ending 9/30/2022	VW Pennsylvania 12-Months Ending 9/30/2023
1	601.0	Labor Expense	1	$ 5,079,472	$ 5,267,575	$ 5,811,878
2	604.0	Employee Group Health & Life	2	871,463	672,826	920,667
3	604.0	Employee Pension Benefits	3	560,056	530,710	367,354
4	604.0	Employee Post Retirement Benefits Other than Pension	4	136,469	109,601	75,249
5	604.0	Other Employee Benefits	5	286,132	324,361	370,146
6	610.0	Purchased Water	6	1,541,498	1,669,526	1,825,613
7	615.0	Purchased Power	7	1,424,081	1,635,590	2,245,114
8	616.0	Fuel for Power Production	8	2,000	2,000	2,000
9	618.0	Chemicals	9	526,507	898,942	986,229
10	620.0	Materials and Supplies	10	309,971	337,511	396,023
11	634.0	Management and Service Fees	11	4,326,152	4,108,200	4,076,177
12	635.0	Lab Testing Fees	12	166,237	158,583	247,303
13	636.0	Outside Contractors	13	1,375,294	1,538,771	1,723,551
14	636.0	Outside Professional Services	14	66,045	26,072	162,491
15	641.0	Rental - Building/Real Property	15	-	-	-
16	642.0	Rental of Equipment	16	112,681	110,902	119,512
17	650.0	Transportation Expense	17	500,461	534,164	559,928
18	657.0	Prop& Gen Liab. Insurance	18	430,960	258,188	(312)
19	658.0	Worker Compensation	19	47,097	22,959	19,075
20	660.0	Advertising	20	-	-	-
21	666.0	Rate Case Expense - Amort	21	146,962	48,881	-
22	666.0	Regulatory Commission Expense	22	336,192	356,461	344,697
23	667.0	Amortization of Tax Reform Liability	22.1	(264,888)	(264,888)	(264,888)
24	670.0	Bad Debt Expense	23	631,008	(326,130)	253,213
25	675.0	Fringe Benefit Expense Transfer	24	(906,973)	(814,137)	(858,759)
26	675.6	Office Expense and Utilities	25	724,743	828,219	845,482
27	675.9	Postage and Air Freight Expense	26	373,638	394,283	422,855
28	Various	Other O&M	27	131,469	169,463	146,049
29		Customer Assistance Program	28	-	-	-
30		**Adjustments for Acquisitions**	29	-	-	-
31		**Total Operation and Maintenance Expenses**		$ 18,934,728	$ 18,598,631	$ 20,796,646
32						
33		Inflation Rate Calculator	30			
34						
35		**Taxes Other Than Income**				
36		Real Estate Tax	31	$ 427,253	$ 447,960	$ 447,173
37		Payroll	32	606,208	636,405	704,987
38						
39		**Total Taxes Other Than Income**		$ 1,033,461	$ 1,084,365	$ 1,152,160
40						
41		**Depreciation Expense**	33	$ 8,906,635	$ 8,923,652	$ 8,828,651
42		**Amortization of Acquisition Adjustment**		57,744	57,744	57,744
43		**Amortization of Regulatory Liability**				
44						
45		**Income Taxes**	34	$ (709,073)	$ 6,586,967	$ 4,495,020
46						
47		**Total**		$ 28,223,495	$ 35,251,358	$ 35,330,221

Veolia Water Pennsylvania, Inc.
Docket No. R-2024-3045193
Operation and Maintenance Expenses - Combined
For the Historical, Future and Fully Projected Future Test Year

I&E Modified
Exhibit No. GRH-5
Schedule-1
Summary of Adjustments
Page 1 of 3

Line No.	Account Number	Utility Operating Expenses	Adjustment No.	12-Months Ending 9/30/2021	12-Months Ending 9/30/2022	12-Months Ending 9/30/2023
1	601.0	Labor Expense	1	$ 54,863	$ 50,417	$ 48,598
2	604.0	Employee Group Health & Life	2	8,368	6,150	7,179
3	604.0	Employee Pension Benefits	3	3,980	3,256	2,055
4	604.0	Employee Post Retirement Benefits Other than Pension	4	969	677	422
5	604.0	Other Employee Benefits	5	708	703	780
6	610.0	Purchased Water	6	-	-	-
7	615.0	Purchased Power	7	-	-	-
8	616.0	Fuel for Power Production	8	-	-	-
9	618.0	Chemicals	9	655	1,160	929
10	620.0	Materials and Supplies	10	4,275	7,104	3,801
11	634.0	Management and Service Fees	11	-	-	-
12	635.0	Lab Testing Fees	12	100,291	90,200	123,964
13	636.0	Outside Contractors	13	829,716	875,235	863,955
14	636.0	Outside Professional Services	14	39,845	14,830	81,451
15	641.0	Rental - Building/Real Property	15	-	-	-
16	642.0	Rental of Equipment	16	-	-	-
17	650.0	Transportation Expense	17	5,661	5,063	5,054
18	657.0	Prop& Gen Liab. Insurance	18	2,796	1,207	(62)
19	658.0	Worker Compensation	19	337	134	108
20	660.0	Advertising	20	-	-	-
21	666.0	Rate Case Expense - Amort	21	-	-	-
22	666.0	Regulatory Commission Expense	22	10,530	10,594	10,586
23	667.0	Amortization of Tax Reform Liability	22.1	-	-	
24	670.0	Bad Debt Expense	23	0	-	98
25	675.0	Fringe Benefit Expense Transfer	24	0	-	0
26	675.6	Office Expense and Utilities	25	796	1,141	1,082
27	675.9	Postage and Air Freight Expense	26	-	-	-
28	Various	Other O&M	27	26	-	-
29		Customer Assistance Program	28	-	-	-
30		Adjustments for Acquisitions	29	-	-	-
31		**Total Operation and Maintenance Expenses**		$ 1,063,815	$ 1,067,869	$ 1,150,000
32						
33		Inflation Rate Calculator	30			
34						
35		**Taxes Other Than Income**				
36		Real Estate Tax	31	$ -	$ -	$ -
37		Payroll	32	137	47	42
38						
39		**Total Taxes Other Than Income**		$ 137	$ 47	$ 42
40						
41		**Depreciation Expense**	33	$ -	$ 5,908	$ 11,905
42		**Amortization of Acquisition Adjustment**		-	-	-
43		**Amortization of Regulatory Liability**				
44						
45		**Income Taxes**	34	$ -	$ -	$ -
46						
47		**Total**		$ 1,063,951	$ 1,073,824	$ 1,161,946

Lab Testing Fees

Compiled by I&E from VWPA Attachment in Response to I&E-RE-4-D

	2021	2022	2023	Average
Water Total	166,237	158,583	247,303	190,708
Wastewater Total	100,291	90,200	123,965	104,819

	Average	FTY Infl 2.375%	FPFTY Infl 2.20%
Main Division Water (100%)	190,708	195,237	199,532
Mahoning Water (0%)	-	-	-
Total Water	190,708	195,237	199,532
Columbia Wastewater (3.725%)	3,433	3,514	3,592
Mahoning Wastewater (96.725%)	101,386	103,794	106,077
Total Wastewater	104,819	107,308	109,669
Total Water and Wastewater	295,526	302,545	309,201

Outside Contractors

	2021	2022	2023	Average
Water Total	1,375,294	1,538,771	1,723,551	1,545,872
Wastewater Total	829,716	875,235	863,954	856,302

	Average	FTY Infl 2.375%	FPFTY Infl 2.20%
Main Division Water (100%)	1,545,872	1,582,586	1,617,403
Mahoning Water (0%)	-	-	-
Total Water	1,545,872	1,582,586	1,617,403
Columbia Wastewater (3.725%)	28,044	28,710	29,342
Mahoning Wastewater (96.725%)	828,258	847,929	866,583
Total Wastewater	856,302	876,639	895,925
Total Water and Wastewater	2,402,173	2,459,225	2,513,328

Other O&M Expense

	2021	2022	2023	Average
Water Total	131,469	169,463	146,049	148,994

	Average	FTY Infl 2.375%	FPFTY Infl 2.20%
Main Division Water (99.458%)	148,186	151,705	155,043
Mahoning Water (0.542%)	808	827	845
Total Water	148,994	152,532	155,888

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

VEOLIA WATER PENNSYLVANIA INC.

Docket Nos. R-2024-3045192 and R-2024-3045193

I&E-RE-19-D Reference VWPA Exhibit No. GRH-3, Schedule-13 and VWPA Exhibit No. GRH-5, Schedule-9, concerning lab testing fees expense:

A. Provide lab testing fees expense amounts by the four operating units for the years ended 9/30/2021 and 9/30/2022.

B. Explain why a two-year average is appropriate for the FTY calculation.

Answer:

A. Please reference the response to I&E-RE-4-D and I&E-RE-5-D.

B. The two year average is more representative of future lab testing costs than a three year average, as there have been increases in PFAS monitoring and UCMR5 testing that occurred in 2023.

Answer provided by: Greg Herbert

Title: Assistant Project Manager, Rate Studies

Address: 207 Senate Ave., Camp Hill, PA 17011

Date: March 19, 2024

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

VEOLIA WATER PENNSYLVANIA INC.

Docket Nos. R-2024-3045192 and R-2024-3045193

I&E-RE-20-D Reference VWPA Exhibit No. GRH-3, Schedule-14 and VWPA Exhibit No. GRH-5, Schedule-10, concerning outside contractors' expense:

A. Provide a detailed breakdown by business unit including the individual contractors and the types of service performed along with supporting documentation such as invoices, workpapers, contractor estimates, contractor agreements, etc. for the HTY.

B. Explain why a two-year average is appropriate for the FTY calculation.

C. Provide outside contractors expense amounts by the four operating units for the years ended 9/30/2021 and 9/30/2022.

Answer:

A. Please reference I&E-RE-20 Attachment 1.

B. The Company views a two-year average with inflation to be closer to the estimated FTY costs than the FTY claim based on a three-year average of costs with inflation or based on the HTY costs with inflation.

C. Please see MFR III-11, the response to I&E-RE-3-D through RE-5-D, and I&E-RE-20-D Attachment 2.

Answer provided by: Greg Herbert

Title: Assistant Project Manager, Rate Studies

Address: 207 Senate Ave. Camp Hill, PA 17011

Date: March 21, 2024

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

VEOLIA WATER PENNSYLVANIA INC.

Docket Nos. R-2024-3045192 and R-2024-3045193

I&E-RE-31-D Reference VWPA Exhibit No. GRH-3, Schedule-28, concerning other O&M expenses:

A. Provide a detailed breakdown of actual other O&M expenses in the HTY.

B. Explain why a two-year average is appropriate to compute the FTY other O&M expenses.

C. Provide other O&M expense amounts by the four operating units for the years ended 9/30/2021 and 9/30/2022.

Answer:

A. See I&E-RE-31-D Attachment for the breakdown of Other O&M Expenses in the HTY.

B. A two year average was closer to the anticipated FTY and FPFTY costs with inflation than a three year average.

C. Please reference the response to I&E-RE-4-D and I&E-RE-5-D.

Answer provided by: Greg Herbert

Title: Assistant Project Manager, Rate Studies

Address: 207 Senate Ave. Camp Hill, PA 17011

Date: March 21, 2024

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

VEOLIA WATER PENNSYLVANIA INC.

Docket Nos. R-2024-3045192 and R-2024-3045193

I&E-RE-26-D Reference VWPA Exhibit No. GRH-3, Schedule-22, concerning rate case expense amortization. Provide the following details for the last three base rate proceedings filed with the Commission:

A. The docket number and date of filing.

B. Indicate whether it was fully litigated or settled.

C. Rate case expense claim and actual rate case expense.

D. Justification for the Company's proposed three-year "amortization" period for the current rate case.

E. Explain why it is deemed appropriate to amortize rather than normalize rate case expense in this proceeding and why these terms are used interchangeably (VWPA Statement No. 2, p. 14).

Answer: A. through C. – please see table below

Year	Docket No	Litigated/ Settled	Expense claimed	Actual expense
2018	R-2018-3000834	Settled	567,000	440,887
2015	R-2015-2462723	Settled	492,000	415,795
2011	R-2011-2232985	Settled	495,000	418,093

D. Rate case expense has been amortized over three years for at least three past rate cases and is generally in sync with the Company's filing history.

E. Please see D. above. In VWPA Statement No. 2, page 14 the proper term on line 13 should be amortization, not normalization.

Answer provided by: James Cagle

Title: Vice President – Rates & Regulatory Affairs

Address: 461 From Road, Harrington Park, NJ 07652
Date: 3/15/2024

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

VEOLIA WATER PENNSYLVANIA INC.

Docket Nos. R-2024-3045192 and R-2024-3045193

I&E-RE-40 Reference VWPA Statement No. 7, p. 5 concerning the Veolia Cares program:

A. Provide budgeted spending versus actual spending for the HTY and the years preceding the HTY.

B. Indicate cash contributions and any rollover amounts each year.

C. Indicate the number of accounts receiving grants in each year.

D. Confirm whether the funding for this program will remain separate from the funding for the proposed Customer Assistance Program (CAP).

Answer:

A, B, C:

Years	Budgeted Spending	Actual Spendng	# of accounts	Rollover Amount
10/1/2019 to 9/30/2020	Unbudgeted	$5,378	43	
10/1/2020 to 9/30/2021	Unbudgeted	$15,245	110	
10/1/2021 to 9/30/2022	$50,000	$6,277	35	$43,723
10/1/22 to 9/30/23 HTY	$50,000	$40,465	181	$53,258

D. The Funding for this program will remain separate from the funding for the proposed Customer Assistance Program (CAP).

Answer provided by: Judith Jordan

Title: Director of Programs

Address: 6310 Allentown Blvd. Harrisburg, PA 17112

Date: 4/2/2024

I&E Modified

VEOLIA WATER PENNSYLVANIA, INC. - MAIN DIVISION WATER

SUMMARY OF CASH WORKING CAPITAL REQUIREMENTS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 7,418,529	$ 469,501	$ 7,101,016	$ 449,407
Employee Group Health & Life	34.5	10.1	24.4	1,596,912	106,752	1,039,945	69,520
Employee Pension Benefits	34.5	29.3	5.2	632,288	9,008	632,288	9,008
Other Employee Benefits	34.5	276.0	(241.5)	444,895	(294,362)	431,856	(285,735)
Purchased Water	34.5	26.6	7.9	1,838,244	39,787	1,838,244	39,787
Purchased Power	34.5	57.1	(22.6)	2,886,605	(178,732)	2,886,605	(178,732)
Fuel for Power Production	34.5	38.8	(4.3)	2,093	(25)	2,093	(25)
Chemicals	34.5	27.9	6.6	1,344,558	24,313	1,344,558	24,313
Materials and Supplies	34.5	29.1	5.4	407,435	6,028	407,435	6,028
Management and Service Fees	34.5	14.7	19.8	4,611,336	250,149	4,202,062	227,947
Lab Testing Fees	34.5	26.2	8.3	212,334	4,828	199,532	4,537
Outside Contractors	34.5	30.9	3.6	1,711,389	16,879	1,617,403	15,952
Outside Professional Services	34.5	45.0	(10.5)	88,583	(2,548)	88,583	(2,548)
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-	-	-
Rental of Equipment	34.5	7.9	26.6	124,900	9,102	124,900	9,102
Transportation Expense	34.5	38.1	(3.6)	748,343	(7,381)	748,343	(7,381)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	-	-	-	-
Worker Compensation	34.5	(130.5)	165.0	48,098	21,743	48,098	21,743
Regulatory Commission Expense	34.5	(101.5)	136.0	355,109	132,315	448,734	167,200
Office Expense and Utilities	34.5	8.9	25.6	861,668	60,435	861,668	60,435
Postage and Air Freight Expense	34.5	40.3	(5.8)	383,875	(6,100)	383,875	(6,100)
Other O&M	34.5	30.3	4.2	164,161	1,889	155,043	1,784
Real Estate Tax	34.5	(26.9)	61.4	343,022	57,703	343,022	57,703
Payroll	34.5	18.5	16.0	918,219	40,251	878,919	38,528
Federal Income Taxes	34.5	37.0	(2.5)	1,525,244	(10,447)	3,580,222	(24,522)
State Income Taxes	34.5	28.8	5.8	619,541	9,760	1,483,195	23,365
Total					**$ 760,848**		**$ 721,316**

I&E Modified

VEOLIA WATER PENNSYLVANIA, INC. - MAHONING WATER

SUMMARY OF CASH WORKING CAPITAL REQUIREMENTS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 4,076	$ 258	$ 4,076	$ 258
Employee Group Health & Life	34.5	10.1	24.4	1,061	71	640	43
Employee Pension Benefits	34.5	29.3	5.2	420	6	420	6
Other Employee Benefits	34.5	276.0	(241.5)	288	(190)	288	(190)
Purchased Water	34.5	26.6	7.9	157,785	3,415	157,785	3,415
Purchased Power	34.5	57.1	(22.6)	102,218	(6,329)	102,218	(6,329)
Fuel for Power Production	34.5	38.8	(4.3)	-	-	-	-
Chemicals	34.5	27.9	6.6	10,178	184	10,178	184
Materials and Supplies	34.5	29.1	5.4	6,179	91	6,179	91
Management and Service Fees	34.5	14.7	19.8	68,840	3,734	62,730	3,403
Lab Testing Fees	34.5	26.2	8.3	-	-	-	-
Outside Contractors	34.5	30.9	3.6	-	-	-	-
Outside Professional Services	34.5	45.0	(10.5)	-	-	-	-
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-	-	-
Rental of Equipment	34.5	7.9	26.6	142	10	142	10
Transportation Expense	34.5	38.1	(3.6)	372	(4)	372	(4)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	-	-	-	-
Worker Compensation	34.5	(130.5)	165.0	13	6	13	6
Regulatory Commission Expense	34.5	(101.5)	136.0	5,283	1,968	6,676	2,487
Office Expense and Utilities	34.5	8.9	25.6	12,748	894	12,748	894
Postage and Air Freight Expense	34.5	40.3	(5.8)	37,471	(595)	37,471	(595)
Other O&M	34.5	30.3	4.2	894	10	845	10
Real Estate Tax	34.5	(26.9)	61.4	7,001	1,178	7,001	1,178
Payroll	34.5	18.5	16.0	468	21	468	21
Federal Income Taxes	34.5	37.0	(2.5)	(87,671)	600	61,982	(425)
State Income Taxes	34.5	28.8	5.8	(37,230)	(587)	26,050	410
Total					**$ 4,741**		**$ 4,873**

I&E Modified

VEOLIA WATER PENNSYLVANIA, INC. - COLUMBIA WASTEWATER

SUMMARY OF CASH WORKING CAPITAL REQUIREMENTS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 47,282	$ 2,992	$ 47,282	$ 2,992
Employee Group Health & Life	34.5	10.1	24.4	6,915	462	6,915	462
Employee Pension Benefits	34.5	29.3	5.2	1,979	28	1,979	28
Other Employee Benefits	34.5	276.0	(241.5)	823	(544)	823	(544)
Purchased Water	34.5	26.6	7.9	-	-	-	-
Purchased Power	34.5	57.1	(22.6)	-	-	-	-
Fuel for Power Production	34.5	38.8	(4.3)	-	-	-	-
Chemicals	34.5	27.9	6.6	1,159	21	1,159	21
Materials and Supplies	34.5	29.1	5.4	145	2	145	2
Management and Service Fees	34.5	14.7	19.8	-	-	-	-
Lab Testing Fees	34.5	26.2	8.3	3,669	83	3,592	82
Outside Contractors	34.5	30.9	3.6	29,795	294	29,342	289
Outside Professional Services	34.5	45.0	(10.5)	1,562	(45)	1,562	(45)
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-	-	-
Rental of Equipment	34.5	7.9	26.6	-	-	-	-
Transportation Expense	34.5	38.1	(3.6)	4,868	(48)	4,868	(48)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	-	-	-	-
Worker Compensation	34.5	(130.5)	165.0	96	43	96	43
Regulatory Commission Expense	34.5	(101.5)	136.0	294	109	396	148
Office Expense and Utilities	34.5	8.9	25.6	30	2	30	2
Postage and Air Freight Expense	34.5	40.3	(5.8)	-	-	-	-
Other O&M	34.5	30.3	4.2	-	-	-	-
Real Estate Tax	34.5	(26.9)	61.4	-	-	-	-
Payroll	34.5	18.5	16.0	44	2	44	2
Federal Income Taxes	34.5	37.0	(2.5)	(23,919)	164	(4,227)	29
State Income Taxes	34.5	28.8	5.8	(10,225)	(161)	(1,776)	(28)
Total					**$ 3,404**		**$ 3,435**

I&E Modified

VEOLIA WATER PENNSYLVANIA, INC. - MAHONING WASTEWATER

SUMMARY OF CASH WORKING CAPITAL REQUIREMENTS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 4,076	$ 258	$ 4,076	$ 258
Employee Group Health & Life	34.5	10.1	24.4	596	40	596	40
Employee Pension Benefits	34.5	29.3	5.2	171	2	171	2
Other Employee Benefits	34.5	276.0	(241.5)	67	(44)	67	(44)
Purchased Water	34.5	26.6	7.9	-	-	-	-
Purchased Power	34.5	57.1	(22.6)	-	-	-	-
Fuel for Power Production	34.5	38.8	(4.3)	-	-	-	-
Chemicals	34.5	27.9	6.6	-	-	-	-
Materials and Supplies	34.5	29.1	5.4	5,015	74	5,015	74
Management and Service Fees	34.5	14.7	19.8	-	-	-	-
Lab Testing Fees	34.5	26.2	8.3	108,368	2,464	106,077	2,412
Outside Contractors	34.5	30.9	3.6	880,038	8,680	866,583	8,547
Outside Professional Services	34.5	45.0	(10.5)	46,127	(1,327)	46,127	(1,327)
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-	-	-
Rental of Equipment	34.5	7.9	26.6	-	-	-	-
Transportation Expense	34.5	38.1	(3.6)	420	(4)	420	(4)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	-	-	-	-
Worker Compensation	34.5	(130.5)	165.0	1	-	1	-
Regulatory Commission Expense	34.5	(101.5)	136.0	10,153	3,783	13,682	5,098
Office Expense and Utilities	34.5	8.9	25.6	1,027	72	1,027	72
Postage and Air Freight Expense	34.5	40.3	(5.8)	-	-	-	-
Other O&M	34.5	30.3	4.2	-	-	-	-
Real Estate Tax	34.5	(26.9)	61.4	-	-	-	-
Payroll	34.5	18.5	16.0	4	-	4	-
Federal Income Taxes	34.5	37.0	(2.5)	(30,418)	208	46,417	(318)
State Income Taxes	34.5	28.8	5.8	(13,232)	(208)	19,060	300
Total					**$ 13,998**		**$ 15,110**

I&E Statement No. 2
Witness: D. C. Patel

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

VEOLIA WATER PENNSYLVANIA, INC.

Docket No. R-2024-3045192 (Water)
&
Docket No. R-2024-3045193 (Wastewater)

Direct Testimony

of

D. C. Patel

Bureau of Investigation & Enforcement

Concerning:

Rate of Return

TABLE OF CONTENTS

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is D. C. Patel, and my business address is Pennsylvania Public Utility Commission, Commonwealth Keystone Building, 400 North Street, Harrisburg, PA 17120.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by the Pennsylvania Public Utility Commission (Commission) in the Bureau of Investigation & Enforcement (I&E) as a Fixed Utility Financial Analyst.

Q. WHAT IS YOUR EDUCATION AND PROFESSIONAL EXPERIENCE?

A. My education and professional experience is set forth in the attached Appendix A.

Q. PLEASE DESCRIBE THE ROLE OF I&E IN RATE PROCEEDINGS.

A. I&E is responsible for protecting the public interest in proceedings before the Commission. I&E's analysis in this proceeding is based on its responsibility to represent the public interest. This responsibility requires the balancing of the interests of ratepayers, the regulated utility, and the regulated community as a whole.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my direct testimony is to address the rate of return, including capital structure, cost of long-term debt, the cost of equity, and recommend the overall fair rate of return for the water and wastewater operations of Veolia Water Pennsylvania, Inc. (VWPA or Company) for the fully projected future test year (FPFTY) ending October 31, 2025.

Q. DOES YOUR DIRECT TESTIMONY INCLUDE AN EXHIBIT?

A. Yes. I&E Exhibit No. 2 contains schedules that support my direct testimony.

BACKGROUND

Q. WHAT IS THE GENERAL DEFINITION OF RATE OF RETURN IN THE CONTEXT OF A RATE CASE?

A. Rate of return is one of the components of the revenue requirement formula. Rate of return is the amount of revenue an investment generates in the form of net income and is usually expressed as a percentage of the amount of capital invested over a given period of time.

Q. WHAT IS THE REVENUE REQUIREMENT FORMULA?

A. The revenue requirement formula used in base rate cases is as follows:

$$RR = E + D + T + (RB \times ROR)$$

Where:

RR = Revenue Requirement

E = Operating Expenses

D = Depreciation Expense

T = Taxes

RB = Rate Base

ROR = Overall Rate of Return

In the above formula, the rate of return is expressed as a percentage. The calculation of that percentage is independent of the determination of the appropriate rate base value for ratemaking purposes. As such, the appropriate total dollar return is dependent upon the proper computation of the rate of return and the proper valuation of the Company's rate base.

Q. WHAT CONSTITUTES A FAIR AND REASONABLE OVERALL RATE OF RETURN?

A. A fair and reasonable overall rate of return is one that will allow the utility an opportunity to recover those costs prudently incurred by all classes of capital used to finance the rate base during the prospective period in which its rates will be in effect.

The *Bluefield Water Works & Improvements Co. v. Public Service Comm. of West Virginia,* 262 U.S. 679, 692-93 (1923), and the *Federal Power Commission v. Hope Natural Gas Co.,* 320 U.S. 591, 603 (1944) cases set forth the principles that are generally accepted by regulators throughout the country as

the appropriate criteria for measuring a fair rate of return:

1. A utility is entitled to a return similar to that being earned by other enterprises with corresponding risks and uncertainties, but not as high as those earned by highly profitable or speculative ventures.
2. A utility is entitled to a return level reasonably sufficient to assure financial soundness.
3. A utility is entitled to a return sufficient to maintain and support its credit and raise necessary capital.
4. A fair return can change (increase or decrease) along with economic conditions and capital markets.

Q. EXPLAIN HOW THE OVERALL RATE OF RETURN IS TRADITIONALLY CALCULATED IN BASE RATE PROCEEDINGS.

A. In base rate proceedings, the overall rate of return is traditionally calculated using the weighted average cost of capital method. To calculate the weighted average cost of capital, a company's capital structure must first be determined by comparing the percentage of each capitalization component, which has financed the rate base, to total capital. Next, the effective cost rate of each capital structure component must be determined. The historical component of the cost rate of debt can be computed accurately, and any future debt issuances are based on estimates. The cost rate of common equity is not fixed and is more difficult to measure. Because of this difficulty, a proxy group is used as discussed later in this

testimony. Then, each capital structure component percentage is multiplied by its corresponding effective cost rate to determine the weighted cost of capital. The I&E table in the *"I&E Position"* section below demonstrates the interaction of each capital structure component and its corresponding effective cost rate. Finally, the sum of the weighted cost rates produces the overall rate of return. This overall rate of return is multiplied by the rate base to determine the return portion of a company's revenue requirement.

COMPANY'S RATE OF RETURN CLAIM

Q. WHO IS THE COMPANY'S RATE OF RETURN WITNESS?

A. VWPA witness Harold Walker, III is the primary witness addressing the rate of return (VWPA Statement No. 4). Throughout his direct testimony, Mr. Walker provides his analysis for the claimed capital structure, long-term debt cost, cost of common equity, and overall rate of return for the Company's water and wastewater operations.

Q. PLEASE SUMMARIZE MR. WALKER'S RECOMMENDATIONS FOR THE COMPANY'S RATE OF RETURN CLAIM.

A. Mr. Walker recommends the following rate of return for the Company's water and wastewater operations based on its FPFTY ending October 31, 2025 (VWPA Exhibit HW-1, Schedule 1):

VEOLIA WATER PENNSYLVANIA, INC. Water and Wastewater Operations **Summary of Cost of Capital**			
Type of Capital	**Ratio**	**Cost Rate**	**Weighted Cost Rate**
Long-Term Debt	46.00%	4.60%	2.12%
Common Equity	54.00%	10.80%	5.83%
Total	**100.00%**		**7.95%**

I&E POSITION

Q. PLEASE SUMMARIZE YOUR RATE OF RETURN RECOMMENDATION FOR THE COMPANY.

A. I recommend the following rate of return for the Company's water and wastewater operations (I&E Exhibit No. 2, Schedule 1):

I & E Veolia Water Pennsylvania, Inc. - Water and Wastewater Operations **Summary of Cost of Capital**			
Type of Capital	**Ratio**	**Cost Rate**	**Weighted Cost Rate**
Long-Term Debt	46.00%	4.60%	2.12%
Common Equity	54.00%	9.34%	5.04%
Total	**100.00%**		**7.16%**

PROXY GROUP

Q. WHAT IS A PROXY GROUP AS USED IN BASE RATE CASES?

A. A proxy group is a set of companies that have similar traits of risk in comparison

to the subject utility. This group of companies acts as a benchmark for determining the subject utility's rate of return in a base rate case.

Q. WHAT ARE THE REASONS FOR USING A PROXY GROUP?

A. A proxy group's cost of equity is used as a benchmark to satisfy the long-established guideline of utility regulation that seeks to provide the subject utility with the opportunity to earn a return similar to that of enterprises with corresponding risks and uncertainties.

A proxy group is typically utilized since the use of data exclusively from one company may be less reliable. The lower reliability occurs because the data for one company may be subject to events that can cause short-term anomalies in the marketplace. The rate of return on common equity for a single company could become distorted in these circumstances and would therefore not be representative of similarly situated companies. Therefore, a proxy group has the effect of smoothing out potential anomalies associated with a single company.

Q. DID YOU REQUIRE THAT THE COMPANIES IN YOUR PROXY GROUP EXCLUSIVELY PROVIDE WATER OR WASTEWATER SERVICE?

A. No. Few, if any, publicly held "wastewater-only" companies exist because most water companies diversified their businesses to include wastewater operations. Accordingly, this type of criterion would produce an insufficient sample of

companies for my proxy group, adversely affecting the calculation of a fair rate of return for the subject utility. Further, Value Line does not offer a wastewater utilities industry category as an option so, instead, my proxy group begins with a search of the regulated water utility companies.

Q. WHAT CRITERIA DID YOU USE IN SELECTING YOUR WATER INDUSTRY PROXY GROUP?

A. The criteria for my proxy group was designed to select companies that are representative of VWPA. I applied the following criteria to Value Line's "Water Utility" company group:

1. Fifty percent or more of the company's revenues must be generated from the regulated water utility industry.
2. The company's stock must be publicly traded.
3. Investment information for the company must be available from more than one source, which includes Value Line.
4. The company must not be currently involved in an announced merger or the target of an acquisition.
5. The company must have four consecutive years of historic earnings data.

Q. WHAT CRITERIA DID MR. WALKER USE IN SELECTING THE COMPANIES THAT FORMULATE HIS PROXY GROUP?

A. Mr. Walker determined his proxy group of water companies by using the following criteria (VWPA Statement No. 4, p. 13, lines 1-13), which includes all water utilities that:

1. Are covered by security analysts as measured by the existence of sources of published projected five-year growth rates in earnings per share (EPS).
2. Have Standard Industrial Classification (SIC) code of 4941 (i.e., Water Supply Facilities and Infrastructure).
3. Have North American Industry Classification System (NAICS) of 221310 (i.e., Water Supply and Irrigation Systems).
4. Are not subject to an announced acquisition.
5. Are currently paying a common dividend and has not reduced their common dividend within the past four years.
6. Have a market capitalization of common stock outstanding greater than $500 million.
7. Have a total enterprise value, the sum of equity market value, preferred stock, and total debt greater than $700 million.

Q. WHAT PROXY GROUP DID YOU USE IN YOUR ANALYSIS?

A. I included the following six companies in my proxy group:

Company	Stock Ticker
American States Water Company	AWR
American Water Works Company, Inc.	AWK
California Water Service Group	CWT
Essential Utilities, Inc.	WTRG
Middlesex Water Company	MSEX
SJW Group	SJW

Q. WHAT PROXY GROUP DID MR. WALKER USE IN HIS ANALYSIS?

A. Mr. Walker included the following seven companies in his Water Group (VWPA Statement No. 4, p. 14, line 1):

Company	Stock Ticker
American States Water Company	AWR
American Water Works Company, Inc.	AWK
California Water Service Group	CWT
Essential Utilities, Inc.	WTRG
Middlesex Water Company	MSEX
SJW Group	SJW
York Water Company	YORW

Q. DO YOU AGREE WITH MR. WALKER'S PROXY GROUP?

A. Not entirely. Mr. Walker includes all six water utility companies of my proxy group and additionally, includes York Water Company, which I excluded from my

proxy group because this company was not included in Value Line's "Water Utility" company group, which is required for my proxy group selection criterion as described above.

CAPITAL STRUCTURE

Q. WHAT IS A CAPITAL STRUCTURE?

A. A capital structure represents how a firm has financed its rate base with different sources of funds. The primary funding sources are long-term debt and common equity. A capital structure may also include preferred stock and/or short-term debt.

Q. WHAT IS THE COMPANY'S CLAIMED CAPITAL STRUCTURE?

A. The Company's FPFTY claimed capital structure for water and wastewater operations is summarized in the table below (VWPA Statement No. 4, p. 16, lines 3-6 and Exhibit HW-1, Schedule 1):

VEOLIA WATER PENNSYLVANIA, INC.
Water and Wastewater Operations
Projected Capital Structure as on October 31, 2025

Type of Capital	Capitalization Ratio
Long-Term Debt	46.00%
Common Equity	54.00%
Total	**100.00%**

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIMED CAPITAL STRUCTURE?

A. Mr. Walker states that consistent with the settled rate setting principles, he believes it is necessary to evaluate VWPA's current cost of capital based on Veolia Utility Resources Inc.'s (VUR - the parent company) projected capital structure as of October 31, 2025, which includes 46% long-term debt and 54% common equity (VWPA Statement No. 4, p. 16, lines 3-6). Based on Mr. Walker's discussion, VWPA does not obtain its own financing, and therefore, relies on the parent company's support for the required capital financing. He then opines that his recommended capital structure is reasonable and consistent with the range of common equity ratios maintained by the other investor-owned water companies in his water proxy group (VWPA Statement No. 4, p. 19, lines 7-15 and VWPA Exhibit HW-1, Schedule 2, pp. 1-2).

Q. WHAT IS YOUR RECOMMENDATION REGARDING THE COMPANY'S CAPITAL STRUCTURE?

A. I recommend using the Company's claimed capital structure of 46% long-term debt and 54% common equity as presented in the table above.

Q. WHAT IS THE BASIS FOR YOUR CAPITAL STRUCTURE RECOMMENDATION?

A. I accept the Company's claimed capital structure as it falls within the range of my

proxy group's capital structures. The most recent five-year (2019-2023) average range contains individual company capital structure ratios from 44.06% to 58.08% long-term debt and 41.92% to 55.63% common equity, with an overall five-year average of 50.76% long-term debt and 49.19% common equity (I&E Exhibit No. 2, Schedule 2).

COST OF LONG-TERM DEBT

Q. WHAT IS THE COMPANY'S CLAIMED COST RATE OF LONG-TERM DEBT?

A. Mr. Walker recommends a 4.60% weighted cost rate of long-term debt for water and wastewater operations, which is based on VUR's projected long-term debt cost rate as of October 31, 2025 (VWPA Statement No. 4, p. 20, lines 4-11 and VWPA Exhibit No. GRH-2, Schedule 1.2).

Q. WHAT IS YOUR RECOMMENDATION FOR THE COMPANY'S COST RATE OF LONG-TERM DEBT?

A. I accept the Company's FPFTY claimed long-term debt cost rate of 4.60% for water and wastewater operations.

Q. WHAT IS THE BASIS FOR YOUR ACCEPTANCE OF THE COMPANY'S COST RATE OF LONG-TERM DEBT?

A. The Company's claimed cost rate of long-term debt appears reasonable because it

is based on VUR's actual long-term debt cost rate and the 2024 debt issuance, which is representative of the water industry. The 4.60% long-term debt cost falls within my proxy group's 2023 implied long-term debt cost range of 3.64% to 4.96%. Additionally, the Mergent Bond Record shows an average yield of 5.61% (April 2023 through April 2024) for A-rated public utility bonds (I&E Exhibit No. 2, Schedule 3). Therefore, I accept the Company's claimed long-term debt cost rate of 4.60% to be used in determining the weighted cost of long-term debt for water and wastewater operations.

COST OF COMMON EQUITY

COMMON METHODS

Q. WHAT METHODS ARE COMMONLY PRESENTED BY UTILITIES IN DETERMINING THE COST OF COMMON EQUITY?

A. Four methods commonly presented to estimate the cost of common equity are the Discounted Cash Flow (DCF), the Capital Asset Pricing Model (CAPM), the Risk Premium (RP) Method, and the Comparable Earnings (CE) Method.

Q. WHAT IS THE THEORETICAL BASIS FOR THE DCF METHOD?

A. The DCF method is the "dividend discount model" of financial theory, which maintains that the value (price) of any security or commodity is the discounted present value of all future cash flows. The DCF method assumes that investors value of a financial asset is determined by its earning power, or its ability to

generate future cash flows. The DCF method is also considered as a forward-looking model to estimate the cost of common equity.

Q. WHAT IS THE THEORETICAL BASIS FOR THE CAPM?

A. The CAPM describes the relationship of a stock's investment risk and its market rate of return. It identifies the rate of return investors expect so that it is comparable with returns of other stocks of similar risk. This method hypothesizes that the investor-required return on a company's stock is equal to the return on a "risk free" asset plus an equity premium reflecting the company's investment risk. In the CAPM, two types of risk are associated with a stock: (1) firm-specific risk (unsystematic risk); and (2) market risk (systematic risk), which is measured by a firm's beta. The CAPM allows investors to receive a return only for bearing systematic risk. Unsystematic risk is assumed to be diversified away, and therefore, does not earn a return.

Q. WHAT IS THE THEORETICAL BASIS FOR THE RP METHOD?

A. The theoretical basis for the RP method is a simplified version of the CAPM. The RP method's theory is that common stock is riskier than debt, and thus, investors require a higher expected return on stocks than bonds. In the RP approach, the cost of equity is made up of the cost of debt and a risk premium. While the CAPM uses the market risk premium, it also directly measures the systematic risk

of a company group through the use of beta. The RP method does not measure the specific risk of a company.

Q. WHAT IS THE THEORETICAL BASIS FOR THE CE METHOD?

A. The CE method utilizes the concept of "opportunity cost." This means that investors will likely dedicate their capital to the investment offering the highest return with similar risk to alternative investments. Unlike the DCF, CAPM, and the RP methods, the CE method is not market-based and relies upon historic accounting data. The most problematic issue with the CE method is determining what constitutes comparable companies. Similar to the RP method, CE method does not measure the specific risk of a company.

I&E RECOMMENDED METHOD TO EMPLOY

Q. WHAT METHOD DO YOU RECOMMEND TO DETERMINE AN APPROPRIATE COST OF COMMON EQUITY FOR THE COMPANY?

A. I recommend using the DCF method as the primary method to determine the cost of common equity. Additionally, I provide a CAPM analysis to be used as a comparison, not as a check, to the DCF results. The DCF method has the most widespread regulatory acceptance, and the Commission has historically relied mostly upon the DCF results in base rate proceedings including as recently as

2017, 2018, 2020, and 2021.[1]

Q. PLEASE EXPLAIN WHY YOU CHOSE TO EMPLOY THE DCF TO DETERMINE YOUR RECOMMENDED RETURN ON EQUITY.

A. I recommend using the DCF for a variety of reasons. The DCF is appealing to investors since it is based upon the common notion that the receipt of dividends in addition to expected appreciation is the total return requirement determined by the market.[2] The use of a growth rate and expected dividend yield are also strengths of the DCF, as this recognizes the time value of money and is forward-looking. The use of the utility's own, or in this case the proxy group's, stock prices and growth rates directly in the calculation also causes the DCF to be industry and company specific. Finally, the current financial, inflationary, and economic trends are most certainly reflected in a stock's price, which is used in determining the dividend yield, and forecasted earnings growth rates by stock market analysts. Therefore, the DCF contains the most up-to-date projected information of any model and is the superior method for determining the rate of return for the current

[1] *Pa. PUC v. City of DuBois – Bureau of Water*, Docket No. R-2016-2554150 (Order Entered March 28, 2017). *See generally* Disposition of Cost Rate Models, pp. 96-97; *Pa. PUC v. UGI Utilities, Inc. - Electric Division*, Docket No. R-2017-2640058 (Order Entered October 25, 2018). *See generally* Disposition of Cost of Common Equity, p. 119; *Pa. PUC v. Wellsboro Electric Company*, Docket No. R-2019-3008208 (Order Entered April 29, 2020). *See generally* Disposition of Primary Methodology to Determine ROE, pp. 80-81; *Pa. PUC v. Citizens Electric Company of Lewisburg, PA*, Docket No. R-2019-3008212 (Order Entered April 29, 2020). *See generally* Disposition of Cost of Common Equity, pp. 91-92; *Pa. PUC v. Columbia Gas of Pennsylvania, Inc.*, Docket No. R-2020-3018835 (Order Entered February 19, 2021). *See generally* Disposition of Cost of Common Equity, p. 131; *Pa. PUC v. PECO Energy Company – Gas Division*; Docket No. R-2020-3018929 (Order Entered June 22, 2021). *See generally* Disposition of Return of Rate on Common Equity, p. 171.

[2] David C. Parcell, "The Cost of Capital – A Practitioner's Guide," 2020 Edition, p. 153.

economic and capital market conditions because it measures the cost of equity directly.

Q. PLEASE EXPLAIN WHY YOU CHOSE TO USE THE CAPM AS A COMPARISON TO THE DCF IN YOUR ANALYSIS.

A. I have included a CAPM analysis only as a comparison, and not as a basis, for my recommendation because both the CAPM and the DCF include inputs that allow the results to be specific to the utility industry. However, it is important to note that the CAPM is based on the performance of U.S. Treasury bonds and the performance of the market as measured through the S&P 500 and is company-specific only through the use of beta. Beta reflects a stock's volatility relative to the overall market, thereby incorporating an industry-specific aspect to the CAPM, but only as a measure of how reactive the industry is compared to the market as a whole. Changes in the utility industry are more likely to be accurately reflected in the DCF, which uses the companies' actual prices, dividends, and growth rates. However, I have included the results of my CAPM analysis because changes in the market, whether as a whole or specific to the utility industry, affect the outcome of each method in different ways. Although I have provided the results of my CAPM analysis as a comparison, and not as a check, it does have several disadvantages and should not be given comparable weight to the DCF result.

Q. EXPLAIN THE DISADVANTAGES OF THE CAPM.

A. The CAPM, and the RP method by virtue of its similarities to the CAPM, give results that indicate to an investor what the equity cost rate should be if current economic and regulatory conditions are the same as those present during the historical period in which the risk premiums were determined. This is because beta, which is the only company-specific variable in the CAPM model, measures the *historical* volatility of a stock compared to the *historical* overall market return. Reliance on historical values is especially problematic now given the recent impact of the COVID-19 pandemic on economic conditions. Although the CAPM and RP results can be useful to investors in making rational buy and sell decisions within their portfolios, the DCF method is the superior method for determining the rate of return for the *current economic market conditions* and measuring the cost of equity directly. The CAPM and similarly the RP method, are less reliable indicators because they measure the cost of equity indirectly and risk premiums vary depending on the debt and equity being compared. In addition, the period of time chosen to measure the risk premium in relation to risk free rate and overall market return is subjective. Also, regulators can never be certain that economic and regulatory conditions underlying the historic period market returns used in determining the risk premiums are the same today or will be the same in the future.

Q. IS THERE ANY ACADEMIC EVIDENCE THAT QUESTIONS THE CREDIBILITY OF THE CAPM MODEL?

A. Yes. An article, "Market Place; A Study Shakes Confidence in the Volatile-Stock Theory," which appeared in the *New York Times* on February 18, 1992, summarized a CAPM study conducted by professors Eugene F. Fama and Kenneth R. French.[3] Their study examined the importance of beta, CAPM's risk factor, in explaining returns on common stock. In CAPM theory a stock with a higher beta should have a higher expected return. However, they found that the model did not do well in predicting actual returns and suggested the use of more elaborate multi-factor models.

A more recent article, "The Capital Asset Pricing Model: Theory and Evidence," which appeared in the *Journal of Economic Perspectives,* states that "the attraction of the CAPM is that it offers powerful and intuitively pleasing predictions about how to measure risk and the relation between expected return and risk. Unfortunately, the empirical record of the model is poor - poor enough to invalidate the way it is used in applications."[4] As a result, I conclude that the CAPM's relevance to the investment decision making process does not carry over into the regulatory rate setting process.

[3] Berg, Eric N. "Market Place; A Study Shakes Confidence in the Volatile-Stock Theory," *The New York Times*, February 18, 1992, *nytimes.com*, March 23, 2016.

[4] Fama, Eugene F. and French, Kenneth R., "The Capital Asset Pricing Model: Theory and Evidence." *Journal of Economic Perspectives* (2004): Volume 18, Number 3, pp. 25-46.

Q. PLEASE EXPLAIN WHY YOU HAVE CHOSEN TO EXCLUDE THE RP METHOD FROM YOUR ANALYSIS.

A. The RP method is excluded because it is a simplified version of the CAPM and is subject to the same faults listed above. Most importantly, unlike the CAPM, the RP method does not recognize the company-specific risk through beta.

Q. EXPLAIN WHY YOU HAVE CHOSEN TO EXCLUDE THE CE METHOD FROM YOUR ANALYSIS.

A. The CE method is excluded because the choice of which companies are comparable is highly subjective, and it is debatable whether historic accounting values are representative of the future. Moreover, its historical usage in this regulatory forum has been minimal.

Q. ARE THERE ANY RECENT COMMISSION ORDERS THAT DEVIATE FROM THE USE OF THE DCF AS THE PRIMARY METHOD IN DETERMINING A COMPANY'S RETURN ON EQUITY?

A. Yes. The Commission indicated in the 2021 Aqua Pennsylvania, Inc. (Aqua) base rate case order that its method "for determining Aqua's ROE shall utilize both I&E's DCF and CAPM methodologies"[5] and that "I&E's DCF and CAPM produce a range of reasonableness for the ROE,"[6] which deviates from prior

[5] *Pa. PUC v. Aqua Pennsylvania, Inc.,* Docket Nos. R-2021-3027385 & R-2021-3027386, pp. 154 (Order Entered May 16, 2022).

[6] *Id.* at p. 178

Commission practice of primarily relying on the DCF model. Most recently, the Commission's Columbia Water Company (Columbia Water) base rate case order relied on the results of I&E's DCF and CAPM analyses for determining Columbia Water's ROE.[7]

Q. SHOULD THE COMMISSION'S USE OF THE CAPM AS A CEILING FOR A "RANGE OF REASONABLENESS" APPLY IN THIS PROCEEDING?

A. No. In a report issued by Regulatory Research Associates, a group within S&P Global Market Intelligence,[8] Aqua's ROE of 10.00% was stated as being above the national average for water utility base rate cases and above the Distribution System Improvement Charge (DSIC) rate authorized by the Commission of 9.80%[9] for water and wastewater utilities for the year ended December 31, 2021. This DSIC rate for water and wastewater utilities has since dropped 5 basis points to 9.75% for the year ended March 31, 2023[10] and further dropped 10 basis points to 9.65% for the year ended June 30, 2023,[11] remaining at the same level of 9.65%

[7] *Pa. PUC v. Columbia Water Company,* Docket Nos. R-2023-3040258, p. 105 (Order Entered January 18, 2024).

[8] Regulatory Research Associates, "Commission authorizes management performance bonus for Aqua Pennsylvania," S&P Global Market Intelligence, May 16, 2022. CIQ Pro: RRA Regulatory Focus: Commission authorizes management performance bonus for Aqua Pennsylvania (spglobal.com) (Accessed April 25, 2024).

[9] PA Public Utility Commission, Bureau of Technical Utility Services Report on the Quarterly Earnings of Jurisdictional Utilities for the Year Ended December 31, 2021, approved at Public Meeting on June 16, 2022, at Docket No. M-2022-3032405.

[10] PA Public Utility Commission, Bureau of Technical Utility Services Report on the Quarterly Earnings of Jurisdictional Utilities for the Year Ended March 31, 2023, approved at Public Meeting on July 13, 2023, at Docket No. M-2023-3041106.

[11] PA Public Utility Commission, Bureau of Technical Utility Services Report on the Quarterly Earnings of Jurisdictional Utilities for the Year Ended June 30, 2023, approved at Public Meeting on October 19, 2023, at Docket No. M-2023-3042679.

for the year ended December 31, 2023.[12] The above referenced S&P report, which directly reviews Aqua's ROE of 10.00% on the very date the Commission entered its related order demonstrated that the ROE awarded to Aqua was higher than average. Specifically, the S&P report determined that the average ROE for water utility base rate cases completed during the first four months of 2022 was 9.63% and for the twelve months ended April 30, 2022 was 9.53%, each of which were well below the 10.00% ROE authorized by the Commission for Aqua. This demonstrates the unreasonable skewing of results associated with using the CAPM as a ceiling for determining a utility's ROE.

In the Columbia Water Order, the Commission noted that I&E's DCF and CAPM produced a range of reasonableness for the ROE from 7.84% to 11.09% and approved an ROE of 9.75% as reasonable and appropriate for that company, which is based upon consideration of a variety of factors such as increasing inflation leading to increases in interest rates and capital costs.[13] I respectfully disagree with the Commission's basis (current inflation and interest rates) for determining Columbia Water's ROE of 9.75%. I have presented and discussed the forecasted lower-level inflation rates, and the Federal Reserve's intention to cut interest rates in 2024-2025, which would have the effect of reducing potential

[12] PA Public Utility Commission, Bureau of Technical Utility Services Report on the Quarterly Earnings of Jurisdictional Utilities for the Year Ended December 31, 2023, approved at Public Meeting on May 9, 2024, at Docket No. M-2024-3048688.

[13] *Pa. PUC v. Columbia Water Company,* Docket Nos. R-2023-3040258, pp.108-109 (Order Entered January 18, 2024).

inflation and interest rate risks in the capital costs during 2024-2025, when the Company's new rates will be in effect.

Additionally, as explained above, the CAPM should not be used as a primary method, and it should only be used as a comparison to and not as a check of the DCF. Also, as demonstrated below, the use of the CAPM in this proceeding would result in a significant burden to ratepayers. Therefore, I disagree with providing the CAPM comparable weight to the DCF method.

Q. PLEASE COMMENT ON CURRENT INFLATION AND INTEREST RATE CONCERNS.

A. First, I cannot dispute the current economic conditions with respect to increased interest rates and government bond yields, however, it is important to note that all companies, including regulated utilities, are impacted by high interest rates. Recently on March 6, 2024, Federal Reserve Chairman Powell indicated to the House Financial Services Committee that interest rate cuts are likely "at some point" in 2024. He asserted that he expects rate cuts likely "at some point this year" even after some hot readings on inflation and that the Federal Reserve wants to see a little bit more data.[14] Considering Chairman Powell's latest indication, it is my understanding that most likely the Federal Reserve will consider a series of

[14] "Rate cuts likely at 'some point' this year: Fed's Powell," Yahoo! Finance, March 6, 2024. Rate cuts likely at 'some point' this year: Fed's Powell (yahoo.com) (Accessed on April 25, 2024).

interest rate cuts in 2024-2025, which covers VWPA's FPFTY when the new rates will be in effect.

Per the monthly Blue Chip Financial Forecasts (April 2024),[15] the 2024-2025 inflation rates by two measures are forecasted to be slightly over 2% as shown in the table below:

	Q2 2024	Q3 2024	Q4 2024	Q1 2025	Q2 2025	Q3 2025
Consumer Price Index	2.9%	2.4%	2.3%	2.3%	2.2%	2.3%
PCE Price Index	2.4%	2.2%	2.1%	2.2%	2.1%	2.1%

The Federal Reserve's commitment to an interest rate reduction would have the effect of reducing potential inflation and interest rate risks in the 2025 capital costs, when VWPA's rates will be in effect. Lastly, it is important to note that unlike unregulated companies, public utilities may file rate cases to address unforeseen or increased expenses and/or revenue shortfalls due to changes in market conditions.

SUMMARY OF THE COMPANY'S RESULTS

Q. WHAT ARE THE RESULTS OF THE COMPANY'S COST OF EQUITY ANALYSES?

A. Mr. Walker employed the DCF, CAPM, and the RP methods in analyzing the Company's cost of equity (VWPA Statement No. 4, p. 3, lines 2-4) and his

[15] Blue Chip Financial Forecasts, Vol. 43, No. 4, April 1, 2024, p. 2.

calculated common equity cost rates are 9.45% (DCF), 11.75% (CAPM), and 11.35% (RP) (VWPA Statement No. 4, p. 4, lines 1-2). Based on the application of multiple models to the market data of the Utility Proxy Group results, Mr. Walker opines that 10.80% is a reasonable cost of equity for VWPA. He also relied on Value Line's projected earned returns on common equity for his comparable utilities group average result of 10.70% and the median result of 10.30% (VWPA Statement No. 4, p. 4, lines 7-10).

I&E RECOMMENDATION

Q. WHAT IS YOUR RECOMMENDED COST OF COMMON EQUITY FOR VWPA?

A. Based upon my analysis, I recommend a cost of common equity of 9.34% for VWPA's water and wastewater operations (I&E Exhibit No. 2, Schedule 1).

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. My recommendation is based on the use of the DCF method. As explained below, I used my CAPM result only to present to the Commission a comparison to my DCF results. My DCF analysis uses the proxy group companies' spot dividend yield, a 52-week dividend yield, and earnings growth forecasts.

DISCOUNTED CASH FLOW

Q. PLEASE EXPLAIN YOUR DCF ANALYSIS.

A. My analysis employs the constant growth DCF model as portrayed in the following formula:

$$K = D_1/P_0 + g$$

Where:

K	=	Cost of equity
D_1	=	Dividend expected during the year
P_0	=	Current price of the stock
g	=	Expected growth rate

When a forecast of D_1 is not available, D_0 (the current dividend) must be adjusted by one half of the expected growth rate to account for changes in the dividend paid in period one. As forecasts for each company in my proxy group are available from Value Line, no dividends are adjusted for the purpose of my analysis.

Q. PLEASE EXPLAIN HOW YOU DEVELOPED THE DIVIDEND YIELDS USED IN YOUR DCF ANALYSIS.

A. A representative dividend yield must be calculated over a time frame that avoids the problems of both short-term anomalies and stale data series. For my DCF analysis, the dividend yield calculation places equal emphasis on the most recent spot and the 52-week average dividend yields. The following table summarizes

my dividend yield computations for the proxy group (I&E Exhibit No. 2, Schedule 4):

Proxy Group - Average Dividend Yields	
(a) Spot Dividend Yield	2.94%
(b) 52-week Average Dividend Yield	2.52%
(c) Average ((a +b) ÷ 2)	2.73%

Q. WHAT INFORMATION DID YOU RELY UPON TO DETERMINE YOUR EXPECTED GROWTH RATE?

A. I have used five-year projected growth rate estimates from Yahoo! Finance, Zacks, and Value Line.

Q. WHAT WERE THE RESULTS OF YOUR FORECASTED EARNINGS GROWTH RATES?

A. The expected average growth rates for my proxy group ranged from 4.60% to 10.40% with an overall average of 6.61% (I&E Exhibit No. 2, Schedule 5).

Q. WHAT ARE THE RESULTS OF YOUR DCF ANALYSIS BASED ON YOUR RECOMMENDED DIVIDEND YIELD AND GROWTH RATE?

A. The results of my DCF analysis are calculated as follows (I&E Exhibit No. 2, Schedule 6):

K	=	D_1/P_0	+	g
9.34%	=	2.73%	+	6.61%

CAPITAL ASSET PRICING MODEL

Q. PLEASE EXPLAIN YOUR CAPM ANALYSIS.

A. My analysis employs the traditional CAPM as portrayed in the following formula:

$$K = R_f + \beta(R_m - R_f)$$

Where:

K = Cost of equity

R_f = Risk-free rate of return

R_m = Expected rate of return on the overall stock market

β = Beta measures the systematic risk of an asset

Q. WHAT IS BETA AS EMPLOYED IN YOUR CAPM ANALYSIS?

A. Beta is a measure of the systematic risk of a stock in relation to the rest of the stock market. A stock's beta is estimated by calculating the linear regression of a stock's return against the return on the overall stock market. The beta of a stock with a price pattern identical to that of the overall stock market will equal one. A stock with a price movement that is greater than the overall stock market will have a beta that is greater than one and would be described as having more investment

risk than the market. Conversely, a stock with a price movement that is less than the overall stock market will have a beta of less than one and would be described as having less investment risk than the overall stock market.

Q. HOW DID YOU DETERMINE YOUR BETA FOR YOUR CAPM ANALYSIS?

A. In estimating an equity cost rate for my proxy group of six water companies, I used the average of the betas for the proxy group companies as provided in the Value Line Investment Survey. The average beta for my proxy group is 0.83 (I&E Exhibit No. 2, Schedule 7).

Q. WHAT RISK-FREE RATE OF RETURN HAVE YOU USED FOR YOUR FORECASTED CAPM ANALYSIS?

A. I have chosen to use the risk-free rate of return (R_f) from the projected yield on 10-year Treasury Notes. The yield on the short-term T-Bill is a more theoretically correct parameter to represent a risk-free rate of return, however, it can be extremely volatile. The volatility of short-term T-Bills is directly influenced by Federal Reserve policy. At the other extreme, the 30-year Treasury Bond exhibits more stability but is not risk-free. Long-term Treasury Bonds have substantial maturity risk associated with market risk and the risk of unexpected inflation. Long-term treasuries normally offer higher yields to compensate investors for these risks. As a result, I chose to use the yield on the 10-year Treasury Note

because it mitigates the shortcomings of the other two alternatives. Additionally, the Commission has historically agreed with I&E and recognized the 10-year Treasury Note as the superior measure of the risk-free rate of return.[16]

The forecasted yield on the 10-year Treasury Note, as seen in Blue Chip Financial Forecasts, is expected to range between 3.80% and 4.00% from the third quarter of 2024 through the third quarter of 2025, and it is forecasted to be 3.90% from 2025-2029. For my forecasted CAPM analysis, I used 3.88%, which is the average of all the yield forecasts I observed (I&E Exhibit No. 2, Schedule 8).

Q. HOW DID YOU DETERMINE THE RETURN ON THE OVERALL STOCK MARKET EMPLOYED IN YOUR FORECASTED CAPM ANALYSIS?

A. To arrive at a representative expected return on the overall stock market, I observed Value Line's 1700 stocks and the historical S&P 500 returns. Value Line expects its universe of 1700 stocks to have an average yearly return of 11.83% over the next three to five years based on a forecasted dividend yield of 2.10% and a yearly index appreciation of 45%. The S&P 500 index has an average yearly return of 12.16% over the past 98 years (1926-2023) and the trendline for the returns over the past 98 years has been relatively flat. Therefore,

[16] *Pa. PUC v. UGI Utilities, Inc. - Electric Division;* Docket No. R-2017-2640058 (Order Entered October 25, 2018). *See generally* Disposition of Capital Asset Pricing Model (CAPM), p. 99; *Pa. PUC v. Aqua Pennsylvania, Inc.,* Docket Nos. R-2021-3027385 & R-2021-3027386, p. 154 (Order Entered May 16, 2022); *Pa. PUC v. Columbia Water Company*, Docket No. R-2023-3040258 (Order Entered January 18, 2024). *See generally* Disposition of Cost of Common Equity, pp. 107-108.

I believe it is reasonable to utilize this data in my calculation of the expected overall market return. I have averaged these two figures, which results in an estimated or expected market return of 12.00% [(11.83% + 12.16%) ÷ 2] (I&E Exhibit No. 2, Schedule 9, pp. 1-3).

Q. WHAT IS THE COST OF EQUITY RESULT FROM YOUR CAPM ANALYSIS?

A. The result of my CAPM analysis is as follows (I&E Exhibit No. 2, Schedule 10):

K	$=$	R_f	$+$	$\beta(R_m - R_f)$
10.62%	$=$	3.88%	$+$	0.83 (12.00% - 3.88%)

Q. DO YOU HAVE ANY ADDITIONAL COMMENTS REGARDING YOUR CAPM ANALYSIS?

A. Yes. As discussed earlier in my testimony, my recommended cost of equity is based upon my DCF analysis. For the multiple reasons I explained above, I only present a CAPM analysis to the Commission as a comparison and not for recommendation purposes. It must also be recognized that CAPM inputs are highly subjective, and other than beta, they are not company or industry specific.

Q. IS IT NECESSARY TO APPLY THE CAPM WITH SIMILAR WEIGHT TO THE DCF WHEN DETERMINING A SPECIFIC RETURN ON EQUITY DUE TO RECENT INFLATIONARY TRENDS AND HIGHER INTEREST RATES?

A. No. I have previously addressed the potential inflation and interest rates concerns. My use of the DCF as a primary method in determining an appropriate return on equity sufficiently considers the recent inflationary trends and current capital market conditions. As mentioned above, the DCF includes a spot stock price in the dividend yield calculation and analysts who determine forecasted earnings growth should take inflation and capital market conditions into consideration as well, so it contains the most up-to-date projected information of any model. In other words, the inputs of the DCF capture all known economic factors including inflation.

Q. HAVE YOU QUANTIFIED THE NUMBER OF BASIS POINTS BETWEEN YOUR DCF AND CAPM RESULTS TO ILLUSTRATE THE FINANCIAL IMPACT BETWEEN USING EACH MODEL?

A. Yes. The difference between my DCF and CAPM analysis is 128 basis points (CAPM result of 10.62% - DCF result of 9.34% = 1.28% difference). As demonstrated below, relying on the results of the CAPM is unnecessary and places undue hardship on VWPA's ratepayers.

Q. BASED ON THE COMPANY'S CLAIMED RATE BASE AND CAPITAL STRUCTURE, WHAT IS THE VALUE OF AN ADDITIONAL 128 BASIS POINTS TO THE COST OF EQUITY BASED ON THE DIFFERENCE IN RESULTS BETWEEN YOUR CAPM ANALYSIS (10.62%) AND YOUR DCF ANALYSIS (9.34%)?

A. The example below illustrates the impact of 128 additional basis points to the Company's cost of equity if the results of my CAPM analysis, rather than my DCF results were applied to the Company's claimed FPFTY rate base and capital structure for the water and wastewater operations:

Water Operations:

VWPA's Claimed Equity Percentage of Capital Structure*	54.00%
Difference in Return on Equity between I&E's CAPM and DCF Analysis (10.62 – 9.34% = 1.28%)	1.28%
Claimed Rate Base **	$356,215,489
Impact Prior to Gross Up (0.54 x 0.0128 x $356,215,489)	$2,462,161
VWPA Claimed Gross Revenue Conversion Factor***	1.42304
Total Impact to Ratepayers ($2,462,161 x 1.42304)	**$3,503,754**

* VWPA Exhibit HW-1, Schedule 1.
** VWPA Exhibit GRH-2, Schedule 1, pp. 2-3.
*** I&E Exhibit No. 2, Schedule 11, pp. 1-2.

Wastewater Operations:

VWPA's Claimed Equity Percentage of Capital Structure*	54.00%
Difference in Return on Equity between I&E's CAPM and DCF Analysis (10.62 – 9.34% = 1.28%)	1.28%
Claimed Rate Base **	$5,726,940
Impact Prior to Gross Up (0.54 x 0.0128 x $5,726,940)	$39,585
VWPA Claimed Gross Revenue Conversion Factor***	1.41536
Total Impact to Ratepayers ($39,585 x 1.41536)	**$56,027**

* VWPA Exhibit HW-1, Schedule 1.
** VWPA Exhibit GRH-4, Schedule 1.1.
*** I&E Exhibit No. 2, Schedule 11, pp. 1-2.

In this example, an addition of 128 basis points (1.28%) to the cost of equity would burden water and wastewater ratepayers to fund additional annual amounts of $3,503,754 and $56,027 respectively to cover the increase of the inflated rate of return along with the associated impact resulting from increases to income taxes.

Q. DOES THE FINANCIAL IMPACT THAT RATEPAYERS WOULD BEAR TO FUND THIS ADDITIONAL AMOUNT OF $3,559,781 ($3,503,754 + $56,027) ANNUALLY DEMONSTRATE THAT IT IS INAPPROPRIATE TO USE THE CAPM TO ESTABLISH A "ZONE OF REASONABLENESS" IN THIS PROCEEDING?

A. Yes. In this proceeding, a 128-basis-point impact of CAPM results would be unwarranted and inappropriate. In my opinion, and as demonstrated by my analysis, any amount granted above the DCF results (9.34% based on my recommendation) is not justified because it places an inappropriate burden on water

and wastewater ratepayers for the additional revenue impact of $3,559,781. Therefore, I continue assert that it is inappropriate to use the CAPM as the top end of a range in this proceeding.

CRITIQUE OF MR. WALKER'S PROPOSED COST OF EQUITY

Q. DO YOU AGREE WITH MR. WALKER'S PROPOSED COST OF EQUITY?

A. No. I disagree with Mr. Walker's proposed cost of equity analysis for several reasons. First, I disagree with weights given to the results of his DCF, CAPM, and RP analyses in his recommendation. Second, I disagree with his reliance on the 30-year Treasury Bond for his risk-free rate. Third, I disagree with Mr. Walker's applying a leverage adjustment of 0.75% to account for difference between the market value derived cost rates and book value cost rates due to difference in Market to Book (M/B) Capitalization Ratio to his market determined DCF, CAPM, and RP analysis results. The following table summarizes Mr. Walker's ROE results relative to his proxy group results (VWPA Statement No. 4, p. 58, lines 20-22, p. 63, lines 3-8, and p. 69, line 20 through p. 70, line 3 and VWPA Exhibit HW-1, Schedule 19):

	Analysis Results	M/B Ratio Leverage Adjustment	Adjusted Results
DCF	8.70%	0.75%	9.45%
CAPM	11.00%	0.75%	11.75%
RP	10.60%	0.75%	11.35%
Recommended ROE based on the adjusted results: 10.80%			

DISCOUNTED CASH FLOW

Q. PLEASE SUMMARIZE MR. WALKER'S DCF ANALYSIS.

A. Mr. Walker uses an average of historic dividend yields of 2.40% after adjusting for growth in dividend and average of growth rate of 6.30% of his proxy group companies, which results in DCF of 8.70% (VWPA Exhibit HW-1, Schedule 12 and 13). He then applies the M/B ratio leverage adjustment of 0.75% to the DCF result of 8.70% that results in adjusted DCF result of 9.45%.

Q. DO YOU AGREE WITH MR. WALKER'S ADJUSTED DCF ANALYSIS?

A. No. It is inappropriate to inflate DCF results by applying the M/B ratio leverage adjustment of 0.75% to the DCF result of 8.70%. I will discuss the M/B Capitalization Ratio and leverage adjustment impact in the cost of equity analysis in a subsequent section below.

WEIGHTS GIVEN TO THE CAPM AND RP MODELS

Q. DO YOU AGREE WITH MR. WALKER'S RELIANCE ON THE CAPM AND RP MODELS?

A. No. While I am not opposed to providing the Commission the results of the CAPM for a point of comparison to the results of the DCF calculation, I am opposed to giving the CAPM and RP results considerable weight. For the reasons discussed above, including my reference to recent Commission orders, it is not appropriate to give the CAPM and RP models similar weight to the DCF as Mr. Walker has done in creating his recommended cost of equity of 10.80% (VWPA Statement No. 4, p. 70, lines 7-10 and VWPA Exhibit HW-1, Schedule 19). As discussed above, the CAPM measures the cost of equity indirectly and can be manipulated by the time period chosen. Since the RP is a simplified version of the CAPM, it suffers these same flaws. In effect, Mr. Walker blends the RP approach into the DCF and CAPM models to calculate the risk premium estimates using the Value Line, S&P Public Utilities, and S&P 500 market return data (VWPA Exhibit HW-1, Schedules 17 and 18).

In response to I&E-RR-12-D, Mr. Walker states that he has not conducted an exhaustive study of the Commission's orders where the Commission relied upon an RP analysis to determine an appropriate cost of equity in a base rate proceeding (I&E Exhibit No. 2, Schedule 12).

Q. DO YOU AGREE WITH MR. WALKER'S CAPM AND RP ANALYSIS RESULTS?

A. No. As discussed above, I disagree with Mr. Walker's reliance on CAPM results of 11.75% and RP results of 11.35% in recommending 10.80% ROE for VWPA, which includes an M/B ratio leverage adjustment of 0.75%. I discuss the M/B ratio and leverage adjustment impact in the cost of equity analysis below.

RISK-FREE RATE

Q. WHAT RISK-FREE RATE DOES MR. WALKER USE IN HIS CAPM AND RP MODELS?

A. Mr. Walker calculates his risk-free rate of 4.10% based on the average of treasury bonds future contract rates (December 2023 - 4.14%, March 2024 - 4.11%, and June 2024 - 4.06%) traded on the Chicago Boards of Trade (CBOT) at the close of December 18, 2023 (VWPA Exhibit HW-1, Schedule 11, p. 7). He did not specify the long-term treasury bond maturity period; however, it appears he used the 30-year treasury bonds yield in his risk-free rate calculation.

Q. DO YOU AGREE WITH MR. WALKER'S USE OF THE LONG-TERM TREASURY BONDS (30-YEAR) YIELDS TO DETERMINE THE RISK-FREE RATE?

A. No. As discussed above, long-term Treasury Bonds have substantial maturity risk associated with the market risk, the risk of unexpected inflation, and normally

offer higher yields to compensate investors for these risks. Using the 10-year Treasury Note is more appropriate to balance the short-term volatility risk and the long-term inflation risk.

MARKET TO BOOK RATIO

Q. WHAT DOES MR. WALKER CLAIM REGARDING IMPACT OF MARKET-TO-BOOK RATIOS IN THIS PROCEEDING?

A. Mr. Walker states that the traditional DCF derived cost rate for common equity will continuously understate or overstate investors' return requirements as long as stock prices continually sell above book value (M/B > 1) or below book value (M/B < 1) (VWPA Statement No. 4, p. 48, lines 14-16). Therefore, he recommends that less weight be given to the market value DCF cost rate unless the increased financial risk, resulting from applying a market value cost rate to a book value capitalization is accounted for (VWPA Statement No. 4, p. 52, lines 13-16).

He uses two Hamada models including the original Hamada formula and the Harris-Pringle formula to account for the change in common equity ratio that results from the difference in market value capitalization to book value capitalization (VWPA Statement No. 4, p. 55, lines 17-21 and VWPA Exhibit HW-1, Schedule 16).

He then states that, hypothetically, if the Comparable Group's debt were rated based on market value debt ratios, they would command an "Aaa" rating. The Comparison Group currently has bonds rated "A" based upon their book value

debt ratios. The yield spread on a bond rated "Aaa" versus "A" rated bonds averages about 54 basis points or 0.54% as shown on Schedule 16, p. 3 (VWPA Statement No. 4, p. 58, lines 9-14).

Q. WHAT DOES MR. WALKER RECOMMEND FOR A FINANCIAL RISK LEVERAGE ADJUSTMENT TO HIS DCF AND CAPM RESULTS TO ACCOUNT FOR THE IMPACT OF AN M/B RATIO ABOVE 1.0?

A. Based on the average of end results (0.94%) of the application of the Hamada Model (1.15%) and Harris Pringle Model (0.73%) and the bond yield spread of 0.54%, Mr. Walker recommends that the Water Group common equity cost rates should be adjusted for the financial risk leverage upward by at least 0.75% (0.94% Hamada estimate + 0.54% bond yield spread = 1.48% ÷ 2 = 0.74%) to account for the difference in the M/B ratio (VWPA Statement No. 4, p. 58, lines 15-19).

Accordingly, he adjusts his Water Group cost of equity analysis results as follows: (a) DCF results of 8.70% to 9.45% (8.70% + 0.75%) (VWPA Statement No. 4, p. 58, line 22); (b) CAPM results of 11.00% to 11.75% (11.00% + 0.75%) (VWPA Statement No. 4, p. 63, lines 3-8); and (c) RP results of 10.60% to 11.35% (10.60% + 0.75%) (VWPA Statement No. 4, p. 69, line 20 through p. 70, line 3).

Q. DOES AN M/B RATIO ABOVE ONE (1.0) CAUSE THE COST OF EQUITY RESULTS TO INCORRECTLY ESTIMATE THE INVESTOR-REQUIRED RETURN ON EQUITY?

A. No. Although there are differences between the book value and market value capitalizations of water utilities, there is no need to consider any leverage adjustments or adder to the market determined DCF, CAPM, and RP results in this proceeding for the reasons discussed below. First, the forecasted growth rates used in the DCF analysis are set by analysts based on current conditions and what they expect the future could be for the stock. Second, Mr. Walker points out that historically (for a 24-year period) the market-to-book ratios for the S&P 500 stocks have ranged from 192% to 490% and utility stocks have also followed the same direction (VWPA Statement No. 4, p. 51). In this scenario, no rational investor would invest in a utility stock that has been trading above book value for several years knowing that the utility's market determined equity return rate is applied on the book value capital structure or capitalization ratio. Third, in traditional ratemaking, utilities' rates are set by applying the market determined cost of capital to the book value capital structure and the financial research analysts and credit rating agencies consider this factor when performing their financial analyses and projections. Fourth, an M/B ratio of above 1.0 for utility stocks reflects their value in the market and implies that investors expect future cash flows to be more valuable than the historical accounting value of the company. Since the stock market is impacted by regulatory policies and economic

and financial conditions, an M/B ratio could be less than 1.0 when the stock market is in a depression, or a company is experiencing financial under-performance.

Therefore, I reiterate that it is inappropriate to evaluate market determined cost of equity results with the M/B ratio and apply a financial risk leverage adjustment as an adder to the market determined DCF, CAPM, and RP results in this proceeding.

Q. PLEASE CONTINUE.

A. First, Mr. Walker acknowledges that the end result of a financial risk leverage adjustment for an M/B ratio difference is very subjective, and its specific quantification is very difficult, and therefore, he relies on the general direction of a financial risk adjustment on the common equity cost rate (VWPA Statement No. 4, p. 58, lines 4-8). Second, in response to I&E-RR-8-D and 9-D, Mr. Walker acknowledges that he has not conducted an exhaustive study or is unaware of the Commission's orders that specifically relied on the impact that the difference in a M/B ratio has on the DCF results and gave less weight to the DCF results in recommending an ROE for any utilities for this specific reason (I&E Exhibit No. 2, Schedule 13, p. 1). He also acknowledges that he has not conducted an exhaustive study or is unaware of the Commission's orders where the Commission has specifically awarded a financial risk leverage adjustment to the DCF results or in the ROE to recognize difference in M/B ratio impact (I&E Exhibit No. 2,

Schedule 13, p. 2). Lastly, in response to I&E-RR-11-D, Mr. Walker acknowledges that he has not conducted an exhaustive study or is unaware of the Commission's orders that specifically approved a financial risk leverage adjustment to the CAPM results or in the ROE to recognize an M/B ratio impact (I&E Exhibit No. 2, Schedule 13, p. 3).

Q. BASED ON THE COMPANY'S CLAIMED RATE BASE AND CAPITAL STRUCTURE, WHAT IS THE VALUE OR IMPACT OF AN ADDITIONAL 75 BASIS POINTS (0.75%) TO THE COST OF EQUITY BASED ON A FINANCIAL RISK LEVERAGE ADJUSTMENT FOR THE DIFFERENCE IN M/B RATIO?

A. The example below illustrates the impact of 75 additional basis points to the Company's cost of equity if applied to the Company's claimed FPFTY rate base and capital structure for water and wastewater operations:

Water Operations:

VWPA's Claimed Equity Percentage of Capital Structure*	54.00%
M/B Ratio Financial Risk Leverage Adjustment/Adder in the Cost of Equity	0.75%
Claimed Rate Base **	$356,215,489
Impact Prior to Gross Up (0.54 x 0.0075 x $356,215,489)	$1,442,673
VWPA Claimed Gross Revenue Conversion Factor***	1.42307
Total Impact to Ratepayers ($1,442,673 x 1.42307)	**$2,053,025**

* VWPA Exhibit HW-1, Schedule 1.
** VWPA Exhibit GRH-2, Schedule 1, pp. 2-3.
*** I&E Exhibit No. 2, Schedule 11, pp. 1-2.

Wastewater Operations:

VWPA's Claimed Equity Percentage of Capital Structure*	54.00%
M/B Ratio Financial Risk Leverage Adjustment/Adder in the Cost of Equity	0.75%
Claimed Rate Base **	$5,726,940
Impact Prior to Gross Up (0.54 x 0.0075 x $5,726,940)	$23,194
VWPA Claimed Gross Revenue Conversion Factor***	1.41536
Total Impact to Ratepayers ($23,194 x 1.41536)	**$32,828**

* VWPA Exhibit HW-1, Schedule 1.
** VWPA Exhibit GRH-4, Schedule 1.1.
*** I&E Exhibit No. 2, Schedule 11, pp. 1-2.

In this example, an addition of 75 basis points (0.75%) to the cost of equity would burden water and wastewater ratepayers to fund additional annual amounts of $2,053,025 and $32,828 respectively to cover the increase of the inflated rate of return along with the associated impact resulting from increases to income taxes.

BUSINESS RISK ANALYSIS

Q. SUMMARIZE MR. WALKER'S DISCUSSION REGARDING BUSINESS RISK ANALYSIS.

A. First, Mr. Walker states that VWPA and the comparable companies (in the water proxy group) have similar risks and are indistinguishable. Both are required to meet the Clean Water Act and Safe Drinking Water Act requirements and are also required to provide safe and reliable service to customers and comply with the Commission's regulations (VWPA Statement No. 4, p. 29, lines 11-15). Second, he states that the Comparable Group has an "A" credit profile and VWPA does not

have bonds rated. However, VUR (the parent company) has an "A" credit profile (VWPA Statement No. 4, p. 30, lines 11-13). He concludes that overall, the information summarized in Table 5 indicates that VWPA has similar investment risk to the Water Group (VWPA Statement No. 4, p. 34, line 20 through p. 35, line 2).

Q. WHAT IS YOUR RESPONSE TO MR. WALKER'S BUSINESS RISK ANALYSIS?

A. I agree with Mr. Walker's conclusion that VWPA has similar regulatory risk, credit rating risk, and investment risk to his comparable water group companies. This signifies that though VWPA is smaller in size, the business risk profile remains similar to the large size companies of his Water Group.

<u>FINANCIAL RISKS</u>

Q. SUMMARIZE MR. WALKER'S DISCUSSION REGARDING FINANCIAL RISK ANALYSIS.

A. First Mr. Walker states that reviewing VWPA's various cash flow coverages reveals that VWPA has had higher levels of coverage than the comparable Water Group companies (VWPA Statement No. 4, p. 21, lines 8-9). Moreover, the evidence from the various financial ratios shows that VWPA's risks are similar to the comparable Water Group companies, but less than the larger S&P Utilities Group (VWPA Statement No. 4, p. 21, lines 17-19). Second, he states that the

Water Group's average issuer credit ratings and common stock rankings are higher than the S&P Utilities Group (VWPA Statement No. 4, p. 22, lines 11-12).

Q. WHAT IS YOUR RESPONSE TO MR. WALKER'S FINANCIAL RISK ANALYSIS?

A. I agree with Mr. Walker's conclusion that VWPA's financial risks are less and/or similar to the risks of the comparable Water Group companies.

SMALL SIZE RISK

Q. SUMMARIZE MR. WALKER'S DISCUSSION REGARDING SMALL SIZE RISK ANALYSIS.

A. First, Mr. Walker states that the size difference between VWPA and the Comparable Group companies is an indicator of investment risk. Therefore, he opines, a smaller company requires employment of proportionately less financial leverage (i.e., debt and preferred capital) than a larger company to balance out investment risk (VWPA Statement No. 4, p. 25, lines 2-4). Second, he states that the loss of a large customer will impact a small company much more than a large company because a large customer of a small company usually accounts for a larger percentage of the small company's sales (VWPA Statement No. 4, p. 25, lines 11-13). Thus, he asserts that a larger company with a more diverse customer base is less susceptible to downturns associated with regional economic conditions than a small company (VWPA Statement No. 4, p. 26, lines 3-5).

Q. WHAT IS YOUR RESPONSE TO MR. WALKER'S SMALL SIZE RISK ANALYSIS?

A. First, Mr. Walker's claim regarding the need for a higher equity capitalization ratio to balance out investment risk is unsupported. It is important to note that VWPA's claimed equity ratio of 54% is higher than the average equity capitalization ratio of my proxy group (I&E Exhibit No. 2, Schedule 2). Second, the opinion that the loss of a large customer will impact a small company much more than a large company is unsupported because there is no evidence that VWPA has lost a large customer recently to demonstrate its impact on financial results. Third, as discussed in the Business Risk Analysis section above, Mr. Walker acknowledges that VWPA has similar regulatory risk, credit rating risk, and investment risk as compared to his comparable Water Group companies. Additionally, as stated above, Mr. Walker acknowledges that VWPA's financial risks are less and/or similar to the risks of the comparable Water Group companies. Regarding the credit ratings, the comparable Water Group has an "A" credit profile and VUR (the parent company) has a similar "A" rated credit profile and VWPA relies on VUR for all capital requirements. Considering all these facts, Mr. Walker's claim for VWPA's smaller size risk concern is invalidated and unsupported because VWPA's business and financial risk profile is similar to the large size companies of his Water Group.

Finally, Mr. Walker acknowledges that he has not conducted an exhaustive study or is unaware of the Commission's orders where the Commission has

specifically approved a small size premium adjustment to the CAPM results or to the ROE to recognize a small size impact (I&E Exhibit No. 2, Schedule 14).

Q. DO YOU AGREE WITH MR. WALKER'S SMALL SIZE RISK ADJUSTMENT OF 0.70% REFLECTED IN THE CAPM RESULTS?

A. No. I disagree with Mr. walker's inappropriate and unwarranted adjustment of 0.70% for a small size risk adjustment in the CAPM analysis (VWPA Exhibit HW-1, Schedule 17, p. 1) for the reasons discussed above. Mr. Walker's CAPM analysis result is summarized below:

K	=	R_f	+	β $(R_m - R_f)$	+	Small Size Adjustment
11.00%	=	4.1%	+	0.82 (7.5%)	+	0.70%

Q. WHAT WOULD MR. WALKER'S CAPM RESULT BE WITHOUT SMALL SIZE RISK ADJUSTMENT?

A. Mr. Walker's CAPM result would be 10.25%. This is lower than my CAPM result of 10.62% (37 basis points lower). The calculation is repeated below without Mr. Walker's inappropriate and unsupported size adjustment in the CAPM results:

K	=	R_f	+	β $(R_m - R_f)$	+	Small Size Adjustment
10.25%	=	4.10%	+	0.82 (7.50%)	+	0.00%

Q. IS THERE ACADEMIC EVIDENCE THAT SUPPORTS YOUR CONCLUSION THAT THE SIZE ADJUSTMENT FOR RISK IS NOT APPLICABLE TO UTILITY COMPANIES?

A. Yes. In the article "Utility Stocks and the Size Effect: An Empirical Analysis," Dr. Annie Wong concludes,

> The objective of this study is to examine if the size effect exists in the utility industry. After controlling for equity values, there is some weak evidence that firm size is a missing factor from the CAPM for the industrial but not for utility stocks. This implies that although the size phenomenon has been strongly documented for the industriales, the findings suggest that there is no need to adjust for the firm size in utility rate regulation.[17]

VWPA presents no evidence to support application of a size adjustment for risk to a utility setting. Absent any credible article to refute Dr. Wong's findings, Mr. Walker's size adjustment to his CAPM results should be rejected. The size premium data based on market capitalization is not reliable because for certain periods, large-capitalization stocks outperform mid-capitalization stocks and vice-versa, and it is difficult to establish a sufficient correlation to prove that size is a specific risk for utilities.

Additionally, the Commission has recently rejected the application of a size adjustment to the CAPM cost of equity calculation where it agreed that the same literature the Company cites is not specific to the utility industry.[18]

---

[17] Dr. Annie Wong, "Utility Stocks and the Size Effect: An Empirical Analysis," *Journal of Midwest Finance Association* (1993), pp. 95-101.

[18] *Pa. PUC v. UGI Utilities, Inc. - Electric Division*, Docket No. R-2017-2640058 (Order entered October 25, 2018), p. 100 (Disposition of Cost of Common Equity).

OVERALL RATE OF RETURN RECOMMENDATION

Q. WHAT IS THE COMPANY'S PROPOSED COST OF EQUITY AND OVERALL RATE OF RETURN?

A. The Company recommends a cost of equity of 10.80% and an overall rate of return of 7.95% for both water and wastewater operations.

Q. WHAT IS I&E'S RECOMMENDED COST OF EQUITY AND OVERALL RATE OF RETURN FOR VWPA?

A. I&E Exhibit No. 2, Schedule 1, shows the calculation of an appropriate cost of equity for VWPA to be 9.34% and overall rate of return of 7.16% for its water and wastewater operations.

FINAL COMMENTS

Q. DO YOU HAVE ANY FINAL COMMENTS REGARDING THE COMPANY'S PROPOSED RETURN ON EQUITY?

A. Yes. First, the Company's requested 10.80% return on common equity is 115 basis points (1.15%) higher than the Commission's latest approved DSIC incentive ROE of 9.65% (Q4 2023 Quarterly Earnings Summary Report)[19] for water utility companies. The DSIC rate is designed to encourage its use and to incentivize accelerated pipeline replacement and infrastructure upgrades to bring

19 PA Public Utility Commission, Bureau of Technical Utility Services Report on the Quarterly Earnings of Jurisdictional Utilities for the Year Ended December 31, 2023, approved at Public Meeting on May 9, 2024, at Docket No. M-2024-3048688.

the existing aging infrastructure closer to meeting safety and reliability requirements in-between base rate filings. Additionally, it is my understanding that the DSIC rate establishes a benchmark above which a utility company is considered "overearning." As such, the DSIC rate does not serve as a proper measurement or proxy of a subject utility's cost of equity in a rate case proceeding.

Finally, considering the impact PAWC's claimed ROE of 10.80% would have on rates, I believe it is important not to overburden ratepayers. As illustrated in various charts above, any additional basis points beyond the I&E recommended ROE of 9.34% based on a DCF (a market-determined) result are unnecessary and will put an enormous burden on ratepayers.

Finally, while I am aware of the rising costs of capital due to the aftereffects of the pandemic and inflation, I believe it is equally important not to overburden ratepayers. As detailed in various charts above, the effect of Mr. Walker's adjustments to the market-determined cost of common equity are an enormous burden to ratepayers and are completely unwarranted and unnecessary.

Without the adjustments disputed above, Mr. Walker's market determined cost of equity results are 8.70% and 10.25% for the DCF and CAPM, which are lower than my analysis results of 9.34% and 10.62% for the DCF and CAPM.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

D. C. Patel
Professional and Educational Background

EXPERIENCE:

- Pennsylvania Public Utility Commission, Harrisburg, Pennsylvania
  June 2015 to Present
  Fixed Utility Financial Analyst, Bureau of Investigation and Enforcement
- Pennsylvania Insurance Department, Harrisburg, Pennsylvania
  March 2013 - June 2015
  Insurance Company Financial Analyst, Bureau of Company Licensing & Financial Analysis
- Pennsylvania Department of Revenue, Harrisburg, Pennsylvania
  November 2010 - March 2013
  Accounting Assistant, Bureau of Corporation Taxes (Accounting)
- Hersha Hospitality Management, Harrisburg, Pennsylvania
  June 2007 - November 2010
  Staff Accountant (Taxes), Accounting Department
- Corporate Experience-India
  February 1987 - April 2007
  Worked as Company Secretary for three different companies during this period, which were listed on the Stock Exchanges.

EDUCATION/CERTIFICATION:

- Gujarat State University, Ahmedabad, India:
  Bachelor of Commerce (Major concentration: Accounting)
  June 1980 - April 1983
  Bachelor of Law
  June 1983 - December 1988
- The Institute of Company Secretaries of India, New Delhi, India:
  Post Graduate Professional Degree: Company Secretary
  June 1983 - December 1985

RATE CASE TRAINING:

- Attended SURFA - 54th Financial Forum (ROR) in April 2023
- Attended 37th Western NARUC Utility Rate School in May 2016

WORKED ON THE FOLLOWING CASES (Testimony not required):

- R-2022-3032167 - Columbia Gas of Pennsylvania, Inc. (Green Path Rider)
- R-2022-3031172 - Columbia Gas of Pennsylvania, Inc. (1307(f))
- R-2021-3024349 - Columbia Gas of Pennsylvania, Inc. (1307(f))
- R-2021-3023541 - National Fuel Gas Distribution Corporation (§ 1307(f))
- A-2020-3021460 - PA American Water Co.-Upper Pottsgrove-Wastewater (1329)
- A-2020-3020178 - PA American Water Co.-Valley Township-Wastewater (1329)
- A-2020-3019859 - PA American Water Co.-Valley Township-Water (1329)
- R-2020-3019661 - PECO Energy Co. - Gas Operations (1307(f))
- U-2020-3015258 - Pittsburgh Water and Sewer Authority
- R-2019-3008255 - Columbia Gas of Pennsylvania, Inc. (1307(f))
- R-2018-3001568 - PECO Energy Co. - Gas Operations (1307(f))
- R-2018-3000253 - Columbia Gas of Pennsylvania, Inc. (1307(f))
- R-2017-2631441 - Reynolds Water Co.
- A-2017-2629534 - PPL Electric Utilities (Restructuring Plan)
- R-2017-2602611 - PECO Energy Co. - Gas Operations (1307(f))
- R-2016-2567893 - Andreassi Gas Co.
- R-2016-2525128 - Columbia Water Co. - Marietta Division
- R-2015-2493905 - Sands, Inc.
- R-2015-2479962 - Corner Water Supply and Service Corporation
- R-2015-2479955 - Allied Utility Services, Inc.

SUBMITTED TESTIMONY IN THE FOLLOWING CASES:

- R-2023-3042804 et al. Community Utilities of Pennsylvania , Inc.
- R-2023-3043189 et al. PA American Water Co.
- R-2023-3038630 Columbia Gas of Pennsylvania, Inc. (1307(f))
- R-2023-3037933 Philadelphia Gas Works
- R-2022-3037368 UGI Electric, Inc. - Electric Division
- A-2022-3034143 Aqua Pennsylvania, Inc. - Borough of Shenandoah (Water System) (1329)
- R-2022-3031672 and R-2022-3031673 - PA American Water Co.
- R-2022-3031211 - Columbia Gas of Pennsylvania, Inc.
- R-2021-3024773 et al. - Pittsburgh Water and Sewer Authority
- A-2021-3024058- PA American Water Co. - Borough of Brentwood (Wastewater System) - 1329
- A-2021-3024681 - PA American Water Co. - York City Sewer Authority/City of York (Wastewater System) (1329)
- R-2021-3024601 - PECO Energy Co. - Electric Operations

- A-2021-3024267 - Aqua Pennsylvania Wastewater, Inc. - Lower Makefield (WW) (1329)
- A-2020-3019634 - PA American Water Co. - Royersford Wastewater (1329)
- R-2020-3018993 - Columbia Gas Pennsylvania, Inc. (1307(f))
- R-2020-3018929 - PECO Energy Co. - Gas Operations
- R-2020-3017951 et al. - Pittsburgh Water and Sewer Authority
- A-2019-3008491 - Aqua Pennsylvania Wastewater, Inc.
- R-2019-3008212 - Citizens Electric Company of Lewisburg, PA
- R-2019-3008208 - Wellsboro Electric Company
- R-2018-3006814 - UGI Utilities, Inc. (Gas Division)
- R-2018-3002645 and 3002647 - Pittsburgh Water and Sewer Authority
- R-2018-3000834 - Suez Water Pennsylvania, Inc.
- R-2018-2647577 - Columbia Gas of Pennsylvania, Inc.
- M-2018-2640802 and M-2018-2640803 - Pittsburgh Water and Sewer Authority (Compliance Plan Stage 2)
- R-2017-2595853 - Pennsylvania American Water Co.
- R-2016-2580030 - UGI Penn Natural Gas, Inc.
- R-2016-2554150 - City of DuBois - Bureau of Water
- R-2016-2529660 - Columbia Gas of Pennsylvania, Inc.
- P-2016-2526627 - PPL Electric Utilities Corp. (DSP IV)

I&E Exhibit No. 2
Witness: D. C. Patel

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

VEOLIA WATER PENNSYLVANIA, INC.

Docket No. R-2024-3045192 (Water)
&
Docket No. R-2024-3045193 (Wastewater)

Exhibit to Accompany

the

Direct Testimony

of

D. C. Patel

Bureau of Investigation & Enforcement

Concerning:

Rate of Return

I&E
Summary of Cost of Capital - Water and Wastewater Operations
Veolia Water Pennsylvania, Inc.

Type of Capital	Ratio	Cost Rate	Weighted Cost
Long-Term Debt	46.00%	4.60%	2.12%
Common Equity	54.00%	9.34%	5.04%
Total	100.00%		7.16%

Proxy Group Capital Structure

($ in Millions)

	2023		2022		2021		2020		2019		Average
American States Water Company											
Long-term Debt	873,674	52.96%	476,637	40.18%	595,596	46.47%	584,184	47.66%	492,735	45.03%	46.46%
Preferred Stock	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.00%
Common Equity	776,109	47.04%	709,549	59.82%	685,947	53.53%	641,673	52.34%	601,530	54.97%	53.54%
	$ 1,649,783	100.00%	$ 1,186,186	100.00%	$ 1,281,543	100.00%	$ 1,225,857	100.00%	$ 1,094,265	100.00%	100.00%
American Water Works Company, Inc.											
Long-term Debt	11,791,000	54.62%	10,999,000	58.84%	10,424,000	58.82%	9,414,000	59.33%	8,733,000	58.79%	58.08%
Preferred Stock	-	0.00%	-	0.00%		0.00%		0.00%		0.00%	0.00%
Common Equity	9,797,000	45.38%	7,693,000	41.16%	7,298,000	41.18%	6,454,000	40.67%	6,121,000	41.21%	41.92%
	21,588,000	100.00%	18,692,000	100.00%	17,722,000	100.00%	15,868,000	100.00%	14,854,000	100.00%	100.00%
California Water Service Group											
Long-term Debt	1,065,373	42.75%	1,066,325	44.73%	1,069,395	47.59%	794,968	46.32%	799,682	50.63%	46.40%
Preferred Stock	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.00%
Common Equity	1,426,733	57.25%	1,317,590	55.27%	1,177,594	52.41%	921,344	53.68%	779,906	49.37%	53.60%
	2,492,106	100.00%	2,383,915	100.00%	2,246,989	100.00%	1,716,312	100.00%	1,579,588	100.00%	100.00%
Essential Utilities, Inc.											
Long-term Debt	6,860,510	53.78%	6,408,723	54.38%	5,827,734	52.92%	5,563,386	54.29%	2,954,972	43.23%	51.72%
Preferred Stock	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.00%
Common Equity	5,896,183	46.22%	5,377,386	45.62%	5,184,450	47.08%	4,683,877	45.71%	3,880,860	56.77%	48.28%
	12,756,693	100.00%	11,786,109	100.00%	11,012,184	100.00%	10,247,263	100.00%	6,835,832	100.00%	100.00%
Middlesex Water Company											
Long-term Debt	361,216	45.94%	293,986	42.22%	310,887	45.67%	278,286	44.41%	236,509	42.05%	44.06%
Preferred Stock	2,084	0.27%	2,084	0.30%	2,084	0.31%	2,084	0.33%	2,084	0.37%	0.31%
Common Equity	422,991	53.80%	400,328	57.49%	367,726	54.02%	346,208	55.25%	323,792	57.57%	55.63%
	786,291	100.00%	696,398	100.00%	680,697	100.00%	626,578	100.00%	562,385	100.00%	100.00%
SJW Group											
Long-term Debt	1,526,699	55.31%	1,491,965	57.32%	1,492,935	59.07%	1,287,580	58.40%	1,283,597	59.05%	57.83%
Preferred Stock	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	0.00%
Common Equity	1,233,397	44.69%	1,110,868	42.68%	1,034,519	40.93%	917,160	41.60%	889,984	40.95%	42.17%
	2,760,096	100.00%	2,602,833	100.00%	2,527,454	100.00%	2,204,740	100.00%	2,173,581	100.00%	100.00%
Five-Year Average Capital Structure											
Long-term Debt	50.76%		**Maximum**	58.08%	**Minimum**	44.06%					
Preferred Stock	0.05%										
Common Equity	49.19%		**Minimum**	41.92%	**Maximum**	55.63%					
	100.00%										

Source:
Compustat (S&P Global Market Intelligence - Data Management Solutions).
Yearly data updates typically provided late April or May of each year.

I&E Exhibit No. 2
Schedule 2

Proxy Group Debt Cost

Company	Interest Charges	2023 Long-Term Debt	Debt Cost
American States Water Company	$ 42.76	$ 873.67	4.89%
American Water Works Company, Inc.	484.00	11,791.00	4.10%
California Water Service Group	52.81	1,065.37	4.96%
Essential Utilities, Inc.	283.36	6,860.51	4.13%
Middlesex Water Company	13.14	361.22	3.64%
SJW Group	69.04	1,526.70	4.52%
	Range:	**Low**	**3.64%**
		High	**4.96%**
		Average	**4.37%**

Source:
Compustat (S&P Global Market Intelligence - Data Management Solutions).
Yearly data updates typically provided late April or May of each year.
Dollar amount in millions.

Mergent Bond Record
A-Rated Public Utility Bond Yields

Month	Yield
4/1/2023	5.13%
5/1/2023	5.36%
6/1/2023	5.38%
7/1/2023	5.41%
8/1/2023	5.71%
9/1/2023	5.86%
10/1/2023	6.34%
11/1/2023	5.96%
12/1/2023	5.42%
1/1/2024	5.48%
2/1/2024	5.56%
3/1/2024	5.55%
4/1/2024	5.79%
Average	**5.61%**

Source: Mergent Bond Record - Public Utility Bonds, p. 22 - 5/1/2024.

Dividend Yields of the Proxy Group

Company	American States Water Company	American Water Works Company, Inc.	California Water Service Group	Essential Utilities, Inc.	Middlesex Water Company	SJW Group
Symbol	*AWR*	*AWK*	*CWT*		*MSEX*	*SJW*
Dividend	1.95	3.20	1.20	1.35	1.40	1.68
52-wk low	68.80	114.25	44.76	32.07	48.05	53.95
52-wk high	95.08	153.43	61.59	45.29	84.38	81.86
Spot Price	70.33	120.02	46.51	36.28	48.93	54.89
Spot Div Yield	2.77%	2.67%	2.58%	3.72%	2.86%	3.06%
52-wk Div Yield	2.38%	2.39%	2.26%	3.49%	2.11%	2.47%
Average	**2.58%**	**2.53%**	**2.42%**	**3.61%**	**2.49%**	**2.77%**

	Average
Spot Div Yield	**2.94%**
52-wk Div Yield	**2.52%**
Average	**2.73%**

Sources:	Barrons	4/8/2024
	Value Line	4/8/2024

Five-Year Growth Estimate Forecast for Proxy Group (Actual)

Company	Symbol	Yahoo!	Zacks	Value Line	Average
		Source			
American States Water Company	AWR	4.40%	6.30%	6.50%	5.73%
American Water Works Company, Inc.	AWK	7.50%	8.00%	3.00%	6.17%
California Water Service Group	CWT	10.80%	NA	10.00%	10.40%
Essential Utilities, Inc.	WTRG	5.20%	5.80%	7.00%	6.00%
Middlesex Water Company	MSEX	2.70%	NA	6.50%	4.60%
SJW Group	SJW	7.50%	7.50%	6.50%	7.17%
Average		**6.35%**	**6.90%**	**6.58%**	**6.61%**

Sources date:
4/8/2024

Expected Market Cost Rate of Equity for the Proxy Group
5-Year Forecasted Growth Rates

	Time Period	Adjusted Dividend Yield (1)	Growth Rate (2)	Expected Return on Equity (3=1+2)
(1)	**52-Week Average Ending:** April 8, 2024	2.52%	6.61%	9.13%
(2)	**Spot Price Ending:** April 8, 2024	2.94%	6.61%	9.55%
(3)	**Average:**	**2.73%**	**6.61%**	**9.34%**

Sources: Value Line 4/8/2024
Barrons 4/8/2024

Company	**Beta**
American States Water Company	0.70
American Water Works Company, Inc.	0.95
California Water Service Group	0.75
Essential Utilities, Inc.	1.00
Middlesex Water Company	0.75
SJW Group	0.85
Average beta for CAPM	**0.83**

Source:
Value Line
04/08/24

Risk-Free Rate

10-Year Treasury Note	Yield
3Q 2024	4.00
4Q 2024	3.90
1Q 2025	3.90
2Q 2025	3.80
3Q 2025	3.80
2025-2029	3.90
Average	**3.88**

Source: Blue Chip Financial Forecasts
12/1/2023 & 4/1/2024

Required Rate of Return on Market as a Whole Forecasted

	Dividend Yield	+	Growth Rate	=	Expected Market Return
Value Line Estimate	2.10%		9.73%	(a)	11.83%
S&P 500 Historical Return					12.16%
Average Expected Market Return				=	**12.00%**

(a) ((1+45%)^.25)-1) Value Line forecast for the 3 to 5 year index appreciation is 45%

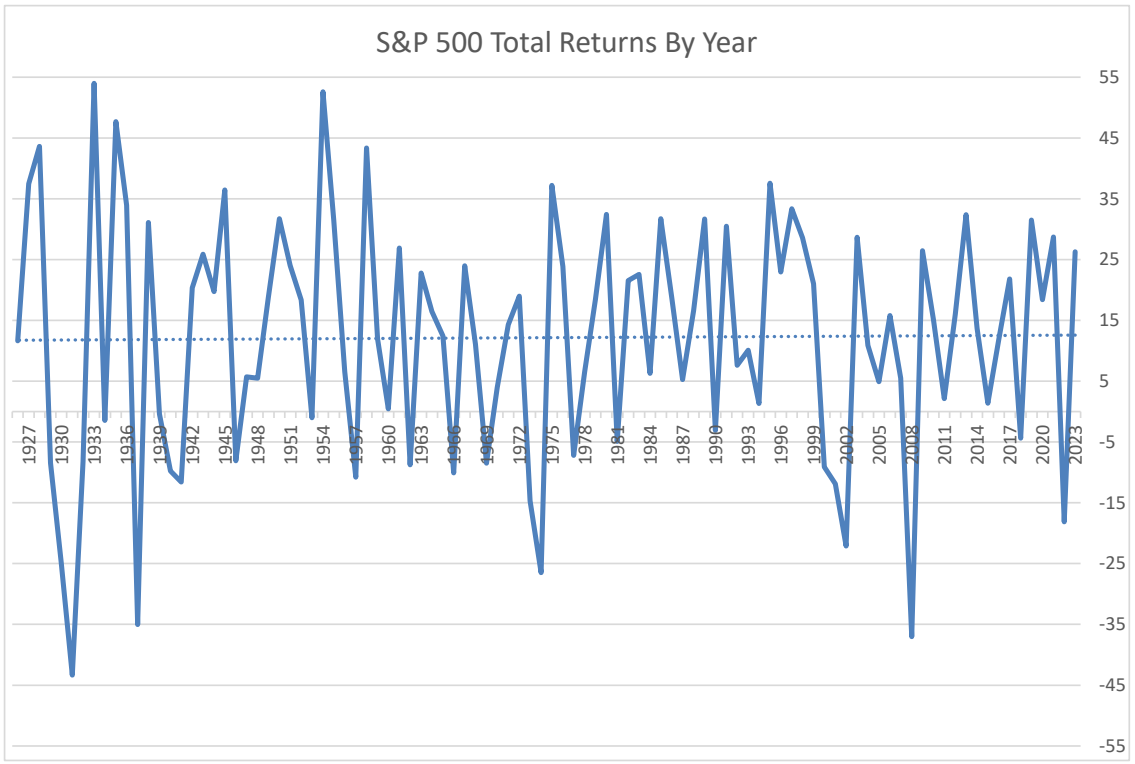
Sources:

S&P 500 Historical Return	1926-2023	12.16%
Value Line Dividend Yield	4/5/2024	2.10%
Value Line Appreciation Potential	4/5/2024	45.00%

S&P 500 Total Return

Year	Return
2023	26.29
2022	-18.11
2021	28.71
2020	18.4
2019	31.49
2018	-4.38
2017	21.83
2016	11.96
2015	1.38
2014	13.69
2013	32.39
2012	16
2011	2.11
2010	15.06
2009	26.46
2008	-37
2007	5.49
2006	15.79
2005	4.91
2004	10.88
2003	28.68
2002	-22.1
2001	-11.89
2000	-9.1
1999	21.04
1998	28.58
1997	33.36
1996	22.96
1995	37.58
1994	1.32
1993	10.08
1992	7.62
1991	30.47
1990	-3.1
1989	31.69
1988	16.61
1987	5.25
1986	18.67
1985	31.73
1984	6.27
1983	22.56
1982	21.55
1981	-4.91
1980	32.42
1979	18.44
1978	6.56
1977	-7.18
1976	23.84
1975	37.2
1974	-26.47
1973	-14.66
1972	18.98
1971	14.31

1970	4.01
1969	-8.5
1968	11.06
1967	23.98
1966	-10.06
1965	12.45
1964	16.48
1963	22.8
1962	-8.73
1961	26.89
1960	0.47
1959	11.96
1958	43.36
1957	-10.78
1956	6.56
1955	31.56
1954	52.62
1953	-0.99
1952	18.37
1951	24.02
1950	31.71
1949	18.79
1948	5.5
1947	5.71
1946	-8.07
1945	36.44
1944	19.75
1943	25.9
1942	20.34
1941	-11.59
1940	-9.78
1939	-0.41
1938	31.12
1937	-35.03
1936	33.92
1935	47.67
1934	-1.44
1933	53.99
1932	-8.19
1931	-43.34
1930	-24.9
1929	-8.42
1928	43.61
1927	37.49
1926	11.62
Average	**12.16**



Source:
https://www.slickcharts.com/sp500/returns
(accessed on 4/8/2024)

CAPM with Forecasted Return

Re	Required return on individual equity security	
Rf	Risk-free rate	
Rm	Required return on the market as a whole	
Be	Beta on individual equity security	
Re =	Rf+Be(Rm-Rf)	
Rf =	3.88	
Rm =	12.00	
Be =	0.83	
Re =	**10.62**	

Sources: Blue Chip Financial Forecasts 12/1/2023 & 4/1/2024
Value Line 4/8/2024

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

VEOLIA WATER PENNSYLVANIA, INC.

Docket Nos. R-2024-3045192 (Water) and R-2024-3045193 (Wastewater)

I&E-RR-18-D Reference VWPA Exhibit GRH-1-5 concerning the revenue requirement calculation for the water and wastewater divisions. Provide the calculation for the gross revenue conversion factor separately for water, wastewater, and total Company for the HTY, FTY, and FPFTY to account for the need to gross-up revenue for taxes, uncollectibles, assessments (utility tax), etc.

Answer: Please see the attachment for the Gross Revenue Conversion Factor (GRCF) for water and wastewater divisions. For the combined revenue requirement calculation, the Company used the GRCF for the water division.

Answer provided by: Greg Herbert

Title: Assistant Project Manager, Rate Studies

Address: 207 Senate Ave, Camp Hill, PA 17011

Date: 03-11-2024

Veolia Water Pennsylvania - Water Operations
Docket No. R-2024-3045192

Taxes and Gross revenue Conversion Factor:

Line No.	Description	Tax Rates
1	Pennsylvania State Corporate Tax Rate	7.990%
2	Federal Corporate Tax Rate	21.000%
3	Rate Applicable to O&M Expenses:	
4	Uncollectible Accounts Ratio	0.539%
5	PSC Assessment Ratio	0.500%
6	Rate for O&M Expense	1.039%
7	Composite Tax Rate - State	7.907%
8	(1-Line 6) X Line 2	
	Composite Tax Rate - Federal	
9	(1-Line 5) X Line 2	20.782%
	Revenue Conversion Factor	
10	1/((1-Line 6) - Line 8- Line 9)	**1.42304**

Veolia Water Pennsylvania- Wastewater Operations
Docket No. R-2024-3045193

Taxes and Gross revenue Conversion Factor:

Line No.	Description	Tax Rates
1	Pennsylvania State Corporate Tax Rate	7.990%
2	Federal Corporate Tax Rate	21.000%
3	Rate Applicable to O&M Expenses:	
4	Uncollectible Accounts Ratio	0.002%
5	PSC Assessment Ratio	0.500%
6	Rate for O&M Expense	0.502%
7	Composite Tax Rate - State	7.950%
8	(1-Line 6) X Line 2	
	Composite Tax Rate - Federal	
9	(1-Line 5) X Line 2	20.895%
	Revenue Conversion Factor	
10	1/((1-Line 6) - Line 8- Line 9)	**1.41536**

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

VEOLIA WATER PENNSYLVANIA, INC.

Docket Nos. R-2024-3045192 (Water) and R-2024-3045193 (Wastewater)

I&E-RR-12-D Reference VWPA Statement No. 4, p. 63, lines 3-8 concerning the Risk Premium (RP) results. State whether Mr. Walker is aware of any instances where the Commission relied upon RP analysis to determine an appropriate cost of equity in a base rate proceeding. If so, identify the applicable cases, including the docket numbers.

Answer: Mr. Walker does not discuss the requested information in his testimony. Further, Mr. Walker has not conducted an exhaustive study of all Commission orders. Mr. Walker believes the Commission considers many factors, including interest rate levels in reaching their conclusion but cannot accurately cite each occurrence.

Answer provided by: Harold Walker

Title: Manager, Gannett Fleming Valuation Rate Consultants, LLC

Address: 1010 Adams Avenue, Audubon, PA 19403-2402

Date: 03-11-2024

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

VEOLIA WATER PENNSYLVANIA, INC.

Docket Nos. R-2024-3045192 (Water) and R-2024-3045193 (Wastewater)

I&E-RR-8-D Reference VWPA Statement No. 4, p. 48, lines 4-7 and p. 52, lines 13-16 concerning Mr. Walker's recommendation to give less weight to the resultant market value DCF cost rate due to the market's current market capitalization ratios and the impact that the market-to-book ratio has on the DCF results. State whether Mr. Walker is aware of any instances where the Pennsylvania Public Utility Commission ("Commission") has specifically relied on the impact that the market-to-book ratio has on the DCF results and gave less weight to the DCF results in recommending an ROE for any utilities for this specific reason. If so, identify the applicable cases, including the docket numbers.

Answer: Mr. Walker does not discuss the requested information in his testimony. Further, Mr. Walker has not conducted an exhaustive study of all Commission orders. Mr. Walker believes the Commission has authorized ROE's that have been different than underlying DCF results but cannot accurately depict the reasons for their differences nor cite each occurrence.

Answer provided by: Harold Walker

Title: Manager, Gannett Fleming Valuation Rate Consultants, LLC

Address: 1010 Adams Avenue, Audubon, PA 19403-2402

Date: 03-11-2024

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

VEOLIA WATER PENNSYLVANIA, INC.

Docket Nos. R-2024-3045192 (Water) and R-2024-3045193 (Wastewater)

I&E-RR-9-D Reference VWPA Statement No. 4, pp. 53-58 concerning the discussion on financial risk difference that exists as a result of market capitalization ratios being different from book value capitalization ratios and recommending a financial risk leverage adjustment of 0.75% to the DCF result of 8.70% (8.70% + 0.75% = 9.45%). State whether Mr. Walker is aware of any instances where the Commission has specifically awarded a financial risk leverage adjustment to the DCF results or in the ROE to recognize market to book ratio impact. If so, identify the applicable cases, including the docket numbers.

Answer: Mr. Walker does not discuss the requested information in his testimony. Further, Mr. Walker has not conducted an exhaustive study of all Commission orders. Mr. Walker believes the Commission has authorized ROE's that have been different than underlying market value DCF results but cannot accurately depict the reasons for their differences nor cite each occurrence.

Answer provided by: Harold Walker

Title: Manager, Gannett Fleming Valuation Rate Consultants, LLC

Address: 1010 Adams Avenue, Audubon, PA 19403-2402

Date: 03-11-2024

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

VEOLIA WATER PENNSYLVANIA, INC.

Docket Nos. R-2024-3045192 (Water) and R-2024-3045193 (Wastewater)

I&E-RR-11-D Reference VWPA Statement No. 4, p. 63, lines 3-8 concerning the financial risk leverage adjustment of 0.75% to the CAPM result of 11.00% (11.00% + 0.75% = 11.75%). State whether Mr. Walker is aware of any instances where the Commission has specifically approved a financial risk leverage adjustment to the CAPM results or in the ROE to recognize market to book ratio impact. If so, identify the applicable cases, including the docket numbers.

Answer: Mr. Walker does not discuss the requested information in his testimony. Further, Mr. Walker has not conducted an exhaustive study of all Commission orders. Mr. Walker believes the Commission considers many factors including market to book ratio in reaching their conclusion but cannot accurately cite each occurrence.

Answer provided by: Harold Walker

Title: Manager, Gannett Fleming Valuation Rate Consultants, LLC

Address: 1010 Adams Avenue, Audubon, PA 19403-2402

Date: 03-11-2024

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

VEOLIA WATER PENNSYLVANIA, INC.

Docket Nos. R-2024-3045192 (Water) and R-2024-3045193 (Wastewater)

I&E-RR-10-D Reference VWPA Statement No. 4, p. 62 and Schedule 17, pp. 1 and 4 concerning the application of a size adjustment premium of 0.70% to the CAPM calculation. State whether Mr. Walker is aware of any instances where the Commission has specifically approved a small size premium adjustment to the CAPM results or to the ROE to recognize a small size impact. If so, identify the applicable cases, including the docket numbers.

Answer: Mr. Walker does not discuss the requested information in his testimony. Further, Mr. Walker has not conducted an exhaustive study of all Commission orders. Mr. Walker believes the Commission has cited size as one of the determinants/consideration of their authorized ROE but cannot accurately cite each occurrence.

Answer provided by: Harold Walker

Title: Manager, Gannett Fleming Valuation Rate Consultants, LLC

Address: 1010 Adams Avenue, Audubon, PA 19403-2402

Date: 03-11-2024

I&E Statement No. 3
Witness: Esyan A. Sakaya

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

VEOLIA WATER PENNSYLVANIA, INC.

Docket No. R-2024-3045192 (Water)
&
Docket No. R-2024-3045193 (Wastewater)

Direct Testimony

of

Esyan A. Sakaya

Bureau of Investigation and Enforcement

Concerning:

Rate Base
Annual Amortization Expense
FTY and FPFTY Reporting
Other Operating Revenue – Late Payment Fees
Revenue Contribution to Mahoning Water
Scale Back of Rates
Public Input Hearings

TABLE OF CONTENTS

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Esyan A. Sakaya. My business address is Pennsylvania Public Utility Commission, Commonwealth Keystone Building, 400 North Street, Harrisburg, Pennsylvania 17120.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by the Pennsylvania Public Utility Commission ("Commission") in the Bureau of Investigation and Enforcement ("I&E") as a Fixed Utility Valuation Engineer.

Q. WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND?

A. My education and professional background are set forth in Appendix A, which is attached.

Q. PLEASE DESCRIBE THE ROLE OF I&E IN RATE PROCEEDINGS.

A. I&E is responsible for protecting the public interest in proceedings before the Commission. I&E's analysis in this proceeding is based on its responsibility to represent the public interest. This responsibility requires balancing the interests of the ratepayers, the company, and the regulated community as a whole.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. My direct testimony addresses Veolia Water Pennsylvania, Inc.'s ("Veolia" or "Company") request for a $15,494,620 increase in water revenue along with a $568,719 increase in wastewater revenue (Veolia St. No. 2, pp. 5 and 22).

Q. DOES YOUR DIRECT TESTIMONY INCLUDE AN EXHIBIT?

A. Yes. I&E Exhibit No. 3 contains schedules that support my direct testimony.

Q. WHAT TEST YEARS HAS THE COMPANY USED IN THIS PROCEEDING?

A. The Company used the twelve months ended September 30, 2023 as the historic test year, the twelve months ending September 30, 2024 as the future test year ("FTY"), and the twelve months ending October 31, 2025 as the fully projected future test year ("FPFTY") (Veolia St. No. 2, p. 4).

Q. WHAT TEST YEAR HAS THE COMPANY BASED ITS REVENUE REQUIREMENT ON IN THIS PROCEEDING?

A. Veolia based its requested revenue requirement on the FPFTY ending October 31, 2025 (Veolia St. No. 2, pp. 4-5).

Q. DID THE COMPANY PROVIDE A COST OF SERVICE STUDY?

A. Yes. As part of this filing, the Company submitted four separate cost of service

studies ("COSS") that allocated and assigned the various costs of providing service to various functions. The two COSS' for water were Veolia exhibits CEH-1 and CEH-2. The two COSS' for wastewater were Veolia exhibits CEH-3 and CEH-4.

Q. WHY DID THE COMPANY PROVIDE MULTIPLE COST OF SERVICE STUDIES?

A. To satisfy the terms of a prior Commission Order under Section 1329 of the Public Utility Code, Veolia was required to submit a separate COSS that removed all costs and revenues associated with the Section 1329 acquired water and wastewater system of Mahoning (Veolia St. No. 1, p. 16 and Veolia St. No. 4, p .12).

Q. BRIEFLY DESCRIBE THE WATER AND WASTEWATER SERVICE TERRITORY OF VEOLIA.

A. Veolia provides water service to approximately 69,800 customers in 11 counties and 49 municipalities throughout Pennsylvania. It operates five surface water treatment plants ranging in size from three quarters to twelve million gallons per day. It also operates 36 wells with varying degrees of treatment, 30 booster stations, and 42 storage facilities. The distribution system consists of over 900 miles of main, 14,000 valves, and 4,400 hydrants. For wastewater service, Veolia serves approximately 1,600 customers in two counties. It operates one wastewater treatment plant along with a collection system of over two miles (Veolia Statement of Reasons, p. 1).

RATE BASE

Q. WHAT IS RATE BASE?

A. Rate base is the depreciated original cost of a utility's investment in plant to serve customers plus additions and deductions that are determined to be necessary to keep the utility operating and providing safe and reliable service to its customers.

Q. HOW IS RATE BASE USED WITHIN THE RATEMAKING FORMULA?

A. Rate base is one part of the financial equation used by the Commission to determine the appropriate revenue that a utility is granted in a rate proceeding. The revenue determination allows the utility to meet its expense obligations and gives it the opportunity to earn the rate of return established by the Commission in a rate proceeding. The equation used to determine the proper revenue requirement level is as follows: Revenue Requirement = (Rate Base x Rate of Return) + Operating Expenses + Depreciation Expense + Taxes.

Q. HOW IS THE DEPRECIATED ORIGINAL COST OF PLANT IN SERVICE AT THE END OF THE TEST YEAR DETERMINED?

A. The depreciated original cost is equal to the original cost of the plant in service that is used and useful in the provision of utility service to the customers less the depreciation reserve as adjusted by other items such as salvage value and removal costs. By using an FPFTY, the depreciated original cost of the plant in service is

computed by taking a "snapshot" look at the depreciated original cost value of used and useful utility plant estimated to be in service at the end of the FPFTY.

Q. WHAT ARE THE COMPANY'S UTILITY PLANT IN SERVICE CLAIMS AND WHAT DEDUCTIONS DID THE COMPANY REFLECT?

A. For the Water Division, the FTY utility plant in service claim for water totaled $529,786,508, and the FPFTY claim totaled $567,878,727 (Veolia Ex. No. LKF-1, p. 1). The subsequent deductions to utility plant are accumulated depreciation, contributions in aid of construction and contributions, deferred income taxes, and the regulatory liabilities (Veolia Ex. No. GRH-2, Sch. 1.1). For Wastewater, the FTY utility plant claim totaled $7,540,754, and the FPFTY claim totaled $7,594,754 (Veolia Ex. No. LKF-1, p. 2). The originally claimed addition to the Company's Wastewater Division utility plant was cash working capital. Veolia's wastewater plant had no deductions to the depreciated original cost (Veolia Ex. No. GRH-4, Sch. 1.1).

Q. WHAT RATE BASE TOTAL IS THE COMPANY CLAIMING FOR ITS WATER AND WASTEWATER OPERATIONS?

A. For Water, Veolia is claiming $356,215,489 in FPFTY rate base (Veolia St. No. 2, p. 6 and Veolia Ex. No. GRH-2, Sch. 1-1). Additions to the Company's Water Division net utility plant are acquisition adjustments, materials and supplies, and cash working capital.

The deductions to the net utility plant are contributions in aid of construction and contributions, deferred income taxes, and the regulatory liabilities.

For Wastewater, Veolia is claiming $5,726,939 in FPFTY rate base (Veolia St. No. 2, p. 23 and Veolia Ex. No. GRH-4, Sch. 1-1). Additions to the Company's Wastewater Division net utility plant are acquisition adjustments and cash working capital. There are no deductions to the Wastewater net utility plant.

Q. ARE UTILITIES PERMITTED TO INCLUDE ACQUISITION ADJUSTMENTS IN RATE BASE?

A. Yes. However, for an acquisition adjustment to be included in rate base, the acquisition must meet certain requirements. These requirements are generally described on Veolia St. No. 1, pp. 11-16. However, as described below, some of the acquisition adjustments do not meet the necessary requirements.

Q. WHAT ACQUISITION ADJUSTMENTS DID VEOLIA CLAIM IN ITS RATE BASE?

A. Veolia is requesting the following acquisition adjustments in rate base: Kensington Water Company ("Kensington"), Overbrook Water Company ("Overbrook"), and both Water and Wastewater for the Township of Mahoning ("Mahoning") (Veolia St. No. 1, p. 9, Veolia Ex. No. GRH-2, Sch. 1.1, and Veolia Ex. No. GRH-4, Sch. 1.1).

Q. WHAT DO YOU RECOMMEND REGARDING THESE ACQUISITIONS BEING ADDED TO THE COMPANY'S RATE BASE CLAIM?

A. I recommend that the acquisition adjustments for Kensington and Overbrook acquisition claims be accepted, while the acquisition adjustments claimed for the Mahoning Water and Wastewater acquisitions be denied.

Q. WHY DO YOU RECOMMEND THE ACCEPTANCE OF THE ACQUISITION ADJUSTMENTS RELATED TO THE KENSINGTON AND OVERBROOK SYSTEMS?

A. Kensington was acquired by Veolia on October 24, 2019, for an original cost of $265,000. The Company admits that this plant was fully depreciated as of 2011, however, the Kensington facility at the time of purchase had operational and service reliability issues which clearly established that the system was distressed. Based on Company testimony, I accept the FPFTY plant claim of $202,500 (Veolia St. No. 1, pp. 10-16 and Veolia Ex. No. GRH-2, Sch. 1.1).

Overbrook was acquired by Veolia on October 24, 2019, for an original cost of $324,000. The Overbrook facility at the time of purchase had operational and service reliability issues and was viewed by the Pennsylvania Department of Environmental Protection ("PA DEP") as a troubled water system. Based on Company testimony, I accept the FPFTY plant claim of $245,970 (Veolia St. No. 1, pp. 10-16 and Veolia Ex. No. GRH-2, Sch. 1.1).

Q. WHY DO YOU RECOMMEND THE REJECTION OF THE MAHONING ACQUISITION ADJUSTMENTS?

A. Mahoning's water and wastewater facilities were acquired by Veolia on December 20, 2018 under Section 1329 of the Pennsylvania Public Utility Code for an original cost of $9,500,000. The Company is proposing to allocate $4,734,800 to the water rate base and $4,765,200 to the wastewater rate base. Since the systems were acquired under Section 1329, there is no reason to reflect an acquisition adjustment in rate base since the original cost should have been adjusted to reflect the purchase price within specific asset categories per the original fair market valuation with that rate base subject to depreciation over the life of each asset category. It is inappropriate to request recovery of the difference between the Section 1329 established rate base and the system original cost over an amortization period of ten years. Therefore, I recommend that the Commission reject the Company's FPFTY acquisition adjustment claims of $1,104,896 for Water and $1,377,307 for Wastewater (Veolia St. No. 1, pp. 9-10, Veolia Ex. No. GRH-2, Sch. 1.1, and Veolia Ex. No. GRH-4, Sch. 1.1).

Q. WHAT RATE BASE TOTAL DO YOU RECOMMEND AS A RESULT OF EXCLUDING THE MAHONING ACQUISITIONS FROM THE COMPANY'S WATER AND WASTEWATER RATE BASE CLAIMS?

A. For Water, I recommend a rate base of $355,110,593 rather than the Company's claim of $356,215,489, which represents a $1,104,893 reduction to the initial

claim (I&E Ex. No. 3, Sch. 1, p. 1). For Wastewater, I recommend a rate base of $4,369,632 rather than the Company claim of $5,726,939, which represents a $1,377,307 reduction to the Company claim (I&E Ex. No. 3, Sch. 2, p. 1).

AMORTIZATION EXPENSE

Q. WHAT IS AMORTIZATION EXPENSE?

A. Amortization expense represents the annual amount of the acquisition adjustment claimed by the Company that is charged to an expense that reduces the acquisition balance over time.

Q. WHAT AMORTIZATION EXPENSE AMOUNTS ARE THE COMPANY CLAIMING?

A. Veolia is claiming $230,340 in FPFTY amortization expense for Water. The $230,340 claim includes $122,766 related to the Mahoning Water system. For Wastewater, Veolia is claiming $153,034 in FPFTY amortization expense. The entire $153,034 is related to the Mahoning Wastewater system (Veolia Ex. No. GRH-3, Schedule 34 and Veolia Ex. No. GRH-5, Schedule 20).

Q. WHAT ADJUSTMENTS TO THE COMPANY'S AMORTIZATION EXPENSE CLAIMS DO YOU RECOMMEND?

A. I recommend that the water amortization expense be reduced by $122,766 and the total wastewater amortization expense of $153,034 be eliminated (I&E Ex. No. 3.

Sch. 3, p. 2 and Sch. 4, p. 2).

Q. WHY DO YOU RECOMMEND THE AMORTIZATION EXPENSE BE REDUCED BY $122,766 AND THE AMORTIZATION EXPENSE FOR THE WASTEWATER SYSTEM BE ENTIRELY DISALLOWED?

A. As described above, I recommend that the Commission reject the Company's acquisition adjustments related to the Mahoning Water and Mahoning Wastewater systems. Therefore, these annual amounts represent the amortization expense related to the Mahoning systems should be disallowed.

PLANT AND REPORTING REQUIREMENTS

Q. WHAT IS PLANT IN SERVICE?

A. The plant in service is the part of the utility's rate base investment in plant used and useful to provide service to ratepayers.

Q. DO YOU HAVE ANY RECOMMENDATIONS REGARDING PLANT ADDITIONS THAT THE COMPANY PROJECTS TO BE IN SERVICE DURING THE FTY AND THE FPFTY?

A. Yes. I recommend that the Company provide the Commission's Bureau of Investigation and Enforcement and the Office of Consumer Advocate with separate reports for Water and Wastewater updating pages 1 and 2 of Veolia Exhibit LKF-1 no later than January 1, 2025, which should include actual capital

expenditures, plant additions, and retirements by month from October 1, 2023 through September 30, 2024, and an additional update for actuals from October 1, 2024 through September 30, 2025, no later than January 1, 2026.

Q. WHY DO YOU RECOMMEND THAT VEOLIA PROVIDE THESE UPDATES?

A. I&E believes there is value in determining how closely Veolia's projected investments in future plant compare with the actual investments that are made by the end of the FTY and FPFTY. Determining the correlation between Veolia's projected and actual results will help inform the Commission and the parties in Veolia's future rate cases.

The updates are important because, as previously explained, by using an FPFTY, Veolia is essentially requiring ratepayers to pre-pay a return on its projected investment in future plant that is not in place and providing service at the time the new rates take effect, but that also is not subject to any guarantee of being completed and placed into service. While the FPFTY provides for such projections, there should be verification of the accuracy of the projections. Therefore, requiring the Company to provide updates demonstrating that actual investments comport with projections used in setting rates using the FPFTY provides the Commission with actual data to gauge the accuracy of Veolia's forecasts.

OTHER OPERATING REVENUE – LATE PAYMENT FEES

Q. HOW MUCH LATE PAYMENT REVENUE DOES THE COMPANY PROJECT RECEIVING UNDER PRESENT AND PROPOSED RATES FOR THE FPFTY FOR THE MAIN WATER DIVISION ("VEOLIA AND BETHEL WATER OPERATIONS" AS LABELED BY THE COMPANY)?

A. In this filing, the Company reflected approximately $325,208 of present rate Other Revenue for the Main Water Division which includes late payment revenue under both present and proposed rates for the FPFTY ending December 31, 2025 (Veolia Ex. No. CEH-1, Sch. A).

Q. WHAT DO YOU RECOMMEND CONCERNING THE $325,208 IN OTHER REVENUE UNDER PROPOSED RATES FOR THE MAIN WATER DIVISION?

A. I recommended that Other Revenue be increased by $81,922 from $325,208 to $407,130[1] under proposed rates for the FPFTY to reflect higher late payment revenue.

Q. HOW DID YOU DETERMINE THE $81,922 INCREASE IN LATE PAYMENT REVENUE UNDER PROPOSED RATES?

A. The Company is requesting an increase in tariff rates for the Main Water Division

[1] I&E modified proposed increase to Other Revenue (Main Division): $325,208 * (1+.25191) = $407,130.

of approximately 25.191% (I&E Ex. No. 3, Sch. 3, p. 1, col. I, line 9). The $81,922 ($325,208 x 0.25191) equates to a corresponding increase in late payment revenue.

Q. WHY DO YOU RECOMMEND THE REVENUE FROM LATE PAYMENTS BE INCREASED?

A. It is reasonable to expect that late payment revenue will increase when a utility's base rates are increased as a result of a base rate proceeding. Since late payment revenues are generally estimated as a percentage of a customer's bill, increasing water service revenue through a rate increase will cause revenues from late payments to increase over time.

Q. DO YOU HAVE A CORRESPONDING ADJUSTMENT FOR THE MAHONING WATER DIVISION?

A. Yes. This portion of my late payment revenue recommendation is explained below.

MAHONING WATER ADJUSTMENTS

Q. DID THE COMPANY PROVIDE A SUMMARY OF THE PRESENT AND PROPOSED REVENUE FOR MAHONING WATER?

A. Yes. The Company provided Veolia Ex. No. CEH-2, Sch. A showing present and proposed rate revenue for Mahoning Water.

Q. DID YOU PREPARE A SIMILAR SCHEDULE THAT SHOWS THE PRESENT AND PROPOSED RATE REVENUE YOU RECOMMEND FOR MAHONING WATER?

A. Yes. I&E Ex. No. 3, Sch. 4 incorporates my three recommendations. My first recommendation is to increase proposed rate other revenue of $6,984 by $9,179[2] to $16,073[3] for the late payment revenue as discussed above, which equates to an increase of 133.13% (I&E Ex. No. 3, Sch. 4). My second recommendation is to remove the $4,680 increase to Public Fire. My third and final recommendation is that the allocation of the $237,000 under column J between the Main Water Division and Mahoning Water be disallowed.

Q. WHY DID YOU INCREASE OTHER REVENUE BY 133.13%?

A. As described above for the Veolia system, it is reasonable to expect that other revenue will increase if present rates are increased. The $9,179 or 133.13% increase in other revenue is the same percentage increase I proposed for Mahoning Water base rates.

Q. WHY DID YOU REMOVE THE $4,680 INCREASE TO PUBLIC FIRE SERVICE?

A. According to the Company, the cost incurred to provide Public Fire Service is

[2] I&E modified proposed increase to Other Revenue (Mahoning): $16,073 - $6,894 = $9,179.
[3] I&E modified proposed rates to Other Revenue (Mahoning): $6,894 * (1+1.3313) = $16,073.

$68,238, and the present rate revenue from Public Fire Service is $46,804 (Veolia Ex. No. CEH-2, Sch. A). Calculating 25% of the cost to provide Public Fire Service in accordance with Section 1328(b) of the Public Utility Code indicates that if present rate revenue received from Public Fire is above $17,060 ($68,238 x 25%), present rates cannot be increased. Since present rates produce $46,804 and $46,804 is more than $17,060, I am advised by counsel that Public Fire Service rates cannot be increased.

Q. WHY DID YOU REALLOCATE THE $237,000 OF REVENUE BACK TO THE MAHONING SYSTEM CLASSES?

A. Similar to the removal of $237,000 of revenue requirement from the Veolia water system rates, I reallocated the $237,000 of additional revenue proportionally to the revenue the Company originally proposed for the Residential, Commercial, and Private Fire classes. The allocation of the $237,000 is shown under Column J including the $9,179 of additional late payment revenue described above.

This revenue contribution between the Main Water Division and Mahoning Water is inappropriate and should be disallowed.

Q. WHAT DO YOU RECOMMEND CONCERNING THE NEGATIVE $237,000 IN REVENUE ALLOCATED TO MAHONING TOWNSHIP WATER CUSTOMERS?

A. I recommended that this $237,000 subsidy to the Mahoning Township water

system be rejected.

Q. WHY DO YOU RECOMMEND THAT THE $237,000 SUBSIDY TO MAHONING TOWNSHIP WATER CUSTOMERS BE REJECTED?

A. First, there is no reason that the rates should be consolidated in this proceeding, and disallowing the subsidy lowers the rates for Main Division customers. Second, the Mahoning customers are benefitting from being acquired by Veolia through the Section 1329 acquisition. Therefore, Mahoning customers should pay rates that recover the cost of operating the Mahoning system. This is important because in that acquisition case, the Company claimed being acquired would be beneficial to all customers. The benefits accruing to Mahoning customers include better customer service, better access to capital, better construction management, better overall expertise in operating water systems. Also, being under the jurisdiction of the Commission prevents unjust and unreasonable rates, and customers will have access to the Commission complaint procedures among other things (Suez St. No. 1, pp. 14-17 at Docket No. A-2018-3003519). Finally, while Act 11 of 2012 provided for the allocation of wastewater system revenue requirements to a Company's owned water utility, I am unaware of any provision that allows a similar transfer of system costs between water rate zones.

If Veolia believes that water system rates should be consolidated in this proceeding, it should have proposed rate increases at the actual necessary percentage to do so without inappropriately shifting the Mahoning Water revenue

requirement to the customers of the Main Water division. My exhibit reflects the appropriate increases to the two rate zones with the adjustments I have recommended, including removal of the $237,000 subsidy.

SCALEBACK OF RATES - WATER

Q. WHAT RATES SHOULD BE SCALED BACK IF THE COMMISSION GRANTS LESS THAN THE FULL INCREASE FOR VEOLA WATER?

A. I recommend that the rates be scaled back proportional to the percentage increase(s) shown on I&E Ex. No. 3, Sch. 3, p. 1, column I for Residential, Commercial, Industrial and Public rate classes. I also recommend that the customer charges for the Residential and Commercial classes in the above-mentioned divisions, along with the Industrial and Public class customer charges in the Main Division, be scaled back.

Q. WHAT RATES SHOULD NOT BE SCALED BACK IF THE COMMISSION GRANTS LESS THAN THE FULL INCREASE?

A. I recommend no scale back to the Bethel system usage rates, the customer charges related to Large Industrial, Sales for Resale, Private, and Public Fire rates.

Q. WHY DO YOU RECOMMEND THAT THE PROPOSED USAGE RATES FOR THE BETHEL SYSTEM NOT BE INCLUDED IN THE SCALE BACK?

A. The proposed Bethel system usage rates are below the other present usage rates and in order to help consolidate rates in the future, these rates should not be scaled back.

Q. WHY DO YOU RECOMMEND THAT THE PROPOSED MONTHLY CUSTOMER CHARGES FOR THE RESIDENTIAL, COMMERCIAL, INDUSTRIAL AND PUBLIC CUSTOMERS BE INCLUDED IN THE SCALE BACK?

A. The Company's proposed monthly customer charges are based upon a customer cost analysis that reflects the full cost of service. Since the Commission is likely to reduce some of the Company's ratemaking components contained in the customer cost analysis, it is necessary to reduce the proposed customer charge if the Commission reduces the requested increase. Also, the Company proposed a higher percentage increase for the customer charges than the usage rates, thus scaling back the usage rates will reduce the increase for low usage customers compared to higher usage customers. Finally, in a past UGI Electric case, the Commission determined that despite the higher customer cost determination in the COSS, the customer charges should be reduced for all customers (*PA Public*

Utility Commission et al. v. UGI Utilities, Inc. – Electric Division, Docket No. R-2017-2640058 et al., p. 175 (Order Entered October 25, 2018)).

Q. WHY DO YOU RECOMMEND NO SCALE BACK IN THE LARGE INDUSTRIAL, SALES FOR RESALE, PUBLIC AND PRIVATE FIRE SERVICE RATES?

A. Under proposed rates, the relative rates of return for these classes are below 1.00. Therefore, there is no justification for reducing the proposed rates in these classes.

Q. WHY DO YOU RECOMMEND A PROPORTIONAL SCALE BACK TO THE RESIDENTIAL, COMMERCIAL, INDUSTRIAL, AND PUBLIC USAGE RATES IF THE COMMISSION GRANTS LESS THAN THE FULL INCREASE?

A. A proportional scale back will still satisfy the goal of moving the relative rate of return towards 1.00 as proposed under the full increase.

Q. WHAT RATES SHOULD BE SCALED BACK IF THE COMMISSION GRANTS LESS THAN THE FULL INCREASE FOR MAHONING WATER?

A. I recommend that the rates be scaled back proportional to the percentage increase(s) shown on I&E Ex. No. 3, Sch. 4, column I. This proportional scale

back will also move the revenue received from the Mahoning classes towards the cost of providing service to each Mahoning class.

SCALEBACK OF RATES - WASTEWATER

Q. WHAT INCREASES DID VEOLA PROPOSE FOR THE MAHONING WASTEWATER OPERATIONS?

A. Veolia's COSS comparison is shown on Veolia Exhibit No. CEH-2, Schedule A-1, which shows the increases by class under column 8. The proposed increases for Mahoning are $338,238 for residential customers and $230,482 for non-residential customers. The percentage increases of 38.0% and 17.3% respectively are shown under column 9.

Q. HOW SHOULD THESE INCREASES BE SCALED BACK IF THE COMMISSION GRANTS LESS THAN THE FULL INCREASE?

A. I recommend that the customer charges and usage rates be scaled back so that the percentage increase is proportional to the percentage increases originally proposed on Veolia Exhibit No. CEH-2, Schedule A-1, column 9.

Q. WHY DO YOU RECOMMEND A PROPORTIONAL SCALE BACK BE APPLIED TO MAHONING WASTEWATER RATES?

A. Veolia's Mahoning wastewater COSS comparison shown on Exhibit No. CEH-3, Schedule A shows the cost to serve the Residential class is more than revenue

received from present rates, and the cost to serve the Non-Residential class is less than the revenue received from the Non-Residential customers. Given this disparity, the Company proposed a higher percentage increase for the Residential class. Therefore, a proportional scaleback is reasonable to generate revenue and limit the increase to the Residential class to 38.0%.

Q. WHAT INCREASES DID VEOLA PROPOSE FOR THE COLUMBIA WASTEWATER OPERATIONS?

A. Veolia's Columbia County COSS comparison shown on Veolia Exhibit No. CEH-4, Schedule A-1 shows the increases for the one Non-Residential class under column 8. The proposed increase for Columbia County is $109,625 for non-residential customers. The Company proposed a 235.1% increase in the customer charge and approximately a 236% increase in the usage rates (Veola Ex. GRH-4, Sch. 9).

Q. HOW SHOULD THESE INCREASES BE SCALED BACK IF THE COMMISSION GRANTS LESS THAN THE FULL INCREASE?

A. I recommend that the customer charges and usage rates be scaled back proportionally.

Q. WHY DO YOU RECOMMEND A PROPORTIONAL SCALE BACK BE APPLIED TO COLUMBIA WASTEWATER RATES?

A. Veolia proposed approximately the same percentage increase in the Columbia wastewater customer charge and usage rates. Therefore, it's reasonable to scale back both rates proportionally.

PUBLIC INPUT HEARINGS

Q. WERE PUBLIC-INPUT HEARINGS HELD FOR THIS PROCEEDING?

A. Yes. One in-person hearing was held on April 29, 2024, in Bloomsburg, Columbia County, Pennsylvania; two combined in-person and telephonic hearings were held on April 30, 2024, in the Commonwealth Keystone Building in Harrisburg, Pennsylvania.

Q. DID YOU ADDRESS THE PUBLIC INPUT HEARINGS TESTIMONY IN THIS DIRECT TESTIMONY?

A. No. I was not able to review all the public input testimony prior to the due date for this direct testimony, but I reserve the right to address the public input testimony in my rebuttal and/or surrebuttal testimony.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

Esyan A. Sakaya

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION
400 North Street
HARRISBURG, PA 17120

Education:

National Association of Regulatory Utility Commissioners, Clearwater, FL
Utility Rate School; Utility Rate Making Basics, October 2019

Society of Depreciation Professionals, Philadelphia, PA
Introduction to Depreciation; Depreciation Fundamentals, September 2019

Temple University, Philadelphia, PA
Bachelor of Science; Major in Engineering Technology, 2015

Community College of Philadelphia, Philadelphia, PA
Associate of Applied Science; Major in Construction Management Technology, 2011

Island School of Building Arts, Gabriola Island, BC-Canada
Certificate Graduate: Heavy Timber Construction August 2002-November 2002

Solar Energy International, Carbondale, CO
Certificate Graduate: Basic and Advanced Photovoltaic Design, April 2002-May 2002

Experience:

12/2018-Present
Pennsylvania Public Utility Commission-Harrisburg, PA

Fixed Utility Valuation Engineer - Assist in engineering related studies related to valuation, depreciation, cost of service, quality of service as they apply to regulated utilities. Contribute in evaluating, contrasting and conducting performance analyses in distinctive sections of valuation engineering and rate structure involving valuation concepts, original cost, rate base, fixed capital costs, inventory processing, excess capacity, cost of service, and rate design. Provide expert testimony in rate related utility cases.

4/2018-12/2018
Pennsylvania Department of Transportation-Harrisburg, PA

Photogrammetry Technician I - Created three-dimensional mapping layouts of natural and man-made features from stereoscopic images on a computer workstation. Assisted in the field placement of ground based surveyed control-points prior to aerial photography acquisition. Provided field support in the use of laser scans for comprehensive digital surveying data. Operated global positioning satellite surveying equipment to obtain accurate geodetic coordinates of pre-established benchmarks.

8/2017-4/2018
Pennoni and Associates. Consulting Engineers-King of Prussia, PA

Construction Inspector – Provided quality assurance in the onsite material testing of concrete, soils, and asphalt. Read and interpreted construction drawings and specifications of materials and components. Completed daily reports regarding project progress to engineers, project managers/superintendents, contractors, and clients.

TESTIMONY SUBMITTED:

I have assisted and/or submitted testimony in the following proceedings:

NO.	Case
1.	UGI Gas Utilities - Gas Division, Docket No. R-2018-3006814
2.	Newtown Artesian Water Company, Docket No. R-2018-3006904
3.	Pittsburgh Wastewater, Docket No. M-2018-2640803
4.	PAWC Purchase of Steelton, Docket No. A-2019-3006814
5.	Philadelphia Gas Works, Docket Nos. R-2019-3009016 & R-2019-3007636
6.	Community Utilities Water, Docket No. R-2019-3008947
7.	Aqua Purchase of Cheltenham, Docket No. A-2019-3008491
8.	UGI North, Docket No. R-2019-3009647
9.	UGI Central, Docket No. R-2019-3009647
10.	UGI South, Docket No. R-2019-3009647
11.	Twin Lakes Utilities, Docket No. R-2019-3010958
12.	Penn Power Company, Docket No. P-2019-3012628
13.	UGI Gas Utilities, Docket No. R-2019-3015162
14.	National Fuel and Gas Distribution, Docket No. R-2020-3015251
15.	Columbia Gas of PA, Docket Nos. R-2020-3018993 & R-2020-3018835
16.	Duquesne Light Company, Docket No. P-2020-3019522

17. PA American Water Co., Docket Nos. R-2020-3019369 & R-2020-3010937
18. Bethlehem Water Company, Docket No. R-2020-3020256
19. Audubon Water Company, Docket No. R-2020-3020919
20. Twin Lakes Utilities, Docket No. P-2020-3020914
21. Pike County Light and Power-Gas, Docket No. R-2020-3022134
22. Pike County Light and Power-Electric, Docket No. R-2020-3022135
23. Duquesne Light Company, Docket No. R-2021-3024750
24. Community Utilities Water, Docket No. R-2021-3025206
25. Community Utilities Wastewater, Docket No. R-2021-3025206
26. Hanover Municipal Water Works, Docket No. R-2021-3026116
27. Aqua Pennsylvania, Inc., Docket Nos. R-2021-3027385 & R-2021-3027386
28. Aqua Purchase of Willistown, Docket No. A-2021-3027268
29. National Fuel and Gas Distribution, Docket No. R-2022-3030235
30. UGI Gas Utilities, Docket No. R-2021-3030218
31. PECO Energy Company – Gas, Docket No. R-2022-3031113
32. Valley Energy, Inc., Gas, Docket No. R-2022-3032300
33. Citizens' Electric Company, Docket No. R-2022-3032369
34. Leatherstocking Gas Company, LLC Docket No. R-2022-303276
35. National Fuel and Gas Distribution, Docket No. R-2022-3035730
36. Aqua Purchase of Shenandoah, Docket No. A-2022-3034143
37. UGI Electric Utilities, Docket No. R-2022-3037368
38. Philadelphia Gas Works, Docket No. R-2023-3037933
39. Columbia Water, Docket No. R-2023-3040258
40. Community Utilities Water, Docket No. R-2023-3042804
41. Community Utilities Wastewater, Docket No. R-2023-3042805
42. CAN DO, Inc., Docket R-2023-3040153 & R-2023-3040151

I&E Exhibit No. 3
Witness: Esyan A. Sakaya

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

VEOLIA WATER PENNSYLVANIA, INC.

Docket No. R-2024-3045192 (Water)
&
Docket No. R-2024-3045193 (Wastewater)

Exhibits to Accompany

The

Direct Testimony

of

Esyan A. Sakaya

Bureau of Investigation and Enforcement

Concerning:

Rate Base
Annual Amortization Expense
FTY and FPFTY Reporting
Other Operating Revenue – Late Payment Fees
Revenue Contribution to Mahoning Water
Scale Back of Rates
Public Input Hearing

VEOLIA WATER PENNSYLVANIA INC.
WATER OPERATIONS
ORIGINAL COST MEASURE OF VALUE AS OF
SEPTEMBER 30, 2024 AND OCTOBER 31, 2025

Line	**VWPA, Kensington and Overbrook**		As of 10/31/2025	I&E Adjustment	I&E Recommended
	(A)		(B)	(C)	(D)
1	Original Cost of Utility Plant In Service	(a)	$550,992,912	$0	$550,992,912
2	Pro Forma UPIS - Brown Manor		$83,674	$0	$83,674
3	Pro Forma UPIS - Kensington		$202,501	$0	$202,501
4	Pro Forma UPIS - Overbrook		$245,970	$0	$245,970
5	Plant Held for Future Use		$52,964	$0	$52,964
6	Less: Accumulated Depreciation	(a)	-$96,999,406	$0	-$96,999,406
7					
8	Net Utility Plant		$454,578,614	$0	$454,578,614
9					
10	CIAC and Contributions		-$84,960,608	$0 (b)	-$84,960,608
11					
12	Add:				
13	Deferred Taxes		-$14,747,777	$0	-$14,747,777
14	Regulatory Liability - New Fed Rate		-$8,301,533	$0	-$8,301,533
15	Regulatory Liability - 2018 Portion		-$756,507	$0	-$756,507
16	Materials and Supplies		$1,656,030	$0	$1,656,030
17	Cash Working Capital		$749,697	$0	$749,697
18					
19	**Total Original Cost Measure of Value**		**$348,217,916**	**$0**	**$348,217,916**
20					
21	(a) Source: Data provided by Company.				
22	(b) 2024 and 2025 CIAC and Advances included in total Net Utility Plant.				
23					
24			As of	I&E	I&E
25	**Bethel Water**		10/31/2025	Adjustment	Recommended
26					
27	Original Cost of Utility Plant In Service	(a)	$8,717,347	$0	$8,717,347
28	Less: Accumulated Depreciation	(a)	-$604,497	$0	-$604,497
29					
30	Net Utility Plant		$8,112,850	$0	$8,112,850
31					
32	CIAC and Contributions		-$6,237,519	$0 (b)	-$6,237,519
33					
34	Add:				
35	Deferred Taxes		-$50,864	$0	-$50,864
36	Regulatory Liability - New Fed Rate		-$134,430	$0	-$134,430
37	Regulatory Liability - 2018 Portion		-$75,988	$0	-$75,988
38	Materials and Supplies		$0	$0	$0
39	Cash Working Capital		$45,385	$0	$45,385
40					
41	**Total Original Cost Measure of Value**		**$1,659,435**	**$0**	**$1,659,435**
42					
43	(a) Source: Data provided by Company.				
44	(b) 2024 and 2025 CIAC and Advances included in total Net Utility Plant.				
45					
46			As of	I&E	I&E
47	**Mahoning Township**		10/31/2025	Adjustment	Recommended
48					
49	Original Cost of Utility Plant In Service	(a)	$8,168,467	$0	$8,168,467
50	**Mahoning Acquisition Adj**		$1,104,896	$ (1,104,896)	$0
51	**Less: Accumulated Depreciation**	**(a)**	-$2,894,392	$ (217,967)	-$3,112,359
52					
53	Net Utility Plant		$6,378,971	$ (1,322,863)	$5,056,108
54					
55	Add:				
56	Deferred Taxes		-$46,056	$0	-$46,056
57	Regulatory Liability		$0	$0	$0
58	Materials and Supplies		$0	$0	$0
59	Cash Working Capital		$5,223	$0	$5,223
60					
61	Total Original Cost Measure of Value		$6,338,138	$ (1,322,863)	$5,015,275
62					
63	**Total Water Original Cost Measure of Value**		**$356,215,489**	**$ (1,322,863)**	**$354,892,626**
	(a) Source: Data provided by Company.				

VEOLIA WATER PENNSYLVANIA, INC.
ANNUAL DEPRECIATION EXPENSE
R-2024-3045192

Line No.	Description		31-Oct-25		I&E Adjustment	I&E Adjusted	SOURCES
	(A)		(B)		(C)	**(D)**	
							Exh GRH-3-Sch 1, pages 2-4
1	VWPA Water		12,561,109		$0	$12,561,109	Exh GRH-3-Sch 34,ADJ 33
	Depreciation on CIAC/Advances		(1,245,535)			($1,245,535)	
2	Bethel Water		150,495		$0	$150,495	
	Depreciation on CIAC/Advances		(92,911)			($92,911)	
3	**Mahoning Water**	*	217,967	*	-$217,967	($0)	
	Depreciation on CIAC/Advances		-			$0	
4	Total Annual Depreciation Expense		11,591,125		(217,967)	$11,373,158	
	Depreciation Expense Adjustment						
5	VW Pennsylvania Adjustment		$1,894,472		$0	$1,894,472	Exh GRH-2-Sch 1, pages 2-3
6	**Mahoning Township Adjustment**		$9,436		-$9,436	($0)	Exh GRH-3-Sch 1, pages 2-4
7	Bethel Water Adjustment		$16,312		$0	$16,312	Exh GRH-3-Sch 34
8	Total Adjustments		$1,920,219		-$9,436	$1,910,783	
	Amortization of Acquisition Adjustments						
9	Brown Manor		$57,744		$0	$57,744	Exh GRH-2-Sch 1, page 2-3
10	Kensington		$22,500		$0	$22,500	Exh GRH-3-Sch 1, pages 2-4
11	Overbrook		$27,330		$0	$27,330	Exh GRH-3-Sch 34
12	**Mahoning Township**		$122,766		-$122,766	$0	
13	**Total AA Adjustments**		$230,340		-$122,766	$107,574	
14	**TOTAL Depreciation and Amortizations**		$13,741,684		-$350,169	$13,391,515	

VEOLIA WASTEWATER PENNSYLVANIA INC.
WASTEWATER OPERATIONS
ORIGINAL COST MEASURE OF VALUE AS OF
31-Oct-25

	Mahoning Township	As of 10/31/2025	I&E Adjustment	I&E Recommended
	(A)	(B)	(C)	(D)
1	Original Cost of Utility Plant In Service	$7,157,751	$0	$7,157,751
2	Mahoning Acquisition Adj	$1,377,307	-$1,377,307	$0
3	Less: Accumulated Depreciation	-$3,260,894	-$309,939	-$3,570,833
4				
5	Net Utility Plant	$5,274,164	-$1,687,246	$3,586,918
6				
7	CIAC and Contributions	$0	$0	$0
8				
9	Add:			
10	Deferred Taxes	$0	$0 (b)	$0
11	Regulatory Liability	$0	$0	$0
12	Materials and Supplies	$0	$0	$0
13	Cash Working Capital	$15,292	$0	$15,292
14				
15	Total Original Cost Measure of Value	$5,289,456	-$1,687,246	$3,602,210
16				
17				
18		As of	I&E	I&E
19	**Columbia County**	10/31/2025	Adjustment	Recommended
20				
21	Original Cost of Utility Plant In Service	$437,003	$0	$437,003
22	Less: Accumulated Depreciation	-$2,957	$0	-$2,957
23				
24	Net Utility Plant	$434,046	$0	$434,046
25				
26	CIAC and Contributions	$0	$0	$0
27				
28	Add:			
29	Deferred Taxes	$0	$0	$0
30	Regulatory Liability	$0	$0	$0
31	Materials and Supplies	$0	$0	$0
32	Cash Working Capital	$3,438	$0 (b)	$3,438
33				
34	Total Original Cost Measure of Value	$437,484	$0	$437,484
35				
36	**Total WasteWater Original Cost Measure of Value**	**$5,726,939**	**-$1,687,246**	**$4,039,693**

(a) Source: Data provided by Company.

VEOLIA WASTEWATER PENNSYLVANIA, INC.
ANNUAL DEPRECIATION EXPENSE
R-2024-3045193

Line No.	Description	Company As Filed 31-Oct-25	I&E Adjustments	I&E Recommended
	(A)	(B)	(C)	(D)
1	Mahoning Sewer	$309,939	$ (309,939)	$0
2	Columbia Sewer	$16,891	$ -	$16,891
3	Total Annual Depreciation Expense	$326,830	$ (309,939)	$16,891
4	Amortization of Mahoning Acquisition Adjustment	$153,034	$ (153,034)	$0
5	**Total Annual Depreciation and Acquisition Adjustments**	**$479,864**	**$ (462,973)**	**$16,891**

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES
FOR THE TEST YEAR ENDED SEPTEMBER 30, 2025

	Customer Classification	Cost of Service		Revenues, Present Rates*		Revenues, Proposed Rates		Proposed Increase		I&E	I&E Remove
		Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent Increase	CHANGE	$237,000
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
1	Residential	$ 42,113,147	58.2%	$ 35,257,068	61.0%	$ 43,311,095	59.9%	$ 8,054,027	22.8%	**-$538,000**	**-$141,861**
2	Commercial	19,235,827	26.6%	15,759,765	27.3%	19,731,947	27.3%	3,972,183	25.2%	**$369,300**	**-$64,630**
3	Industrial	1,249,625	1.7%	1,006,656	1.7%	1,248,028	1.7%	241,372	24.0%	**-$1,800**	**-$4,094**
4	Large Industrial	856,356	1.2%	398,177	0.7%	559,454	0.8%	161,277	40.5%	**$0**	**-$1,832**
5	Public Authority	2,206,168	3.0%	1,716,898	3.0%	2,300,514	3.2%	583,616	34.0%	**$88,578**	**-$7,531**
6	Sales for Resale	2,050,183	2.8%	721,446	1.2%	1,297,740	1.8%	576,294	79.9%	**$0**	**-$4,251**
7	Private Fire Service	3,110,987	4.3%	1,852,501	3.2%	2,718,967	3.8%	866,466	46.8%	**$0**	**-$8,906**
8	Public Fire Service	1,538,137	2.1%	1,085,138	1.9%	1,189,430	1.6%	104,291	9.6%	**$0**	**-$3,896**
9	Total Sales	72,360,430	100.0%	57,797,649	100.0%	72,357,175	100.0%	14,559,526	25.191%	**-$81,922**	**-$237,000**
10	Other Revenues	325,208		325,208		407,130		81,922	25.2%	**$81,922**	**$0**
11	Revenue to Mahoning Twp. Water					-		-			
12	Total	$ 72,685,638		$ 58,122,857		$ 72,764,304		$ 14,641,447	25.2%	**$0**	**-$237,000**

* Includes DSIC Revenue.

1 1= Proposed Rates. 2=Present Rates

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS
DEVELOPMENT OF RATE OF RETURN BY CUSTOMER CLASSIFICATION
UNDER PROPOSED RATES

ITEM	COST OF SERVICE	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	LARGE INDUSTRIAL	PUBLIC	Sales for Resale	FIRE PROTECTION PRIVATE	FIRE PROTECTION PUBLIC
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. REVENUES FROM SALES	72,357,175	43,311,095	19,731,947	1,248,028	559,454	2,300,514	1,297,740	2,718,967	1,189,430
2. OTHER REVENUES AND CONTRIB. TO MAHONING	407,089	215,005	104,795	6,921	4,804	12,214	11,522	17,384	34,443
3. TOTAL OPERATING REVENUES	72,764,263	43,526,100	19,836,743	1,254,949	564,258	2,312,728	1,309,262	2,736,352	1,223,873
4. LESS: OPERATING EXPENSES (INCLUDES REALLOCATION OF FIRE)	37,740,700	24,987,966	10,479,650	675,154	493,412	1,199,195	1,137,081	1,111,012	(2,341,658)
5. RETURN AND INCOME TAXES	35,023,563	18,538,134	9,357,092	579,794	70,846	1,113,533	172,180	1,625,339	3,565,531
6. LESS: TAXABLE EXCLUSIONS (FACTOR 18)	7,537,520	3,731,826	1,906,992	125,123	79,144	219,342	198,991	434,161	842,393
7. TAXABLE INCOME	27,486,043	14,806,308	7,450,100	454,672	(8,298)	894,192	(26,810)	1,191,178	2,723,138
8. LESS: INCOME TAXES (TAX. INC.)	7,215,909	3,887,099	1,955,874	119,365	(2,178)	234,752	(7,038)	312,720	714,905
9. NET RETURN (Line 5 - Line 8)	27,807,654	14,651,035	7,401,218	460,430	73,025	878,781	179,219	1,312,619	2,850,626
10. ORIGINAL COSTS MEASURE OF VALUE	349,877,351	173,243,490	88,509,211	5,834,698	3,669,197	10,171,060	9,249,103	20,100,199	39,102,903
11. RATE OF RETURN, PERCENT	7.95	8.46	8.36	7.89	1.99	8.64	1.94	6.53	7.29
12. RELATIVE RATE OF RETURN	1.00	1.06	1.05	0.99	0.25	1.09	0.24	0.82	0.92

I&E Exhibit No. 3
Schedule No. 4

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES
FOR THE TEST YEAR ENDED OCTOBER 31, 2025

	Customer Classification	Cost of Service		Revenues, Present Rates*		Revenues, Proposed Rates		Proposed Increase		**I&E Add $237,000**
		Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent Increase	
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	**(J)**
1	Residential	$828,028	55.7%	$405,710	64.0%	$919,869	62.2%	$514,159	126.7%	**$149,442**
2	Commercial	$582,026	39.1%	$178,989	28.2%	$506,973	34.3%	$327,984	183.2%	**$82,362**
3	Private Fire Service	$8,825	0.6%	$2,441	0.4%	$4,291	0.3%	$1,851	75.8%	**$697**
4	Public Fire Service	$68,238	4.6%	$46,804	7.4%	$46,804	3.2%	$0	0.0%	**-$4,680**
5	Total Sales	$1,487,117	100.0%	$633,944	100.0%	$1,477,937	100.0%	$843,993	133.13%	**$227,821**
6	Other Revenues	$6,894		$6,894		$16,073		$9,179	133.1%	**$9,179**
7	Revenue from Veolia Water					$0		$0		**$0**
8	Total	$1,494,011		$640,838		$1,494,010		$853,172	133.1%	**$237,000**

* Includes DSIC Revenue.

I&E Exhibit No. 3
Witness: Esyan A. Sakaya

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

VEOLIA WATER PENNSYLVANIA, INC.

Docket No. R-2024-3045192 (Water)
&
Docket No. R-2024-3045193 (Wastewater)

Exhibits to Accompany

The

Direct Testimony

of

Esyan A. Sakaya

Bureau of Investigation and Enforcement

Concerning:

Rate Base
Annual Amortization Expense
FTY and FPFTY Reporting
Other Operating Revenue – Late Payment Fees
Revenue Contribution to Mahoning Water
Scale Back of Rates
Public Input Hearing

VEOLIA WATER PENNSYLVANIA INC.
WATER OPERATIONS
ORIGINAL COST MEASURE OF VALUE AS OF
31-Oct-25

Line	**VWPA, Kensington and Overbrook**		As of 10/31/2025	I&E Adjustment	I&E Recommended
	(A)		(B)	(C)	(D)
1	Original Cost of Utility Plant In Service	(a)	$550,992,912	$0	$550,992,912
2	Pro Forma UPIS - Brown Manor		$83,674	$0	$83,674
3	Pro Forma UPIS - Kensington		$202,501	$0	$202,501
4	Pro Forma UPIS - Overbrook		$245,970	$0	$245,970
5	Plant Held for Future Use		$52,964	$0	$52,964
6	Less: Accumulated Depreciation	(a)	-$96,999,406	$0	-$96,999,406
7					
8	Net Utility Plant		$454,578,614	$0	$454,578,614
9					
10	CIAC and Contributions		-$84,960,608	$0 (b)	-$84,960,608
11					
12	Add:				
13	Deferred Taxes		-$14,747,777	$0	-$14,747,777
14	Regulatory Liability - New Fed Rate		-$8,301,533	$0	-$8,301,533
15	Regulatory Liability - 2018 Portion		-$756,507	$0	-$756,507
16	Materials and Supplies		$1,656,030	$0	$1,656,030
17	Cash Working Capital		$749,697	$0	$749,697
18					
19	**Total Original Cost Measure of Value**		**$348,217,916**	**$0**	**$348,217,916**
20					
21	(a) Source: Data provided by Company.				
22	(b) 2024 and 2025 CIAC and Advances included in total Net Utility Plant.				
23					
24			As of	I&E	I&E
25	**Bethel Water**		10/31/2025	Adjustment	Recommended
26					
27	Original Cost of Utility Plant In Service	(a)	$8,717,347	$0	$8,717,347
28	Less: Accumulated Depreciation	(a)	-$604,497	$0	-$604,497
29					
30	Net Utility Plant		$8,112,850	$0	$8,112,850
31					
32	CIAC and Contributions		-$6,237,519	$0 (b)	-$6,237,519
33					
34	Add:				
35	Deferred Taxes		-$50,864	$0	-$50,864
36	Regulatory Liability - New Fed Rate		-$134,430	$0	-$134,430
37	Regulatory Liability - 2018 Portion		-$75,988	$0	-$75,988
38	Materials and Supplies		$0	$0	$0
39	Cash Working Capital		$45,385	$0	$45,385
40					
41	**Total Original Cost Measure of Value**		**$1,659,435**	**$0**	**$1,659,435**
42					
43	(a) Source: Data provided by Company.				
44	(b) 2024 and 2025 CIAC and Advances included in total Net Utility Plant.				
45					
46			As of	I&E	I&E
47	**Mahoning Township**		10/31/2025	Adjustment	Recommended
48					
49	Original Cost of Utility Plant In Service	(a)	$8,168,467	$0	$8,168,467
50	**Mahoning Acquisition Adj**		$1,104,896	-$1,104,896	$0
51	**Less: Accumulated Depreciation**	**(a)**	-$2,894,392	$0	-$2,894,392
52					
53	Net Utility Plant		$6,378,971	-$1,104,896	$5,274,075
54					
55	Add:				
56	Deferred Taxes		-$46,056	$0	-$46,056
57	Regulatory Liability		$0	$0	$0
58	Materials and Supplies		$0	$0	$0
59	Cash Working Capital		$5,223	$0	$5,223
60					
61	Total Original Cost Measure of Value		$6,338,138	-$1,104,896	$5,233,242
62					
63	**Total Water Original Cost Measure of Value**		**$356,215,489**	**-$1,104,896**	**$355,110,593**

VEOLIA WASTEWATER PENNSYLVANIA, INC.
ANNUAL DEPRECIATION AND AMORTIZATION EXPENSE
R-2024-3045192
31-Oct-25

Line No.	Description		31-Oct-25		I&E Adjustment	I&E Adjusted	SOURCES
	(A)		(B)		(C)	**(D)**	
1	VWPA Water	*	$11,315,574	*	$0	$11,315,574	Exh GRH-3-Sch 1, pages 2-4 Exh GRH-3-Sch 34
2	Bethel Water	*	$57,584	*	$0	$57,584	
3	Mahoning Water	*	$219,967	*	$0	$219,967	
4	Total Annual Depreciation Expense		$11,593,125		$0	$11,593,125	
	Depreciation Expense Adjustment						
5	VW Pennsylvania Adjustment		$1,894,472		$0	$1,894,472	Exh GRH-2-Sch 1, pages 2-3
6	**Mahoning Township Adjustment**		$9,436		$0	$9,436	Exh GRH-3-Sch 1, pages 2-4
7	Bethel Water Adjustment		$16,312		$0	$16,312	Exh GRH-3-Sch 34
8	total Adjustments		$1,920,220		$0	$1,920,220	
	Amortization of Acquisition Adjustments						
9	Brown Manor		$57,744		$0	$57,744	Exh GRH-2-Sch 1, page 2-3
10	Kensington		$22,500		$0	$22,500	Exh GRH-3-Sch 1, pages 2-4
11	**Overbrook**		$27,330		$0	$27,330	Exh GRH-3-Sch 34
12	**Mahoning Township**		$122,766		-$122,766	$0	
13	**Total AA Adjustments**		$230,340		-$122,766	$107,574	
14	**TOTAL Depreciation and Amortizations**		$13,743,685		-$122,766	$13,620,919	

VEOLIA WASTEWATER PENNSYLVANIA INC.
WASTEWATER OPERATIONS
ORIGINAL COST MEASURE OF VALUE AS OF
31-Oct-25

	Mahoning Township	As of 10/31/2025	I&E Adjustment	I&E Recommended
	(A)	(B)	(C)	(D)
1	Original Cost of Utility Plant In Service	$7,157,751	$0	$7,157,751
2	Mahoning Acquisition Adj	$1,377,307	-$1,377,307	$0
3	Less: Accumulated Depreciation	-$3,260,894	$0	-$3,260,894
4				
5	Net Utility Plant	$5,274,164	-$1,377,307	$3,896,857
6				
7	CIAC and Contributions	$0	$0	$0
8				
9	Add:			
10	Deferred Taxes	$0	$0 (b)	$0
11	Regulatory Liability	$0	$0	$0
12	Materials and Supplies	$0	$0	$0
13	Cash Working Capital	$15,292	$0	$15,292
14				
15	Total Original Cost Measure of Value	$5,289,456	-$1,377,307	$3,912,149
16				
17				
18		As of	I&E	I&E
19	**Columbia County**	10/31/2025	Adjustment	Recommended
20				
21	Original Cost of Utility Plant In Service	$437,003	$0	$437,003
22	Less: Accumulated Depreciation	-$2,957	$0	-$2,957
23				
24	Net Utility Plant	$434,046	$0	$434,046
25				
26	CIAC and Contributions	$0	$0	$0
27				
28	Add:			
29	Deferred Taxes	$0	$0	$0
30	Regulatory Liability	$0	$0	$0
31	Materials and Supplies	$0	$0	$0
32	Cash Working Capital	$3,438	$0 (b)	$3,438
33				
34	Total Original Cost Measure of Value	$437,484	$0	$437,484
35				
36	**Total WasteWater Original Cost Measure of Value**	**$5,726,939**	**-$1,377,307**	**$4,349,632**

(a) Source: Data provided by Company.

VEOLIA WASTEWATER PENNSYLVANIA, INC.
ANNUAL DEPRECIATION AND AMORTIZATION EXPENSE
R-2024-3045193
31-Oct-25

Line No.	Description	Company As Filed 31-Oct-25	I&E Adjustments	I&E Recommended
	(A)	(B)	(C)	(D)
1	Mahoning Sewer	$309,939	$0	$309,939
2	Columbia Sewer	$16,891	$0	$16,891
3	Total Annual Depreciation Expense	$326,830	$0	$326,830
4	Amortization of Mahoning Acquisition Adjustment	$153,034	-$153,034	$0
5	**Total Annual Depreciation and Acquisition Adjustments**	**$479,864**	**-$153,034**	**$326,830**

I&E Statement No. 3-R
Witness: Esyan A. Sakaya

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

VEOLIA WATER PENNSYLVANIA, INC.

Docket No. R-2024-3045192 (Water)
&
Docket No. R-2024-3045193 (Wastewater)

Rebuttal Testimony

of

Esyan A. Sakaya

Bureau of Investigation and Enforcement

Concerning:

Plant Held for Future Use

Private Fire

Mahoning Wastewater Revenue Allocation

TABLE OF CONTENTS

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Esyan A. Sakaya. My business address is Pennsylvania Public Utility Commission, Commonwealth Keystone Building, 400 North Street, Harrisburg, Pennsylvania 17120.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by the Pennsylvania Public Utility Commission ("Commission") in the Bureau of Investigation and Enforcement ("I&E") as a Fixed Utility Valuation Engineer.

Q. ARE YOU THE SAME ESYAN A. SAKAYA THAT SUBMITTED DIRECT TESTIMONY IN I&E STATEMENT NO. 3 IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to respond to the direct testimony of the Pennsylvania Office of Consumer Advocate ("OCA") witnesses Lafayette K. Morgan, Jr. (OCA Statement No. 2) and Jerome D. Mierzwa (OCA Statement No. 4) and Pennsylvania Office of Small Business Advocate ("OSBA") witness Neal Townsend (OSBA Statement No. 1).

I will describe the Bureau of Investigation and Enforcement's ("I&E") positions concerning plant held for future use, the rate increase being proposed for public fire, and the wastewater revenue allocation being proposed.

Q. DOES YOUR REBUTTAL TESTIMONY INCLUDE AN ACCOMPANYING EXHIBIT?

A. No.

PLANT HELD FOR FUTURE USE

Q. WHAT IS PLANT HELD FOR FUTURE USE?

A. Plant held for future use generally refers to land and rights of way the Company purchased in the past for projects that it intends to build and place into service in the future. Since the plant is not "used and useful" in the provision of utility service, it is not included in water plant in service.

Q. FOR WATER, DID THE TOTAL RATE BASE CLAIMED BY THE COMPANY FOR THE FPFTY ENDING OCTOBER 31, 2025 INCLUDE ANY PLANT HELD FOR FUTURE USE?

A. Yes. The Company's $356,215,489 rate base claim for its FPFTY included $52,964 of plant held for future use (Veolia Exhibit No. GRH-2, Sch 1.1).

Q. WHAT DID THIS $52,964 OF PLANT HELD FOR FUTURE USE REPRESENT?

A. The $52,964 plant held for future use is a property that previously held a Park Supply Treatment Plant. The Company reported that this plant was demolished and there were no current plans for its use. In addition to this, Veolia stated that it will exclude the $52,964 initial claim in rebuttal testimony (OCA St. No. 2, p. 8 and OCA Schedule LKM W-6).

Q. WHAT DID OCA WITNESS MORGAN PROPOSE REGARDING PLANT HELD FOR FUTURE USE?

A. OCA proposed removing the $52,964 from the Company claim regarding plant held for future use (OCA St. No. 2, p. 8).

Q. DO YOU AGREE WITH THIS OCA ADJUSTMENT FOR PLANT HELD FOR FUTURE USE?

A. Yes. I concur with OCA's removal of $52,964 of plant held for future use, which I overlooked in my direct testimony as it is not "used and useful" and should not be included in rate base.

Q. WHY DO YOU RECOMMEND THAT THE PLANT HELD FOR UNDETERMINED FUTURE USE BE REMOVED FROM RATE BASE?

A. It is a long held regulatory requirement that utilities can only earn a return of and a

return on plant that is "used and useful" in the provision of utility service. The $52,964 plant held for future use is not providing service to customers, and therefore, does not meet the criteria of a "used and useful" asset in this proceeding. Ratepayers should only be expected to pay for plant investments that provide service, not for demolished plant not in use.

PUBLIC FIRE

Q. WHAT DID OCA WITNESS MIERZWA PROPOSE REGARDING PUBLIC FIRE?

A. OCA witness Mierzwa proposed increasing the Public Fire charges to a level that would constitute 25% of the cost of service, subject to a maximum increase of 2.0 times the system average authorized by the Commission in this proceeding (OCA St. No. 4, p. 4).

Q. DO YOU AGREE WITH OCA'S PUBLIC FIRE PROPOSAL?

A. No. OCA based its Public Fire service proposal under Section 1328 of the Public Utility Code that indicates that rates for Public Fire service are limited to 25% of the cost of service (OCA St. No. 4, p. 13).

Q. WHAT WAS YOUR POSITION IN DIRECT TESTIMONY REGARDING PUBLIC FIRE RATES?

A. My position regarding Public Fire was based upon the Company's Cost of Service

Study shown in Veolia Ex. No. CEH-2, Sch. A. According to Veolia, the cost incurred to provide Public Fire Service is $68,238, and the present rate revenue from Public Fire Service is $46,804. Calculating 25% of the cost to provide Public Fire Service in accordance with Section 1328(b) of the Public Utility Code indicates that if present rate revenue received from Public Fire is above $17,060 or ($68,238 x 25%), present rates cannot be increased. Since present rates produce $46,804 and $46,804 is greater than $17,060, I am advised by counsel that Public Fire Service rates cannot be increased. Therefore, I proposed no increase for Public Fire rates for the Main or Mahoning divisions as shown in I&E Exhibit No. 3, Sch. No. 3, p. 1, col. J, line 7.

MAHONING WASTEWATER REVENUE ALLOCATION

Q. WHAT WERE OSBA'S OBSERVATIONS REGARDING INCREASES FOR THE MAHONING WASTEWATER CUSTOMERS?

A. OSBA recommended that Mahoning non-residential wastewater customers not have their rates increased, while Mahoning residential customers should have their rates increased (OSBA St. No. 1, p. 5).

Q. WHAT WAS OSBA'S REASONING FOR THEIR WASTEWATER REVENUE ALLOCATION PROPOSAL?

A. OSBA opines that the Mahoning residential wastewater revenue allocation should be higher than non-residential as it would supposedly bring the residential

wastewater revenue closer to its cost to serve (OSBA St. No. 1, p. 5).

Q. DO YOU AGREE WITH THIS PROPOSAL?

A. No. I proposed the Mahoning Wastewater revenue be proportionally scaled back (I&E St. No. 3, pp. 20-21) from the Company's as filed rate request.

Q. WHY DID YOU RECOMMEND A PROPORTIONAL SCALE BACK BE APPLIED TO MAHONING WASTEWATER RATES?

A. Veolia's Mahoning wastewater COSS comparison shown on Exhibit No. CEH-3, Schedule A shows the cost to serve the Residential class is more than revenue received from present rates, and the cost to serve the Non-Residential class is less than the revenue received from the Non-Residential customers. Given this disparity, the Company proposed a higher percentage increase for the Residential class. Therefore, a proportional scale back is reasonable to generate revenue and limit the increase to the Residential class to 38.0%.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.

I&E Statement No. 1-SR
Witness: Vanessa Okum

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

VEOLIA WATER PENNSYLVANIA, INC.

Docket No. R-2024-3045192 (Water)

and

Docket No. R-2024-3045193 (Wastewater)

Surrebuttal Testimony

of

Vanessa Okum

Bureau of Investigation and Enforcement

Concerning:

OPERATING AND MAINTENANCE EXPENSES, CAP TRACKER
CASH WORKING CAPITAL

TABLE OF CONTENTS

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Vanessa Okum. My business address is Pennsylvania Public Utility Commission, Commonwealth Keystone Building, 400 North Street, Harrisburg, PA 17120.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed as a Fixed Utility Financial Analyst in the Pennsylvania Public Utility Commission's (Commission) Bureau of Investigation and Enforcement (I&E).

Q. ARE YOU THE SAME VANESSA OKUM WHO SUBMITTED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes. I submitted I&E Statement No. 1 Proprietary, I&E Statement No. 1 Non-Proprietary, and I&E Exhibit No. 1. For purposes of clarity, when I reference my prior testimony, I will be referencing the Non-Proprietary version unless otherwise indicated.

Q. DOES YOUR SURREBUTTAL TESTIMONY INCLUDE AN ACCOMPANYING EXHIBIT?

A. Yes. I&E Exhibit No. 1-SR contains schedules relating to my surrebuttal testimony.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimony of the following witnesses for Veolia Water Pennsylvania, Inc. (VWPA or Company) regarding VWPA's operating and maintenance (O&M) expenses and the Company's proposed Customer Assistance Program (CAP) and tracker:

- Gregory Herbert – VWPA Statement No. 2-R
- Harold Walker, III – VWPA Statement No. 4-R
- James Cagle – VWPA Statement No. 6-R
- Anupa Jacob – VWPA Statement No. 8-R

Note that I do not intend for my surrebuttal testimony to address every issue raised or otherwise discussed by the witnesses in this proceeding. My lack of response to any recommendation, position, or assertion of any witness does not necessarily indicate agreement with their rebuttal testimony.

Q. HAS VWPA UPDATED ITS OVERALL REVENUE REQUIREMENT CLAIM IN REBUTTAL TESTIMONY?

A. Yes. The Company updated its overall revenue requirement claim from $76,463,031 to $76,356,113 based upon the revised fully projected future test year (FPFTY) pro forma revenue requirement calculation that reflects a total revenue increase of $15,952,655 for the combined water and wastewater operations, compared to the original increase of $16,063,339. A revised breakdown of

VWPA's requested revenue increase by operation is as follows:

	Revenue Increase	Reference
Main Water Division	$14,840,896	VWPA Exhibit No. GRH-2-R, Schedule-1, p. 2
Mahoning Water	$624,053	VWPA Exhibit No. GRH-2-R, Schedule-1, p. 3
Columbia Wastewater	$109,625	VWPA Exhibit No. GRH-4-R, Schedule-1, p. 3
Mahoning Wastewater	$378,081	VWPA Exhibit No. GRH-4-R, Schedule-1, p. 2
Total Company	**$15,952,655**	

Q. DOES VWPA EXPLAIN THE REVISIONS TO ITS ORIGINAL FILING?

A. Yes. The revisions to the filing are explained by VWPA witness Gregory Herbert.[1]

Q. ARE ANY OF THESE CHANGES ESPECIALLY RELEVANT TO YOUR SURREBUTTAL TESTIMONY?

A. Yes. The Company states four of the eleven new hires projected for the FTY have been hired and the remaining seven have been moved to the FPFTY forecast. The Company has also increased its vacancy count from three to five vacancies but expects these positions to be filled in the FPFTY. The updated labor expense projections reduce the as-filed claim by $134,009 in the FPFTY. As a result of this change to labor expense, the FPFTY claim for employee group health and life insurance is reduced by $94,067, the FPFTY claim for 401k matching and other benefits is reduced by $8,045, and the FPFTY claim for payroll tax is reduced by $19,539. All of these changes affect water operations only.

[1] VWPA Statement No. 2, pp. 3-6 and VWPA Exhibit GRH-3-R.

I&E OPERATING AND MAINTENANCE EXPENSE ADJUSTMENTS

Q. PLEASE SUMMARIZE YOUR RECOMMENDED ADJUSTMENTS AS UPDATED IN THIS SURREBUTTAL TESTIMONY.

A. The following tables summarize my updated recommendations as discussed further in this surrebuttal testimony:

Main Water Division:

	Company Claim	Recommended Allowance	I&E Adjustment
O&M Expenses:			
Labor Expense	$7,284,520	$6,972,743	($311,777)
Employee Group Health and Life Insurance	$1,502,907	$1,037,703	($465,204)
401k Matching and Other Benefits	$436,856	$418,161	($18,695)
Payroll Tax Expense	$898,680	$860,216	($38,464)
Lab Testing Fees	$212,334	$199,532	($12,802)
Outside Contractors	$1,711,389	$1,617,403	($93,986)
Other O&M Expense	$164,161	$155,043	($9,118)
Rate Case Expense	$236,460	$166,913	($69,547)
Customer Assistance Program	$1,000,000	$929,412	$70,588
Total O&M Expense Adjustments			**($1,090,181)**
Rate Base:			
Cash Working Capital	$791,165	$749,874	($41,291)
Total Rate Base Adjustments			**($41,291)**

Mahoning Water:

	Company Claim	Recommended Allowance	I&E Adjustment
O&M Expenses:			
Employee Group Health and Life Insurance	$999	$613	($386)
Other O&M Expense	$894	$845	($49)
Total O&M Expense Adjustments			**($435)**
Rate Base:			
Cash Working Capital	$5,230	$5,217	($13)
Total Rate Base Adjustments			**($13)**

Columbia Wastewater:

	Company Claim	Recommended Allowance	I&E Adjustment
O&M Expenses:			
Lab Testing Fees	$3,669	$3,592	($77)
Outside Contractors	$29,795	$29,342	($453)
Total O&M Expense Adjustments			**($530)**
Rate Base:			
Cash Working Capital	$3,438	$3,435	($3)
Total Rate Base Adjustments			**($3)**

Mahoning Wastewater:

	Company Claim	Recommended Allowance	I&E Adjustment
O&M Expenses:			
Lab Testing Fees	$108,368	$106,077	($2,291)
Outside Contractors	$880,038	$866,583	($13,455)
Total O&M Expense Adjustments			**($15,746)**
Rate Base:			
Cash Working Capital	$15,292	$15,117	($175)
Total Rate Base Adjustments			**($175)**

OVERALL I&E RECOMMENDED POSITION

Q. WHAT IS I&E'S TOTAL UPDATED RECOMMENDED REVENUE REQUIREMENT FOR THE MAIN WATER DIVISION?

A. I&E's total updated recommended revenue requirement for the Main Water Division is $67,884,425. This recommended revenue requirement represents an increase of $9,756,262 to the Company's updated present rate revenues of $58,128,163. This total recommended allowance incorporates my adjustments made in this testimony to O&M expenses and cash working capital, as well as the recommended adjustments made in the testimony of I&E witnesses D.C. Patel[2] and Esyan Sakaya.[3] A calculation of the I&E recommended revenue requirement is shown in Table I(a) below:

[2] I&E Statement No. 2-SR.
[3] I&E Statement No. 3-SR.

Veolia Main Water Division		TABLE I(a)			
R-2024-3045192		INCOME SUMMARY			
	10/31/25	INVESTIGATION & ENFORCEMENT			
	Proforma	[----------			]
	Present Rates	Adjustments	Present Rates	Allowances	Proposed
	$	$	$	$	$
Operating Revenue	58,128,163	0	58,128,163	9,756,262	67,884,425
Deductions:					
O&M Expenses	24,907,225	-1,090,181	23,817,044	52,586	23,869,630
Depreciation	11,480,732	0	11,480,732		11,480,732
Taxes, Other	1,241,702	0	1,241,702	61,399	1,303,101
Income Taxes:					
Current State	614,519	88,412	702,931	781,989	1,484,920
Current Federal	1,513,288	210,370	1,723,658	1,860,660	3,584,318
Deferred Taxes	1,107,248	0	1,107,248		1,107,248
ITC	0	0	0		0
Total Deductions	40,864,714	-791,399	40,073,315	2,756,634	42,829,949
Income Available	17,263,449	791,399	18,054,848	6,999,628	25,054,476
Measure of Value	349,964,134	-41,291	349,922,843	0	349,922,843
Rate of Return	4.93%		5.16%		7.16%

Q. WHAT IS I&E'S TOTAL RECOMMENDED REVENUE REQUIREMENT FOR MAHONING WATER?

A. I&E's total updated recommended revenue requirement for Mahoning Water is $1,337,457. This recommended revenue requirement represents an increase of $698,211 to the Company's updated present rate revenues of $639,246. This total recommended allowance incorporates my adjustments made in this testimony to O&M expenses and cash working capital, as well as the recommended adjustments made in the testimony of I&E witnesses D.C. Patel and Esyan Sakaya. A calculation of the I&E recommended revenue requirement is shown in Table I(b) below:

Mahoning Water		TABLE I(b)			
R-2024-3045192		INCOME SUMMARY			
	10/31/25	INVESTIGATION & ENFORCEMENT			
	Proforma	[----------			]
	Present Rates	Adjustments	Present Rates	Allowances	Proposed
	$	$	$	$	$
Operating Revenue	639,246	0	639,246	698,211	1,337,457
Deductions:					
O&M Expenses	510,133	-432	509,701	3,763	513,464
Depreciation	251,303	0	251,303		251,303
Taxes, Other	7,469	0	7,469	1,578	9,047
Income Taxes:					
Current State	-30,132	35	-30,097	56,175	26,078
Current Federal	-70,770	83	-70,687	132,737	62,050
Deferred Taxes	21,705	0	21,705		21,705
ITC	0	0	0		0
Total Deductions	689,708	-314	689,394	194,253	883,647
Income Available	-50,462	314	-50,148	503,958	453,810
Measure of Value	6,338,145	-13	6,338,132	0	6,338,132
Rate of Return	-0.80%		-0.79%		7.16%

Q. WHAT IS I&E'S TOTAL RECOMMENDED REVENUE REQUIREMENT FOR COLUMBIA WASTEWATER?

A. I&E's total updated recommended revenue requirement for Columbia Wastewater is $150,382. This recommended revenue requirement represents an increase of $103,753 to present rate revenues of $46,629. This total recommended allowance incorporates my adjustments made in this testimony to O&M expenses and cash working capital, as well as the recommended adjustments made in the testimony of I&E witnesses D.C. Patel and Esyan Sakaya. A calculation of the I&E recommended revenue requirement is shown in Table I(c) below:

Columbia Wastewater		TABLE I(c)			
R-2024-3045193		INCOME SUMMARY			
	10/31/25	INVESTIGATION & ENFORCEMENT			
	Proforma	[----------			]
	Present Rates	Adjustments	Present Rates	Allowances	Proposed
	$	$	$	$	$
Operating Revenue	46,629	0	46,629	103,753	150,382
Deductions:					
O&M Expenses	99,017	-525	98,492	2	98,494
Depreciation	16,891	0	16,891		16,891
Taxes, Other	48	0	48	97	145
Income Taxes:					
Current State	-10,225	43	-10,182	8,401	-1,781
Current Federal	-23,918	101	-23,817	19,578	-4,239
Deferred Taxes	9,548	0	9,548		9,548
ITC	0	0	0		0
Total Deductions	91,361	-381	90,980	28,078	119,058
Income Available	-44,732	381	-44,351	75,675	31,324
Measure of Value	437,484	-3	437,481	0	437,481
Rate of Return	-10.22%		-10.14%		7.16%

Q. WHAT IS I&E'S TOTAL RECOMMENDED REVENUE REQUIREMENT FOR MAHONING WASTEWATER?

A. I&E's total updated recommended revenue requirement for Mahoning Wastewater is $1,893,567. This recommended revenue requirement represents an increase of $304,147 to present rate revenues of $1,589,420. This total recommended allowance incorporates my adjustments made in this testimony to O&M expenses and cash working capital, as well as the recommended adjustments made in the testimony of I&E witnesses D.C. Patel and Esyan Sakaya. A calculation of the I&E recommended revenue requirement is shown in Table I(d) below:

Mahoning Wastewater		TABLE I			
R-2024-3045193		INCOME SUMMARY			
	10/31/25	INVESTIGATION & ENFORCEMENT			
	Proforma	[----------			]
	Present Rates	Adjustments	Present Rates	Allowances	Proposed
	$	$	$	$	$
Operating Revenue	1,589,420	0	1,589,420	304,147	1,893,567
Deductions:					
O&M Expenses	1,055,918	-15,746	1,040,172	6	1,040,178
Depreciation	382,566	0	382,566		382,566
Taxes, Other	4	0	4	2,338	2,342
Income Taxes:					
Current State	-6,698	1,277	-5,421	24,476	19,055
Current Federal	-14,862	3,038	-11,824	58,239	46,415
Deferred Taxes	24,298	0	24,298		24,298
ITC	0	0	0		0
Total Deductions	1,441,226	-11,431	1,429,795	85,059	1,514,854
Income Available	148,194	11,431	159,625	219,088	378,713
Measure of Value	5,289,456	-175	5,289,281	0	5,289,281
Rate of Return	2.80%		3.02%		7.16%

Q. SUMMARIZE I&E'S UPDATED COMBINED RECOMMENDED REVENUE REQUIREMENT.

A. I&E's total updated recommended revenue requirement for all VWPA operations combined is $71,265,831 as shown in Table II below. This recommended revenue requirement represents an increase of $10,862,373 to the Company's updated total present rate revenues of $60,403,458 for the Main Water Division, Mahoning Water, Columbia Wastewater, and Mahoning Wastewater. As mentioned above, this total recommended allowance incorporates my adjustments made in this testimony to O&M expenses and cash working capital, as well as the

recommended adjustments made in the testimony of I&E witnesses D.C. Patel and Esyan Sakaya.[4]

Q. WHAT IS I&E'S RESPONSE TO THE COMPANY'S ATTEMPT TO MITIGATE THE IMPACT OF THE REVENUE INCREASE TO MAHONING WATER VIA A REVENUE CONTRIBUTION?

A. As further discussed in his testimony,[5] I&E witness Esyan Sakaya does not support this arbitrary allocation in the instant proceeding as shown in the table below:

Table II
Veolia Water Pennsylvania, Inc
I&E Recommended - Combined Water and Wastewater Revenue Requirement Summary

		Total Company	Veolia, Bethel, Kensington & Overbrook Water	Mahoning Twp. Water	Columbia Wastewater	Mahoning Wastewater
Present Rate Revenue	(1)	$ 60,403,458	$ 58,128,163	$ 639,246	$ 46,629	$ 1,589,420
I&E Recommended:						
Additional Revenue Requirement	(2)	$ 10,862,373	$ 9,756,262	$ 698,211	$ 103,753	$ 304,147
Proposed Contribution from Main Division	(3)	$ -	$ -	$ -	$ -	$ -
Proposed Revenues	(4)	$ 71,265,831	$ 67,884,425	$ 1,337,457	$ 150,382	$ 1,893,567
Rate Increase/(Decrease)	(5)	$ 10,862,373	$ 9,756,262	$ 698,211	$ 103,753	$ 304,147
		18.0%	16.8%	109.2%	222.5%	19.1%

LABOR EXPENSE

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR LABOR EXPENSE.

A. I recommended an allowance of $7,101,016 for Main Water Division labor expense, or a reduction of $317,513 ($7,418,529 - $7,101,016) to the Company's

[4] I&E Statement Nos. 2-SR and 3-SR.
[5] I&E Statement No. 3 and I&E Statement No. 3-SR.

expense claim. This recommendation was based on adjusting the expense using a calculated vacancy rate.[6]

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. VWPA witness Gregory Herbert disagrees with my recommendation.

Q. PLEASE SUMMARIZE MR. HERBERT'S RESPONSE.

A. Mr. Herbert reiterates the Company's changes to the labor expense claim which result in a reduction of $134,009 or an updated claim of $7,284,520 for the Main Water Division due to four of the eleven new hires projected for the FTY having been hired and the remaining seven having been moved to the FPFTY forecast. As mentioned above, the Company has also increased from three to five vacancies but expects these positions to be filled in the FPFTY. However, he disagrees with removing the Company's vacant positions from the FPFTY claim. He states that the Company fully expects to fill these positions in the FPFTY and will be paying these salaries and benefits. He further asserts that it would be unreasonable ratemaking policy to wait until the next rate base rate proceeding for the Company to fully recover these salaries.[7]

[6] I&E Statement No. 1, pp. 12-14.
[7] VWPA Statement No. 2-R, pp. 11-12.

Q. DO YOU AGREE WITH THE COMPANY'S UPDATED CLAIM?

A. No. As stated in my direct testimony, it is unreasonable to assume that the Company will be able to achieve and maintain 100% staffing in the FPFTY. There will always be a normal level of vacancies due to retirements, resignations, promotions, etc., as well as a hiring lag to re-fill these positions. Such vacancies will yield an annual savings in payroll costs which need to be reflected to eliminate an unreasonable impact on rates. My recommended adjustment does not address specific vacant positions but addressed the fact that the Company will always have a certain level of vacancies in a year, and ratepayers should not be subject to the associated expense.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION REGARDING LABOR EXPENSE?

A. Yes. Although I continue to recommend an adjustment based on my calculated vacancy rate, which was not affected by the Company's changes, due to the Company's updated claim, I am updating my recommended allowance for labor expense to $6,972,743, or a reduction of $311,777 ($7,284,520 - $6,972,743) to the Company's updated FPFTY claim.

1. VWPA FPFTY updated claim	$7,284,520
2. I&E Calculated Vacancy Rate[8]	4.28%
3. I&E Vacancy Rate Adjustment (1 x 0.0428)	$311,777
4. I&E Allowance (1 - 3)	$6,972,743

[8] I&E Exhibit No. 1, Schedule 4.

EMPLOYEE GROUP HEALTH AND LIFE INSURANCE

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR EMPLOYEE GROUP HEALTH AND LIFE INSURANCE.

A. I recommended an allowance of $1,039,945 for Main Water Division employee group health and life insurance expense, or a reduction of $556,967 ($1,596,912 - $1,039,945) to the Company's claim and an allowance of $640 for Mahoning Water, or a reduction of $421 ($1,061 - $640) to the Company's claim. My recommendation was based on the data inputs provided by the Company to develop the budget for this expense as well as application of the calculated 4.28% vacancy rate to correspond with the labor adjustment.[9]

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. VWPA witness Gregory Herbert disagrees with my recommendation.

Q. PLEASE SUMMARIZE MR. HERBERT'S RESPONSE.

A. Mr. Herbert states that because he does not agree with my vacancy adjustment related to labor expense, he does not agree with this adjustment which is also based on the vacancy rate.[10] Additionally, he reiterates the Company's rebuttal position for employee group health and life insurance is reduced by $94,067

[9] I&E Statement No. 1, pp. 15-18.
[10] VWPA Statement No. 2-R, p. 12.

producing an updated claim[11] of $1,502,907 for the Main Water Division and $999 for Mahoning Water due to shifting seven employees from the FTY to the FPFTY.

Q. DO YOU AGREE WITH THE COMPANY'S UPDATED CLAIM?

A. No. I continue to recommend that a vacancy rate is appropriate to adjust labor expense, and by extension, employee group health and life insurance.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR EMPLOYEE GROUP HEALTH AND LIFE INSURANCE?

A. Yes. Since the Company has updated its FPFTY claim in rebuttal testimony, my recommended allowance has also changed, as I have recalculated to adjust for the Company shifting seven employees from the FTY to the FPFTY. Once again, I have used the Company's data but my calculation yields a different outcome.[12] As a result, I recommend an FPFTY allowance for employee group health and life insurance of $1,037,703 or a reduction of $465,204 ($1,502,907 – $1,037,703) to the Company's updated claim for Main Water Division and $613, or a reduction of $386 ($999 - $613) to the Company's updated claim for Mahoning Water, as shown below:

[11] VWPA Exhibit No. GRH-3-R, Schedule-3.
[12] I&E Exhibit No. 1-SR, Schedule 1.

	Main Water Division	Mahoning Water
HTY Actual Cost	$920,056	$611
Add 4 Employees	$51,167	
Add FTY Inflation (2.375%)		$15
FTY Forecast	$971,223	$626
Add 7 Employees	$89,543	
Add FPFTY Inflation (2.20%)	$23,337	$14
Less Vacancy Adjustment	($46,400)	($27)
FPFTY Allowance	$1,037,703	$613

401K MATCHING AND OTHER BENEFITS

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR 401K MATCHING AND OTHER BENEFITS.

A. I recommended an allowance of $425,857 for the Main Water Division 401k matching and other benefits expense, or a reduction of $19,039 ($444,896 - $425,857) to the Company's claim. This recommendation corresponds to the vacancy adjustment made to labor expense above.[13]

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. VWPA witness Gregory Herbert disagrees with my recommendation.

Q. PLEASE SUMMARIZE MR. HERBERT'S RESPONSE.

A. Mr. Herbert states that he disagrees with my adjustment to 401k matching and

[13] I&E Statement No. 1, pp. 19-20.

other benefits for the same reasons that he disagrees with my adjustments to labor expense and employee group health and life insurance.[14] He reiterates that the Company's change to its FPFTY labor expense claim in rebuttal testimony also causes a reduction of $8,045 to the Company's claim producing an updated claim of $436,856 for 401k matching and other benefits.[15]

Q. DO YOU AGREE WITH THE COMPANY'S UPDATED CLAIM?

A. No. I continue to recommend that a vacancy rate is appropriate to adjust labor expense, and by extension, 401k matching and other benefits.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR 401K MATCHING AND OTHER BENEFITS?

A. Yes. Since the Company has updated its FPFTY claim in rebuttal testimony, I have recalculated my adjustment which produces a recommended allowance of $418,161 or an adjustment of $18,695 ($436,856 - $418,161) to the Company's updated Main Water Division claim as calculated below:

Main Water Division	
FPFTY 401k Matching Claim	$436,788
Vacancy Adjustment (4.28%)	($18,695)
Add Other Benefits	$68
I&E FPFTY Allowance	$418,161

[14] VWPA Statement No. 2-R, p. 13.
[15] VWPA Exhibit No. GRH-3-R, Schedule-6.

PAYROLL TAX EXPENSE

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR PAYROLL TAX EXPENSE.

A. I recommended an allowance of $878,919 for Main Water Division payroll tax expense, or a reduction of $39,300 ($918,219 - $878,919) to the Company's FPFTY Main Water Division claim. This recommendation corresponds to the vacancy adjustment made to labor expense above.[16]

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. VWPA witness Gregory Herbert disagrees with my recommendation.

Q. PLEASE SUMMARIZE MR. HERBERT'S RESPONSE.

A. Mr. Herbert states that payroll taxes should be adjusted for the changes the Company made to its labor expense claim. He further states that he supports this correction, which results in a reduction of $19,539 to the payroll tax claim for an updated claim of $898,680 for the Main Water Division.[17]

Q. DO YOU AGREE WITH THE COMPANY'S UPDATED CLAIM?

A. No. I continue to recommend that a vacancy rate is appropriate to adjust labor expense, and by extension, payroll tax expense.

[16] I&E Statement No. 1, pp. 21-22.
[17] VWPA Statement No. 2-R, p. 20.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR PAYROLL TAX EXPENSE?

A. Yes. Since the Company has updated its claim, I have recalculated my adjustment which produces an updated recommended allowance of $860,216 or a reduction of $38,464 ($898,680 - $860,216) to the Company's Main Water Division claim calculated as follows based on a 4.28% vacancy rate:

Main Water Division	
FPFTY Claim	$898,680
x Vacancy Adjustment (4.28%)	4.28%
I&E Recommended Adjustment	$38,464

MANAGEMENT AND SERVICE (M&S) FEES

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR M&S FEES.

A. I recommended an FPFTY allowance of $4,202,062, or a reduction of $409,274 ($4,611,336 - $4,202,062) for the Main Water Division and $62,730, or a reduction of $6,110 ($68,840 - $62,730) for Mahoning Water. This recommendation was based on the Company's calculated inflation factors of 2.375% in the FTY and 2.20% in the FPFTY.[18]

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. VWPA witness Anupa Jacob disagrees with my recommendation.

[18] I&E Statement No. 1, pp. 23-24.

Q. PLEASE SUMMARIZE MS. JACOB'S RESPONSE.

A. Ms. Jacob states that the FTY forecast for M&S fees was based on a 3% inflation rate with the exception of fees related to insurance, customer experience, and an allocated portion of depreciation expense for shared assets. She then further explains the forecasts for each of these areas. Ms. Jacob also points out that the majority of the remaining expenses are related to personnel costs, which have recently been increasing by approximately 3.5% year-over-year. For this reason, VWPA asserts that a 3% inflation rate is more accurate for these expenses than the 2.2% calculated inflation rate used for most other expenses.[19]

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION BASED ON MS. ANUPA'S RESPONSE?

A. Yes. I accept Ms. Jacob's explanation regarding M&S fees based on a large portion of the claim being labor related and withdraw my recommended adjustment to M&S fees.

LAB TESTING FEES

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR LAB TESTING FEES.

A. I recommended a total FPFTY allowance of $309,201 for lab testing fees broken down as follows:

[19] VWPA Statement No. 8, pp. 3-4.

	VWPA Claim	I&E Recommended Allowance	Recommended Adjustment
Main Water Division	$212,334	$199,532	($12,802)
Columbia Wastewater	$3,669	$3,592	($77)
Mahoning Wastewater	$108,368	$106,077	($2,291)
Total	$324,371	$309,201	($15,170)

I based my recommendation on a three-year historic average and applied the Company's calculated inflation factors.[20]

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. VWPA witness Gregory Herbert disagrees with my recommendation.

Q. PLEASE SUMMARIZE MR. HERBERT'S RESPONSE.

A. Mr. Herbert argues that using a three-year average of expenses in this inflationary era is not appropriate. He provides an example of an expense which starts at $1,000 in year one and grows to $1,044.48 in year three with a consistent inflation rate of 2.2%. He states that a three-year average of these costs would only allow the Company to recover $1,022.16, while a two-year average produces $1,033.24 which would be closer to the true expense.[21]

Mr. Herbert also points out that the Company has already decreased its FPFTY claim by $34,969 from HTY costs, which acknowledges that HTY costs

[20] I&E Statement No. 1, pp. 25-27.
[21] VWPA Statement No. 2, p. 10.

were an outlier compared to FY 2021 and FY 2022.[22]

Q. DO YOU FIND MR. HERBERT'S RESPONSE CONVINCING?

A. No. Mr. Herbert argues that we are currently in an inflationary era, however, in his example, he fails to mention that my recommended adjustment accepts the Company's calculated inflation rates for the FTY and FPFTY. Additionally, the Company's forecasted 2.2% inflation is relatively low compared to much higher inflation experienced over the past three years of historic data with inflation reaching as high as 9.7% during the second quarter of 2022,[23] so to say that we are in an inflationary era I believe is misleading.

Finally, the Company has chosen to use a three-year average for other expenses addressed in this proceeding, such as outside professional services[24] and postage and air freight expense.[25] I recommend that the Company should be consistent in its approach to forecasting. By using a three-year average to forecast some items and a two-year average for others without a convincing basis, the Company is inconsistent. I also believe that a three-year average is more appropriate because it helps to smooth out outliers like the one mentioned above by Mr. Herbert regarding HTY lab testing fees.

[22] VWPA Statement No. 2, p. 17.
[23] Blue Chip Financial Forecasts, Vol. 42, No. 12, December 2023.
[24] VWPA Exhibit GRH-3-R, Schedule 15.
[25] VWPA Exhibit GRH-3-R, Schedule 27.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR LAB TESTING FEES?

A. No. I continue to recommend a total allowance of $309,201 for lab testing fees broken down by business unit as shown in the table above.

OUTSIDE CONTRACTORS

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR OUTSIDE CONTRACTORS?

A. I recommended a total FPFTY allowance of $2,513,328 for outside contractors expense broken down as follows:

FPFTY	Company Claim	I&E Allowance	Adjustment
Main Water Division	$1,711,389	$1,617,403	($93,986)
Columbia Wastewater	$29,795	$29,342	($453)
Mahoning Wastewater	$880,038	$866,583	($13,455)
Total	$2,621,222	$2,513,328	($107,894)

I based my recommendation on a three-year historic average and applied the Company's calculated inflation factors.[26]

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. VWPA witness Gregory Herbert disagrees with my recommendation.

[26] I&E Statement No. 1, pp. 28-30.

Q. PLEASE SUMMARIZE MR. HERBERT'S RESPONSE.

A. Again, Mr. Herbert argues that using a three-year average of expenses in this inflationary era is not appropriate. He provides an example of an expense which starts at $1,000 in year one and grows to $1,044.48 in year three with a consistent inflation rate of 2.2%. He states that a three-year average of these costs only allows the company to recover $1,022.16, while a two-year average produces $1,033.24 which would be closer to the true expense.[27] Mr. Herbert maintains that a two-year average with inflation is more indicative of future costs for outside contractors expense.[28]

Q. DO YOU FIND MR. HERBERT'S RESPONSE CONVINCING?

A. No. As I mentioned above, Mr. Herbert argues that we are currently in an inflationary era, however, in his example, he fails to mention that my adjustment accepts the Company's calculated inflation rates for the FTY and FPFTY. Additionally, the Company's forecasted 2.2% inflation is relatively low compared to much higher inflation experienced over the past three years of historic data,[29] so to say that we are in an inflationary era I believe is misleading.

Finally, the Company has chosen to use a three-year average for other expenses addressed in this case, such as outside professional services[30] and postage and air freight expense.[31] I recommend that the Company should be

[27] VWPA Statement No. 2, p. 10.
[28] VWPA Statement No. 2, p. 18.
[29] Blue Chip Financial Forecasts, Vol. 42, No. 12, December 2023.
[30] VWPA Exhibit GRH-3-R, Schedule 15.
[31] VWPA Exhibit GRH-3-R, Schedule 27.

consistent in its approach to forecasting, unless a more specific basis can be supported by documentation. By using a three-year average to forecast some items and a two-year average for others, the Company is inconsistent. I also believe that a three-year average is more appropriate because it helps to smooth out outliers like the one mentioned above by Mr. Herbert regarding HTY lab testing fees.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR OUTSIDE CONTRACTORS?

A. No. I continue to recommend a total FPFTY allowance of $2,513,328 for outside contractors expense broken down by business unit as shown in the table above.

OTHER O&M EXPENSE

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR OTHER O&M EXPENSE.

A. I recommended an FPFTY allowance of $155,043, or a reduction of $9,118 ($164,161 - $155,043) to the Company's claim for the Main Water Division, and $845, or a reduction of $49 ($894 - $845) to the Company's claim for Mahoning Water. I based my recommendation on a three-year historic average and applied the Company's calculated inflation factors.[32]

[32] I&E Statement No. 1, pp. 31-32.

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. VWPA witness Gregory Herbert disagrees with my recommendation.

Q. PLEASE SUMMARIZE MR. HERBERT'S RESPONSE.

A. Again, Mr. Herbert argues that using a three-year average of expenses in this inflationary era is not appropriate. He provides an example referenced twice above related to $1,000 and how a two-year historic average adjusted for inflation allows for a larger claim.[33] Mr. Herbert maintains that a two-year average with inflation is more indicative of future costs for other O&M expense.[34]

Q. ARE YOU PERSUADED BY MR. HERBERT'S RESPONSE?

A. No. As I mentioned above with regard to lab testing fees and outside contractors expense, Mr. Herbert argues that we are currently in an inflationary era, however, in his example, he fails to mention that my adjustment accepts the Company's calculated inflation rates for the FTY and FPFTY. Additionally, the Company's forecasted 2.2% inflation is relatively low compared to much higher inflation experienced over the past three years of historic data,[35] so to say that we are in an inflationary era I believe is misleading.

Finally, the Company has chosen to use a three-year average for other expenses addressed in this case, such as outside professional services[36] and

[33] VWPA Statement No. 2, p. 10.
[34] VWPA Statement No. 2, p. 19.
[35] Blue Chip Financial Forecasts, Vol. 42, No. 12, December 2023.
[36] VWPA Exhibit GRH-3-R, Schedule 15.

postage and air freight expense.[37] I recommend that the Company should be consistent in its approach to forecasting, unless a more specific basis can be supported by documentation. By using a three-year average to forecast some items and a two-year average for others, the Company is inconsistent. I also believe that a three-year average is more appropriate because it helps to smooth out outliers like the one mentioned above by Mr. Herbert regarding HTY lab testing fees.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR OTHER O&M EXPENSE?

A. No. I continue to recommend an allowance of $155,043, or a reduction of $9,118 ($164,161 - $155,043) to the Company's claim for the Main Water Division, and $845, or a reduction of $49 ($894 - $845) to the Company's claim for Mahoning Water.

RATE CASE EXPENSE

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR RATE CASE EXPENSE.

A. I recommended normalizing the expense over a 51-month period, resulting in an allowance of $166,913 for rate case expense, or a reduction of $69,547 ($236,640 - $166,913) to the Company's FPFTY claim. I based my recommendation on

[37] VWPA Exhibit GRH-3-R, Schedule 27.

VWPA's historic filing frequency as well as the Commission's traditional treatment of rate case expense as a normalized expense rather than amortized.

In addition, I recommended that the Commission require the Company to properly allocate this and other shared expenses across all rate divisions in future proceedings.[38]

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. VWPA witness Gregory Herbert disagrees with my recommendation.

Q. PLEASE SUMMARIZE MR. HERBERT'S RESPONSE.

A. Mr. Herbert states that a three-year normalization period is reasonable as it acknowledges that rate case expense should be spread over a period of years, but it also does not penalize the Company for delaying a subsequent rate case for any number of reasons. He also adds that the recent acquisition of SUEZ Water Pennsylvania, Inc. by VWPA has influenced the extended period between the current base rate case and the prior case.[39]

Q. ARE YOU PERSUADED BY MR. HERBERT'S RESPONSE?

A. No. I disagree that a three-year normalization period is reasonable because it does not reflect the Company's most recent historic filing frequency, which the Commission has cited as an essential element in determining the normalized level

[38] I&E Statement No. 1, pp. 33-40.
[39] VWPA Statement No. 2-R, pp. 8-9.

of rate case expense for ratemaking purposes. While I understand that VWPA had a stay-out clause related to its recent acquisition which kept the Company from filing sooner, by using the three most recent filing intervals we can smooth out that extra length of time by averaging it with the Company's other recent filing interval history.

A three-year normalization period will likely result in the Company over-collecting on rate case expense since historic filing frequency shows that the Company will not likely file another rate case within a three-year period. A 51-month normalization period reflects recent filing history while also giving the Company the opportunity to recover all of its rate case related expenses.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR RATE CASE EXPENSE?

A. No. I continue to recommend normalizing the expense over a 51-month period, resulting in an allowance of $166,913 for rate case expense, or a reduction of $69,547 ($236,640 - $166,913) to the Company's FPFTY claim.

CUSTOMER ASSISTANCE PROGRAM AND TRACKER

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY REGARDING THE CUSTOMER ASSISTANCE PROGRAM.

A. I recommended an FPFTY allowance of $700,000, or a reduction of $300,000 ($1,000,000 - $700,000) for the proposed CAP, as well as disallowance of the tracker and deferred accounting treatment in its entirety. I based my

recommendation on the Company's estimation of expenses at $1,000,000 as well as the Company's shareholders contributing $300,000 annually to the CAP.

Additionally, I recommended that the Commission deny the Company's request to establish a regulatory asset/liability to track CAP expenses.[40]

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. VWPA witness James Cagle disagrees with my recommendation.

Q. PLEASE SUMMARIZE MR. CAGLE'S RESPONSE.

A. Mr. Cagle states that my adjustment assumes the $300,000 contribution from shareholders will be made on an annual basis, but it is, in fact, a one-time contribution. He asserts that reducing the Company's proposal by the full $300,000 is not appropriate and that he believes the most effective way to make sure the full $300,000 amount is utilized by the CAP is via the proposed reconciliation mechanism.

Mr. Herbert also addresses my concerns regarding deferred accounting treatment. He asserts that CAP expenses meet the Commission's criteria for deferred accounting treatment and should be allowed on these bases. He states that the costs are extraordinary because this is a new expense for the Company not previously incurred. He claims that the costs are unanticipated because the level

[40] I&E Statement No. 1, pp. 42-45.

of expense is yet unknown. Finally, he argues that the costs will be recurring but that the level of costs will be changing until the program is fully established.

Q. WHAT IS YOUR RESPONSE TO MR. CAGLE'S ARGUMENTS?

A. I accept the Company's clarification that the $300,000 is meant to be a one-time contribution and agree that reducing the Company's claim by the full amount would be inappropriate. However, I disagree that deferred accounting treatment is appropriate for this expense. I maintain the arguments from my direct testimony that CAP expenses do not meet the criteria for deferred accounting treatment. While the exact level of expense is unknown at this time, the Company has forecasted an expected amount as it would do for any other new expense. Over time, the expense will normalize, and a tracking mechanism is thus unnecessary. It is inappropriate for the Company to receive a virtually guaranteed dollar for dollar recovery on this new but normal, expected, and recurring expense.

Q. DO YOU HAVE ANY CHANGES TO YOUR RECOMMENDATION FOR CAP EXPENSES?

A. Yes. Given that the $300,000 shareholder contribution is meant to be a one-time rather than an ongoing annual contribution, I recommend normalizing the adjustment over a 51-month period to correspond with the Company's recent rate case filing history as mentioned above with regard to rate case expense. Therefore, I recommend a reduction of $70,588 ($300,000 / 51 months x 12 months) to the Company's FPFTY claim for CAP expenses, or an allowance of

$929,412.

Additionally, I recommend that in its next base rate filing the Company should be required to submit annual breakdowns from the program's inception of actual costs as compared to the budgeted amounts for each component of the program including administrative costs, by year, starting with 2025 and beyond. Furthermore, in subsequent rate filings, the Company should be required to continue submitting similar annual breakdowns to allow for proper analysis of the program. Since this expense will be included in base rates, it is important for the Company to be held accountable to show how the program is working so that in subsequently filed rate cases, the involved parties can make informed recommendations.

Finally, as mentioned above, I recommend the Commission disallow deferred accounting treatment for the Company's CAP expenses as they do not meet the Commission's criteria for establishing such treatment. While this is a new expense, it will be a routine, ongoing expense and should not qualify for deferred accounting treatment.

CASH WORKING CAPITAL

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR CASH WORKING CAPITAL (CWC).

A. I recommended an adjustment to the Company's FPFTY claim broken down by business operation as shown in the table below:

	FPFTY Claim	I&E Allowance	Adjustment
Main Water Division	$795,083	$721,316	($73,767)
Mahoning Water	$5,223	$4,873	($350)
Columbia Wastewater	$3,438	$3,435	($3)
Mahoning Wastewater	$15,292	$15,110	($182)
Total	**$819,036**	**$744,734**	**($74,302)**

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. VWPA witness Gregory Herbert disagrees with my CWC adjustments in as much as he disagrees with my O&M adjustments.[41]

Q. DID VWPA UPDATE ITS CWC CLAIM?

A. Yes. Since the Company updated several of its O&M expense claims, the FPFTY CWC claims have been updated for each operating unit, as discussed by VWPA witnesses Gregory Herbert[42] and Harold Walker.[43]

Q. WHAT IS THE COMPANY'S UPDATED CLAIM?

A. The updated FPFTY CWC claim by business operation are shown below:

	Updated FPFTY Claim
Main Water Division	$791,165
Mahoning Water	$5,230
Columbia Wastewater	$3,438
Mahoning Wastewater	$15,292
Total (with rounding error)	**$815,192**

41 VWPA Statement No. 2, p. 22.
42 VWPA Statement No. 2, p. 23.
43 VWPA Statement No. 4, pp. 46-47.

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No. However, I have an update to my recommendation for CWC. As stated in direct testimony, all O&M expense adjustments that are cash-based expense claims are included when determining the Company's overall CWC requirement. Therefore, I modified my CWC recommendation to reflect the updated O&M expense adjustments as discussed above.[44]

Q. BASED ON THE ABOVE SURREBUTTAL TESTIMONY, WHAT IS YOUR UPDATED RECOMMENDED ALLOWANCE FOR CWC?

A. Reflecting all of my recommended adjustments as discussed above, my updated recommendation for CWC broken down by business operation unit is as shown below:

	Updated FPFTY Claim	Updated I&E Allowance	Adjustment
Main Water Division	$791,165	$749,874	($41,291)
Mahoning Water	$5,230	$5,217	($13)
Columbia Wastewater	$3,438	$3,435	($3)
Mahoning Wastewater	$15,292	$15,117	($175)
Total	**$815,125**	**$773,643**	**($41,482)**

Q. ARE YOUR ABOVE-RECOMMENDED CWC ALLOWANCES FINAL RECOMMENDATIONS?

A. No. All adjustments to the Company's claims for revenues, expenses, taxes, and

[44] I&E Exhibit No. 1-SR, Schedule 2.

rate base must be continually brought together for each operating unit in the Administrative Law Judge's Recommended Decision and again in the Commission's Final Order. This process, known as iteration, effectively prevents the determination of a precise calculation until all adjustments have been made to the Company's claims.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes.

I&E Exhibit No. 1-SR
Witness: Vanessa Okum

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

VEOLIA WATER PENNSYLVANIA, INC.

Docket No. R-2024-3045192 (Water)

and

Docket No. R-2024-3045193 (Wastewater)

Exhibit to Accompany

the

Surrebuttal Testimony

of

Vanessa Okum

Bureau of Investigation and Enforcement

Concerning:

OPERATING AND MAINTENANCE EXPENSES, CAP TRACKER, CASH WORKING CAPITAL

Veolia Water Pennsylvania
Docket No. R-2024-3045192
Employee Group Health and Life Insurance

Exhibit No. GRH -3-R
Schedule-3
Adjustment No. 2-R
Page 1 of 1

Line No.		12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	VW Pennsylvania	$ 920,056	$ 1,461,763	$ 1,502,907
2	Bethel Water	-	-	-
3	Mahoning Township	611	971	999
4				
5	**Total Employee Group Health and Life Insurance**	$ 920,667	$ 1,462,734	$ 1,503,906
6				
7	Adjustment		$ 542,067	$ 41,171
8				

	Description	Future Test Year	Fully Projected Future Test Year
9			
10			
11			
12	Medical Insurance - VW PA	$ 1,345,830 (a)	$ 1,377,256 (b)
13			
14			
15	Dental	69,087 (a)	74,849 (b)
16			
17			
18	Group Life Insurance	47,817 (a)	51,800 (b)
19			
20			
21			
22	**Total Employee Pensions & Benefits**	$ 1,462,734	$ 1,503,906
23			

	New Employees Adjustment	Number of FTY New Employees	Number of FPFTY New Employees	Average HTY Cost of Coverage	Total Employees with Coverage (%)
24					
25					
26	2023 Medical	4	7	$ 15,278	77%
27	2023 Dental	4	7	813	75%
28	2023 Group Life				
29	Basic STD	4	7	32	100%
30	Basic LTD	4	7	335	100%
31	Basic Life 1X annual	4	7	28	62%
32	Basic Life 3 X annual	4	7	106	31%
33	Basic Life 20K and 37K	4	7	21	4%
34					

35	**Inflation Rate:**	
36	Fully Projected Future Test Year	2.200%
37		

38 **Refrence Notes:**

39 **(a)** The company provided Future Test Year Employee Group Health and Life Insurance expenses are
40 adjusted for the eleven new employees in 2024. The new employee adjustment takes the number
41 of new hires, multiplied by the average Cost of Coverage of existing employees and the
42 percentage of existing employees with coverage, and added to the
43 Future Test Year Insurance expenses.
44 **(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate

I&E Modified Section						
New Employees Adjustment	**FTY New Emp**	**FPFTY New Emp**	**Avg HTY Cost**	**% Emp Covered**	**FTY Cost**	**FPFTY Cost**
2023 Medical	4	7	15,278	77%	47,056	82,348
2023 Dental	4	7	813	75%	2,439	4,268
2023 Group Life						-
Basic STD	4	7	32	100%	128	224
Basic LTD	4	7	335	100%	1,340	2,345
1x Annual	4	7	28	62%	69	122
3x Annual	4	7	106	31%	131	230
20k and 37k	4	7	21	4%	3	6
					$ 51,167	$ 89,543

I&E Modified

VEOLIA WATER PENNSYLVANIA, INC. - MAIN DIVISION WATER

SUMMARY OF CASH WORKING CAPITAL REQUIREMENTS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 7,284,520	$ 461,020	$ 6,972,743	$ 441,289
Employee Group Health & Life	34.5	10.1	24.4	1,502,907	100,468	1,037,703	69,370
Employee Pension Benefits	34.5	29.3	5.2	1,071,456	15,265	1,071,456	15,265
Other Employee Benefits	34.5	276.0	(241.5)	436,856	(289,043)	418,161	(276,674)
Purchased Water	34.5	26.6	7.9	1,838,244	39,787	1,838,244	39,787
Purchased Power	34.5	57.1	(22.6)	2,886,605	(178,732)	2,886,605	(178,732)
Fuel for Power Production	34.5	38.8	(4.3)	2,093	(25)	2,093	(25)
Chemicals	34.5	27.9	6.6	1,344,558	24,313	1,344,558	24,313
Materials and Supplies	34.5	29.1	5.4	407,435	6,028	407,435	6,028
Management and Service Fees	34.5	14.7	19.8	4,611,336	250,149	4,611,336	250,149
Lab Testing Fees	34.5	26.2	8.3	212,334	4,828	199,532	4,537
Outside Contractors	34.5	30.9	3.6	1,711,389	16,879	1,617,403	15,952
Outside Professional Services	34.5	45.0	(10.5)	88,583	(2,548)	88,583	(2,548)
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-	-	-
Rental of Equipment	34.5	7.9	26.6	124,900	9,102	124,900	9,102
Transportation Expense	34.5	38.1	(3.6)	748,343	(7,381)	748,343	(7,381)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	-	-	-	-
Worker Compensation	34.5	(130.5)	165.0	48,098	21,743	48,098	21,743
Regulatory Commission Expense	34.5	(101.5)	136.0	355,107	132,314	449,026	167,308
Office Expense and Utilities	34.5	8.9	25.6	861,947	60,454	861,947	60,454
Postage and Air Freight Expense	34.5	40.3	(5.8)	383,875	(6,100)	383,875	(6,100)
Other O&M	34.5	30.3	4.2	164,161	1,889	155,043	1,784
Real Estate Tax	34.5	(26.9)	61.4	343,022	57,703	343,022	57,703
Payroll	34.5	18.5	16.0	898,680	39,394	860,216	37,708
Federal Income Taxes	34.5	37.0	(2.5)	1,513,684	(10,368)	3,585,104	(24,556)
State Income Taxes	34.5	28.8	5.8	614,686	9,683	1,485,250	23,398
Total					**$ 756,822**		**$ 749,874**

I&E Modified

VEOLIA WATER PENNSYLVANIA, INC. - MAHONING WATER

SUMMARY OF CASH WORKING CAPITAL REQUIREMENTS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 4,076	$ 258	$ 4,076	$ 258
Employee Group Health & Life	34.5	10.1	24.4	999	67	613	41
Employee Pension Benefits	34.5	29.3	5.2	712	10	712	10
Other Employee Benefits	34.5	276.0	(241.5)	282	(187)	282	(187)
Purchased Water	34.5	26.6	7.9	157,785	3,415	157,785	3,415
Purchased Power	34.5	57.1	(22.6)	102,218	(6,329)	102,218	(6,329)
Fuel for Power Production	34.5	38.8	(4.3)	-	-	-	-
Chemicals	34.5	27.9	6.6	10,178	184	10,178	184
Materials and Supplies	34.5	29.1	5.4	6,179	91	6,179	91
Management and Service Fees	34.5	14.7	19.8	68,840	3,734	68,840	3,734
Lab Testing Fees	34.5	26.2	8.3	-	-	-	-
Outside Contractors	34.5	30.9	3.6	-	-	-	-
Outside Professional Services	34.5	45.0	(10.5)	-	-	-	-
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-	-	-
Rental of Equipment	34.5	7.9	26.6	142	10	142	10
Transportation Expense	34.5	38.1	(3.6)	372	(4)	372	(4)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	-	-	-	-
Worker Compensation	34.5	(130.5)	165.0	13	6	13	6
Regulatory Commission Expense	34.5	(101.5)	136.0	5,283	1,968	6,676	2,487
Office Expense and Utilities	34.5	8.9	25.6	12,777	896	12,777	896
Postage and Air Freight Expense	34.5	40.3	(5.8)	37,471	(595)	37,471	(595)
Other O&M	34.5	30.3	4.2	894	10	845	10
Real Estate Tax	34.5	(26.9)	61.4	7,001	1,178	7,001	1,178
Payroll	34.5	18.5	16.0	468	21	468	21
Federal Income Taxes	34.5	37.0	(2.5)	(88,029)	603	41,021	(281)
State Income Taxes	34.5	28.8	5.8	(37,380)	(589)	17,239	272
Total					**$ 4,747**		**$ 5,217**

I&E Modified

VEOLIA WATER PENNSYLVANIA, INC. - COLUMBIA WASTEWATER

SUMMARY OF CASH WORKING CAPITAL REQUIREMENTS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 47,282	$ 2,992	$ 47,282	$ 2,992
Employee Group Health & Life	34.5	10.1	24.4	6,915	462	6,915	462
Employee Pension Benefits	34.5	29.3	5.2	1,979	28	1,979	28
Other Employee Benefits	34.5	276.0	(241.5)	823	(544)	823	(544)
Purchased Water	34.5	26.6	7.9	-	-	-	-
Purchased Power	34.5	57.1	(22.6)	-	-	-	-
Fuel for Power Production	34.5	38.8	(4.3)	-	-	-	-
Chemicals	34.5	27.9	6.6	1,159	21	1,159	21
Materials and Supplies	34.5	29.1	5.4	145	2	145	2
Management and Service Fees	34.5	14.7	19.8	-	-	-	-
Lab Testing Fees	34.5	26.2	8.3	3,669	83	3,592	82
Outside Contractors	34.5	30.9	3.6	29,795	294	29,342	289
Outside Professional Services	34.5	45.0	(10.5)	1,562	(45)	1,562	(45)
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-	-	-
Rental of Equipment	34.5	7.9	26.6	-	-	-	-
Transportation Expense	34.5	38.1	(3.6)	4,868	(48)	4,868	(48)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	-	-	-	-
Worker Compensation	34.5	(130.5)	165.0	96	43	96	43
Regulatory Commission Expense	34.5	(101.5)	136.0	294	109	396	148
Office Expense and Utilities	34.5	8.9	25.6	30	2	30	2
Postage and Air Freight Expense	34.5	40.3	(5.8)	-	-	-	-
Other O&M	34.5	30.3	4.2	-	-	-	-
Real Estate Tax	34.5	(26.9)	61.4	-	-	-	-
Payroll	34.5	18.5	16.0	44	2	44	2
Federal Income Taxes	34.5	37.0	(2.5)	(23,919)	164	(4,227)	29
State Income Taxes	34.5	28.8	5.8	(10,225)	(161)	(1,776)	(28)
Total					**$ 3,404**		**$ 3,435**

I&E Modified

VEOLIA WATER PENNSYLVANIA, INC. - MAHONING WASTEWATER

SUMMARY OF CASH WORKING CAPITAL REQUIREMENTS

BASED ON LEAD-LAG STUDY FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 2023

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim Fully Projected Year Under Present Rates 10/31/2025	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 4,076	$ 258	$ 4,076	$ 258
Employee Group Health & Life	34.5	10.1	24.4	596	40	596	40
Employee Pension Benefits	34.5	29.3	5.2	171	2	171	2
Other Employee Benefits	34.5	276.0	(241.5)	67	(44)	67	(44)
Purchased Water	34.5	26.6	7.9	-	-	-	-
Purchased Power	34.5	57.1	(22.6)	-	-	-	-
Fuel for Power Production	34.5	38.8	(4.3)	-	-	-	-
Chemicals	34.5	27.9	6.6	-	-	-	-
Materials and Supplies	34.5	29.1	5.4	5,015	74	5,015	74
Management and Service Fees	34.5	14.7	19.8	-	-	-	-
Lab Testing Fees	34.5	26.2	8.3	108,368	2,464	106,077	2,412
Outside Contractors	34.5	30.9	3.6	880,038	8,680	866,583	8,547
Outside Professional Services	34.5	45.0	(10.5)	46,127	(1,327)	46,127	(1,327)
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-	-	-
Rental of Equipment	34.5	7.9	26.6	-	-	-	-
Transportation Expense	34.5	38.1	(3.6)	420	(4)	420	(4)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	-	-	-	-
Worker Compensation	34.5	(130.5)	165.0	1	-	1	-
Regulatory Commission Expense	34.5	(101.5)	136.0	10,153	3,783	13,682	5,098
Office Expense and Utilities	34.5	8.9	25.6	1,027	72	1,027	72
Postage and Air Freight Expense	34.5	40.3	(5.8)	-	-	-	-
Other O&M	34.5	30.3	4.2	-	-	-	-
Real Estate Tax	34.5	(26.9)	61.4	-	-	-	-
Payroll	34.5	18.5	16.0	4	-	4	-
Federal Income Taxes	34.5	37.0	(2.5)	(30,418)	208	20,204	(138)
State Income Taxes	34.5	28.8	5.8	(13,232)	(208)	8,039	127
Total					**$ 13,998**		**$ 15,117**

I&E Statement No. 2-SR
Witness: D. C. Patel

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

VEOLIA WATER PENNSYLVANIA, INC.

Docket No. R-2024-3045192 (Water)
&
Docket No. R-2024-3045193 (Wastewater)

Surrebuttal Testimony

of

D. C. Patel

Bureau of Investigation & Enforcement

Concerning:

Rate of Return

TABLE OF CONTENTS

INTRODUCTION OF WITNESS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is D. C. Patel. My business address is Pennsylvania Public Utility Commission, Commonwealth Keystone Building, 400 North Street, Harrisburg, PA 17120.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by the Pennsylvania Public Utility Commission (Commission) in the Bureau of Investigation & Enforcement (I&E) as a Fixed Utility Financial Analyst.

Q. ARE YOU THE SAME D. C. PATEL WHO IS RESPONSIBLE FOR THE DIRECT TESTIMONY CONTAINED IN I&E STATEMENT NO. 2 AND THE SCHEDULES IN I&E EXHIBIT NO. 2?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is to address statements made by Veolia Water Pennsylvania, Inc. (VWPA or Company) witness Harold Walker, III (VWPA Statement No. 4-R) in his rebuttal testimony regarding rate of return topics including the proxy group, cost of common equity, size adjustment

premium, leverage adjustment for market-to-book ratio difference, and the overall fair rate of return to be applied to VWPA's rate base.

The absence of any comments or responses to particular statements or topics addressed in VWPA's rebuttal testimony and that of other parties' witnesses concerning the return on equity does not signify my acceptance or support of the Company's or other parties' positions in this proceeding.

Q. DOES YOUR SURREBUTTAL TESTIMONY INCLUDE AN EXHIBIT?

A. No. I refer to my direct testimony (I&E Statement No. 2) and schedules contained in my exhibit (I&E Exhibit No. 2) where necessary.

Q. WHAT WAS YOUR ORIGINAL OVERALL RECOMMENDATION IN DIRECT TESTIMONY?

A. I recommended the following rate of return for the Company's water and wastewater operations (I&E Statement No. 2, p. 6):

I & E Recommendation Veolia Water Pennsylvania, Inc. - Water and Wastewater Operations **Summary of Cost of Capital**			
Type of Capital	**Ratio**	**Cost Rate**	**Weighted Cost Rate**
Long-Term Debt	46.00%	4.60%	2.12%
Common Equity	54.00%	9.34%	5.04%
Total	**100.00%**		**7.16%**

Q. DID THE COMPANY PROVIDE AN UPDATE TO ITS RATE OF RETURN CLAIM?

A. No. The Company witness Mr. Walker does not change his recommendation and continues to recommend a return on equity (ROE) of 10.80% inclusive of his leverage adjustment of 0.75% for a Market to Book (M/B) ratio difference. The Company's rate of return claim is as follows (VWPA Statement No. 4-R, p. 2 and VWPA Exhibit HW-1, Schedule 1):

VEOLIA WATER PENNSYLVANIA, INC.
Water and Wastewater Operations
Summary of Cost of Capital

Type of Capital	Ratio	Cost Rate	Weighted Cost Rate
Long-Term Debt	46.00%	4.60%	2.12%
Common Equity	54.00%	10.80%	5.83%
Total	**100.00%**		**7.95%**

SUMMARY OF MR. WALKER'S REBUTTAL TESTIMONY

Q. SUMMARIZE MR. WALKER'S RESPONSE TO YOUR COST OF EQUITY RECOMMENDATIONS.

A. Mr. Walker disputes my ROE recommendation's exclusive reliance on the Discounted Cash Flow (DCF) model and states that it is necessary to estimate common equity cost rates using multiple analytical models considering the current unusual and high inflation rate that has resulted in increases in interest rates and capital cost rates (VWPA Statement No. 4-R, pp. 5-6). He avers that my

recommended return on equity is not consistent with the current and recently authorized return rates on common equity by the Commission (VWPA Statement No. 4-R, p. 3).

INFLATION AND CAPITAL COSTS

Q. SUMMARIZE MR. WALKER'S COMMENTS ON INCREASED CAPITAL COSTS DUE TO THE CURRENT INFLATION RATE.

A. Mr. Walker compares the current yields of 4.47% on 10-year treasury notes and 5.72% on "A" rated public utility bonds as of May 23, 2024 with the rolling average yield on 10-year treasury notes and "A" rated public utility bonds from March 2017 through April 2024. He then states that this has similarly resulted in higher common equity cost rates today than have existed over the last several years (VWPA Statement No. 4-R, pp. 6-7). Additionally, he refers to the Associated Press, May 1, 2024 news article that highlights the Federal Reserve Chair Powell's statement, "inflation has shown a lack of further progress toward our 2% objective," and he presents bonds yield changes between March 6, 2024 and May 23, 2024 (VWPA Statement No. 4-R, pp. 8-9). Briefly, he tries to prove that investors' expectations have not been influenced by the inflation rates shown in the Blue Chip Financial Forecasts' April 1, 2024 publication as is evidenced by the increase in yields along the yield curve, which he provides in his Table 2 for the April 1, 2024 through May 23, 2024 change (VWPA Statement No. 4-R, p. 9). Lastly, Mr. Walker alleges that I did not provide evidence that the Federal Reserve

considers the Blue Chip Financial Forecasts in making any of its decisions (VWPA Statement No. 4-R, pp. 8-10).

Q. WHAT IS YOUR RESPONSE TO MR. WALKER'S REBUTTAL TESTIMONY REGARDING INFLATION AND CAPITAL COSTS?

A. Mr. Walker provides a comparison of bond yield changes between (a) March 6, 2024 and May 23, 2024 for 10-year treasury notes and 30-year treasury bonds that were 0.36% and 0.34% respectively (VWPA Statement No. 4-R, p. 9); and (b) April 1, 2024 and May 23, 2024 for 10-year treasury notes and 30-year treasury bonds that were 0.14% and 0.11% respectively (VWPA Statement No. 4-R, p. 10). However, this comparison does not suggest any meaningful conclusion because the changes in bond yields are continuous and volatile, and always driven by capital market conditions, which are influenced by various economic and financial market conditions. Regarding the Federal Reserve commitment to interest rate cuts, it is important to note that the Federal Reserve did not state that there will be no possibility of a rate cut in 2024-2025; it wants to see the target inflation level of 2%. Per the latest news,[1] Federal Reserve officials are now expected to lower the interest rates more rapidly next year, to make four rate cuts in 2025, up from three previously, and indicating one cut in 2024.

[1] Fed Meeting Live Updates: Powell Speaks on Rates and Inflation Report - The New York Times (nytimes.com) (accessed on June 12, 2024).

I disagree with Mr. Walker's unsupported conclusion that I stated that the Federal Reserve considers the Blue Chip Financial Forecasts data in making any of its decisions. In fact, I presented Blue Chip Financial Forecasts (April 2024) data for the Consumer Price Index (CPI) and Personal Consumption Expenditures Price Index (PCE) for quarterly periods (Q2-2024 through Q3-2025) to show the forecasted inflation levels as compared to the Federal Reserve target inflation level of 2% (I&E Statement No. 2, p. 25, lines 3-6). It is pertinent to note that the Federal Reserve considers PCE and CPI data as key measures to judge the inflation levels:

> The Federal Open Market Committee (FOMC) judges that an annual increase in inflation of 2 percent in the price index for personal consumption expenditures (PCE), produced by the Department of Commerce, is most consistent over the longer run with the Federal Reserve's mandate for maximum employment and price stability. The FOMC uses the PCE price index largely because it covers a wide range of household spending. However, the Fed closely tracks other inflation measures as well, including the consumer price indexes and producer price indexes issued by the Department of Labor.[2]

As discussed in my direct testimony, I reiterate that the Federal Reserve's commitment to interest rate reductions would have the effect of reducing potential inflation and interest rate risks for 2025 capital costs, when VWPA's rates will be in effect (I&E Statement No. 2, p. 25, lines 7-9). Additionally, it is important to note that unlike unregulated companies, public utilities may file rate cases to

[2] The Fed - What is inflation and how does the Federal Reserve evaluate changes in the rate of inflation? (accessed on June 10, 2024).

address unforeseen or increased expenses and/or revenue shortfalls due to changes in market conditions.

DCF ANALYSIS RESULTS COMPARISION

Q. SUMMARIZE MR. WALKER'S RESPONSE TO YOUR RELIANCE ON THE DCF MODEL IN DETERMINING THE COST OF EQUITY.

A. First, Mr. Walker presents a table showing that the Commission authorized average return on equity (ROE) of 9.73% in eight historic base rate cases (March 2017 through January 2024) and compared it to my recommended ROE of 9.34% for VWPA (VWPA Statement No. 4-R, p. 11). He then states that the Commission's authorized ROE in these bases rate cases (I&E Statement No. 2, pp. 17, 21, and 22) are higher by 0.39% (9.73% - 9.34%) (VWPA Statement No. 4-R, p. 11). He also presents statistics for the average 10-year treasury notes yield of 1.98% and an "A" rated public utility bond yield of 3.75% that prevailed in the month of the Commission's orders in the respective base rate cases and compared these with the current average 10-year treasury note yield of 4.18% and the "A" rated public utility bond yield of 5.66% (VWPA Statement No. 4-R, p. 13). He then concludes that his comparison shows that measurable capital cost rates have increased substantially since the Commission's orders were entered due to increased inflation and interest rates (VWPA Statement No. 4-R, p. 15).

Second, Mr. Walker asserts that the DCF model results are less reliable when there are larger differences between market value and book value

capitalization ratios because the cost of common equity model is based on a market value capitalization ratio and its results are applied to the book value capitalization ratio. Considering the increased amount of leverage between market value derived DCF cost rates and book value cost rates, he indicates a book value DCF cost rate of 10.07% for VWPA rather than my recommended DCF cost rate of 9.34% (VWPA Statement No. 4-R, pp. 15-18).

Q. WHAT IS YOUR RESPONSE TO MR. WALKER'S REBUTTAL TESTIMONY REGARDING RELIANCE ON DCF RESULTS IN DETERMINING THE COST OF EQUITY?

A. First, I disagree with Mr. Walker's comparison of the Commission authorized average ROE of 9.73% in eight historic base rate cases with my recommended ROE of 9.34% for VWPA. It is important to note that I have cited the Commission's orders in base rate cases that specifically acknowledged and relied on DCF results in determining the utility's cost of common equity in base rate proceedings (I&E Statement No. 2, p. 16, line 16 through p. 17, line 1). Mr. Walker's comparison of the Commission's authorized ROE in historic base rate case orders (issued from March 2017 through January 2024) with my recommended ROE for VWPA in this proceeding is irrelevant and inappropriate because all the cited utilities' base rate cases had different risk characteristics, merits of the rate case, utility operations (electric/water/natural gas), and economic and financial market conditions at the time of base rate case filings and the

Commission's orders. The Commission authorized return on equity in those cases considered these differences and the merits of each case, so the outcome of these cases has no bearing on an appropriate return on equity for VWPA. Therefore, Mr. Walker's reliance on historic authorized ROEs to invalidate my recommended ROE for VWPA and to support his claimed ROE is not proper or relevant in this base rate proceeding. Similarly, Mr. Walker's comparison of the trailing 12-month average 10-year treasury note yields and "A" rated public utility bond yields that prevailed in the month of the Commission's orders in respective historic base rate cases with the current average 10-year treasury notes yields and "A" rated public utility bonds yield does not produce any additional support for the Company's claimed ROE.

Second, I disagree with Mr. Walker's assertion that the DCF model results are less reliable when the cost of common equity model is based on a market value capitalization ratio and its results are applied to the book value capitalization ratio, and I reject his leverage adjusted DCF result of 10.07% (VWPA Statement No. 4--R, p. 18) for my recommended DCF rate of 9.34%. As discussed in my direct testimony, I reiterate that in traditional ratemaking, utilities' rates are set by applying the market determined cost of capital to the book value capital structure, and the financial research analysts and credit rating agencies consider this factor when performing their financial analyses and projections. Additionally, investors investing in a utility stock are aware that the utility's market determined equity return rate is applied to the book value capital structure or capitalization ratio (I&E

Statement No. 2, p. 42, line 4 through p. 44, line 5). Therefore, it is inappropriate to evaluate market determined cost of equity results with the market to book capitalization ratio difference and apply a financial leverage adjustment in the cost of equity results. I have discussed in more detail the market and book capitalization ratio difference and leverage adjustment in the market to book (M/B) ratio section below.

CAPM THEORY

Q. SUMMARIZE MR. WALKER'S RESPONSE REGARDING THE SYSTEMATIC RISK AND UNSYSTEMATIC RISK CONSIDERATIONS IN THE CAPM THEORY.

A. First, Mr. Walker states that the systematic risk (non-diversifiable) and unsystematic risk (company-specific risk/diversifiable) assumptions of the CAPM theory are relevant under the DCF, Risk Premium (RP), and Comparable Earnings (CE) analyses (VWPA Statement No. 4-R, p. 19). He then gives an example of Enron Corporation's accounting and corporate fraud resulting in bankruptcy and tries to proves that the company-specific risk is pertinent in other cost of equity models (VWPA Statement No. 4-R, p. 20).

Q. WHAT IS YOUR RESPONSE TO MR. WALKER'S COMMENTS REGARDING SYSTEMATIC RISK AND UNSYSTEMATIC RISK CONSIDERATIONS?

A. Mr. Walker tries to relate and blend the fundamental basis of systematic risk (non-diversifiable) and unsystematic risk (diversifiable) of CAPM theory with other cost of equity models, more particularly the unsystematic risk (company-specific risk), which is diversifiable. In fact, the DCF, RP, and CE methods are independent and stand-alone, and based on different fundamental theory and assumptions. Therefore, it is improper to imply that company-specific risk is considered in other cost of equity methods.

PROXY GROUP

Q. SUMMARIZE MR. WALKER'S RESPONSE TO YOUR EXCLUSION OF THE YORK WATER COMPANY AND PROXY GROUP RISK ANALYSIS.

A. Mr. Walker states that I included six of the seven water utility companies in his proxy group and did not include The York Water Company (VWPA Statement No. 4-R, p. 22). He then states that financial information is available for The York Water Company via a default stock ticker screener that is provided by internet financial resource services (VWPA Statement No. 4-R, p. 22). He states that I did not provide an analysis of similarity or dissimilarity of risk between the proxy group companies and VWPA (VWPA Statement No. 4-R, pp. 22-23).

Q. WHAT IS YOUR RESPONSE TO MR. WALKER'S REBUTTAL TESTIMONY REGARDING YOUR EXCLUSION OF THE YORK WATER COMPANY FROM YOUR PROXY GROUP?

A. I relied on I&E's consistently followed proxy group selection criterion that the investment information for the company must be available from more than one source, which includes Value Line (I&E Statement No. 2, p. 8, lines 14-15). Since Value Line does not provide detailed investment/financial information for The York Water Company under the "Water Utility" company group, I did not include it in my proxy group. Regarding the similarity or dissimilarity of risk between the proxy group companies and VWPA, it is important to note that Value Line has identified all companies in my proxy group as water utilities and all six companies in my proxy group are also included in Mr. Walker's proxy group. Regarding Mr. Walker's business risk analysis, I agreed with Mr. Walker's conclusion that VWPA has similar regulatory risk, credit rating risk, and investment risk to his comparable water group companies (I&E Statement No. 2, p. 46, line 9-12). Similarly, I agreed with Mr. Walker's conclusion that VWPA's financial risks are less and/or similar to the risks of the comparable Water Group companies (I&E Statement No. 2, p. 47, line 6-7). This signifies that although VWPA is smaller in size, the business and financial risk profile remains similar to the larger size companies in his Water Group.

Therefore, there is no need to further examine or evaluate similarity or dissimilarity of risks between the proxy group companies and VWPA. All the

companies in my proxy group are comparable to the subject utility as they provide a similar level of regulated water services.

Q. DO YOU HAVE ANY CHANGES TO YOUR PROXY GROUP COMPANIES?

A. No. I continue to recommend the same proxy group consisting of six water utility companies (I&E Statement No. 2, p. 10, line 1).

CRITIQUE OF I&E's DCF ANALYSIS

Q. SUMMARIZE MR. WALKER'S CONCERN WITH YOUR DCF ANALYSIS AND RESULTS.

A. First, Mr. Walker disputes my mathematical average growth rate calculation of my proxy group companies and states that the mathematical average of my growth rate should be 6.68% rather than 6.61% (I&E Exhibit No. 2 Schedule 5). He then asserts that my DCF results would be 9.41% and not 9.34% (VWPA Statement No. 4-R, pp. 26-27). Second, he disputes Middlesex Water Company's low-end DCF result of 7.09% in the proxy group companies and states that this heavily impacts the average of proxy group companies' DCF results. He suggests that if Middlesex Water's DCF results were excluded, the average of proxy group DCF results would be 9.87% (VWPA Statement No. 4-R, pp. 27-28).

Q. WHAT IS YOUR RESPONSE TO MR. WALKER'S CONCERN ABOUT YOUR MATHEMATICAL AVERAGE GROWTH RATE CALCULATION FOR YOUR PROXY GROUP COMPANIES?

A. I disagree with Mr. Walker's suggestion to use the mathematical average growth rate of 6.68% rather than 6.61%. He suggests using the average of each company's growth rates forecasted by Yahoo!, Zacks, and Value Line as shown in the "average" column (d) in my table rather than my use average growth rates of Yahoo!, Zacks, and Value Line for the proxy group as a whole as shown in the horizontal "average" of columns (a), (b), and (c) in my table, which is reproduced below (I&E Exhibit No. 2, Schedule 5):

Five-Year Growth Estimate Forecast for Proxy Group (Actual)					
		Yahoo!	Zacks	Value Line	Average
Company	**Symbol**	**Source**			
		(a)	**(b)**	**(c)**	**(d)**
American States Water Company	AWR	4.40%	6.30%	6.50%	5.73%
American Water Works Company, Inc.	AWK	7.50%	8.00%	3.00%	6.17%
California Water Service Group	CWT	10.80%	NA	10.00%	10.40%
Essential Utilities, Inc.	WTRG	5.20%	5.80%	7.00%	6.00%
Middlesex Water Company	MSEX	2.70%	NA	6.50%	4.60%
SJW Group	SJW	7.50%	7.50%	6.50%	7.17%
Average		**6.35%**	**6.90%**	**6.58%**	**6.61%**
				6.61% = [(6.35%+6.90%+6.58%)÷3]	
				Average of Column (d)	**6.68%**
Sources date:					
4/8/2024					

It is pertinent to note that I&E has consistently used the average of all average growth rates from Yahoo!, Zacks, and Value Line for the proxy group companies

in calculating the DCF results, and this method has been undisputed in base rate proceedings.

Q. WHAT IS YOUR RESPONSE TO MR. WALKER'S SUGGESTION TO EXCLUDE MIDDLESEX WATER'S LOW END DCF RESULTS IN YOUR CALCULATION OF THE PROXY GROUP AVERAGE DCF RESULTS?

A. I disagree with Mr. Walker's suggestion to exclude Middlesex Water Company's DCF result of 7.09% and use his modified average DCF result of 9.87% for the proxy group. Mr. Walker misses the important point that the purpose of using a proxy group is to smooth out any anomalous data in the cost of equity analysis. In my view, any attempt to eliminate or disregard low-end Middlesex Water DCF results, or one side of a range of results, is inconsistent with the purpose of a proxy group and only serves to subjectively influence the results of an otherwise unbiased analysis. Relying on Mr. Walker's logic that the low-end Middlesex Water DCF result heavily impacts my average DCF results, California Water Service Group's high-end DCF result of 12.82% also heavily impacts the average DCF results, and therefore, the same should also be eliminated. It is important to note that excluding California Water Service Group's high-end DCF result of 12.82% and Middlesex Water's DCF result of 7.09% would produce an average DCF result of 9.14% (rather than my 9.34%) as shown in the I&E modified table

below:

Expected Market Cost Rate of Equity for the Proxy Group				
	Adjusted Dividend Yield	Growth Rate	Expected Return on Equity	I&E Modified Expected Return on Equity
	(1)	(2)	(3=1+2)	
American States Water Company	2.58%	5.73%	8.31%	8.31%
American Water Works Company, Inc.	2.53%	6.17%	8.70%	8.70%
California Water Service Group	2.42%	10.40%	12.82%	-
Essential Utilities, Inc.	3.61%	6.00%	9.61%	9.61%
Middlesex Water Company	2.49%	4.60%	7.09%	-
SJW Group	2.77%	7.17%	9.93%	9.93%
Average	**2.73%**	**6.68%**	**9.41%**	**9.14%**

Q. DO YOU AGREE WITH MR. WALKER'S MODIFIED I&E DCF RESULTS?

A. No. Considering the above discussion, I disagree with Mr. Walker's modified mean DCF results of 9.87% excluding Middlesex Water's low-end DCF results.

CRITIQUE OF I&E's CAPM ANALYSIS

Q. SUMMARIZE MR. WALKER'S RESPONSE TO YOUR CAPM ANALYSIS.

A. Mr. Walker disputes my use of the 10-year U.S. Treasury Note as a proxy to measure the risk-free rate and market risk premium used in my CAPM analysis as well as the inputs I chose from Blue Chip Financial Forecasts and concludes that my CAPM results understate the cost of equity (VWPA Statement No. 4-R, p. 28).

He also disagrees with me for rejecting his size premium adjustment to the CAPM results (VWPA Exhibit 7 HW-1, Schedule 17, p. 1).

RISK-FREE RATE

Q. WHAT IS MR. WALKER'S RESPONSE TO YOUR USE OF THE 10-YEAR U.S. TREASURY NOTE YIELD AS A RISK-FREE RATE?

A. First, Mr. Walker claims that his use of the 30-year U.S. Treasury Bond yield as a risk-free rate is more appropriate than the 10-year Treasury Note yield because it better reflects financial theory that indicates the term matching of the risk-free rate should be based on the life of the asset, and not the time horizon of the investor (VWPA statement No 4-R, p. 28). Second, he disagrees with my calculation of the risk-free rate because my CAPM results reflect a forecasted average yield of 3.88% on 10-year Treasury Notes while the actual yield on 10-year Treasury Notes was 4.47% as of May 24, 2024. He then states that using the current risk-free rate of 4.47% my CAPM result would be 10.72% rather than 10.62% (VWPA Statement No 4-R, p. 29).

Q. IS THE LIFE OF THE INVESTMENT THE ONLY FACTOR THAT SHOULD BE CONSIDERED IN THE CHOICE OF A RISK-FREE RATE?

A. No. The risk-free rate is the return that can be earned without accepting any risk. The life of the investment can be considered in the choice of risk-free rates; however, the most important consideration is that the rate be as risk-free as

possible. As explained in my direct testimony, I chose the 10-year Treasury Note as it mitigates the short-comings of the short-term Treasury Bill and the 30-year Treasury Bond (I&E Statement No. 2, pp. 30-31). Although long-term Treasury Bonds have less risk of being influenced by federal policies, they have substantial maturity risk associated with economic and market condition risks.

While rate base assets are long-lived, the utility company has the opportunity to refinance its debt at any point to capture favorable interest rates, which would reduce the financial risk associated with the corresponding assets. Thus, it is more appropriate to utilize a risk-free rate that will be in effect during the investment period being considered, which, in this case, is the FPFTY or possibly the normalization period between base rate cases. Although the short-term Treasury Bills may align closer with the investment timeframe, they are very volatile. Therefore, my choice of a 10-year Treasury Note is appropriate and, as pointed out in my direct testimony, the Commission has agreed with I&E that the 10-year Treasury Note is the superior measure of the risk-free rate of return.[3]

Q. IS THE USE OF A CURRENT RISK-FREE RATE APPROPRIATE IN CAPM ANALYSIS AS MR. WALKER ASSERTS?

A. No. The time period reflected in the forecasted risk-free rate should include the period in which new rates will be in effect. VWPA is setting new rates to be

[3] *Pa. PUC v. UGI Utilities, Inc. – Electric Division;* Docket No. R-2017-2640058 (Order Entered October 25, 2018). *See generally* Disposition of Capital Asset Pricing Model (CAPM), p. 99.

applicable or effective in the fully projected future test year ending October 31, 2025, and not in the current year (future test year) ending October 31, 2024. Therefore, it is irrelevant and improper to use the actual yield of 4.47% on 10-year Treasury Notes of May 24, 2024 rather than applying an average of forecasted yield on 10-year Treasury Notes (3.88%) as the risk-free rate in my CAPM analysis for calculating the forecasted CAPM results (I&E Exhibit No. 2, Schedules 8 and 10).

Considering the above, Mr. Walker's assertion is misplaced because I considered the projected yields for the five quarters (Q3-2024 through Q3-2025) and for the 2025-2029 period available from Blue Chip Financial Forecasts of April 1, 2024 and December 1, 2023 respectively. Lastly, I believe applying the current yield on 10-year Treasury Notes in the CAPM analysis is less reliable and creates more speculative estimates for the future period. My calculation provides a balance of future estimates for the FPFTY and the future period when VWPA's new rates will be in effect.

SIZE PREMIUM ADJUSTMENT

Q. SUMMARIZE MR. WALKER'S ASSERTION THAT IT IS NECESSARY TO APPLY A SIZE PREMIUM ADJUSTMENT TO THE CAPM RESULT.

A. Mr. Walker states that my CAPM result does not reflect a size premium as he applied a 0.70% adjustment to his CAPM results (VWPA Statement No. 4-R, p. 29). He claims that a size premium reflects the risks associated with my proxy

group's small size and its impact on the determination of its beta (VWPA Statement No. 4-R, p. 29). He asserts that this adjustment is necessary because beta (systematic risk) does not capture or reflect the proxy group's small size (VWPA Statement No. 4-R, p. 29).

Q. WHAT IS YOUR RESPONSE TO MR. WALKER'S ASSERTION CONCERNING THE NECESSITY OF APPLYING A SIZE PREMIUM ADJUSTMENT TO THE CAPM RESULTS?

A. I disagree with Mr. Walker's rationale to apply a size premium adjustment of 0.70% to the CAPM results. Mr. Walker claims that beta (systematic risk) does not capture or reflect the proxy group's small size. Beta reflects a stock's volatility relative to the overall market, thereby incorporating an industry-specific aspect to the CAPM. A proxy group is typically utilized since the use of data exclusively from one company is less reliable. The rate of return on common equity for a single company could become distorted in these circumstances and would therefore not be representative of similarly situated utility companies. A proxy group has the effect of smoothing out anomalies associated with a single company and reflects risks and uncertainties of similarly situated utility companies included in the proxy group comparable with the subject utility. Investors are aware that the utilities' stocks have low market risks and low beta measures as compared to the overall stock market, and therefore, their expectation for equity returns is moderate as compared to high-risk, high reward non-utility stocks with high betas.

Therefore, there is no need to make any adjustments for the utility proxy group's small size relative to the large size of non-utility companies or S&P 500 companies and to their betas. I have discussed in more detail the size adjustment concept later in a separate section.

Q. DO YOU AGREE WITH MR. WALKER'S MODIFIED I&E CAPM RESULTS OF 10.72% AFTER APPLYING THE CURRENT RISK-FREE RATE OF 4.47%?

A. No. I do not agree with Mr. Walker's modified CAPM result of 10.72% for the cost of equity estimation (VWPA Statement No. 4-R, p, 29).

Q. HAVE YOU CHANGED YOUR CAPM RESULTS AS A RESULT OF MR. WALKER'S REBUTTAL TESTIMONY?

A. No. I continue to recommend observing my CAPM result of 10.62% (I&E Exhibit No. 2, Schedule 10) as simply a comparison to my DCF result of 9.34% (I&E Exhibit No. 2, Schedule 6) and not as a reason to recommend an ROE above my DCF result.

SIZE ADJUSTMENT

Q. SUMMARIZE YOUR DIRECT TESTIMONY REGARDING MR. WALKER'S PROPOSED SIZE ADJUSTMENT TO THE COST OF EQUITY.

A. In my direct testimony (I&E Statement No. 2, p. 48, line 3 through p. 49, line 2), I stated that Mr. Walker's 70-basis point adjustment to the CAPM results is unnecessary because none of the technical literatures cited in his direct testimony supports an adjustment related to the size of a company that is *specific to the utility industry*. Additionally, the size premium data based on market capitalization is not reliable because for certain periods, large-capitalization stocks outperform small-capitalization stocks, and it is difficult to establish a sufficient correlation to prove that size is a specific risk for utilities. VWPA's smaller size risk concern is invalidated and unsupported because VWPA's business and financial risk profile is similar to the large size companies of his Water Group. In direct testimony, I presented an article by Dr. Annie Wong that demonstrated that there is no need to make an adjustment for the small size of a company in utility rate regulation (I&E Statement No. 2, p. 50, line 4-19). Finally, the Commission has recently rejected the application of a size adjustment to the cost of equity calculation (I&E Statement No. 2, p. 50, lines 20-22).

Q. SUMMARIZE MR. WALKER'S RESPONSE IN REBUTTAL TESTIMONY REGARDING A SIZE RISK FACTOR ADJUSTMENT.

A. Mr. Walker opines that size is a recognized and meaningful element of risk, that it is appropriate to reflect that risk in a company's cost of equity, and credit rating agencies recognize that size impacts the credit rating (VWPA Statement No. 4-R, p. 43). He attempts to support this assertion by pointing to two studies (VWPA Statement No. 4-R, p. 43). Mr. Walker also attempts to discredit a study performed by Dr. Wong that I relied upon in rejecting his size adjustment, by citing a review of Dr. Wong's study written by Thomas M. Zepp (VWPA Statement No. 4-R, pp. 43-44).

Q. ARE MR. WALKER'S ASSERTIONS REGARDING FIRMS OF SMALLER SIZE RELEVANT TO THE REGULATED UTILITY INDUSTRY?

A. No. The study performed by Dr. Wong provides empirical evidence that refutes Mr. Walker's assertion as explained below.

Q. WHAT IS YOUR RESPONSE REGARDING THE STUDIES MR. WALKER RELIES ON TO SUPPORT THE REQUESTED SIZE ADJUSTMENT?

A. First, Mr. Walker's reference to studies/articles performed by James C. Van Horne and John M. Wachowicz, "Fundamentals of Financial Management" and Shannon

P. Pratt, "Cost of Capital: Estimation and Applications" are not specific to the utility industry (VWPA Statement No. 4-R, pp. 43-44). Second, the article Mr. Walker references from Dr. Thomas Zepp does not recreate Dr. Wong's study; he simply comments on the possibility of a small firm effect for utilities. Dr. Zepp refers to the study completed by the California Public Utilities Commission Staff, which in my opinion has not received wide regulatory support and acceptance, and therefore, Dr. Zepp's opinion cannot be properly evaluated. Dr. Zepp also draws his conclusions about the water industry based on the second study, which examines the effects of size for only two small water utility companies and two large water utility companies for the period of 1987-1997. This study does not contain enough credible evidence to refute Dr. Wong's findings. Third, Mr. Walker's reference to the credit rating agency Standard & Poor's document highlights the relationship between size and credit rating (VWPA Statement No. 4-R, p. 44); however, it is not specific to regulated utilities and does not materially support the size adjustment in the cost of equity estimation.

In my opinion, it is not appropriate to link the small size effect of non-regulated companies with the regulated utility industry because regulated utilities, small or large, have a market monopoly in the certificated service jurisdiction and are permitted to seek recovery of the full cost of service and a fair and reasonable rate of return on the rate base. The regulatory ratemaking mechanism enables utilities to reduce risk as opposed to unregulated companies that face sales revenue and net income pressures due to a highly competitive market structure.

Q. PLEASE CONTINUE.

A. It is also important to note the assertion that as a company's size decreases, risk increases, is speculative and not reliable because it is based on stock price volatility (risk) and market capitalization (size) relationship. Stock price volatility is not an appropriate risk measure as the stock prices are influenced by various factors such as economic conditions, financial and capital markets condition, regulatory changes, company-specific operational and financial risks and uncertainties, a company's quarterly and annual financial result updates, etc.

Q. HAVE YOU FOUND FURTHER EVIDENCE TO SUPPORT YOUR RECOMMENDATION TO REJECT THE PROPOSED SIZE ADJUSTMENT?

A. Yes. The difficulty in predicting the risk effect of a company's size is demonstrated in the variance from year to year of the measurement of difference between the annual returns on the large and small-capitalization stocks of the NYSE/AMEX/NASDAQ in the Ibbotson *Stocks, Bonds, Bills & Inflation: 2015 Yearbook.* As stated on page 100:

> While the largest stocks actually declined in 2001, the smallest stocks rose more than 30%. A more extreme case occurred in the depression-recovery year of 1933, when the difference between the first and 10th decile returns was far more substantial. The divergence in the performance of small- and large- cap stocks is evident. In 30 of the 89 years since 1926, the difference between the total returns of the largest stocks (decile 1) and the smallest stocks (decile 10) has been greater than 25 percentage points.

Page 109 states:

> In four of the last 10 years, large-capitalization stocks (deciles 1-2 of NYSE/AMEX/NASDAQ) have outperformed small-capitalization stocks (deciles 9-10). This has led some market observers to speculate that there is no size premium. But statistical evidence suggests that periods of underperformance should be expected.

Page 112 states:

> Because investors cannot predict when small-cap returns will be higher than large-cap returns, it has been argued that they do not expect higher rates of return for small stocks.

Aswath Damodaran notes in his study "Equity Risk Premiums (ERP): Determinants, Estimation, and Implications" – The 2022 Edition on page 50 states:

> In the four decades since 1980, the small cap premium has been non-existent, raising questions about whether it still persists or whether it was an artifact of the twentieth century.

Page 51 states:

> Finally, a series of studies have argued that market capitalization, by itself, is not the reason for excess returns but that it is a proxy for other ignored risks such as illiquidity and poor information. The argument that there is, in fact, no small cap premium and that we have observed over time is just an artifact of history should be given credence.

Page 53-54 states:

> Even if you believe that small cap companies are more exposed to market risk than large cap ones, this is a sloppy and lazy way of dealing with that risk, since risk ultimately has to come from something fundamental (and size is not a fundamental factor).

Q. DO YOU HAVE AN ADDITONAL RESPONSE TO MR. WALKER'S REBUTTAL TESTIMONY REGARDING THE SIZE ADJUSTMENT?

A. Yes. As discussed in my direct testimony, I reiterate that the Commission has rejected the application of a size adjustment to the cost of equity calculation in base rate case proceedings[4] (I&E Statement No. 2, p. 50, lines 20-22).

Q. HAS YOUR RECOMMENDATION TO REJECT MR. WALKER'S PROPOSED SIZE ADJUSTMENT CHANGED SINCE YOUR DIRECT TESTIMONY?

A. No. I continue to recommend that any adjustments in consideration of the Company's small size be disallowed.

MARKET TO BOOK (M/B) RATIO ADJUSTMENT

Q. SUMMARIZE MR. WALKER'S RESPONSE IN REBUTTAL TESTIMONY REGARDING AN M/B RATIO ADJUSTMENT.

A. Mr. Walker alleges that my direct testimony and OCA witness Mr. Garrett's direct testimony are false and misleading because an M/B ratio is a stock price metric and is not part of his leverage adjustment (VWPA Statement No. 4-R, p. 45). He then briefly states that he has explained in his direct testimony the foundation for the required leverage adjustment to account for the risk difference between the

[4] *Pa. PUC v. UGI Utilities, Inc. – Electric Division;* Docket No. R-2017-2640058 (Order Entered October 25, 2018). *See generally* Disposition of Capital Asset Pricing Model (CAPM), p. 100.

35%/65% (debt/equity) market value ratio used to calculate the return, which will be applied to 46%/54% (debt/equity) book value ratio of VWPA (VWPA Statement No. 4-R, p. 45). Therefore, he concludes that no further discussion or explanation is required on this topic (VWPA Statement No. 4-R, p. 45).

Q. WHAT IS YOUR RESPONSE TO MR. WALKER'S MISCHARACTERIZATION OF YOUR DIRECT TESTIMONY REGARDING THE M/B RATIO AND LEVERAGE ADJUSTMENT?

A. I disagree with Mr. Walker's characterization of my direct testimony as false and misleading. Mr. Walker in his direct testimony discussed the concept of an M/B ratio and its impact due to the difference in the M/B ratio. Briefly, he made the following assertions with reference to the M/B ratio difference and a need for leverage adjustment to the market determined cost of capital:

(1) He recommends that less weight be given to the resultant market value DCF cost rate due to the current market capitalization ratios and the impact that the M/B ratio has on the DCF results (VWPA Statement No. 4, p. 48).

(2) He summarizes recent M/B ratios for stock indexes reported by Barron's and the Water Group's average M/B ratio (VWPA Statement No. 4, p. 49).

(3) He explains M/B = 1.0, M/B ratio > 1.0, and M/B ratio < 1.0 and suggests that companies with M/B ratios greater than 1.0 earn more than their cost of capital (VWPA Statement No. 4, p. 50).

(4) He asserts that a DCF will overstate a common equity cost rate when M/B ratios are below 100% and understate when they are above 100%. Since the Comparable Group's current M/B ratio average 287%, the DCF understates their common equity cost rate (VWPA Statement No. 4, p. 50).

(5) He states that an adjustment is required when the cost of common equity model is based on market value capitalization and if its results are applied to book value capitalization. Therefore, he applied the Hamada and Harris Pringle formulas to calculate the leverage adjustment to account for the difference between market and book value capitalizations (VWPA Statement No. 4, pp. 55-57).

(6) Lastly, he concludes that the Water Group market value common equity cost rate should be adjusted upward by at least 0.75% (0.94% Hamada est. + 0.54% Yield spread = 1.48% ÷ 2 = 0.74%) because it will be applied to book value capitalization (VWPA Statement No. 4, pp. 55-57).

Q. DOES AN M/B RATIO ABOVE ONE (1.00) CAUSE THE COST OF EQUITY TO INCORRECTLY ESTIMATE THE INVESTOR-REQUIRED RETURN ON EQUITY?

A. No. Although there are differences between the book value and market value of water utilities in the proxy group, there is no need to consider any leverage adjustment or adder to the market determined DCF, CAPM, and RP results. As discussed in my direct testimony (I&E Statement no. 2, p. 42, line 2 through p. 45, line 8), I disagree with Mr. Walker's assertion that the difference causes the DCF

to understate the rate of return because the forecasted growth rates used in the DCF model are set by independent analysts based on current conditions and what they expect the future could be for the stock. Mr. Walker points out the Comparable Group's current M/B ratio average of 287% and asserts that the DCF understates the common equity cost rate. In this scenario, no rational investor would invest in a utility stock that has been trading above book value for several years and be surprised that the utility's rates continue to be set based on the book value capital structure. I reiterate that an M/B ratio of above 1.00 for utility stocks reflects their value in the market and implies that investors expect future cash flows to be more valuable than the historical accounting value of the company. Since the stock market is impacted by regulatory policies, and the economic and financial factors, an M/B ratio could be less than 1.00 when the stock market is in a depression, or a company is experiencing under-performance, so it is inappropriate to evaluate DCF results or other cost of equity models with the M/B ratio. It is also important to note that in the traditional regulatory framework, the market-determined cost of equity is consistently applied to the book value of the utility's claimed rate base in the revenue requirement computation. Therefore, I disagree with Mr. Walker's assertion that the M/B ratio above (1.0) causes the DCF to incorrectly estimate or underestimate the investor-required return on equity.

Q. DO YOU AGREE WITH MR. WALKER'S FINANCIAL LEVERAGE ADJUSTMENT APPLIED TO ACCOUNT FOR THE M/B RATIO DIFFERENCE?

A. No. I continue to recommend that the Commission reject Mr. Walker's 0.75% leverage adjustment for M/B ratio difference applied to the cost equity model results as an adder, which is summarized for reference in the table below:

	Analysis Results	M/B Ratio Leverage Adjustment	Adjusted Results
DCF	8.70%	0.75%	9.45%
CAPM	11.00%	0.75%	11.75%
RP	10.60%	0.75%	11.35%
Mr. Walker's Recommended ROE based on the adjusted results: 10.80%			

Q. WHAT ARE THE MOST RECENT COMMISSION DECISIONS REGARDING A LEVERAGE ADJUSTMENT?

A. The following cases are recent instances where the Commission has addressed the use of a "leverage adjustment." In these cases, the leverage adjustment has been rejected.

First, in *Pennsylvania Public Utility Commission v. Aqua Pennsylvania, Inc.*, at Docket No. R-00072711 (Order Entered July 31, 2008), pp. 38-39, the Commission rejected the ALJ's recommendation for a leverage adjustment stating, "[t]he fact that we have granted leverage adjustments in the past does not mean that such adjustments are indicated in all cases." In this proceeding, the

Commission determined that there was no viable support for an upwards adjustment to compensate for any perceived risk.

Second, in *Pennsylvania Public Utility Commission, et al v. City of Lancaster – Bureau of Water*, at Docket No. R-2010-2179103 (Order Entered July 14, 2011), p. 101, the Commission agreed with the I&E position and stated, "any adjustment to the results of the market based DCF are unnecessary and will harm ratepayers. Consistent with our determination in *Aqua 2008,* there is no need to add a leverage adjustment … ."

Third, in *Pennsylvania Public Utility Commission, et al v. UGI Utilities, Inc. – Electric Division*, at Docket No. R-2017-2640058 (Order Entered October 25, 2018), pp. 93-94, the Commission agreed with the I&E position and stated, "we conclude that an artificial adjustment in this proceeding is unnecessary and contrary to the public interest. Accordingly, we decline to include a leverage adjustment in our calculation of the DCF cost of equity."

Fourth, in *Pennsylvania Public Utility Commission, et. al v. Columbia Gas of Pennsylvania, Inc*., at Docket No. R-2020-3018835 (Order Entered February 19, 2021), pp. 137-141, the Commission adopted the ALJ's recommendation to use I&E's DCF methodology, which excluded Columbia's application of a leverage adjustment.

Fifth, in *Pennsylvania Public Utility Commission, et. al v. PECO Energy Company – Gas Division*, at Docket No. R-2020-3018929 (Order Entered June 22, 2021, Public Version), pp. 172-173, the Commission adopted the ALJ's

recommendation to use I&E's DCF methodology, which excluded PECO's application of a leverage adjustment.

Finally, in the most recent case of *Pennsylvania Public Utility Commission, et. al v. Aqua Pennsylvania, Inc.*, at Docket No. R-2021-3027385 (Order Entered June 22, 2021), pp. 154-155, the Commission adopted the ALJ's recommendation to use I&E's DCF methodology, which excluded Aqua's application of a leverage adjustment.

USE OF MULTIPLE MODELS

Q. SUMMARIZE MR. WALKER'S RESPONSE IN REBUTTAL TESTIMONY REGARDING CONSIDERATION OF THE CAPM RESULTS WITH THE DCF RESULTS IN DETERMINING THE COST OF EQUITY.

A. Mr. Walker states that the CAPM is more responsive to changes in interest rates than the DCF, therefore, it is imperative, given today's high interest rate environment, that the Commission should consider models that directly measure interest rate levels (e.g., CAPM and RP) when determining VWPA cost of equity (VWPA Statement No, 4-R, 35). He cites the recent Aqua and Columbia Water rate case orders where the Commission relied on CAPM results with the DCF results in determining the appropriate cost of equity (VWPA Statement No. 4-R, pp. 31-32). Additionally, he cites academic and financial literature survey results to support his assertion for relevance of the CAPM method (VWPA Statement No. 4-R, pp. 32-34).

Q. PLEASE RESPOND TO MR. WALKER'S EMPHASIS ON THE COMMISSION ORDERS IN THE AQUA AND COLUMBIA WATER PROCEEDINGS THAT CONSIDERED THE RESULTS OF THE DCF AND CAPM MODELS.

A. First, I disagree with Mr. Walker's assumption that the DCF does not provide a more accurate indication of the required return during periods of interest rate uncertainty. The Commission's orders note that the DCF-only results may understate the utility's ROE given increased inflation and interest rates. However, it is important to note that the Commission order in the Aqua Pennsylvania base rate proceeding states:

> Based upon our informed judgment, which includes consideration of *a variety of factors* ("emphasis added") including increasing inflation leading to increases in interest rates and capital costs since the rate filing, we determine that a base ROE of 9.75% is reasonable and appropriate for Aqua. When combined with our upward adjustment of 25 basis points to the Company's ROE for management effectiveness, this will produce a final authorized ROE for Aqua of 10.00% (*i.e.*, 9.75% + 0.25% = 10.00%).[5]

The Commission relied on *various other factors* besides inflation leading to increases in interest rates and capital costs for determining a range of reasonableness for the ROE based on I&E's DCF and CAPM results. Similarly, in the Columbia Water rate case order, the Commission states:

> Based upon our informed judgment, which includes consideration of *a variety of factors* ("emphasis added") such

[5] *Pa. PUC v. Aqua Pennsylvania, Inc.,* Docket Nos. R-2021-3027385 & R-2021-3027386, pp. 178 (Order entered May 16, 2022).

> as increasing inflation leading to increases in interest rates and capital costs, we determine that an ROE of 9.75% is reasonable and appropriate for Columbia.[6]

Also, in the Columbia Water proceeding, the Commission relied on *various other factors* besides inflation leading to increases in interest rates and capital costs for determining a range of reasonableness for the ROE based on I&E's DCF and CAPM results. In both of these cases, the Commission concluded its decision to rely on the DCF and CAPM results in determining a reasonable ROE was based on various factors, evidence, and informed judgment specific to each case.

Second, I agree that current market conditions are still characterized by higher interest rates and capital costs, however, as discussed above in the inflation and capital cost section, it is speculative to assume that the current interest rate scenario will continue in the longer term. It is also important to note that the Company's new rates will be effective during the FPFTY ending October 31, 2025, and will continue thereafter when the capital market conditions would be different.

Again, as stated above and in my direct testimony, I did in fact employ the CAPM as a comparison to my DCF result and my recommendation based on DCF result is consistent with the methodology historically relied on by the Commission in base rate proceedings.

---

6 *Pa. PUC v. Columbia Water Company*, Docket No. R-2023-3040258, p. 108 (Order Entered January 18, 2024).

Q. DO YOU AGREE WITH MR. WALKER'S ASSERTION THAT ACADEMIC AND FINANCIAL LITERATURE SUPPORTS THE USE OF MULTIPLE MODELS, SUCH AS THE DCF, CAPM, AND RP ALONG WITH THE COMMISSION'S RECENT ORDERS NOTED ABOVE?

A. No. I disagree with Mr. Walker's recommendation that the Commission should rely on multiple cost of equity models for VWPA's ROE determination because academic and financial literature supports the use of multiple models such as the DCF and CAPM models in determining a cost of equity. Based on the academic and financial literature excerpts provided in Mr. Walker's rebuttal testimony, he concludes that CAPM is more responsive to changes in interest rates than the DCF model. In this context, I have adequately discussed why I chose to employ the DCF model as the primary method and the CAPM model for comparison purposes, and not as a check (I&E Statement No. 2, pp. 16-20). As discussed above, the Commission's recent orders in the Aqua and Columbia Water proceedings should not be applied as precedent in this case because in my opinion each rate case is decided based on a variety of utility specific factors and individual merits. Additionally, it is worth noting that in the "Cost of Equity - A Practitioner's Guide" by David Parcell (2020 edition, p. 90), a summary chart showing regulatory Commissions' preferences to apply various models is presented as follows:

Cost of Equity Model	No. of Commissions Favoring Model
Discounted Cash Flow	44
Capital Asset Pricing Model	11
Risk Premium	12
Comparable Earnings	21
Earnings/Price Ratio	5
Combination of more than one	27

Mr. Parcell emphasizes the importance of the DCF model and its dependence on stock prices directly utilized in this model and states on pp. 90-91:

> The market price of a firm's stock represents the collective judgment of all stock market participants as to the value of the firm at a particular point in time. The stock price takes into consideration the participants' interpretation of all relevant factors, such as past, present, and future earnings, the risk of these earnings, dividend policy and other factors. Thus, the market price of a firm's stock embodies both expected return and risk and, therefore, reflects the markets' trade-off between risk and return.

Lastly, I reiterate that the DCF model captures the economic and financial market conditions including the current inflation and interest rates affecting the financial performance of the companies because the analysts consider (appropriately discounts) the current economic and financial environment besides other factors in forecasting the growth rates for utilities.

OVERALL RATE OF RETURN

Q. HAS YOUR OVERALL RATE OF RETURN RECOMMENDATION CHANGED FROM YOUR DIRECT TESTIMONY?

A. No. I continue to support each recommendation made in I&E Statement No. 2 for a recommended overall rate of return of 7.16% for VWPA's water and wastewater operations.

Q. PLEASE RESTATE YOUR OVERALL RATE OF RETURN RECOMMENDATION FOR VWPA.

A. I continue to recommend the following rate of return for VWPA's water and wastewater operations:

I & E
Veolia Water Pennsylvania, Inc. - Water and Wastewater Operations
Summary of Cost of Capital

Type of Capital	Ratio	Cost Rate	Weighted Cost Rate
Long-Term Debt	46.00%	4.60%	2.12%
Common Equity	54.00%	9.34%	5.04%
Total	**100.00%**		**7.16%**

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes.

I&E Statement No. 3-SR
Witness: Esyan A. Sakaya

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

VEOLIA WATER PENNSYLVANIA, INC.

Docket No. R-2024-3045192 (Water)
&
Docket No. R-2024-3045193 (Wastewater)

Surrebuttal Testimony

of

Esyan A. Sakaya

Bureau of Investigation and Enforcement

Concerning:

Water and Wastewater System Acquisitions
Amortization and Depreciation Expense
FTY and FPFTY Reporting
Proposed Rate Revenues
Scale Back of Rates

TABLE OF CONTENTS

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Esyan A. Sakaya. My business address is Pennsylvania Public Utility Commission, Commonwealth Keystone Building, 400 North Street, Harrisburg, Pennsylvania 17120.

Q. ARE YOU THE SAME ESYAN A. SAKAYA WHO SUBMITTED I&E STATEMENT NO. 3 AND I&E EXHIBIT NO. 3?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is to respond to rebuttal testimony of Veolia Water Pennsylvania, Inc. ("VWPA," "Veolia," or "Company") witnesses Larry Finnicum (VWPA St. No. 1-R) and Gregory R. Herbert (VWPA St. No. 2-R). In this surrebuttal testimony I also respond to OSBA witness Neal Townsend (OSBA Statement No. 1-R) and Office of Consumer Advocate ("OCA") witness Jerome Mierzwa (OCA Statement No. 4-R).

Q. DOES YOUR SURREBUTTAL TESTIMONY INCLUDE AN EXHIBIT?

A. Yes. I&E Exhibit No. 3-SR contains schedules relating to my surrebuttal testimony.

WATER AND WASTEWATER SYSTEM ACQUISITIONS

Q. PLEASE DESCRIBE THE VEOLIA WATER AND WASTEWATER ACQUISITIONS AND THE RELATED BASE RATE CLAIMS.

A. Veolia made acquisition adjustment claims for the water and wastewater systems of Mahoning, the Kensington Water Company, and the Overbrook Water Company. The rate base claims made by the Company are described in Veolia St. No. 1, pp. 10-16 and are as follows:

Facility	Rate Base Claims
Mahoning Water	$4,734,800
Mahoning Wastewater	$4,765,200
Kensington Water	$265,000
Overbrook Water	$324,000

Q. DID YOU AGREE WITH THE COMPANY RECOVERING ALL THE COSTS ASSOCIATED WITH THESE CLAIMED ACQUISITION ADJUSTMENTS?

A. No. I recommended that the acquisition adjustments for Kensington and Overbrook acquisition claims be accepted and that the acquisition adjustments claimed for the Mahoning Water and Wastewater acquisitions be denied (I&E St. No. 3, pp. 7-8).

Q. WHY DID YOU DISAGREE WITH THE COMPANY RECOVERING ALL THE COSTS ASSOCIATED WITH ITS CLAIMED ACQUISITION ADJUSTMENTS?

A. In summary, the Company provided testimony that established that the Kensington and Overbrook acquisitions were based upon both systems being in disrepair, while the Mahoning acquisitions were acquired based on Section 1329 acquisitions and there was insufficient reason to reflect an acquisition adjustment in rate base since the original cost should have been adjusted to reflect the purchase price (I&E St. No. 3, p. 8).

Q. DID THE COMPANY RESPOND TO YOUR RECOMMENDATIONS FOR THESE ACQUISITION ADJUSTMENTS?

A. Yes. The Company agreed with my recommendation to include the Kensington and Overbrook acquisition related rate base claims, but they disagreed with my recommendation to reject the rate base claims for the Mahoning Water and Wastewater acquisitions (Veolia St. No. 1-R, pp. 15-17).

Q. WHAT WAS THE REASON THE COMPANY DISAGREED WITH YOUR RECOMMENDATION RELATED TO MAHONING WATER AND WASTEWATER?

A. Mr. Finnicum opines that since the Company has satisfied the requirements of Section 1327 the Mahoning acquisition adjustments should be approved as

proposed (VWPA Statement No. 1-R, p. 16).

Q. DID THE COMPANY MAKE ANY CORRESPONDING UPDATES RELATED TO THE MAHONING ACQUISITION ADJUSTMENTS?

A. Yes. The Company proposes reclassifying both Mahoning Water and Wastewater acquisitions as additions to the water and wastewater plant which would eliminate the acquisition adjustment claims (Veolia St. No. 8-R, p. 5 and Veolia Ex. GRH-4-R, Sch. 1.1-R).

Q. DO YOU ACCEPT THE CHANGES MADE BY THE COMPANY IN THIS REGARD?

A. Yes. Based on the fact that these were Section 1329 acquisitions, the fair market value plant values should be reflected the way the Company proposes in rebuttal testimony and summarized above.

AMORTIZATION AND DEPRECIATION EXPENSE

Q. WHAT WAS THE COMPANY'S ORIGINAL AMORTIZATION EXPENSE CLAIM?

A. Veolia claimed $230,340 in FPFTY amortization expense for Water. The $230,340 claim included $122,766 related to the Mahoning Water system. For Wastewater, Veolia is claimed $153,034 in FPFTY amortization expense. The entire $153,034

was related to the Mahoning Wastewater system (Veolia Ex. No.GRH-3, Schedule 34 and Veolia Ex. No. GRH-5, Schedule 20).

Q. WHAT ADJUSTMENTS TO THE COMPANY'S INITIAL AMORTIZATION EXPENSE CLAIMS DID YOU RECOMMEND?

A. I recommended that the Water amortization expense be reduced by $122,766 and the total Wastewater amortization expense of $153,034 be eliminated due to the initial Mahoning amortization expenses being invalid (I&E St. No. 3, p. 10 and I&E Ex. No. 3. Sch. 3, p. 2 and Sch. 4, p. 2).

Q. HAS THE COMPANY REVISED ITS AMORTIZATION EXPENSE CLAIM?

A. Yes. Veolia, through informal discussions with OCA, proposes removing its initial $122,766 amortization amount for Mahoning Water and increasing depreciation expense by $33,336 in the FTY and FPFTY as shown in Veolia Ex. GRH-4-R (Veolia St. No. 2-R, p. 21). For Mahoning Wastewater, Veolia proposes removing its initial $153,034 amortization amount and increasing depreciation expense by $72,627 in the FTY and FPFTY as shown in Veolia Ex. GRH-5-R (Veolia St. No. 2-R, p. 33).

Q. DO YOU ACCEPT THESE UPDATED DEPRECIATION AND AMORTIZATION EXPENSE CLAIMS?

A. Yes. Based on the explanation concerning reclassification of the Mahoning Water and Wastewater acquisition adjustments, I accept the Company's updated depreciation and amortization expense.

PLANT AND REPORTING REQUIREMENTS

Q. WHAT DID YOU RECOMMEND IN DIRECT TESTIMONY REGARDING REPORTING FTY AND FPFTY PLANT ADDITIONS?

A. I recommended that the Company provide the Commission's Bureau of Investigation and Enforcement and the OCA with separate reports for Water and Wastewater updating pages 1 and 2 of Veolia Exhibit LKF-1 no later than January 1, 2025, which should include actual capital expenditures, plant additions, and retirements by month from October 1, 2023 through September 30, 2024, and an additional update for actuals from October 1, 2024 through September 30, 2025, no later than January 1, 2026 (I&E St. No. 3, pp. 10-11).

Q. DID THE COMPANY RESPOND TO YOUR RECOMMENDATION?

A. No. Therefore, I assume the Company has accepted my recommendation regarding reporting for FTY and FPFTY plant additions.

VEOLIA WATER PROPOSED RATE REVENUES

Q. DID YOU PREPARE A SIMILAR SCHEDULE THAT SHOWS THE PRESENT AND PROPOSED RATE REVENUE YOU RECOMMEND FOR VEOLIA WATER?

A. Yes. As described in my direct testimony; I&E Ex. No. 3, Sch. 3 incorporates my two recommendations. My first recommendation was to increase other revenue of $81,922 for the late payment revenue, which equates to an increase of 25.2% (I&E Ex. No. 3, Sch. 3, line 10). My second recommendation was to remove the $237,000 subsidy being provided to the Mahoning system to various classes. Subsumed in this recommendation was the $81,922 of additional late payment revenue and a reallocation of the increase to the various classes (I&E St. No. 3, pp. 12-13).

Q. DID THE COMPANY ADDRESS YOUR INCREASE TO OTHER REVENUE?

A. Yes. As described above, the Company does agree with the concept that other revenue will increase under proposed rates. The Company disagreed with my methodology of calculating the additional revenue. The Company states that other revenue should increase by be $46,225 rather than the $81,922 that I recommended (Veolia St. No. 2-R, p. 23).

Q. DO YOU ACCEPT THE COMPANY'S REVISED LATE PAYMENT RECOMMENDATION?

A. Yes. Therefore, I will accept the Company's increase in late payment revenue of $46,225 in the Veolia Main Division.

Q. DID VEOLIA AGREE WITH YOUR RECOMMENDED DISALLOWANCE OF THE $237,000 SUBSIDY TO MAHONING WATER CUSTOMERS?

A. No. First, Veolia reduced the $237,000 reclassification by $95,550 due to other changes and corrections made to the filing which results in a revenue shift of $141,450 ($237,000 - $95,550) (Veolia St. No. 2-R, p. 30). Then, the Company disagreed with my recommendation by stating that its goal is to consolidate the Mahoning Division rates with the Main Division. Additionally, in the next rate case, the Mahoning costs of service will be incorporated into the Main Division costs, as the Company was only required to submit a separate cost of service study ("COSS") for Mahoning Water in this proceeding. Thus, Veolia asserts that this is not a true subsidy (Veolia St. No. 2-R, pp. 29-30).

Q. DO YOU WISH TO REVISE YOUR ORIGINAL RECOMMENDATION CONCERNING THE SUBSIDY BEING PROVIDING TO MAHONING WATER?

A. Yes. As a result of the lower late payment revenue and the lower subsidy described by the Company, I revised my recommendation to allocate revenue in

the Veolia District. This recommendation is shown on I&E Ex. No. 3-SR, Sch.1, p. 1.

Q. WHAT DOES I&E EXHIBIT NO. 3-SR, SCHEDULE 1, PAGE 2 SHOW?

A. This schedule shows the cost of service summary after the revenue allocation shown on I&E Ex. No. 3- SR, Sch. 1, p. 1, column J. Specifically, the reallocation was necessary to make the relative rates of return for the Residential and Commercial classes the same 1.06 (I&E Ex. No. 3-SR, Sch.1, p. 2, columns 3 and 4).

Q. DO YOU CONTINUE TO REJECT THE COMPANY'S PROPOSAL TO SHIFT $141,450 OF COST TO VEOLIA CUSTOMERS?

A. Yes.

Q. WHY DO YOU RECOMMEND THAT THE REVENUE SHIFT IN ANY DOLLAR AMOUNT TO VEOLIA WATER CUSTOMERS BE REJECTED?

A. First, there is no reason that the rates should be consolidated in this proceeding, and disallowing the subsidy lowers the rates for Main Division customers.

Second, the Mahoning Water customers are benefitting from being acquired by Veolia through the Section 1329 acquisition. Therefore, Mahoning Water customers should pay rates that recover the cost of operating the Mahoning Water system. As stated in my direct testimony, this is important

because in that acquisition proceeding, the Company claimed being acquired would be beneficial to all customers. The benefits accruing to Mahoning Water customers include better customer service, better access to capital, better construction management, and better overall expertise in operating water systems. Also, being under the jurisdiction of the Commission prevents unjust and unreasonable rates, and customers will have access to the Commission complaint procedures among other things (Suez St. No. l, pp. 14-17 at Docket No. A-2018-3003519). Finally, while Act 11 of 2012 provided for the allocation of wastewater system revenue requirements to a Company's owned water utility, I am unaware of any provision that allows a similar transfer of system costs between water rate zones.

If Veolia believes that water system rates should be consolidated in this proceeding, it should have proposed rate increases at the actual necessary percentage to do so without inappropriately shifting the Mahoning Water revenue requirement to the customers of the Main Water division. My exhibit reflects the appropriate increases to the two rate zones with the adjustments I have recommended, including removal of the revenue shift for Mahoning Water customers.

MAHONING WATER PROPOSED RATE REVENUES

Q. DID YOU PREPARE A SIMILAR SCHEDULE THAT SHOWS THE PRESENT AND PROPOSED RATE REVENUE YOU RECOMMEND FOR MAHONING WATER?

A. Yes. As described in my direct testimony; I&E Ex. No. 3, Sch. 4 incorporates my three recommendations. My first recommendation was to increase proposed rate other revenue of $6,984 by $9,179[1] to $16,073[2] for the late payment revenue, which equates to an increase of 133.13% (I&E Ex. No. 3, Sch. 4). My second recommendation is to remove the $4,680 increase to Public Fire. My third and final recommendation is that the allocation of the $237,000 under column J between the Main Water Division and Mahoning Water be disallowed (I&E St. No. 3, pp. 14).

Q. WHY DID YOU INCREASE OTHER REVENUE BY 133.13%?

A. It is reasonable to expect that other late payment revenue will increase if present rates are increased. The $9,179 or 133.13% increase in other revenue is the same percentage increase I proposed for Mahoning Water base rates.

[1] I&E modified proposed increase to Other Revenue (Mahoning): $16,073 - $6,894 = $9,179.
[2] I&E modified proposed rates to Other Revenue (Mahoning): $6,894 * (1+1.3313) = $16,073.

Q. WHY DID YOU REMOVE THE $4,680 INCREASE TO PUBLIC FIRE SERVICE?

A. According to the Company, the cost incurred to provide Public Fire Service is $68,238, and the present rate revenue from Public Fire Service is $46,804 (Veolia Ex. No. CEH-2, Sch. A). Calculating 25% of the cost to provide Public Fire Service in accordance with Section 1328(b) of the Public Utility Code indicates that if present rate revenue received from Public Fire is above $17,060 ($68,238 x 25%), present rates cannot be increased. Since present rates produce $46,804 and $46,804 is more than $17,060, I am advised by counsel that Public Fire Service rates cannot be increased.

Q. DID THE COMPANY ADDRESS YOUR INCREASE TO OTHER REVENUE?

A. Yes. The Company does agree with the concept that other revenue will increase under proposed rates. The Company states that other revenue includes revenue other than late payment revenue and if only late payment revenue is increased, the increase in the Mahoning district late payment revenue should be $1,920 rather than the $9,179 that I recommended (Veolia St. No. 2-R, p. 23).

Q. DO YOU ACCEPT THE COMPANY'S REVISED LATE PAYMENT RECOMMENDATION?

A. Yes. Therefore, I will accept the Company's increase in late payment revenue of

$1,920.

Q. DID THE COMPANY ADDRESS YOUR PUBLIC FIRE RECOMMENDATION?

A. Yes. The Company disagrees with my recommendation not to increase Public Fire by $4,680. The Company stated that my calculation of 25% of the cost was based upon the $68,238 which already reflected the 25% allowable cost via a reduction in the COSS (Veolia St. No. 2-R, pp. 30-31).

Q. DO YOU ACCEPT THE COMPANY'S EXPLANATION OF ITS PUBLIC FIRE SERVICE COSTS?

A. Yes. Therefore, I will withdraw my recommendation concerning Public Fire and accept the Company's proposal to increase Public Fire rates by $4,680.

Q. DID YOU COMPILE A SCHEDULE THAT SHOWS THE REVENUE YOU PROPOSE IN THE MAHONING DISTRICT?

A. Yes. I&E Ex. No. 3-SR, Sch. 2 shows the present and the additional revenue that I proposed for the Mahoning District. The additional revenue by class is shown under column J.

OSBA WITNESS NEAL TOWNSEND

Q. DID THE OSBA ADDRESS YOUR DIRECT TESTIMONY?

A. Yes. The OSBA generally agrees with my recommendation to increase late payment revenue but disagrees with what it believes to be my reallocation of this late payment revenue (OSBA St. 1-R, p. 3-5).

Q. DID THE OSBA PROPERLY UNDERSTAND YOUR RECOMMENDATION CONCERNING THE ALLOCATION OF THE LATE PAYMENT REVENUE?

A. No. The allocation of the late payment revenue was subsumed in my recommendation to reallocation proposed revenue so that the relative rate of return for the Residential, Commercial and Public classes are 1.05, 1.06 and 1.10 respectively (I&E Ex. No. 3, Sch. 3, p. 2 columns 3, 4 and 7). Therefore, the criticism of the OSBA is misplaced.

Q. DID YOU REVISE THIS SCHEDULE IN SURREBUTTAL TESTIMONY?

A. Yes. Largely as a result of my acceptance of less late payment revenue, I revised my revenue allocation so the relative rates of return for the Residential and Commercial classes are both 1.06 (I&E Ex. No. 3-SR, Sch. 1, p. 2 columns 3-4).

OCA WITNESS JEROME MIERZWA

Q. DID THE OCA ADDRESS YOUR DIRECT TESTIMONY?

A. Yes. The OCA disagrees with my proposal to not subsidize the Mahoning system. The OCA believes that my recommendation will result in "rate shock" to the Mahoning customers and would result in higher rates for Mahoning customers, which does not support the Company's goals that rates should be consolidated (OCA St. No. 4-R, pp. 3-4).

Q. IS THE OCA CORRECT THAT THE COMMISSION SHOULD BE CONCERNED ABOUT "RATE SHOCK" FOR MAHONING CUSTOMERS IF THE COMPANY IS PERMITTED TO SHIFT THIS $141,450 TO VEOLIA CUSTOMERS?

A. No. The OCA failed to define what "rate shock" is or detail any parameters other than saying it is only a few cents per month. I believe the "cents per month" argument fails to consider the customers that are paying more each month to subsidize these customers. Second, as described above and in my direct testimony, the Mahoning system was acquired under Section 1329, which means the municipality and therefore the customers benefited in other ways from being purchased by Veolia. Therefore, any increase will be offset by the local municipality benefits accrued, and the OCA concerns should be rejected.

SCALEBACK OF RATES - WATER

Q. WHAT RATES SHOULD BE SCALED BACK IF THE COMMISSION GRANTS LESS THAN THE FULL INCREASE FOR VEOLIA WATER?

A. I recommend that the rates be scaled back proportionally to the percentage increase(s) shown on I&E Ex. No. 3, Sch. 3-SR, p. 1, column I for Residential, Commercial, Industrial and Public rate classes. I also recommend that the customer charges for the Residential and Commercial classes in the abovementioned divisions, along with the Industrial and Public class customer charges in the Main Division, be scaled back.

Q. WHAT RATES SHOULD NOT BE SCALED BACK IF THE COMMISSION GRANTS LESS THAN THE FULL INCREASE?

A. I recommend no scale back to the Bethel system usage rates and the customer charges related to Large Industrial, Sales for Resale, Private, and Public Fire rates.

Q. WHY DO YOU RECOMMEND THAT THE PROPOSED USAGE RATES FOR THE BETHEL SYSTEM NOT BE INCLUDED IN THE SCALE BACK?

A. The proposed Bethel system usage rates are below the other present usage rates and in order to help consolidate rates in the future, these rates should not be scaled back.

Q. WHY DO YOU RECOMMEND THAT THE PROPOSED MONTHLY CUSTOMER CHARGES FOR THE RESIDENTIAL, COMMERCIAL, INDUSTRIAL, AND PUBLIC CUSTOMERS BE INCLUDED IN THE SCALE BACK?

A. The Company's proposed monthly customer charges are based upon a customer cost analysis that reflects the full cost of service. Since the Commission is likely to reduce some of the Company's ratemaking components contained in the customer cost analysis, it is necessary to reduce the proposed customer charge if the Commission reduces the requested increase. Also, the Company proposed a higher percentage increase for the customer charges than the usage rates, thus scaling back the usage rates will reduce the increase for low usage customers compared to higher usage customers. Finally, in a past UGI Electric case, the Commission determined that despite the higher customer cost determination in the COSS, the customer charges should be reduced for all customers (*PA Public Utility Commission et al. v. UGI Utilities, Inc. — Electric Division*, Opinion and Order at Docket No. R-2017-2640058 et al., p. 175 (Order Entered October 25, 2018)).

Q. WHY DO YOU RECOMMEND NO SCALE BACK IN THE LARGE INDUSTRIAL, SALES FOR RESALE, PUBLIC, AND PRIVATE FIRE SERVICE RATES?

A. Under proposed rates, the relative rates of return for these classes are below 1.00.

Therefore, there is no justification for reducing the proposed rates in these classes.

Q. WHY DO YOU RECOMMEND A PROPORTIONAL SCALE BACK TO THE RESIDENTIAL, COMMERCIAL, INDUSTRIAL, AND PUBLIC USAGE RATES IF THE COMMISSION GRANTS LESS THAN THE FULL INCREASE?

A. A proportional scale back will still satisfy the goal of moving the relative rate of return towards 1.00 as proposed under the full increase.

Q. WHAT RATES SHOULD BE SCALED BACK IF THE COMMISSION GRANTS LESS THAN THE FULL INCREASE FOR MAHONING WATER?

A. I recommend that the rates be scaled back proportionally to the percentage increase(s) shown on I&E Ex. No. 3, Sch. 4-SR, column I. This proportional scale back will also move the revenue received from the Mahoning classes towards the cost of providing service to each Mahoning class.

<u>SCALEBACK OF RATES - WASTEWATER</u>

Q. WHAT INCREASES DID VEOLIA PROPOSE FOR MAHONING WASTEWATER OPERATIONS?

A. Veolia's COSS comparison is shown on Veolia Exhibit No. CEH-2, Schedule A-I, which shows the increases by class under column 8. The proposed increases for

Mahoning are $338,238 for residential customers and $230,482 for non-residential customers. The percentage increases of 38.0% and 17.3% respectively are shown under column 9.

Q. HOW SHOULD THESE INCREASES BE SCALED BACK IF THE COMMISSION GRANTS LESS THAN THE FULL INCREASE?

A. I recommend that the customer charges and usage rates be scaled back so that the percentage increase is proportional to the percentage increases originally proposed on Veolia Exhibit No. CEH-2, Schedule A-I, column 9.

Q. WHY DO YOU RECOMMEND A PROPORTIONAL SCALE BACK BE APPLIED TO MAHONING WASTEWATER RATES?

A. Veolia's Mahoning wastewater COSS comparison shown on Exhibit No. CEH-3, Schedule A shows the cost to serve the Residential class is more than revenue received from present rates, and the cost to serve the Non-Residential class is less than the revenue received from the Non-Residential customers. Given this disparity, the Company proposed a higher percentage increase for the Residential class. Therefore, a proportional scaleback is reasonable to generate revenue and limit the increase to the Residential class to 38.0%.

Q. WHAT INCREASES DID VEOLIA PROPOSE FOR COLUMBIA WASTEWATER OPERATIONS?

A. Veolia's Columbia Wastewater COSS comparison shown on Veolia Exhibit No. CEH4, Schedule A-I shows the increases for the one Non-Residential class under column 8. The proposed increase for Columbia Wastewater is $109,625 for nonresidential customers. The Company proposed a 235.1% increase in the customer charge and approximately a 236% increase in the usage rates (Veolia Ex. GRH-4, Sch. 9).

Q. HOW SHOULD THESE INCREASES BE SCALED BACK IF THE COMMISSION GRANTS LESS THAN THE FULL INCREASE?

A. I recommend that the customer charges and usage rates be scaled back proportionally.

Q. WHY DO YOU RECOMMEND A PROPORTIONAL SCALE BACK BE APPLIED TO COLUMBIA WASTEWATER RATES?

A. Veolia proposed approximately the same percentage increase in the Columbia Wastewater customer charge and usage rates. Therefore, it is reasonable to scale back both rates proportionally.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes.

I&E Exhibit No. 3-SR
Witness: Esyan A. Sakaya

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

VEOLIA WATER PENNSYLVANIA, INC.

Docket No. R-2024-3045192 (Water)
&
Docket No. R-2024-3045193 (Wastewater)

Exhibit to Accompany

The

Surrebuttal Testimony

of

Esyan A. Sakaya

Bureau of Investigation and Enforcement

Concerning:

Water and Wastewater System Acquisitions
Amortization and Depreciation Expense
FTY and FPFTY Reporting
Proposed Rate Revenues
Scale Back of Rates

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES
FOR THE TEST YEAR ENDED SEPTEMBER 30, 2025

	Customer Classification	Cost of Service		Revenues, Present Rates*		Revenues, Proposed Rates		Proposed Increase		I&E	I&E Remove
		Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent Increase	CHANGE	$237,000
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
1	Residential	$ 42,133,943	58.2%	$ 35,257,068	61.0%	$ 43,341,673	59.8%	$ 8,084,605	22.9%	**-$538,000**	**-$111,283**
2	Commercial	19,245,313	26.6%	15,759,765	27.3%	19,796,774	27.3%	4,037,010	25.6%	**$397,997**	**-$28,500**
3	Industrial	1,250,240	1.7%	1,006,656	1.7%	1,251,747	1.7%	245,092	24.3%	**-$1,800**	**-$374**
4	Large Industrial	856,777	1.2%	398,177	0.7%	559,994	0.8%	161,817	40.6%	**$0**	**-$1,293**
5	Public Authority	2,207,254	3.0%	1,716,898	3.0%	2,315,045	3.2%	598,146	34.8%	**$95,578**	**$0**
6	Sales for Resale	2,051,193	2.8%	721,446	1.2%	1,301,990	1.8%	580,545	80.5%	**$0**	**$0**
7	Private Fire Service	3,112,512	4.3%	1,852,501	3.2%	2,727,873	3.8%	875,371	47.3%	**$0**	**$0**
8	Public Fire Service	1,538,892	2.1%	1,085,138	1.9%	1,193,325	1.6%	108,187	10.0%	**$0**	**$0**
9	Total Sales	72,396,123	100.0%	57,797,649	100.0%	72,488,422	100.0%	14,690,773	25.418%	**-$46,225**	**-$141,450**
10	Other Revenues	325,208		325,208		371,433		46,225	14.2%	**$46,225**	**$0**
11	Revenue to Mahoning Twp. Water					-		-			
12	Total	$ 72,721,331		$ 58,122,857		$ 72,859,855		$ 14,736,998	25.4%	**$0**	**-$141,450**

* Includes DSIC Revenue.

Exhibit No. 3-SR
Schedule No. 1
Page 1 of 2

1 1= Proposed Rates. 2=Present Rates

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS
DEVELOPMENT OF RATE OF RETURN BY CUSTOMER CLASSIFICATION
UNDER PROPOSED RATES

ITEM	COST OF SERVICE	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	LARGE INDUSTRIAL	PUBLIC	Sales for Resale	FIRE PROTECTION PRIVATE	FIRE PROTECTION PUBLIC
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. REVENUES FROM SALES	72,488,422	43,341,673	19,796,774	1,251,747	559,994	2,315,045	1,301,990	2,727,873	1,193,325
2. OTHER REVENUES AND CONTRIB. TO MAHONING	371,396	196,154	95,607	6,314	4,383	11,143	10,512	15,860	31,423
3. TOTAL OPERATING REVENUES	72,859,817	43,537,827	19,892,381	1,258,062	564,376	2,326,188	1,312,502	2,743,733	1,224,749
4. LESS: OPERATING EXPENSES (INCLUDES REALLOCATION OF FIRE)	37,740,700	24,989,910	10,479,948	675,162	493,412	1,199,210	1,137,081	1,111,012	(2,343,923)
5. RETURN AND INCOME TAXES	35,119,117	18,547,917	9,412,433	582,899	70,964	1,126,978	175,421	1,632,721	3,568,672
6. LESS: TAXABLE EXCLUSIONS (FACTOR 18)	7,537,520	3,731,826	1,906,992	125,123	79,144	219,342	198,991	434,161	842,393
7. TAXABLE INCOME	27,581,597	14,816,091	7,505,441	457,776	(8,180)	907,636	(23,570)	1,198,560	2,726,279
8. LESS: INCOME TAXES (TAX. INC.)	7,215,909	3,876,192	1,963,577	119,764	(2,140)	237,456	(6,166)	313,568	713,250
9. NET RETURN (Line 5 - Line 8)	27,903,208	14,671,725	7,448,857	463,136	73,104	889,522	181,587	1,319,153	2,855,422
10. ORIGINAL COSTS MEASURE OF VALUE	349,877,351	173,243,490	88,509,211	5,834,698	3,669,197	10,171,060	9,249,103	20,100,199	39,102,903
11. RATE OF RETURN, PERCENT	7.98	8.47	8.42	7.94	1.99	8.75	1.96	6.56	7.30
12. RELATIVE RATE OF RETURN	1.00	1.06	1.06	1.00	0.25	1.10	0.25	0.82	0.92

VEOLIA WATER PENNSYLVANIA INC.
MAHONING WATER OPERATIONS

COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES
FOR THE TEST YEAR ENDED OCTOBER 31, 2025

	Customer Classification	Cost of Service		Revenues, Present Rates*		Revenues, Proposed Rates		Proposed Increase		**I&E Add $141,450**
		Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent Increase	
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	**(J)**
1	Residential	$ 828,029	55.4%	$ 405,710	64.0%	$ 868,168	62.4%	$ 462,458	114.0%	**$97,741**
2	Commercial	582,026	39.0%	178,989	28.2%	467,732	33.6%	288,743	161.3%	**$43,121**
3	Private Fire Service	82,825	5.5%	2,441	0.4%	4,182	0.3%	1,741	71.3%	**$588**
4	Public Fire Service	683	0.0%	46,804	7.4%	51,484	3.7%	4,680	10.0%	**$0**
5	Total Sales	1,493,563	100.0%	633,944	100.0%	1,391,566	100.0%	757,622	119.51%	**$141,450**
6	Other Revenues	6,894		6,894		8,814		1,920	27.8%	**$0**
7	Revenue from Veolia Water					-		-		**$0**
8	Total	$ 1,500,457		$ 640,838		$ 1,400,381		$ 759,542	118.5%	**$141,450**

* Includes DSIC Revenue.

Exhibit No. 3-SR
Schedule No. 2

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket Nos. R-2024-3045192
	:	R-2024-3045193
Veolia Water Pennsylvania, Inc.	:	

VERIFICATION OF
VANESSA OKUM

I, Vanessa Okum, on behalf of the Bureau of Investigation and Enforcement, hereby verify that the documents identified as:

- I&E Statement No. 1 – Direct Testimony of Vanessa Okum in both Proprietary and Non-Proprietary format
- I&E Exhibit No. 1
- I&E Statement No. 1-SR – Surrebuttal Testimony of Vanessa Okum
- I&E Exhibit No. 1-SR

were prepared by me or under my direct supervision and control. Furthermore, the facts contained therein are true and correct to the best of my knowledge, information and belief and I expect to be able to prove the same at an evidentiary hearing in this matter. This Verification is made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

/s/ Vanessa Okum
Vanessa Okum
Pennsylvania Public Utility Commission
Bureau of Investigation and Enforcement

Dated: June 25, 2024

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket Nos. R-2024-3045192
	:	R-2024-3045193
Veolia Water Pennsylvania, Inc.	:	

VERIFICATION OF
D. C. PATEL

I, D. C. Patel, on behalf of the Bureau of Investigation and Enforcement, hereby verify that the documents identified as:

- I&E Statement No. 2 – Direct Testimony of D. C. Patel
- I&E Exhibit No. 2
- I&E Statement No. 2-SR – Surrebuttal Testimony of D. C. Patel

were prepared by me or under my direct supervision and control. Furthermore, the facts contained therein are true and correct to the best of my knowledge, information and belief and I expect to be able to prove the same at an evidentiary hearing in this matter. This Verification is made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

/s/ *DCPatel*
D. C. Patel
Pennsylvania Public Utility Commission
Bureau of Investigation and Enforcement

Dated: June 25, 2024

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket Nos. R-2024-3045192
	:	R-2024-3045193
Veolia Water Pennsylvania, Inc.	:	

VERIFICATION OF
ESYAN SAKAYA

I, Esyan Sakaya, on behalf of the Bureau of Investigation and Enforcement, hereby verify that the documents identified as:

- I&E Statement No. 3 – Direct Testimony of Esyan Sakaya
- I&E Exhibit No. 3
- I&E Exhibit No. 3, Schedule 1 and Schedule 2 – Sakaya – Corrected 5-24-24
- I&E Statement No. 3-R – Rebuttal Testimony of Esyan Sakaya
- I&E Statement No. 3-SR – Surrebuttal Testimony of Esyan Sakaya
- I&E Exhibit No. 3-SR

were prepared by me or under my direct supervision and control. Furthermore, the facts contained therein are true and correct to the best of my knowledge, information and belief and I expect to be able to prove the same at an evidentiary hearing in this matter. This Verification is made subject to the penalties of 18 Pa. C.S. § 4904 relating to unsworn falsification to authorities.

/s/ Esyan Sakaya
Esyan Sakaya
Pennsylvania Public Utility Commission
Bureau of Investigation and Enforcement

Dated: 6/25/2024

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	**Docket Nos. R-2024-3045192 (Water)** **R-2023-3045193 (Wastewater)**
	:	
Veolia Water Pennsylvania Inc.	:	

TESTIMONY AND EXHIBITS
OF THE
OFFICE OF SMALL BUSINESS ADVOCATE
TO BE ADMITTED INTO THE EVIDENTIARY RECORD

The Office of Small Business Advocate ("OSBA") intends to admit the following testimony and exhibits as evidence into the evidentiary record at the Evidentiary Hearings scheduled on June 26, 2024, June 27, 2024, and June 28, 2024, in the above-captioned proceedings:

- Direct Testimony of Neal Townsend, labelled OSBA Statement No. 1, with signed Verification of Neal Townsend.
- Rebuttal Testimony of Neal Townsend, labelled OSBA Statement No. 1-R and Exhibit**,** with signed Verification of Neal Townsend.
- Surrebuttal Testimony of Neal Townsend, labelled OSBA Statement No. 1-S**,** with signed Verification of Neal Townsend.

Date: June 25, 2024

COMMONWEALTH OF PENNSYLVANIA

May 17, 2024

E-FILED

The Honorable Emily DeVoe
Administrative Law Judge
Pennsylvania Public Utility Commission
Piatt Place, Suite 220
201 Fifth Avenue
Pittsburgh, PA 15222

Re: Pennsylvania Public Utility Commission v. Veolia Water Pennsylvania, Inc. / Docket Nos.: R-2024-3045192 (Water), R-2024-3045193 (Wastewater)

Dear Judge DeVoe:

Enclosed please find the Direct Testimony of Neal Townsend, labelled **OSBA Statement No. 1,** on behalf of the Office of Small Business Advocate ("OSBA"), in the above-captioned proceedings.

Copies will be served on all known parties in this proceeding, as indicated on the attached Certificate of Service.

If you have any questions, please do not hesitate to contact me.

Sincerely,

/s/ Sharon E. Webb

Sharon E. Webb
Assistant Small Business Advocate
Attorney ID No. 73995

Enclosures
cc: PA PUC Secretary Rosemary Chiavetta (Cover Letter & Certificate of Service only)
Neal Townsend
Kevin Higgins
Shantell Garrett
Parties of Record

OSBA STATEMENT NO. 1

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	**:**	**Docket Nos.:**
	:	**R-2024-3045192 (Water)**
v.	**:**	**R-2024-3045193 (Wastewater)**
	:	
Veolia Water Pennsylvania, Inc.	**:**	
	:	

Direct Testimony of Neal Townsend

on behalf of the

Commonwealth of Pennsylvania

Office of Small Business Advocate

May 17, 2024

Topics:

Class Cost Allocation

Revenue Allocation

Date Served: May 17, 2024

Date Submitted for the Record: _____

DIRECT TESTIMONY OF NEAL TOWNSEND

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Neal Townsend. My business address is 111 East Broadway, Suite 1200, Salt Lake City, Utah, 84111.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am a Principal in the firm of Energy Strategies, LLC. Energy Strategies is a private consulting firm specializing in economic and policy analysis applicable to energy production, transportation, and consumption.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. My testimony is being sponsored by the Pennsylvania Office of Small Business Advocate ("OSBA").

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. I received an MBA from the University of New Mexico in 1996. I also earned a B.S. degree in Mechanical Engineering from the University of Texas at Austin in 1984.

Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AND QUALIFICATIONS.

A. I have provided regulatory and technical support on a variety of energy projects at Energy Strategies since I joined the firm in 2001. Prior to my employment at Energy Strategies, I was employed by the Utah Division of Public Utilities as a Rate Analyst from 1998 to 2001. I have also worked in the aerospace, oil, and natural gas industries. My resume is included as Attachment A at the end of my testimony.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?

A. No.

Q. HAVE YOU TESTIFIED PREVIOUSLY BEFORE ANY OTHER STATE UTILITY REGULATORY COMMISSIONS?

A. Yes. I have testified before state utility regulators in Arizona, Arkansas, Illinois, Indiana, Kentucky, Michigan, Nevada, New Mexico, Ohio, Oregon, Texas, Utah, Virginia, Washington, West Virginia, and Wyoming.

OVERVIEW AND CONCLUSIONS

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS PROCEEDING?

A. My testimony responds to the application of Veolia Water Pennsylvania, Inc.'s ("VWPA") for approval, pursuant to Section 52 of the Public Utility Code § 53.52 and 53.53, to adjust both its water and wastewater rates. For its water utility, VWPA proposes to adjust its base rates to produce an increase in revenues of approximately $15.4 million per year. For its wastewater utility, VWPA proposes to adjust its rates to produce an increase in base revenues of approximately $568,000 per year.

Q. WHAT CONCLUSIONS DO YOU OFFER IN YOUR TESTIMONY?

A. I have concluded that VWPA's various class cost of service studies as reasonable representations of the cost to provide water or wastewater service to each class at the Company's requested revenue requirement. In addition, in my opinion, VWPA's proposed water revenue increase for the commercial class at VWPA's requested revenue

requirement is reasonable. For the Mahoning Township wastewater utility, I recommend no rate increase for the non-residential customer class.

RESPONSE TO THE VWPA'S PROPOSED CLASS COST ALLOCATION

Q. PLEASE DESCRIBE VWPA'S PROPOSED ALLOCATION OF COSTS TO THE VARIOUS WATER RATE CLASSES IT SERVES.

A. VWPA's proposed class cost allocation for its water utility is discussed in the Direct Testimony of witness Ms. Constance E. Heppenstall. According to Ms. Heppenstall, VWPA has prepared its class cost of service (CCOS) studies using the base-extra capacity method. The use of the base-extra capacity method is consistent with the approach used by the Company and accepted by this Commission in the prior water rate cases. The results of VWPA's are presented in Ms. Heppenstall's accompanying exhibits. Exhibit CEH-1 presents the results for the VWPA's main division (excluding Mahoning Township) and Exhibit CEH-2 presents the results for VWPA's Mahoning Township service territory.

Q. DID MS. HEPPENSTALL PREPARE SIMILAR CLASS COST ALLOCATION STUDIES FOR ITS WASTEWATER UTILITY?

A. Yes, but only for its Mahoning Township wastewater service territory. VWPA uses the functional cost allocation method described in "Financing and Changes for Wastewater Systems," Manual of Practice No. 27 in the Mahoning CCOS study. The Mahoning wastewater CCOS results are presented in Exhibit CEH-3.

Q. WHAT REASON DID VWPA PROVIDE FOR NOT PREPARING A CCOS FOR ITS COLUMBIA COUNTY WASTERWATER SYSTEM?

A. For its Columbia County wastewater utility, Ms. Heppenstall did not prepare a similar CCOS study for that utility system since wastewater service is only provided to non-residential customers.

Q. WHAT IS YOUR ASSESSMENT OF VWPA'S CCOS STUDIES FOR BOTH ITS WATER AND WASTEWATER UTILITIES?

A. Based upon my review of these studies, I find that each study provides a reasonable representation of the cost to serve each customer class at VWPA's requested revenue requirement.

Q. DO YOU HAVE ANY ADDITIONAL OBSERVATIONS?

A. Yes. VWPA's CCOS studies serve as a guide for moving each customer class closer to its cost of service. Based upon the results of VWPA's CCOS study for its main division, VWPA's proposed water revenue increase for the commercial class at its requested revenue requirement is reasonable. VWPA's proposed 23.3% commercial class revenue increase is within 1 percent of the calculated cost-based increase of 22.4% for the commercial class. For the Mahoning Township wastewater utility, the non-residential customers merit a rate *decrease* of 59.3% according to VWPA's cost of service, but VWPA proposes increasing non-residential wastewater rates by 17.3%. Based on the VWPA CCOS study, I recommend no rate increase for the non-residential class and moving the residential class closer to its cost of service. While this would result in a higher rate increase for the residential class than VWPA proposes, non-residential customers would still be paying a substantial subsidy to that class, even if non-residential rates are not increased.

Q. WHAT IS YOUR RECOMMENDATION IF THE COMMISSION APPROVES A REVENUE REQUIREMENT THAT IS LESS THAN VWPA HAS REQUESTED?

A. If the Commission approves a water revenue requirement that is less than VWPA has requested, then I recommend that the Commercial class receive the same proportion of the total water revenue requirement as proposed in the Company's direct filing.

If the Commission approves a wastewater revenue requirement that is less than VWPA has requested, then I continue to recommend that the non-residential class receive no increase. This would allow the benefit of the reduction in requested revenue requirement to be realized by the customers who are subject to the rate increase.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

Attachment A

Resume

List of Regulatory Testimony

ATTACHMENT A

Resume

Neal Townsend
Energy Strategies, LLC
111 E. Broadway, Suite 1200
Salt Lake City, Utah 84111

Work Experience:

Principal, Energy Strategies, LLC (2014 – Present).

Director, Energy Strategies, LLC (2012 – 2014).

Sr. Consultant, Energy Strategies, LLC (2001 – 2012).

Rate Analyst, State of Utah, Division of Public Utilities (1997 – 2001).

Other
Systems Engineer, Morton Thiokol, Inc.
Assistant Engineer, Schafer Engineering.
Graduate/Research Assistant, University of New Mexico.

Education:

University of New Mexico, Masters of Business Administration, 1996.

University of Texas, Austin, Bachelor of Science in Mechanical Engineering, 1984.

Publications:

Kevin C. Higgins, Neal Townsend, and Susannah Vale, "Utility-Related Statutory and Regulatory Barriers," Chapter 6 in Coastal Wind: Energy for North Carolina's Future. University of North Carolina, Chapel Hill: 2009.

ATTACHMENT A

Regulatory Testimony:

State of Arizona

Docket #	Title	Activity
E-01345A-16-0272	In the Matter of the Application of Arizona Public Service Company for Approval of Revised APS Partial Requirements Rate Schedule EPR-2.	Qualifying Facility (QF) Contract Term
E-01933A-17-0360	In the Matter of the Application of Tuscon Electric Power Company for Approval of Revised TEP Partial Requirements Rate Schedule Rider-11 (R-11)	Qualifying Facility (QF) Contract Term
E-04204A-18-0087	In the Matter of the Application of UNS Electric, Inc. for Approval of Revised UNSE Qualified Facilities Tariffs QF-A, QF-B AND QF-C.	Qualifying Facility (QF) Contract Term

State of Arkansas

Docket #	Title	Activity
10-010-U & 10-010-R	In the Matter of the Application of Entergy Arkansas, Inc. for Approval of Changes in Rates for Retail Electric Service	AFUDC Policy
10-010-U & 10-010-R	In the Matter of a Notice of Inquiry into Energy Efficiency In the Matter of the Institution of a Rulemaking to Adopt Amendments to the Commission's Rules on Conservation & Energy Efficiency to Allow Self-Directed Programs for Large Consumers	DSM Self Direction Opt-Out Rules

ATTACHMENT A

State of Illinois

Docket #	Title	Activity
17-0049	Commonwealth Edison Company Tariff Filing to Present the Illinois Commerce Commission with an Opportunity to Consider Revenue Neutral Tariff Changes Related to Rate Design Authorized by Subsection 16-108.5(e) of the Public Utilities Act	Class Cost Allocation, Rate Spread
13-0387	Commonwealth Edison Company Tariff Filing to Present the Illinois Commerce Commission with an Opportunity to Consider Revenue Neutral Tariff Changes Related to Rate Design Authorized by Subsection 16-108.5(e) of the Public Utilities Act	Rate Spread, Rate Design
10-0467	Commonwealth Edison Company Proposed General Increase in Electric Rates	Rate Spread, Rate Design

ATTACHMENT A

State of Indiana

Cause #	Title	Activity
45029	Petition of Indianapolis Power & Light Company ("IPL") for (1) Authority to Increase Rates and Charges for Electric Utility Service, (2) Approval of Revised Depreciation Rates, Accounting Relief, including Implementation of Major Storm Damage Restoration Reserve Account, Approval of a Vegetation Management Reserve Account, the Inclusion in Basic Rates and Charges of the Costs of Certain Previously Approved Projects, including the Eagle Valley Combined Cycle Gas Turbine, the National Pollution Discharge Elimination System and Coal Combustion Residuals Compliance Projects, Rate Adjustment Deferrals, Amortizations, and (3) Approval of New Schedules of Mechanism Proposals,Cost Rates, Rules and Regulations for Service	Revenue Requirement, Class Cost of Service, Rate Spread, Rate Design
44075	Petition of Indiana Michigan Power Company, an Indiana Corporation, for Authority to Increase its Rates and Charges for Electric Utility Service, for Approval of: Revised Depreciation Rates; Accounting Relief; Inclusion in Basic Rates and Charges of the Costs of Qualified Pollution Control Property; Modifications to Rate Adjustment Mechanisms; and Major Storm Reserve; and for Approval of New Schedules of Rates, Rules and Regulations	Rate Design, Class Cost of Service

ATTACHMENT A

State of Kentucky

Case #	Title	Activity
2016-00370	Application of Kentucky Utilities Company for an Adjustment of Electric Rates and for Certificates of Public Convenience and Necessity	Revenue Requirement Adjustments
2016-00371	Application of Louisville Gas and Electric Company for an Adjustment of its Electric and Gas Rates and Certificates of Public Convenience and Necessity	Revenue Requirement Adjustments, Rate Spread
2014-00371	Application of Kentucky Utilities Company for an Adjustment of Electric Rates	Revenue Requirement Adjustments
2014-00372	Application of Louisville Gas and Electric Company for an Adjustment of its Electric and Gas Rates	Revenue Requirement Adjustments
2009-00548	Application of Kentucky Utilities Company for an Adjustment of Base Rates	Rate Spread, Rate Design
2009-00549	Application of Louisville Gas and Electric Company for an Adjustment of its Electric and Gas Base Rates	Rate Spread, Rate Design

State of Michigan

Case #	Title	Activity
U-18322	In the Matter of the Application of Consumers Energy Company for Authority to Increase its Rates for the Generation and Distribution of Electricity and for Other Relief	Rate Design

ATTACHMENT A

Case #	Title	Activity
U-18239	In the Matter, on the Commission's Own Motion, to Open a Docket to Implement the Provisions of Section 6w of 2016 PA 341 for Consumers Energy Company's Service Territory	Rate Design
U-18248	In the Matter, on the Commission's Own Motion, to Open a Docket to Implement the Provisions of Section 6w of 2016 PA 341 for DTE Electric Company's Service Territory	Rate Design
U-17990	In the Matter of the Application of Consumers Energy Company for Authority to Increase its Rates for the Generation and Distribution of Electricity and for Other Relief	Investment Recovery Mechanism, Decoupling, Class Cost of Service, Rate Design
U-18014	In the matter of the Application of DTE ELECTRIC COMPANY for authority to increase its rates, amend its rate schedules and rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority.	Revenue Requirement Issues, Class Cost of Service, Rate Design
U-17767	In the matter of the Application of DTE ELECTRIC COMPANY for authority to increase its rates, amend its rate schedules and rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority.	Revenue Requirement Issues, Class Cost of Service, Rate Design

ATTACHMENT A

Case #	Title	Activity
U-17735	In the Matter of the Application of Consumers Energy Company for Authority to Increase its Rates for the Generation and Distribution of Electricity and for Other Relief	Investment Recovery Mechanism, Decoupling, Class Cost of Service, Rate Design
U-17087	In the Matter of the Application of Consumers Energy Company for Authority to Increase its Rates for the Generation and Distribution of Electricity and for Other Relief	Class Cost of Service, Rate Spread, Decoupling, Rate Design
U-16794	In the Matter of the Application of Consumers Energy Company for Authority to Increase its Rates for the Generation and Distribution of Electricity and for Other Relief	Rate Spread, Revenue Decoupling, Rate Design, Load Aggregation,
U-16472 & U-16489	In the Matter of the Application of the Detroit Edison Company for Authority to Increase its Rates, Amend its Rate Schedules and Rules Governing the Distribution and Supply of Electric Energy, and for Miscellaneous Accounting Authority In the Matter of the Application of the Detroit Edison Company for Approval to Defer Certain Pension and Post-Employment Benefits for Future Amortization and Recovery	Rate Increase Mitigation Proposals, Bonus Tax, Depreciation, Rate Spread, Decoupling, Load Aggregation, Surcharge Proposal, Environmental Cost Recovery, Revenue Tracker
U-16191	In the Matter of the Application of Consumers Energy Company for Authority to Increase its Rates for the Generation and Distribution of Electricity and for Other Relief	Pension Tracker, Class Cost of Service, Decoupling, Rate Spread, Tariff Language

ATTACHMENT A

Case #	Title	Activity
U-15645	In the Matter of the Application of Consumers Energy Company for Authority to Increase its Rates for the Generation and Distribution of Electricity and for Other Relief	Class Cost of Service, Rate Spread

State of Nevada

Docket #	Title	Activity
20-12003	Application of Nevada Power Company d/b/a NV Energy and Sierra Pacific Power Company d/b/a NV Energy for Approval of their Joint Expanded Solar Access Program Implementation Plan	State Renewable Energy Policy Implementation

State of New Mexico

Case #	Title	Activity
16-00276-UT	In the Matter of the Application of Public Service Company of New Mexico for Revision of its Retail Electric Rates Pursuant to Advice Notice No. 513 Public Service Company of New Mexico, Applicant	Rate Design
15-00261-UT	In the Matter of the Application of Public Service Company of New Mexico for Revision of its Retail Electric Rates Pursuant to Advice Notice No. 513 Public Service Company of New Mexico, Applicant	Rate Design

ATTACHMENT A

State of Ohio

Case #	Title	Activity
12-1682-EL-AIR, 12-1683-EL-ATA & 12-1684-EL-AAM	In the Matter of the Application of Duke Energy Ohio, Inc., for an Increase in Electric Distribution Rates In the Matter of the Application of Duke Energy Ohio, Inc., for Tariff Approval In the Matter of the Application of Duke Energy Ohio, Inc., for Approval to Change Accounting Methods	Class Cost of Service, Rate Spread
12-1685-GA-AIR, 12-1686-GA-ATA & 12-1687-GA-ALT 12-1688-GA-AAM	In the Matter of the Application of Duke Energy Ohio, Inc., for an Increase in Gas Rates In the Matter of the Application of Duke Energy Ohio, Inc., for Tariff Approval In the Matter of the Application of Duke Energy Ohio, Inc., for Approval of an Alternative Rate Plan for Gas Distribution Service In the Matter of the Application of Duke Energy Ohio, Inc., for Approval to Change Accounting Methods	Recovery of Environmental Remediation Expenses

ATTACHMENT A

State of Oregon

Docket #	Title	Activity
UE-356	In the Matter of PacifiCorp, dba Pacific Power, 2020 Transition Adjustment Mechanism	Direct Access Transition Charges
UE-319	In the Matter of Portland General Electric Company Request for a General Rate Revision	Rate Spread, Rate Design
UE-294	In the Matter of Portland General Electric Company Request for a General Rate Revision	Class Cost of Service
UE-262	In the Matter of Portland General Electric Company Request for a General Rate Revision	Support of Stipulation
UE-246	In the Matter of PacifiCorp's Filing of Revised Tariff Schedules for Electric Service in Oregon	Rate Design, Energy Cost Adjustment Mechanism, Support of Stipulation
UE-217	In the Matter of PacifiCorp's Filing of Revised Tariff Schedules for Electric Service in Oregon	Support of Stipulation

State of Texas

Docket #	Title	Activity
38951	Application of Entergy Texas, Inc. for Approval of Competitive Generation Service Tariff (Issues Severed from Docket No. 37744)	Recovery of Stranded Costs

ATTACHMENT A

State of Utah

Docket #	Title	Activity
19-035-18 & 20-035-T04 (Aligned)	In the Matter of Rocky Mountain Power's 2019 Avoided Cost Input Changes Quarterly Compliance Filing In the Matter of Rocky Mountain Power's Proposed Tariff Revisions to Electric Service Schedule No. 37, Avoided Cost Purchases from Qualifying Facilities	Avoided Cost Pricing
18-057-03	In the Matter of the Request of Dominion Energy Utah for Approval of a Voluntary Resource Decision to Construct an LNG Facility	Cost Allocation
14-035-114	In the Matter of the Investigation of the Costs and Benefits of PacifiCorp's Net Metering Program	Opposition to Stipulation
17-057-09	In the Matter of the Application of Questar Gas Company to Make Tariff Modifications to Charge Transportation Customers for Peak Hour Services	Ratemaking Policy
17-035-T07 & 17-035-37 (Consolidated)	In the Matter of Rocky Mountain Power's Proposed Tariff Revisions to Electric Service Schedule No. 37, Avoided Cost Purchases from Qualifying Facilities In the Matter of Rocky Mountain Power's 2017 Avoided Cost Input Changes Quarterly Compliance Filing	Avoided Cost Pricing

ATTACHMENT A

Docket #	Title	Activity
15-035-86	In the Matter of the Application of Rocky Mountain Power for Approval of the 2017 Protocol	Opposition to Inter-Jurisdictional Cost Allocation Agreement
13-035-184	In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations	Class Cost of Service, Rate Spread, Rate Design
13-057-05	In the Matter of the Application of Questar Gas Company to Increase Distribution Rates and Charges and Make Tariff Modifications	Class Cost of Service, Rate Spread, Rate Design
13-035-02	In the Matter of the Application of Rocky Mountain Power for Authority to Change its Depreciation Rates Effective January 1, 2014	Depreciation Policy
11-035-200	In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations	Class Cost of Service, Rate Spread, Rate Design
09-035-23	In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations	Rate Design, Revenue Decoupling

ATTACHMENT A

Docket #	**Title**	**Activity**
09-035-T08	In the Matter of Rocky Mountain Power Advice No. 09-08, seeking an Adjustment to the DSM Tariff Rider, Schedule 193	Support of Stipulation
04-035-42	In the Matter of the Application of PacifiCorp For Approval of its Proposed Electric Rate Schedules and Electric Service Regulations	Derivation of Prudence Disallowance

ATTACHMENT A

Docket #	Title	Activity
03-035-14	In the Matter of the Application of PacifiCorp For Approval of an IRP Based Avoided Cost Methodology For QF Projects Larger than 1 MW	Derivation of Methodology for Establishing QF Avoided Cost Pricing
02-035-04	In the Matter of the Application of PacifiCorp for an Investigation of Inter-Jurisdictional Issues	Support of Settlement Agreement
99-057-20	In the Matter of the Application of Questar Gas Company for an Increase in Rates and Charges	Revenue Requirement and Class Cost of Service Modeling, Proposed CO_2 Plant Disallowance Mechanism
99-035-10	In the Matter of the Application of PacifiCorp For Approval of its Proposed Electric Rate Schedules and Electric Service Regulations	Interjurisdictional Cost Allocation and Class Cost of Service Modeling
98-057-12	In the Matter of the Application of Questar Gas Company for Approval of a Natural Gas Processing Agreement	Assessment of Application, Revenue Requirement Modeling

State of Virginia

Case #	Title	Activity
PUE-2013-00020	Application of Virginia Electric and Power Company for a 2013 Biennial Review of the Rates, Terms and Conditions for the Provision of Generation, Distribution and Transmission Services Pursuant to§ 56-585.1 A of the Code of Virginia	Rate Design

ATTACHMENT A

Case #	Title	Activity
PUE-2012-00072	Application of Virginia Electric and Power Company for Revision of Rate Adjustment Clause: Rider B, Biomass Conversions of the Altavista, Hopewell, and Southampton Power Stations, for the Rate Year Commencing April 1, 2013	Rate Design
PUE-2012-00071	Application of Virginia Electric and Power Company for Revision of Rate Adjustment Clause: Rider S, Virginia City Hybrid Energy Center, for the Rate Year Commencing April 1,2013 and April 1, 2014	Rate Design
PUE-2012-00067	Application of Virginia Electric and Power Company for Revision of Rate Adjustment Clause: Rider W, Warren County Power Station, for the Rate Year Commencing April 1, 2013	Rate Design
PUE-2011-00042	In the Matter of the Application of Virginia Electric and Power Company for Approval and Certification of the Proposed Warren County Power Station, Electric Generation and Related Transmission Facilities under §§ 56-580 D, 56-265.2 and 56-46.1 of the Code of Virginia and for Approval of a Rate Adjustment Clause, Designated Rider W, under § 56-585.1 A 6 of the Code of Virginia	Rate Design

ATTACHMENT A

State of Washington

Docket #	Title	Activity
UE-170033 & UG-170034 (Consolidated)	Washington Utilities and Transportation Commission Complainant, v. Puget Sound Energy, Respondent	Support of Settlement

State of West Virginia

Case #	Title	Activity
09-1352-E-42T	Monongahela Power Company and the Potomac Edison Company, both d/b/a Allegheny Power Rule 42T Tariff Filing to Increase Rates and Charges	Rate Spread, Rate Design

State of Wyoming

Docket #	Title	Activity
20000-617-EM-22	In the Matter of the Application of Rocky Mountain Power to Increase Current Rates by $27.8 Million to Recover Deferred Net Power Costs Pursuant to Tariff Schedule 95 Energy Cost Adjustment Mechanism and to Decrease Current Rates by $1.6 Million Under Tariff Schedule 93, REC and SO2 Revenue Adjustment Mechanism	Recovery of Deferred Power Costs

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	**:**	**Docket Nos.:**
	:	**R-2024-3045192 (Water)**
v.	**:**	**R-2024-3045193 (Wastewater)**
	:	**C-2024-3046893**
Veolia Water Pennsylvania, Inc.	**:**	

CERTIFICATE OF SERVICE

I hereby certify that true and correct copies of the foregoing have been served via email (*unless otherwise noted below*) upon the following persons, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

The Honorable Emily DeVoe
Administrative Law Judge
Pennsylvania Public Utility Commission
Piatt Place, Suite 220
201 Fifth Avenue
Pittsburgh, PA 15222
edevoe@pa.gov

Christy Appleby, Esquire
Darryl A. Lawrence, Esquire
Barrett C. Sheridan, Esquire
Office of Consumer Advocate
555 Walnut Street
Forum Place, 5th Floor
Harrisburg, PA 17101
OCAVeolia2024@paoca.org

Michael A. Podskoch, Jr., Esquire
Pennsylvania Public Utility Commission
Bureau of Investigation & Enforcement
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120
mpodskoch@pa.gov

David P. Zambito, Esquire
Jonathan P. Nase, Esquire
Cozen O'Connor
17 North Second Street
Suite 1401
Harrisburg, PA 17101
dzambito@cozen.com
jnase@cozen.com

John W. Sweet, Esquire
Lauren N. Berman, Esquire
Ria M. Pereira, Esquire
Elizabeth R. Marx, Esquire
118 Locust Street
Harrisburg, PA 17101
pulp@pautilitylawproject.org

DATE: May 17, 2024

/s/ Sharon E. Webb
Sharon E. Webb
Assistant Small Business Advocate
Attorney I.D. No. 73995

BEFORE THE
PUBLIC UTILITIES COMMISSION OF PENNSYLVANIA

Pennsylvania Public Utility Commission	:	
Office of Consumer Advocate	:	
Office of Small Business Advocate	:	**Docket Nos.**
	:	**R-2024-3045192 (Water)**
v.	:	**R-2023-3045193 (Wastewater)**
	:	
Veolia Water Pennsylvania, Inc.	:	

VERIFICATION

I, Neal Townsend, hereby state that the facts set forth in my Direct Testimony labelled OSBA Statement No. 1 are true and correct to the best of my knowledge, information, and belief, and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 19 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: May 17, 2024

Neal Townsend

COMMONWEALTH OF PENNSYLVANIA

June 7, 2024

The Honorable Emily DeVoe
Administrative Law Judge
Pennsylvania Public Utility Commission
Piatt Place, Suite 220
201 Fifth Avenue
Pittsburgh, PA 15222

Re: Pennsylvania Public Utility Commission v. Veolia Water Pennsylvania, Inc. / Docket Nos. R-2024-3045192 (Water), R-2024-3045193 (Wastewater)

Dear Judge DeVoe:

Enclosed please find the Rebuttal Testimony of Neal Townsend, labelled **OSBA Statement No. 1-R and Exhibit,** on behalf of the Office of Small Business Advocate ("OSBA"), in the above-captioned proceedings.

Copies will be served on all known parties in these proceedings, as indicated on the attached Certificate of Service.

If you have any questions, please do not hesitate to contact me.

Sincerely,

/s/ Sharon E. Webb

Sharon E. Webb
Assistant Small Business Advocate
Attorney ID No. 73995

Enclosures
cc: PA PUC Secretary Rosemary Chiavetta (Cover Letter & Certificate of Service only)
Neal Townsend
Parties of Record

OSBA STATEMENT NO. 1-R

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	**:**	
	:	**Docket Nos.:**
v.	**:**	**R-2024-3045192 (Water)**
	:	**R-2024-3045193 (Wastewater)**
Veolia Water Pennsylvania, Inc.	**:**	

Rebuttal Testimony and Exhibit

of Neal Townsend

on behalf of

Pennsylvania Office of Small Business Advocate

June 7, 2024

Topics:

Class Cost Allocation

Revenue Allocation

Date Served: June 7, 2024

Date Submitted for the Record: _____

REBUTTAL TESTIMONY OF NEAL TOWNSEND

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Neal Townsend. My business address is 111 East Broadway, Suite 1200, Salt Lake City, Utah, 84111.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am a Principal in the firm of Energy Strategies, LLC. Energy Strategies is a private consulting firm specializing in economic and policy analysis applicable to energy production, transportation, and consumption.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. My testimony is being sponsored by the Pennsylvania Office of Small Business Advocate ("OSBA").

Q. HAVE YOU PREVIOUSLY SUBMITTED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE SUBJECT OF YOUR REBUTTAL TESTIMONY?

A. I am responding to the direct testimony of the Bureau of Investigation and Enforcement ("I&E") witness Esyan A. Sakaya. Specifically, I will address Mr. Sakaya's recommendation to reflect an increase in other revenues for the water utilities to account for a likely increase in late payment revenues because of VWPA's requested rate increase.

CONCLUSIONS

Q. WHAT CONCLUSIONS DO YOU OFFER IN YOUR TESTIMONY?

A. If the Commission adopts I&E's recommendation to adjust other revenues for an increase in late payment fees for VWPA's water utilities, then I support determining the individual class impacts of such an adjustment by allocating the other revenue consistent with the appropriate class cost-of-service study for each utility.

RESPONSE TO THE I&E'S RECOMMENDATION TO INCREASE OTHER REVENUES

Q. PLEASE DESCRIBE I&E'S RECOMMENDED ADJUSTMENT TO OTHER REVENUES FOR THE WATER UTILITIES.

A. I&E's recommended adjustment to other revenues for the water utilities is discussed on pages 12-14 of Mr. Sakaya's direct testimony for both the Main Division and Mahoning Township water utilities. Mr. Sakaya notes that VWPA maintained the current level of other revenues in its proposed revenue at its requested revenue requirement. Mr. Sakaya maintains that revenues from late payment fees are likely to increase as a result of VWPA's rate increase request. Accordingly, Mr. Sakaya recommends an increase in other revenues of $81,922 for the Main Division and $9,179 for the Mahoning Township water utilities.

Q. What is your response to Mr. Sakaya's recommendation to increase other revenues for the water utilities?

A. I do not object to I&E's recommended adjustment to other revenues. Given the magnitude of VWPA's requested increase it may be reasonable to expect an increase in late payment revenue. I defer to Mr. Sakaya to support his determination of the proper amount for each water utility.

Q. Do you have any additional observations regarding Mr. Sakaya's other revenue adjustment?

A. Yes. Mr. Sakaya presents the class impacts of his other revenue adjustment for the Main Division in column (J) of I&E Exhibit No. 3, Schedule No. 3, p. 1 of 2. For convenience, I have reproduced the class impacts for the Main Division from Mr. Sakaya's exhibit in Table 1 below.

Table 1

Class Impacts of I&E Recommended Change in Other Revenue
Main Division per I&E Exhibit No. 3, Schedule No. 3

Customer Class	Amount
Residential	($538,000)
Commercial	$369,300
Industrial	($1,800)
Lg. Industrial	$0
Public Authority	$88,578
Sales for Resale	$0
Private Fire	$0
Public Fire	$0
Total	($81,922)

Q. Do you agree with the class impacts depicted by Mr. Sakaya in I&E Exhibit No. 3, Schedule No. 3?

A. No. The results presented in Mr. Sakaya's exhibit are inconsistent with the I&E class cost-of-service workpaper supporting Mr. Sakaya's direct testimony.

Q. What are the class impacts of Mr. Sakaya's other revenue adjustment in his class cost-of-service study?

A. In Table 2 below, I provide the class impacts using the results from Mr. Sakaya's class cost of service study workpaper.[1]

Table 2

Class Impacts of I&E Recommended Change in Other Revenue Main Division per I&E Class Cost-of-Service Workpaper

Customer Class	Amount
Residential	($42,671)
Commercial	($20,825)
Industrial	($1,360)
Lg. Industrial	($909)
Public Authority	($2,429)
Sales for Resale	($2,313)
Private Fire	($3,522)
Public Fire	($7,852)
Total	($81,922)

Q. WHAT IS YOUR RECOMMENDATION REGARDING I&E'S OTHER REVENUE ADJUSTMENT?

A. If the Commission accepts Mr. Sakaya's other revenue adjustment for the Main Division water utility, then I support the class impacts as calculated using Mr. Sakaya's class cost-of-service study. I do not support the class impacts depicted on I&E's Exhibit No. 3, Schedule 3 for this adjustment.

Q. Should the same treatment be applied to Mr. Sakaya's other revenue adjustment for the Mahoning Township water utility?

[1] See the water utility workpaper provided in I&E Response to discovery request VWPA-I&E-I-3. The I&E allocation of other revenues in its class cost-of-service workpaper in this discovery response are compared to the VWPA allocation of other revenues in its class cost-of-service workpaper provided in VWPA's response to discovery request OCA-1-14.

A. Yes. The other revenue adjustment should be allocated per the class cost-of-service to determine the impact for each individual rate class.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes, it does.

EXHIBIT

REFERENCED INTERROGATORY RESPONSES

- **I&E Response to discovery request VWPA-I&E-I-3**
- **VWPA's response to discovery request OCA-1-14**

WORKPAPERS FOR INTERROGATORY RESPONSES

- **workpaper provided in I&E Response to discovery request VWPA-I&E-I-3**: [VWPA-I&E-I-3 I&E Workpaper: R-2024-3045192 et al (VWPA) I&E Responses to VWPA Set I (no 3) - Sakaya - Attachment A - Water.xlsx]**
- **workpaper provided in VWPA's response to discovery request OCA-1-14**: [OCA 1-14 VWPA Workpaper: OCA-1-14 Attachment 1 Exhibit CEH-1 file as excel - ESLLC WP.xlsx]**

****The above referenced workpapers, were previously served on all parties, at the time of service, for the above referenced interrogatory responses via electronic means only. Therefore, the OSBA will not be re-serving on all parties. If any party wishes to request the above referenced previously served workpapers, please contact Sharon E. Webb, at swebb@pa.gov.****

Pennsylvania Public Utility Commission v.
Veolia Water Pennsylvania, Inc.
Docket Nos. R-2024-3045192 and R-2024-3045193

Responses of the Bureau of Investigation and Enforcement to the Interrogatories of Veolia Water Pennsylvania, Inc. – Set I
Witness: Esyan A. Sakaya

VWPA-I&E-I-3 Please reference the Direct Testimony of Esyan A. Sakaya, I&E St. No. 3:

(a) Please provide a copy of all workpapers of Mr. Sakaya, in excel or other electronic format, if available, with all calculations and all links intact.

Response **Refer to the I&E Response to VWPA-I&E-I-1 - Sakaya - Attachment A-Water (in Excel Format) and VWPA-I&E-I-1 - Sakaya - Attachment B-Wastewater (in Excel Format)**

Pennsylvania Public Utility Commission
v.
Veolia Water Pennsylvania, Inc.
Docket No. R-2024-3045192 (Water)
R-2024-3045193 (Wastewater)

Interrogatories of the Office of Consumer Advocate
Set 1
Cost Allocation and Rate Design

OCA-1-14 Please provide the following in Excel format with all formulas intact:

a. Exhibit No. CEH-1, Water cost of service study; and Exhibit D VIII – 01i;

b. Exhibit No. CEH-2, Water cost of service study;

c. Exhibit No. CEH-3, Sewer cost of service study; and

d. Exhibit No. CEH-4, Water cost of service study.

Answer: Please see the attachments to this response.

Answer provided by:	Constance Heppenstall
Title:	Senior Project Manager, Rate Studies Gannett Fleming Valuation and Rate Consultants, LLC
Address:	1010 Adams Avenue, Audobon, PA
Date:	March 5, 2024

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	**:**	**Docket Nos.:**
	:	**R-2024-3045192 (Water)**
v.	**:**	**R-2024-3045193 (Wastewater)**
	:	
Veolia Water Pennsylvania, Inc.	**:**	

VERIFICATION

I, Neal Townsend, hereby state that the facts set forth in the Rebuttal Testimony labelled OSBA Statement No. 1-R and Exhibit, are true and correct to the best of my knowledge, information, and belief, and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 19 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: June 7, 2024

/s/ Neal Townsend
Neal Townsend, Principal
Energy Strategies, LLC

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	**Docket Nos.:**
	:	**R-2024-3045192 (Water)**
v.	:	**C-2024-3046893**
	:	**R-2024-3045193 (Wastewater)**
Veolia Water Pennsylvania, Inc.	:	**C-2024- 3046956**
	:	

CERTIFICATE OF SERVICE

I hereby certify that true and correct copies of the foregoing have been served via email (*unless otherwise noted below*) upon the following persons, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

The Honorable Emily DeVoe
Administrative Law Judge
Pennsylvania Public Utility Commission
Piatt Place, Suite 220
201 Fifth Avenue
Pittsburgh, PA 15222
edevoe@pa.gov

Michael A. Podskoch, Jr., Esquire
Pennsylvania Public Utility Commission
Bureau of Investigation & Enforcement
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120
mpodskoch@pa.gov

Christy Appleby, Esquire
Darryl A. Lawrence, Esquire
Barrett C. Sheridan, Esquire
Office of Consumer Advocate
555 Walnut Street
Forum Place, 5th Floor
Harrisburg, PA 17101
OCAVeolia2024@paoca.org

David P. Zambito, Esquire
Jonathan P. Nase, Esquire
Cozen O'Connor
17 North Second Street
Suite 1401
Harrisburg, PA 17101
dzambito@cozen.com
jnase@cozen.com

John W. Sweet, Esquire
Lauren N. Berman, Esquire
Ria M. Pereira, Esquire
Elizabeth R. Marx, Esquire
118 Locust Street
Harrisburg, PA 17101
pulp@pautilitylawproject.org

DATE: June 7, 2024

/s/ Sharon E. Webb
Sharon E. Webb
Assistant Small Business Advocate
Attorney I.D. No. 73995

COMMONWEALTH OF PENNSYLVANIA

June 21, 2024

The Honorable Emily DeVoe
Administrative Law Judge
Pennsylvania Public Utility Commission
Piatt Place, Suite 220
201 Fifth Avenue
Pittsburgh, PA 15222

Re: Pennsylvania Public Utility Commission v. Veolia Water Pennsylvania, Inc. / Docket Nos. R-2024-3045192 (Water), R-2024-3045193 (Wastewater)

Dear Judge DeVoe:

Enclosed please find the Surrebuttal Testimony of Neal Townsend, labelled **OSBA Statement No. 1-S,** on behalf of the Office of Small Business Advocate ("OSBA"), in the above-captioned proceedings.

Copies will be served on all known parties in these proceedings, as indicated on the attached Certificate of Service.

If you have any questions, please do not hesitate to contact me.

Sincerely,

/s/ Sharon E. Webb

Sharon E. Webb
Assistant Small Business Advocate
Attorney ID No. 73995

Enclosures
cc: PA PUC Secretary Rosemary Chiavetta (Cover Letter & Certificate of Service only)
Neal Townsend
Parties of Record

OSBA STATEMENT NO. 1-S

BEFORE THE
PUBLIC UTILITIES COMMISSION OF PENNSYLVANIA

	:	
Pennsylvania Public Utility Commission	:	
Office of Consumer Advocate	:	
Office of Small Business Advocate	:	**Docket Nos.**
	:	**R-2024-3045192 (Water)**
v.	:	**R-2023-3045193 (Wastewater)**
	:	
Veolia Water Pennsylvania, Inc.	:	

Surrebuttal Testimony of Neal Townsend

on behalf of

Pennsylvania Office of Small Business Advocate

June 21, 2024

Topics:

Revenue Allocation

Date Served: June 21, 2024

Date Submitted for the Record: _____

REBUTTAL TESTIMONY OF NEAL TOWNSEND

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Neal Townsend. My business address is 111 East Broadway, Suite 1200, Salt Lake City, Utah, 84111.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am a Principal in the firm of Energy Strategies, LLC. Energy Strategies is a private consulting firm specializing in economic and policy analysis applicable to energy production, transportation, and consumption.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. My testimony is being sponsored by the Pennsylvania Office of Small Business Advocate ("OSBA").

Q. HAVE YOU PREVIOUSLY SUBMITTED DIRECT AND REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE SUBJECT OF YOUR SURREBUTTAL TESTIMONY?

A. I am responding to the rebuttal testimony of Veolia Water Pennsylvania ("VWPA") witness Gregory R. Herbert and the Bureau of Investigation and Enforcement ("I&E") witness Esyan A. Sakaya. Specifically, I will address Mr. Herbert's and Mr. Sakaya's continued support for the class revenue increases recommended by VWPA in its direct testimony for the Mahoning wastewater utility.

CONCLUSIONS

Q. WHAT CONCLUSIONS DO YOU OFFER IN YOUR TESTIMONY?

A. For the Mahoning wastewater utility, I continue to recommend no rate increase for the Non-Residential class and moving the Residential class closer to its cost of service. As shown above in Table TNT-1-S, under my recommendation the Non-Residential rate class would still be paying a substantial subsidy (over $400,000) to the Residential class. If the Commission orders a lower revenue increase, then the reduction should flow solely to the Residential rate class.

RESPONSE TO THE VWPA AND I&E'S CLASS REVENUE INCREASE RECOMMENDATION FOR THE MAHONING WASTEWATER UTILITY

Q. PLEASE DESCRIBE VWPA'S AND I&E'S PROPOSED REVENUE INCREASE FOR THE MAHONING WASTEWATER UTILITY.

A. In their rebuttal testimonies, both VWPA witness Herbert and I&E witness Sakaya responded to my proposal that the Mahoning wastewater utility non-Residential customer class receive no rate increase in this case. Both Mr. Herbert and Mr. Sakaya continue to support the proposed revenue increase for each rate class in the Mahoning wastewater utility proposed by VWPA in its direct testimony despite the fact that the Non-Residential class is significantly paying rates well in excess of its cost of service. Both VWPA and I&E support scaling the increases should the Commission order a lower revenue increase.

Q. WHAT RATIONALE DID VWPA WITNESS MR. HERBERT USE TO SUPPORT MAINTAINING THE CLASS REVENUE INCREASES IN HIS DIRECT TESTIMONY?

A. Mr. Herbert cited gradualism because the residential rate class would, in Mr. Herbert's opinion, suffer rate shock under VWPA's requested increase if my recommendation was adopted. Thus, he continues to support the class revenue increases in his direct testimony for the Mahoning wastewater utility with a scale back if a lower revenue increase is ordered in this proceeding.

Q. WHAT RATIONALE DID I&E WITNESS MR. SAKAYA OFFER FOR HIS CONTINUED SUPPORT FOR THE CLASS REVENUE INCREASE PPRPOSED BY VWPA?

A. Mr. Sakaya noted only that the percentage increase for the Residential class was higher than the percentage increase for the Non-Residential class. Mr. Sakaya maintains that this difference in percentage increases for each class recognizes the cost differences presented in the class cost -of-service.

Q. DO THE ARGUMENTS PUT FORTH BY VWPA AND I&E CHANGE YOUR POSITION REGARDING NO INCREASE FOR THE NON-RESIDENTIAL CLASS?

A. No. While I agree that gradualism and rate shock are important considerations, I also believe that the underlying cost to serve each class is an equal, if not more important, consideration. In my opinion, in this particular case a stronger movement towards cost for the Non-Residential class is warranted. As shown in Table TNT-1-S below, even under present rates, the revenues collected from the

Non-Residential class are significantly above its cost-of-service under VWPA's requested revenue requirement.[1]

Table TNT-1-S

Non-Residential Class Present Revenues vs Cost-of-Service
At VWPA's Requested Revenue Increase

Revenues @ Present Rates	$699,679
Cost-of-Service @ VWPA Request	$285,031
Non-Residential Over-Recovery	$414,648
Present Rev. as Percentage of Cost	245.5%

As shown in Table TNT-2-S below, under VWPA's proposed 17.3 percent revenue increase, the Non-Residential class moves even further away from its cost-of-service.

Table TNT-2-S

Non-Residential Class Proposed Revenues vs Cost-of-Service
At VWPA's Requested Revenue Increase

Revenues @ VWPA Proposed Rates	$820,536
Cost-of-Service @ VWPA Request	$285,031
Non-Residential Over-Recovery	$535,505
Proposed Rev. as Percentage of Cost	287.9%

Given these results, in my opinion, the wastewater rates for the Non-Residential class are neither just nor reasonable under either the present or proposed VWPA rates.

Q. GIVEN THE REBUTTAL VWPA AND I&E REBUTTAL TESTIMONY, HAS YOUR RECOMMENDATION FOR THE MAHONING WASTEWATER UTILITY CHANGED?

[1] 1. Data Source: VWPA witness Constance E. Heppenstall's direct testimony, Exhibit No. CEH-3.

A. No. I continue to recommend no rate increase for the Non-Residential class and moving the Residential class closer to its cost of service. As shown above in Table TNT-1-S, under my recommendation the Non-Residential rate class would still be paying a substantial subsidy (over $400,000) to the Residential class.

Q. DO YOU HAVE ANY ADDITIONAL COMMENTS?

A. Yes. The Office of Consumer Advocate ("OCA") witness Jerome D. Mierzwa also responded to my recommendation in his rebuttal testimony. Mr. Mierzwa recommended reducing the 17.3% Non-Residential increase down to 10.0% at VWPA's requested increase. Mr. Mierzwa also supports a proportional reduction in this increase if the Commission orders a lower revenue increase.

Q. DOES THE OCA OFFER ANY RATIONALE FOR ITS PROPOSED 10% RECOMMENDATION?

A. Yes. Mr. Mierzwa maintains that all rate classes should receive an increase when there is an overall rate increase. Thus, Mr. Mierzwa recommended the 10% figure.

Q. WHAT IS YOUR RESPONSE TO THE OCA RECOMMENDATION?

A. I appreciate the fact that OCA acknowledges the significant Non-Residential revenue and cost misalignment. However, I believe that more progress can and should be made in this rate case to bring the Non-Residential class closer to its cost-of-service. As I noted above, even with my recommendation for no increase to the Non-Residential class, there will still be a significant subsidy being paid (over $400,000) by the Non-Residential class to the Residential class. Mr.

Mierzwa's 10% recommendation simply doesn't make sufficient progress towards costs and should not be adopted.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes, it does.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	**:**	**Docket Nos.:**
	:	**R-2024-3045192 (Water)**
v.	**:**	**R-2024-3045193 (Wastewater)**
	:	
Veolia Water Pennsylvania, Inc.	**:**	

VERIFICATION

I, Neal Townsend, hereby state that the facts set forth in the Surrebuttal Testimony labelled OSBA Statement No. 1-S, are true and correct to the best of my knowledge, information, and belief, and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 19 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: June 21, 2024

/s/ Neal Townsend
Neal Townsend, Principal
Energy Strategies, LLC

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	**:**	**Docket Nos.:**
	:	**R-2024-3045192 (Water)**
v.	**:**	**C-2024-3046893**
	:	**R-2024-3045193 (Wastewater)**
Veolia Water Pennsylvania, Inc.	**:**	**C-2024- 3046956**
	:	

CERTIFICATE OF SERVICE

I hereby certify that true and correct copies of the foregoing have been served via email (*unless otherwise noted below*) upon the following persons, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

The Honorable Emily DeVoe
Administrative Law Judge
Pennsylvania Public Utility Commission
Piatt Place, Suite 220
201 Fifth Avenue
Pittsburgh, PA 15222
edevoe@pa.gov

Michael A. Podskoch, Jr., Esquire
Pennsylvania Public Utility Commission
Bureau of Investigation & Enforcement
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120
mpodskoch@pa.gov

Christy Appleby, Esquire
Darryl A. Lawrence, Esquire
Barrett C. Sheridan, Esquire
Office of Consumer Advocate
555 Walnut Street
Forum Place, 5th Floor
Harrisburg, PA 17101
OCAVeolia2024@paoca.org

David P. Zambito, Esquire
Jonathan P. Nase, Esquire
Cozen O'Connor
17 North Second Street
Suite 1401
Harrisburg, PA 17101
dzambito@cozen.com
jnase@cozen.com

John W. Sweet, Esquire
Lauren N. Berman, Esquire
Ria M. Pereira, Esquire
Elizabeth R. Marx, Esquire
118 Locust Street
Harrisburg, PA 17101
pulp@pautilitylawproject.org

DATE: June 21, 2024

/s/ Sharon E. Webb
Sharon E. Webb
Assistant Small Business Advocate
Attorney I.D. No. 73995

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	Docket No.: R-2024-3045192 (Water)
v.	:	R-2024-3045193 (Wastewater)
	:	
Veolia Water Pennsylvania, Inc.	:	

DIRECT TESTIMONY

OF

MORGAN N. DEANGELO

On behalf of the

PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

PUBLIC VERSION

May 17, 2024

Table of Contents

Introduction

Q. Please state your name and business address.

A. My name is Morgan N. DeAngelo. My business address is 555 Walnut Street, 5th Floor, Forum Place, Harrisburg, PA 17101.

Q. By whom are you employed and in what capacity?

A. I am currently employed by the Pennsylvania Office of Consumer Advocate (OCA) as a Regulatory Analyst.

Q. What is the purpose of your testimony in this case?

A. The purpose of my Direct Testimony is to (1) introduce all of the witnesses who will testify for the OCA; (2) outline why Veolia Water Company, Inc.'s (VWPA or Company) rate increase should not be granted as requested; (3) discuss the customer notices; (4) provide input on cyber security; (5) provide my recommendations on the positive acquisition adjustments proposed in this case; and (6) provide a summary of the testimony heard at the public input hearings.

Q. Have you previously provided testimony before the Pennsylvania Public Utility Commission (Commission)?

A. Yes. I have provided written testimony in rate cases concerning rate case normalization, cash working capital and operation and maintenance expenses, rate of return, the impact the COVID-19 Pandemic has had on consumers in Pennsylvania, acquisition adjustments, and various provisions to the utility's tariff, as well as petition proceedings under Section 529 of the Public Utility Code, and applications regarding the acquisition of municipal utilities under fair market value, concerning affirmative public benefits.

Q. What are your qualifications to provide this testimony in this case?

A. My qualifications can be found in Appendix A, attached to my Direct Testimony.

Q. Have you prepared Exhibits to accompany your testimony?

A. Yes. I have prepared Exhibit MND-1 to MND -9 to accompany my testimony.

Overview

Q. Please provide an overview of who will be testifying on behalf of the OCA.

A. In addition to my testimony, which is marked as OCA Statement 1, the following witnesses provide testimony on behalf of the OCA:

OCA Statement 2, prepared by Lafayette Morgan, addresses the Company's accounting and proposed revenue requirement.

OCA Statement 3, prepared by David Garrett, addresses the Company's proposed rate of return and depreciation study.

OCA Statement 4, prepared by Jerome D. Mierzwa, addresses the Company's cost of service studies (COSS) and rate design proposals.

OCA Statement 5, prepared by Terry L. Fought, presents his investigation findings on quality-of-service issues and customer complaints.

OCA Statement 6, prepared by Nicholas A. DeMarco, presents his recommendations as to how VWPA can improve its proposed Low-Income Program, Customer Assistance Program (CAP) and Arrearage Management Program (AMP).

Q. Please summarize the Company's filing.

A. VWPA is requesting an approximately $16,000,000 increase in revenues, including Distribution System Improvement Charges (DSIC). This request is made up of $15.4 million, or a 26% increase to water revenues and a $558,000, or 35% increase to wastewater revenues. If granted, the average residential customers' monthly water rates would increase from $49.64 to $60.79 per month, or by 22% and the wastewater flat rate will increase from $56.20 to $77.00 per month, or by 37%. This proposed example is based on a customer using an average of 3,500 gallons per month, and it may underestimate the impact on other customers. The Company is requesting an overall Rate of Return (ROR) of 7.95%, including a Return on Equity (ROE) of 10.80% and a cost of debt ratio of 4.60%, using a capital structure that is comprised of 54% equity and 46% debt. Since the last base rate case proceeding, there were three acquisitions that are not yet reflected in rate base; (1) the Township of Mahoning (Mahoning), the Kensington Water Company (Kensington), and the Overbrook Water Company (Overbrook). VWPA is proposing positive acquisition adjustments for each of the acquisitions. I discuss my recommendations about these acquisition adjustments later in my testimony.

Q. Please summarize the recommendations of the OCA's other witnesses.

A. In OCA Statement 2, Mr. Morgan recommended the Company's proposed revenue increase for water should be $4,566,589, compared to its proposed increase $15,494,620, and the proposed revenue increase for wastewater should be $427,859, compared to its proposed increase of $468,719. Mr. Morgan used the OCA's adjusted overall rate of return capital structure recommended by OCA witness David Garrett, discussed below.

In OCA Statement 3, Mr. Garrett recommended the Company's proposed return on equity should be set at a market-based rate of 9.1%, and the Commission should reject the Company's proposed capital structure and instead use a capital structure for ratemaking purposes consisting of 50% debt and 50% equity. Mr. Garrett proposed an alternative recommendation, suggesting that if the Commission accepts the Company's proposed capital structure, an ROE of 8.6% should only be granted. Based on Mr. Garrett's depreciation analysis, he recommended Veolia use the average life group (ALG) method. This recommendation is based, in part on conclusions from the NARUC Public Utility Depreciation Practices that "[T]he ELG method results in annual accruals that are higher during the early years of a vintage's life, thereby causing an increase in depreciation expense and revenue requirements during these years."[1] Additionally, Mr. Garrett made a $2,144,164 million adjustment due to depreciation which is reflected in Mr. Morgan's overall recommended revenue requirement.

In OCA Statement 4, Mr. Mierzwa made four recommendations regarding VWPA's rate consolidation proposals. First, he adjusted the proposed increase for the Bethel service territory, he recommends the Bethel district customer charge should be moved to 75% of the customer charge for all other areas, as opposed to the 100% the Company proposed. Second, he recommends the Kensington service territory adopt the current usage charge in excess of the free allowance for all usage. Third, he recommends the Overbrook service territory adopt a usage charge that results in a 2.0 times the system average increase for the average residential customer. Fourth, he recommends the Mahoning service territory adopt a usage charge of $7.55 per 1,000 gallons that is proportionately

[1] National Association of Regulatory Utility Commissioners, *Public Utility Depreciation Practices* 176 (NARUC 1996) (emphasis added).

scaled back to reflect the revenue requirements authorized by the Commission in this proceeding. Additionally, Mr. Mierzwa recommends the water monthly customer charges adopted in this proceeding should be reduced from $19.80 to $17.96, and that Public Fire charges be increased to recover 25% of the cost of service, subject to a maximum increase of 2.0 times the system average increase authorized by the Commission in this proceeding.

OCA Statement 5, Mr. Fought discussed his investigation which included reviewing portions of VWPA's filing applicable to quality of service, reviewing informal and formal complaints filed by VWPA customers with the PUC and VWPA. Mr. Fought recommended that the Company provide additional information regarding steps it is taking to address pressure concerns, isolation valve exercising, having workable hydrants for fire protection, consumer complaints raised in this proceeding, and the quality of water provided to the Company's customers.

In OCA Statement 6, Mr. DeMarco made recommendations on how VWPA could increase the affordability and fairness of the proposed Customer Assistance Program (CAP) program, the Company's proposed restricting of the Arrearage Management Program (AMP), restructuring the bill discount program, and boosting outreach efforts to inform customers on who could benefit from these programs.

Q. What is your understanding of the purpose of this proceeding?

A. It is my understanding that the purpose of this case is to determine the "just and reasonable" rates for VWPA under Chapter 13, and other provisions, of the Public Utility Code. In the context of this, it is the OCA's position that the Commission must ensure that it adheres to the principles of the regulatory compact and related legal and policy

concepts, which are a necessary foundation for this proceeding. VWPA's specific claims and proposals as filed would produce unjust and unreasonable rates and, when taken together, would result in larger bills than necessary to maintain service obligations and would substantially harm VWPA's customers. It is important to contextualize, that part of the ratemaking process in Pennsylvania ensures that the Public Utility Commission must consider the impact of rates on consumers.[2] The fact that consumer interest must be considered in the assessment of whether rates are just and reasonable is a well-founded concept in both the regulatory compact as established in case law and in Pennsylvania statutory authority. Within a zone of reasonableness, the interests of consumers and investors should overlap. While the need to attract capital is important, it is not paramount and in no way is it superior to the needs of consumers.

Q. What is the regulatory compact?

A. The regulatory compact is a public policy concept that fundamentally recognizes that public utility companies such as VWPA are natural monopolists, and that in return for the public utility company being granted an exclusive franchise to operate in a specific service territory without rival, the public utility company has the duty to provide service to all customers under certain governmental direction and oversight as to rates and service quality, subject to due process constraints.

Q. Is the regulatory compact unique to the Commonwealth of Pennsylvania?

A. No. As a public policy concept, the regulatory compact is not unique to the Commonwealth of Pennsylvania. It is the public policy concept that underlies the state

[2] 71 Pa. Stat. Ann. §309-5.

regulatory frameworks which exist across the country governing the rights and responsibilities of public utility companies.[3]

Q. Please explain the state's authority to regulate public utilities,

A. Foundationally, the state's authority to regulate public utilities stems from the state's police powers, which is a term that refers to the broad governmental regulatory power to enact laws to regulate behaviors to protect and improve the health, safety, and general welfare of the state's citizenry.[4]

Q. Can you explain the Pennsylvania statutory framework?

A. The Pennsylvania General Assembly has sought to protect consumers from the effects of natural monopoly power by enacting the Public Utility Code and granting the Commission comprehensive authority to oversee and regulate a public utility's service, rates, certificates of public convenience (service territory, entry into the public utility business, abandonment of utility service), and dealings with affiliated interests.[5]

Q. How does the regulatory compact work in the Pennsylvania statutory framework?

A. The regulatory compact in Pennsylvania, as set forth in the Public Utility Code, permits the Commission to grant a public utility company the legal privilege to exclusively serve in a defined service area, and in turn, the public utility is obligated within that area to provide consumers adequate, efficient, safe, and reasonable utility service and to maintain adequate, efficient, safe, and reasonable utility facilities at rates that are just and reasonable and not unreasonably discriminatory.[6]

---

3 Bonbright, J.C., A.L. Danielsen, and D.R. Kamerschen. 1988. Principles of Public Utility Rates. 2nd ed.
4 Bonbright, J.C., A.L. Danielsen, and D.R. Kamerschen. 1988. Principles of Public Utility Rates. 2nd ed.
5 66 Pa.C.S. §§ 101-3316
6 66 Pa.C.S. §§ 101-3316

Q. What statutory authority and discretion does the Commission have to enforce the regulatory compact?

A. To enforce a certificated public utility company's statutory responsibility, the General Assembly has given the Commission latitude in establishing just and reasonable rates.[7]

Q. What type of Public Utility is VWPA?

A. VWPA is a private, or investor-owned company. VWPA is a wholly-owned subsidiary of Veolia Resources LLC (VUR), which is the sole source of VWPA's external capital. VUR is a subsidiary of Veolia Utility Parent, Inc., which is a subsidiary of Veolia North America, Inc. Veolia North America, Inc. is a wholly-owned subsidiary of Veolia Environnement S.A (VWPA Statement No. 4, p. 7, ln 20, p. 8, ln. 5-12).

Q. What is an investor-owned utility?

A. An investor-owned utility is a private corporation which offers public utility service to the public for profit. The "investor" can be a traditional investor, where shares are offered publicly or privately for sale, or it can be a parent company that owns all the shares of the subsidiary.

VWPA's Service Territory

Q. Please describe VWPA's service territory.

A. VWPA provides water and wastewater service to about 66,000 customers located in its franchise territories in the Commonwealth of Pennsylvania, in a portion of Columbia, Cumberland, Dauphin, Luzerne, Montour, Perry, Schuylkill, Wyoming, and York Counties (VWPA Statement No. 4, p. 7, ln. 20-22, p. 8, ln. 1-3).

[7] 66 Pa.C.S. §§ 101-3316

Q. Do you have any concerns in this matter as to customers having the ability to deal with a large rate increase?

A. Yes. Later in my testimony, I will discuss the testimonies heard at the Public Input Hearings in this proceeding, where consumers expressed concerns about being able to afford the proposed increase. Additionally, there is statistical data, such as the Asset Limited, Income Constrained, and Employed (ALICE) index that provides a breakdown.[8]

ALICE Data

Q. Are you aware of a measure of income sufficiency in Pennsylvania that addresses whether households have sufficient income to meet a survival budget?

A. Yes. While the federal poverty level (FPL) is a well-known measure to many people it is not a realistic measure to judge whether a household can afford basic life necessities. Increasingly, an emphasis has been placed on measuring a household's self-sufficiency or survival budget. One such measure of this has been calculated by the United Way using their ALICE index.

Q. What information is useful in looking at the impact on customers?

A. There is county-level and statewide data provided through the ALICE report for Pennsylvania. The most recent report is the 2023 report, which uses data from 2021. This report shows that a family of four would need an annual income of $65,796 to cover the essentials needed to live and work, pay rent, and pay utilities.[9] Using the ALICE household survival budget of $65,796 for a family of four in Pennsylvania, and the data provided by the US Census Bureau, three out of the nine counties VWPA serves, have a

[8] More information can be found https://unitedforalice.org/overview.
[9] https://www.unitedforalice.org/state-reports-mobile

median household income that is below the ALICE household survival budget. This data can be found in Exhibit MND-1.

Q. What information does ALICE have about utilities as part of a household's budget?

A. On a statewide level, the ALICE Household Survival Budget assumes a family of four in Pennsylvania will spend $292 dollars per month on utilities (as of 2021, the most recent data available). An example of what that might mean for a VWPA customer in one of the counties where the median household income is below the ALICE household survival budget is helpful to understand what customers are facing now, *before any rate increases go into effect*. OCA witness DeMarco provides a further breakdown of this data in OCA Statement 6, concluding that nearly 15,155 customers receiving rater and/or wastewater service from VWPA live at or below the ALICE threshold for survival and self-sufficiency (OCA Statement 6, p. 4, ln. 3-5). It is important for the Commission to take this data into account the burden consumers are already facing, before any sort of rate increase, when making a decision in this proceeding.

Customer Notices

Q. Do you have any concerns with VWPA's customer notice?

A. Yes. I am concerned with the accuracy of the notice and its ability to correctly inform consumers about the anticipated bill increase that they can expect based on the usage level provided in the notice.

Q. What usage level does VWPA use in its rate case notice to customers?

A. In its rate case notice for water customers, VWPA uses an average of 3,500 gallons per month usage for a residential customer to calculate the impact of its proposed rate

increase (VPWA Exh. LFK-3). The notice is attached to my testimony as Exhibit MND-2.

Q. Why is this a concern?

A. VWPA has residential customers who have usage levels above the average 3,500 gallons per month usage level. In VWPA response to OCA-5-30, the Company provided a bill frequency report showing a breakdown of the number of bills at every 100 gallons of consumption. For example, using the most recent month provided, February 2024, there were over 21,000 bills at usage levels of 3,600 or higher. These customers will have a different bill impact than what is shown in the notice. For example, a small family using 5,000 gallons per month would see a different bill impact than is shown on the notice. A larger family using 10,000 gallons per month would see a more dramatic impact. There is no information in the rate case notice that would permit a customer with different usage levels to calculate the impact of their bill.[10] VWPA response to OCA-5-30 is attached to my testimony as Exhibit MND-3.

Q. Why did you choose 5,000 and 10,000 gallons per month for additional usage levels?

A. I used those amounts as an estimate that falls at or near the middle of a range of usage for 2 and 4-person households and a range of daily usage of 5-100 gallons per day (gpd). This range is based on information contained in Penn State Extension: Estimating Water Needs.[11] Although this paper is based on designing water systems, using 50 gallons per

[10] The notice directs customers who want "[t]o find out your customer class or how the requested increase may affect your water or wastewater bill", contact Veolia Customer Service at 888-299-8972. The rates requested by the company may be found in Supplement No. 68 Water Tariff PA P.U.C. No.7 & Supplement No.5 Wastewater Tariff PA P.U.C. No.2. You may examine the material filed with the PUC which explains the requested increase and the reasons for it. A copy of this material is kept at Veolia's Harrisburg Office, 6310 Allentown Blvd, Suite 104, Harrisburg, PA 17112. Upon request, the company will send you the Statement of Reasons, explaining why the rate increase has been requested.

[11] https://extension.psu.edu/water-system-planning-estimating-water-needs

day per person (gppd) as the minimum and 100 gppd for a 30 day month would equal 3,000-6,000 gallons per month for a 2-person household and 6,000-12,000 gallons per day for a 4-person household. By choosing a level close to the middle of each range, I think it is a reasonable approach to show the impact of the proposed rate increases on customers at different usage levels and recommend doing so. This is relevant information that will help residential customers better understand the impact on their bills.

Q. Do you have any additional concerns with the customer notice?

A. Yes. The customer notice only provides the rate impact based on proposed rates for the Main VWPA customers. However, VWPA proposes different rate increases for its Bethel. Overbrook, Kensington and Mahoning customers. The notice depicts an inaccurate representation of the rate impact at the proposed rates for each of these system customers. In OCA Statement 4, witness Mr. Mierzwa addresses the rate shock these customers will face. Therefore, I recommend the notice in future cases should include a rate impact for each of the proposed rate increases, depicting a more accurate representation of what customers could expect.

BEGIN CONFIDENTIAL

[redacted]

[redacted]

[redacted]

END CONFIDENTIAL

Proposed Positive Acquisition Adjustments

Q. Has VWPA acquired any water or wastewater systems since the last base rate case?

A. Yes. As stated by VWPA witness Finnicum, there have been three acquisitions (of four systems) since the last base rate case proceeding that are not yet reflected in rate base: the water and wastewater systems of the Township of Mahoning (Mahoning), the Kensington Water Company (Kensington), and the Overbrook Water Company (Overbrook). (VWPA Statement No. 1, p. 9, ln. 6-9). VPWA proposes to amortize a positive acquisition adjustment for all four systems. (VPWA Exhibit GRH-3, Schedule 30 and Schedule 34 and Exhibit GRH-5, Schedule 20.) These are attached to my testimony as Exhibit MND-7.

Q. What is a positive acquisition adjustment?

A. Ordinarily, when a public utility purchases another entity's assets and seeks to include the assets in its rate base, it may only include the value of assets at original cost of the property when first devoted to the public service less applicable accrued depreciation. However, there are two exceptions to this rule under Sections 1327 and 1329 of the Public Utility Code where a public utility purchases water or wastewater assets at a cost in excess of the original cost less accrued depreciation. If the acquisition is *not* brought pursuant to the provisions of Section 1329, and a utility can satisfy the factors stated in Section 1327(a), it can earn a return on and of the purchase price. The difference in price between net original cost and *purchase price* is the amount of the positive acquisition adjustment. Here, VWPA is seeking a 1327(a) adjustment for the Kensington and Overbrook systems. If the seller is a municipal utility and the Commission approves a ratemaking rate base under Section 1329(a), the buyer can earn a return on and of the

ratemaking rate base. In this base rate case, VPWA is claiming a positive acquisition adjustment for the Mahoning water and wastewater systems as the difference in price between net original cost and the *ratemaking rate base*, an amount that was already determined in the proceeding where SUEZ (now VWPA) acquired the Mahoning assets.

Q. Does the Public Utility Code contain requirements that must be met by a utility in order to reflect a Section 1327(a) positive acquisition adjustment in rates?

A. Yes. As noted above, Subsection (a) of Section 1327 of the Public Utility Code outlines nine criteria, all of which must be met by a utility in order to add an acquisition adjustment to rate base. I paraphrase these criteria below:

(1) The property acquired is used and useful in providing service;
(2) The acquired utility had 3,300 or fewer customer connections or was non-viable in the absence of the acquisition;
(3) The acquired entity was not, at the time of acquisition, furnishing and maintaining adequate, efficient, safe and reasonable service and facilities, evidence of which shall include, but not be limited to, any one or more of the following:
  (i) violation of statutory or regulatory requirements of the Department of Environmental Resources (now, Department of Environmental Protection) or the commission concerning the safety, adequacy, efficiency or reasonableness of service and facilities;
  (ii) a finding by the commission of inadequate financial, managerial or technical ability of the small water or sewer utility;
  (iii) a finding by the commission that there is a present deficiency concerning the availability of water, the palatability of water or the provision of water at adequate volume and pressure;
  (iv) a finding by the commission that the small water or sewer utility, because of necessary improvements to its plant or distribution system, cannot reasonably be expected to furnish and maintain adequate service to its customers in the future at rates equal to or less than those of the acquiring public utility;
  (v) any other facts, as the commission may determine, that evidence the inability of the small water or sewer utility to furnish or maintain adequate, efficient, safe and reasonable service and facilities;
(4) reasonable and prudent investments will be made to assure that the customers served by the property will received adequate, efficient, safe and reasonable service;
(5) the public utility is in agreement with the acquisition and the negotiations which led to the acquisition were conducted at arm's length;

(6) the actual purchase price is reasonable;
(7) neither the acquiring nor selling public utility is an affiliated interest of the other;
(8) the rates charged by the acquiring utility to its preacquisition customers will not increase unreasonably because of the acquisition; and
(9) the excess of the acquisition cost over the depreciated original cost will be added to the rate base to be amortized as an addition to expense over a reasonable period of time with corresponding reductions in the rate base.

Q. Please discuss VWPA's positive acquisition adjustment claims in regard to the system assets of the Kensington and Overbrook systems.

A. On October 24, 2019, the Commission approved the acquisition of Kensington for a purchase price of $265,000. Kensington has been fully depreciated since 2011. VWPA is requesting a return on and return of the purchase price (plus acquisition costs) pursuant to Section 1327 and proposes to amortize the positive acquisition adjustment over 10 years and the acquisition costs over a five-year period (VWPA Statement No. 1, p. 10, ln. 7-17).

On October 24, 2019, the Commission approved the acquisition of Overbrook for a purchase price of $324,000. The Company has elected to rely on original cost records of Overbrook (VWPA Statement No. 1, p. 11, ln. 4-5). VWPA is requesting a return on and return of the purchase price (plus acquisition costs) pursuant to Section 1327 and proposes to amortize the positive acquisition adjustment over 10 years and the acquisition costs over a five-year period (VWPA Statement No. 1, p. 10, ln. 21-22, p. 11, ln. 1-9).

As discussed further below, OCA witness Lafayette Morgan will discuss adjustments to the proposed amortizations of acquisitions costs in OCA Statement 2. OCA witness Terry Fought addresses quality of service regarding the Overbrook and Kensington systems.

Kensington Water Company

Q. Has VWPA met all nine of the Section 1327(a) criteria to support its proposed acquisition adjustment related to the Kensington system?

A. No. VWPA has not met all nine criteria to support a positive acquisition adjustment associated with Kensington in this case. In particular, VWPA has not met the criteria under Section 1327(a)(3). Section 1327(a)(3) requires that, in order for a utility to recognize an acquisition adjustment in rates, the acquired company must not, at the time of acquisition, be providing and maintaining adequate, efficient, safe and reasonable service and facilities.

Q. Has VWPA provided information to show that Kensington was not providing adequate service to its customers at the time of acquisition?

A. No. Section 1327(a)(3) lists some of the evidence that will be considered in making this determination. Based on the information provided in its rate filing, VWPA has failed to show that Kensington was not providing adequate service to its customers at the time of acquisition and that it couldn't continue providing adequate service to its customers. Mr. Finnicum stated one example that Kensington was required to issue a Tier 1 do not consume notification for infants under the age of 6 months related to manganese being over the health advisory level. He also stated that additionally, Kensington did not have a business license and had exhibited insufficient cash for certain operating expenses in the past (VWPA Statement No. 1, p. 12, ln. 11-17). The information provided does not show that the business license or cash flow meant the utility did not or could not provide safe, adequate and reasonable service. VWPA's Application to acquire the Kensington system and the Commission's Order approving the acquisition do not identify any current service

quality issues or financial, technical or managerial issues with the former utility. In response to TUS A-17, provided in the Application proceeding, VWPA (formerly SUEZ) states:

> "There are currently no major deficiencies within Kensington's assets. As a result, SUEZ does not project any large capital improvement expenses for the first five years of SUEZ's ownership of the system. If an[d] when a capital improvement is required, i.e., to replace a chemical pump, those expenses will be covered via SUEZ's blanket capital budgets."

VWPA's response is attached to my testimony as Exhibit MND-8.

Further, the Commission's Order approving VWPA's Application to acquire the Kensington system in Dockets A-2019-3012193 and A-2019-3012194, provided:

> "SUEZ and Kensington are current with their annual, quarterly earnings and Security Planning and Readiness report filing requirements and there are no outstanding fines or assessments due to the Commission."

The Order also stated, "DEP's Southcentral Regional Office notified the Commission that DEP does not have any pending actions or outstanding complaints against SUEZ or Kensington."[12]

Q. Do you agree with VWPA that the Company should receive a positive acquisition adjustment for its acquisition of Kensington?

A. No. VWPA has not provided sufficient information to satisfy the Section 1327 requirements for approval of an acquisition adjustment, in particular, the requirements under Section 1327(a). As such, I recommend that VWPA's proposal for a positive acquisition adjustment should be rejected. Additionally, in OCA Statement 2, Mr.

[12] *PaPUC v. SUEZ Water Pennsylvania, Inc.* Commission Order Entered October 24, 2019, A-2019-3012193, A-2019-3012194. https://www.puc.pa.gov/pcdocs/1631636.pdf

Morgan recommends normalizing the transaction costs over a ten-year period, instead of the Company's proposed five-year period.

Overbrook Water Company

Q. Has VWPA met all nine of the Section 1327(a) criteria to support its proposed acquisition adjustment related to Overbrook?

A. No. Section 1327(a)(3) lists some of the evidence that will be considered in making this determination. Based on the information provided in its rate filing, VWPA has failed to show that Overbrook was not providing adequate service to its customers at the time of acquisition and that it couldn't continue providing adequate service to its customers. Mr. Finnicum stated that Overbrook did not properly install and permit water treatment with PA DEP and did not have proper 4 log ground water calculations in place and was viewed as a "troubled" water system by PA DEP (VWPA Statement No. 1, p. 14, ln. 10-14). However, review of the Application proceeding in Dockets A-2-19-3014990 and A-2019-3014991 where VWPA (formerly SUEZ) acquired Overbrook does not indicate that Overbrook was troubled. In response to TUS A-11, provided in the Application proceeding, VWPA (formerly SUEZ) stated that Overbrook had only three PA DEP violations for 2016 through 2020 and those violations were limited to not submitting Consumer Confidence Reports and one failure to monitor/report routine samples. PA DEP indicated that the reports were provided (late) and that, in all cases, compliance was achieved prior to the acquisition by VWPA. That interrogatory response is attached to my testimony as Exhibit MND-9. Further, VWPA's Application to acquire the Overbrook system and the Commission's Order approving the acquisition do not identify any current service quality issues or financial, technical or managerial issues with the former utility.

In the Order, it noted that "compliance was achieved for each violation" and "DEP's Northeast Regional Office notified the Commission that DEP does not have any pending actions or outstanding complaints against Overbrook."[13]

Q. Do you agree with VWPA that the Company should receive a positive acquisition adjustment for its acquisition of Overbrook?

A. No. VWPA has not provided sufficient information to satisfy the Section 1327 requirements for approval of an acquisition adjustment, in particular, the requirements under Section 1327(a). As such, I recommend that VWPA's proposal for a positive acquisition adjustment for Overbrook should be rejected. Additionally, in OCA Statement 2, Mr. Morgan recommends normalizing the transaction costs over a ten-year period, instead of the Company's proposed five-year period.

Township of Mahoning Water and Wastewater

Q. Please address VWPA's claim for a positive acquisition adjustment for its acquisition of the Mahoning water and wastewater systems.

A. First, I would note that Section 1329 operates differently than Section 1327(a). Once the Commission approves an acquisition under Section 1103 of the public utility code wherein the utility and seller elect to proceed under 1329, the ratemaking rate base of the system is already set at the lesser of the average of the two fair market value appraisals or the purchase price. Here, the Commission approved a rate base addition of $9,500,000 for ratemaking rate base purposes, with $4,734,800 being allocated to water rate base and $4,765,200 being allocated to wastewater rate base. An appraisal of the system done by

[13] *PaPUC v. SUEZ Water Pennsylvania, Inc.* Commission Order Entered June 18, 2020, A-2019-3014990, A-2019-3014991. https://www.puc.pa.gov/pcdocs/1666964.docx

Gannett Flemming showed a depreciated original cost of $6,741,997 for both systems. [14] As the ratemaking rate base was established by the Commission in the application dockets, the OCA does not challenge that the full $9,500,000 can be placed into ratemaking rate base. In this case, VWPA included $543,227 of acquisition transaction costs to be amortized over five years (VWPA Exh. No. GRH-3, Schedule 30, adj. 29). In OCA Statement 2, Mr. Morgan recommends normalizing the transaction costs over a ten-year period, instead of the Company's proposed five-year period.

Public Input Hearings

Q. Were there any witnesses that expressed concern regarding the impact of this rate increase?

A. Yes. Six witnesses testified at the public input hearings on April 29 and April 30, to express concerns about the base rate case and rate impacts they will face. Many testified that the increase will be a burden to themselves and the community, putting a strain on finances and one testified on the quality of the water.

Witness Ralph Magill

Witness Ralph Magill testified these new rates will be detrimental to the residents of the Town of Bloomsburg and surrounding customers as well as numerous businesses. He stated if you look at the average household income in Bloomsburg, it is $41,540 according to the 2020 census. In Columbia County, 13.9% of residents are living in poverty and 10.4% are 65 years of age and older living on a fixed income. Considering this information, many residents are only one misfortune away from living in poverty or even becoming homeless. He stated the new, proposed rates are outreach and should not

[14] Docket Nos. A-2018-3003517 and A-2018-3003519

be approved by the Public Utility Commission. Customers depend on Veolia for affordable clean drinking water and as a human essential and simply cannot afford exuberant price rates for basic water and sewer systems. (4/29/24, 6pm, PIH, Tr. 60-63)

Witness Larry Pritchard

Witness Larry Pritchard testified that on April 5, he sent a letter to the PUC expressing concerns that customers weren't aware when Veolia acquired the system from Suez, it planned on spending $167 million on the service. Mr. Pritchard questioned if the rates would go back down to what they were before once the total has been paid back. He indicated they are retired, on a fixed income and money is okay. This kind of increase, together with increases they are getting from other expenses gives him concern about the practicability of managing something like that. He concluded by expressing the letter with information about the public input hearing came in a plain envelope from Veolia, like many others do. He recommended the PUC should ask utilities to put more information on the envelopes about what is in the contents of the envelopes. (4/29/24, 6pm, PIH, Tr. 64-68)

Witness Valeria Tanner

Witness Valeria Tanner testified she is a wastewater customer only and did not receive a notice letter regarding the increase, in addition to no letter about the public input hearing. Ms. Tanner believes the rate increase is not reasonable. A lot of people in her community are on Social Security, and the increase will result in a lot of money for people that are just living day to day and not having a lot of money. (4/29/24, 6pm, PIH, Tr. 69-70)

Witness Doug Hassenbein

Witness Doug Hassenbein testified that he can support up to 75% of the water rate increase, but not the full amount due to ongoing occurrences of brown water and sediment in the water. Mr. Hassenbein discussed the occurrences he has had since 2018, which eventually caused him to relocate homes in 2023. However, moving apartment complexes did not solve the brown water and sediment occurrences. Mr. Hassenbein stated he has had brown water and sediment 28 times since moving into his current address. He asked for five stipulations should any rate increase go through; (1) the operations be reviewed at the 6th Street treatment plant in Harrisburg for ice blockages and power outages; (2) procedures be reviewed for fire hydrant usage for non-emergencies; (3) the integrity of the water lines that runs along Linglestown Road in Dauphin County be reviewed; (4) when customers call in to report issues with brown water and sediment, those issues are reviewed thoroughly; and (5) all Veolia funds be specifically used for water infrastructure and water quality. (4/30/24, 6pm, PIH, Tr. 112-125)[15]

Witness Elisa Diutso

Witness Elisa Diutso testified that considering inflation as measured by the consumer price index of 3.4% in 2023, she believes it is absolutely abhorrent that Veolia is requesting to increase average water bill rates by 22% to 28% and average wastewater bill rates by 14% to 37%. She concludes by proposing to not increase the rates to that

[15] In OCA Statement 5, page 28, witness Terry Fought recommends that VWPA should respond to Mr. Hassenbein's public input hearing testimony, in their rebuttal testimony, regarding the brown water and sediment problems Mr. Hassenbein discussed.

extreme measure but keeping them within the inflation increases so individuals could afford the rates. (4/29/24, 6pm, PIH, Tr. 126-129)

Witness Kathleen Russell

Witness Kathleen Russell testified she is a 70-year-old senior citizen, subsiding on Social Security and her part time job. She has a fixed income and no ability to increase it, and her income is just above what would qualify for any kind of public assistance. She testified that unfortunately Veolia isn't the only one asking for more and it is becoming unaffordable and very difficult. (4/29/24, 6pm, PIH, Tr. 130-133)

Conclusion

Q. What is your conclusion regarding VWPA's requested rate increase?

A. In conclusion, I encourage the Commission to consider each of the recommendations proposed by the other OCA witnesses in this case, along with the recommendations I propose.

Q. Please state your recommendations.

A. (1) I recommend the customer notices include bill impacts for different usage levels;

(2) I recommend the customer notices include bill impacts for the systems with different proposed rate increases;

(3) I recommend the Commission reject the positive acquisition adjustments proposed for the Kensington and Overbrook systems in this case;

BEGIN CONFIDENTIAL

[redacted]

[redacted]

END CONFIDENTIAL

Q. Does this conclude your Direct Testimony?

A. Yes. However, I reserve the right to modify if necessary.

APPENDIX A

QUALIFICATIONS OF MORGAN N. DEANGELO

QUALIFICATIONS OF

MORGAN N. DEANGELO

Education:

2020 M.B.A., Wilkes University

2018 B.B.A. concentration in Finance, minor in Accounting, Wilkes University

Positions:

June 2020 – Present	Regulatory Analyst, Pennsylvania Office of Consumer Advocate
2018 – 2020	Graduate Assistant, Office of Student Development, Wilkes University

Experience:

I am currently employed by the Pennsylvania Office of Attorney General, Office of Consumer Advocate (OCA) as a Regulatory Analyst. In this position, my responsibilities include reviewing utility company filings with the Pennsylvania Public Utility Commission (Commission) and analyzing the financial, economic, rate of return, and policy issues that are relevant to the filings. Additionally, I am tasked with preparing recommendations for the OCA's involvement in utility filings with the PA PUC, writing testimony and presenting oral testimony on behalf of the OCA.

Relevant Training:

IPU Regulatory Studies - Intermediate Course, August 2020
IPU Accounting and Ratemaking Course, February 2021
SURFA Cost of Capital Workshop, April 2024

Previous Cases where testimony was submitted:

- Petition of Twin Lakes Utilities, Inc., P-2020-3020914
- Application of Pennsylvania American Water Company, A-2020-3019634
- PaPUC v. UGI Utilities, Inc. – Electric Division, R-2021-3023618
- PaPUC v. Pittsburgh Water and Sewer Authority, R-2021-3024773, R-2021,3024774, R-2021-3024779
- PaPUC v. Aqua Pennsylvania, Inc., Aqua Pennsylvania Wastewater, Inc., R-2021-3027285, R-2021-3027186
- PaPUC v. City of Lancaster – Water Department, R-2021-3026682
- Application of Aqua Pennsylvania Wastewater, Inc., A-2021-3027268
- PaPUC v. Borough of Ambler – Water, R-2022-3031704
- PaPUC v. Citizens' Electric Company of Lewisburg, PA, R-2022-3032369, C-2022-3032529 • PaPUC v. Valley Energy, R-2022-3032300, C-2022-3032533
- PaPUC v. Pennsylvania American Water Company, R-2022-3031672, C-2022-3032485, R-2022-3031673, C-2022-3032487
- PaPUC v. The York Water Company, R-2022-3031340, C-2022-3032868, C-2022-3032902, R-2022-3032806, C-2022-3032869, C-2022-3033016
- Application of Aqua Pennsylvania, Inc., A-2022-3034143
- PaPUC v. UGI Utilities, Inc. - Electric Division, R-2022-3037368
- Application of Pennsylvania American Water Company, A-2022-3037047
- PaPUC, Bureau of Investigation and Enforcement v. Planet Energy (Pennsylvania) Corporation Corporation d/b/a RiteRate Energy d/b/a Value Plus Energy, C-2023-3041126

APPENDIX B

EXHIBIT MND-1

EXHIBIT MND-2

EXHIBIT MND-3

EXHIBIT MND-7

EXHIBIT MND-8

EXHIBIT MND-9

EXHIBIT MND-1

County	Housing Units (As of 7/1/2022)	Median Household Income (in 2022)	Persons in Poverty	Unemployment Rate (March 2024)
Columbia*	29,843	$ 59,457	13.9%	3.5%
Cumberland	110,884	$ 82,849	7.9%	2.8%
Dauphin	127,758	$ 71,046	12.3%	3.1%
Luzerne*	151,347	$ 60,836	15.2%	4.0%
Montour	8,130	$ 72,626	9.3%	2.4%
Perry	20,041	$ 76,103	8.7%	2.7%
Schuylkill*	67,314	$ 63,574	12.2%	3.5%
Wyoming	12,865	$ 67,968	11.6%	2.9%
York	189,822	$ 79,183	9.1%	3.0%
data extracted from US Census				
	least amount of poverty			PA Rate: 3.4%
	most amount of poverty			US Rate: 3.8%
	* below ALICE survival budget:			$ 65,796

EXHIBIT MND-2

NOTICE OF PROPOSED RATE CHANGES

To Our Customers:

Veolia Water Pennsylvania has filed a request with the Pennsylvania Public Utility Commission (PUC) on February 16, 2024, to increase your water/wastewater rates as of April 16, 2024. This notice describes the company's rate request, the PUC's role, and what actions you can take.

Veolia Water Pennsylvania has requested an overall rate increase of approximately $16 million per year. Since the last rate case, the company will have invested over $167 million to enhance service reliability and water quality.

If the company's entire request is approved, the total water bill for a residential customer using an average of 3,500 gallons per month would increase from $49.64 to $60.79 per month or by 22%. The total water bill for an average commercial customer using 25,000 gallons per month would increase from $353.93 to $433.34 per month or by 22%. The total water bill for an industrial customer using 225,000 gallons per month would increase from $2,195.34 to $2,818.17 per month or by 28%.

If the company's entire request is approved, the total wastewater bill for a residential customer would increase from a flat rate of $46.50 to a flat rate of $77.00 per month or by 37%. The total wastewater bill for an average commercial customer using 25,000 gallons per month would increase from $197.32 to $225.33 per month or by 14%. Rates for an industrial customer using 225,000 gallons per month would increase from $683.82 to $2,295.95 per month or by 235%.

To find out your customer class or how the requested increase may affect your water or wastewater bill, contact Veolia Customer Service at 888-299-8972. The rates requested by the company may be found in Supplement No. 68 Water Tariff PA P.U.C. No.7 & Supplement No.5 Wastewater Tariff PA P.U.C. No.2. You may examine the material filed with the PUC which explains the requested increase and the reasons for it. A copy of this material is kept at Veolia's Harrisburg Office, 6310 Allentown Blvd, Suite 104, Harrisburg, PA 17112. Upon request, the company will send you the Statement of Reasons, explaining why the rate increase has been requested.

The state agency which approves rates for public utilities is the PUC. The PUC will examine the requested rate increase and can prevent existing rates from changing until it investigates and/or holds hearings on the request. The company must prove that the requested rates are reasonable. After examining the evidence, the PUC may grant all, some, or none of the request or may reduce existing rates. The PUC may change the amount of the rate increase or decrease requested by the utility for each customer class. As a result, the rate charged to you may be different than the rate requested by the company and shown above.

There are three ways to challenge a company's request to change its rates:

1. You can file a formal complaint. If you want a hearing before a judge, you must file a formal complaint. By filing a formal complaint, you assure yourself the opportunity to take part in hearings about the rate increase request. All complaints should be filed with the PUC before April 16, 2024. If no formal complaints are filed, the Commission may grant all, some or none of the request without holding a hearing before a judge.

Notice of Proposed Rate Changes
2024

2. You can send us a letter telling why you object to the requested rate increase. Sometimes there is information in these letters that makes us aware of problems with the company's service or management. This information can be helpful when we investigate the rate request. Send your letter or request for a formal complaint form to the Pennsylvania Public Utility Commission, PO Box 3265, Harrisburg, PA 17105-3265.

3. You can be a witness at a public input hearing. Public input hearings are held if the Commission opens an investigation of the company's rate increase request and if there is a large number of customers interested in the case. At these hearings you have the opportunity to present your views in person to the PUC judge hearing the case and the company representatives. All testimony given "under oath" becomes part of the official rate case record. These hearings are held in the service area of the company.

For more information, call the PUC at 1-800-692-7380. You may leave your name and address so you can be notified of any public input hearing that may be scheduled in this case.

Veolia North America
Pennsylvania Operations
6310 Allentown Blvd., Suite 104,
Harrisburg, PA 17112
www.veolianorthamerica.com

EXHIBIT MND-3

VEOLIA WATER PENNSYLVANIA
BILL FREQUENCY REPORT FOR THE MONTH OF FEBRUARY 2024
RESIDENTIAL
ALL METER SIZES

Consumption 100 GALS	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor	Percentage Of Bills
(1)	(2)	(3)	(4)	(5)	(6)	(7)
-	1,592	-	1,592	-	-	2.71%
1	508	508	2,100	508	57,144	3.58%
2	364	728	2,464	1,236	113,780	4.20%
3	333	999	2,797	2,235	170,052	4.76%
4	356	1,424	3,153	3,659	225,991	5.37%
5	458	2,290	3,611	5,949	281,574	6.15%
6	553	3,318	4,164	9,267	336,699	7.09%
7	654	4,578	4,818	13,845	391,271	8.20%
8	792	6,336	5,610	20,181	445,189	9.55%
9	878	7,902	6,488	28,083	498,315	11.05%
10	995	9,950	7,483	38,033	550,563	12.74%
11	1,009	11,099	8,492	49,132	601,816	14.46%
12	1,003	12,036	9,495	61,168	652,060	16.17%
13	1,145	14,885	10,640	76,053	701,301	18.11%
14	1,197	16,758	11,837	92,811	749,397	20.15%
15	1,151	17,265	12,988	110,076	796,296	22.11%
16	1,139	18,224	14,127	128,300	842,044	24.05%
17	1,248	21,216	15,375	149,516	886,653	26.18%
18	1,198	21,564	16,573	171,080	930,014	28.22%
19	1,309	24,871	17,882	195,951	972,177	30.44%
20	1,287	25,740	19,169	221,691	1,013,031	32.64%
21	1,233	25,893	20,402	247,584	1,052,598	34.74%
22	1,280	28,160	21,682	275,744	1,090,932	36.91%
23	1,365	31,395	23,047	307,139	1,127,986	39.24%
24	1,329	31,896	24,376	339,035	1,163,675	41.50%
25	1,261	31,525	25,637	370,560	1,198,035	43.65%
26	1,326	34,476	26,963	405,036	1,231,134	45.91%
27	1,337	36,099	28,300	441,135	1,262,907	48.18%
28	1,288	36,064	29,588	477,199	1,293,343	50.37%
29	1,203	34,887	30,791	512,086	1,322,491	52.42%
30	1,145	34,350	31,936	546,436	1,350,436	54.37%
31	1,163	36,053	33,099	582,489	1,377,236	56.35%
32	1,135	36,320	34,234	618,809	1,402,873	58.28%
33	1,080	35,640	35,314	654,449	1,427,375	60.12%
34	1,062	36,108	36,376	690,557	1,450,797	61.93%
35	1,028	35,980	37,404	726,537	1,473,157	63.68%
36	979	35,244	38,383	761,781	1,494,489	65.35%
37	960	35,520	39,343	797,301	1,514,842	66.98%
38	923	35,074	40,266	832,375	1,534,235	68.55%
39	910	35,490	41,176	867,865	1,552,705	70.10%
40	838	33,520	42,014	901,385	1,570,265	71.53%
41	834	34,194	42,848	935,579	1,586,987	72.95%
42	797	33,474	43,645	969,053	1,602,875	74.31%
43	802	34,486	44,447	1,003,539	1,617,966	75.67%
44	663	29,172	45,110	1,032,711	1,632,255	76.80%

45	753	33,885	45,863	1,066,596	1,645,881	78.08%
46	635	29,210	46,498	1,095,806	1,658,754	79.16%
47	596	28,012	47,094	1,123,818	1,670,992	80.18%
48	609	29,232	47,703	1,153,050	1,682,634	81.22%
49	562	27,538	48,265	1,180,588	1,693,667	82.17%
50	521	26,050	48,786	1,206,638	1,704,138	83.06%
51	504	25,704	49,290	1,232,342	1,714,088	83.92%
52	459	23,868	49,749	1,256,210	1,723,534	84.70%
53	429	22,737	50,178	1,278,947	1,732,521	85.43%
54	418	22,572	50,596	1,301,519	1,741,079	86.14%
55	419	23,045	51,015	1,324,564	1,749,219	86.85%
56	373	20,888	51,388	1,345,452	1,756,940	87.49%
57	365	20,805	51,753	1,366,257	1,764,288	88.11%
58	363	21,054	52,116	1,387,311	1,771,271	88.73%
59	340	20,060	52,456	1,407,371	1,777,891	89.31%
60	269	16,140	52,725	1,423,511	1,784,171	89.77%
61	288	17,568	53,013	1,441,079	1,790,182	90.26%
62	280	17,360	53,293	1,458,439	1,795,905	90.73%
63	285	17,955	53,578	1,476,394	1,801,348	91.22%
64	265	16,960	53,843	1,493,354	1,806,506	91.67%
65	222	14,430	54,065	1,507,784	1,811,399	92.05%
66	200	13,200	54,265	1,520,984	1,816,070	92.39%
67	213	14,271	54,478	1,535,255	1,820,541	92.75%
68	210	14,280	54,688	1,549,535	1,824,799	93.11%
69	184	12,696	54,872	1,562,231	1,828,847	93.42%
70	179	12,530	55,051	1,574,761	1,832,711	93.73%
71	144	10,224	55,195	1,584,985	1,836,396	93.97%
72	160	11,520	55,355	1,596,505	1,839,937	94.24%
73	139	10,147	55,494	1,606,652	1,843,318	94.48%
74	155	11,470	55,649	1,618,122	1,846,560	94.74%
75	143	10,725	55,792	1,628,847	1,849,647	94.99%
76	119	9,044	55,911	1,637,891	1,852,591	95.19%
77	123	9,471	56,034	1,647,362	1,855,416	95.40%
78	122	9,516	56,156	1,656,878	1,858,118	95.61%
79	101	7,979	56,257	1,664,857	1,860,698	95.78%
80	99	7,920	56,356	1,672,777	1,863,177	95.95%
81	100	8,100	56,456	1,680,877	1,865,557	96.12%
82	78	6,396	56,534	1,687,273	1,867,837	96.25%
83	90	7,470	56,624	1,694,743	1,870,039	96.40%
84	89	7,476	56,713	1,702,219	1,872,151	96.56%
85	75	6,375	56,788	1,708,594	1,874,174	96.68%
86	74	6,364	56,862	1,714,958	1,876,122	96.81%
87	58	5,046	56,920	1,720,004	1,877,996	96.91%
88	60	5,280	56,980	1,725,284	1,879,812	97.01%
89	67	5,963	57,047	1,731,247	1,881,568	97.12%
90	53	4,770	57,100	1,736,017	1,883,257	97.21%
91	68	6,188	57,168	1,742,205	1,884,893	97.33%
92	61	5,612	57,229	1,747,817	1,886,461	97.43%
93	57	5,301	57,286	1,753,118	1,887,968	97.53%
94	44	4,136	57,330	1,757,254	1,889,418	97.61%
95	45	4,275	57,375	1,761,529	1,890,824	97.68%
96	45	4,320	57,420	1,765,849	1,892,185	97.76%
97	47	4,559	57,467	1,770,408	1,893,501	97.84%
98	36	3,528	57,503	1,773,936	1,894,770	97.90%

99	46	4,554	57,549	1,778,490	1,896,003	97.98%
100	44	4,400	57,593	1,782,890	1,897,190	98.05%
101	35	3,535	57,628	1,786,425	1,898,333	98.11%
102	40	4,080	57,668	1,790,505	1,899,441	98.18%
103	39	4,017	57,707	1,794,522	1,900,509	98.25%
104	27	2,808	57,734	1,797,330	1,901,538	98.29%
105	28	2,940	57,762	1,800,270	1,902,540	98.34%
106	29	3,074	57,791	1,803,344	1,903,514	98.39%
107	30	3,210	57,821	1,806,554	1,904,459	98.44%
108	28	3,024	57,849	1,809,578	1,905,374	98.49%
109	38	4,142	57,887	1,813,720	1,906,261	98.55%
110	25	2,750	57,912	1,816,470	1,907,110	98.60%
111	33	3,663	57,945	1,820,133	1,907,934	98.65%
112	25	2,800	57,970	1,822,933	1,908,725	98.70%
113	27	3,051	57,997	1,825,984	1,909,491	98.74%
114	28	3,192	58,025	1,829,176	1,910,230	98.79%
115	18	2,070	58,043	1,831,246	1,910,941	98.82%
116	21	2,436	58,064	1,833,682	1,911,634	98.86%
117	14	1,638	58,078	1,835,320	1,912,306	98.88%
118	16	1,888	58,094	1,837,208	1,912,964	98.91%
119	17	2,023	58,111	1,839,231	1,913,606	98.94%
120	17	2,040	58,128	1,841,271	1,914,231	98.96%
121	9	1,089	58,137	1,842,360	1,914,839	98.98%
122	16	1,952	58,153	1,844,312	1,915,438	99.01%
123	12	1,476	58,165	1,845,788	1,916,021	99.03%
124	11	1,364	58,176	1,847,152	1,916,592	99.05%
125	18	2,250	58,194	1,849,402	1,917,152	99.08%
126	8	1,008	58,202	1,850,410	1,917,694	99.09%
127	13	1,651	58,215	1,852,061	1,918,228	99.11%
128	7	896	58,222	1,852,957	1,918,749	99.12%
129	19	2,451	58,241	1,855,408	1,919,263	99.16%
130	14	1,820	58,255	1,857,228	1,919,758	99.18%
131	9	1,179	58,264	1,858,407	1,920,239	99.20%
132	10	1,320	58,274	1,859,727	1,920,711	99.21%
133	6	798	58,280	1,860,525	1,921,173	99.22%
134	5	670	58,285	1,861,195	1,921,629	99.23%
135	3	405	58,288	1,861,600	1,922,080	99.24%
136	13	1,768	58,301	1,863,368	1,922,528	99.26%
137	5	685	58,306	1,864,053	1,922,963	99.27%
138	7	966	58,313	1,865,019	1,923,393	99.28%
139	10	1,390	58,323	1,866,409	1,923,816	99.30%
140	9	1,260	58,332	1,867,669	1,924,229	99.31%
141	8	1,128	58,340	1,868,797	1,924,633	99.33%
142	7	994	58,347	1,869,791	1,925,029	99.34%
143	5	715	58,352	1,870,506	1,925,418	99.35%
144	5	720	58,357	1,871,226	1,925,802	99.35%
145	7	1,015	58,364	1,872,241	1,926,181	99.37%
146	10	1,460	58,374	1,873,701	1,926,553	99.38%
147	6	882	58,380	1,874,583	1,926,915	99.39%
148	7	1,036	58,387	1,875,619	1,927,271	99.41%
149	6	894	58,393	1,876,513	1,927,620	99.42%
150	5	750	58,398	1,877,263	1,927,963	99.42%
151	3	453	58,401	1,877,716	1,928,301	99.43%
152	7	1,064	58,408	1,878,780	1,928,636	99.44%

153	10	1,530	58,418	1,880,310	1,928,964	99.46%
154	4	616	58,422	1,880,926	1,929,282	99.47%
155	9	1,395	58,431	1,882,321	1,929,596	99.48%
156	6	936	58,437	1,883,257	1,929,901	99.49%
158	10	1,580	58,447	1,884,837	1,930,499	99.51%
159	2	318	58,449	1,885,155	1,930,788	99.51%
160	3	480	58,452	1,885,635	1,931,075	99.52%
161	5	805	58,457	1,886,440	1,931,359	99.52%
162	3	486	58,460	1,886,926	1,931,638	99.53%
163	7	1,141	58,467	1,888,067	1,931,914	99.54%
164	5	820	58,472	1,888,887	1,932,183	99.55%
165	5	825	58,477	1,889,712	1,932,447	99.56%
166	3	498	58,480	1,890,210	1,932,706	99.56%
167	3	501	58,483	1,890,711	1,932,962	99.57%
168	1	168	58,484	1,890,879	1,933,215	99.57%
169	5	845	58,489	1,891,724	1,933,467	99.58%
170	1	170	58,490	1,891,894	1,933,714	99.58%
171	1	171	58,491	1,892,065	1,933,960	99.58%
172	1	172	58,492	1,892,237	1,934,205	99.58%
173	4	692	58,496	1,892,929	1,934,449	99.59%
174	2	348	58,498	1,893,277	1,934,689	99.59%
175	5	875	58,503	1,894,152	1,934,927	99.60%
176	2	352	58,505	1,894,504	1,935,160	99.61%
177	4	708	58,509	1,895,212	1,935,391	99.61%
178	4	712	58,513	1,895,924	1,935,618	99.62%
179	3	537	58,516	1,896,461	1,935,841	99.63%
180	3	540	58,519	1,897,001	1,936,061	99.63%
181	4	724	58,523	1,897,725	1,936,278	99.64%
182	5	910	58,528	1,898,635	1,936,491	99.65%
183	1	183	58,529	1,898,818	1,936,699	99.65%
184	6	1,104	58,535	1,899,922	1,936,906	99.66%
185	4	740	58,539	1,900,662	1,937,107	99.66%
186	1	186	58,540	1,900,848	1,937,304	99.67%
187	1	187	58,541	1,901,035	1,937,500	99.67%
188	4	752	58,545	1,901,787	1,937,695	99.67%
190	1	190	58,546	1,901,977	1,938,077	99.68%
191	3	573	58,549	1,902,550	1,938,267	99.68%
192	2	384	58,551	1,902,934	1,938,454	99.69%
193	2	386	58,553	1,903,320	1,938,639	99.69%
194	1	194	58,554	1,903,514	1,938,822	99.69%
195	3	585	58,557	1,904,099	1,939,004	99.70%
197	4	788	58,561	1,904,887	1,939,362	99.70%
198	2	396	58,563	1,905,283	1,939,537	99.71%
199	2	398	58,565	1,905,681	1,939,710	99.71%
200	3	600	58,568	1,906,281	1,939,881	99.71%
202	2	404	58,570	1,906,685	1,940,217	99.72%
203	3	609	58,573	1,907,294	1,940,383	99.72%
204	1	204	58,574	1,907,498	1,940,546	99.72%
206	1	206	58,575	1,907,704	1,940,870	99.73%
207	3	621	58,578	1,908,325	1,941,031	99.73%
208	2	416	58,580	1,908,741	1,941,189	99.73%
210	2	420	58,582	1,909,161	1,941,501	99.74%
211	1	211	58,583	1,909,372	1,941,655	99.74%
212	1	212	58,584	1,909,584	1,941,808	99.74%

213	1	213	58,585	1,909,797	1,941,960	99.74%
214	1	214	58,586	1,910,011	1,942,111	99.74%
215	1	215	58,587	1,910,226	1,942,261	99.75%
216	1	216	58,588	1,910,442	1,942,410	99.75%
217	1	217	58,589	1,910,659	1,942,558	99.75%
218	2	436	58,591	1,911,095	1,942,705	99.75%
222	1	222	58,592	1,911,317	1,943,285	99.75%
223	2	446	58,594	1,911,763	1,943,429	99.76%
224	2	448	58,596	1,912,211	1,943,571	99.76%
225	1	225	58,597	1,912,436	1,943,711	99.76%
226	1	226	58,598	1,912,662	1,943,850	99.77%
227	-	-	58,598	1,912,662	1,943,988	99.77%
228	1	228	58,599	1,912,890	1,944,126	99.77%
229	3	687	58,602	1,913,577	1,944,263	99.77%
230	2	460	58,604	1,914,037	1,944,397	99.78%
231	1	231	58,605	1,914,268	1,944,529	99.78%
233	1	233	58,606	1,914,501	1,944,791	99.78%
234	4	936	58,610	1,915,437	1,944,921	99.79%
235	2	470	58,612	1,915,907	1,945,047	99.79%
236	-	-	58,612	1,915,907	1,945,171	99.79%
238	(1)	(238)	58,611	1,915,669	1,945,419	99.79%
240	3	720	58,614	1,916,389	1,945,669	99.79%
241	2	482	58,616	1,916,871	1,945,791	99.80%
242	4	968	58,620	1,917,839	1,945,911	99.80%
245	1	245	58,621	1,918,084	1,946,259	99.80%
246	4	984	58,625	1,919,068	1,946,374	99.81%
247	1	247	58,626	1,919,315	1,946,485	99.81%
248	1	248	58,627	1,919,563	1,946,595	99.81%
250	8	2,000	58,635	1,921,563	1,946,813	99.83%
251	4	1,004	58,639	1,922,567	1,946,914	99.83%
253	1	253	58,640	1,922,820	1,947,108	99.84%
255	1	255	58,641	1,923,075	1,947,300	99.84%
256	1	256	58,642	1,923,331	1,947,395	99.84%
257	(1)	(257)	58,641	1,923,074	1,947,489	99.84%
264	1	264	58,642	1,923,338	1,948,154	99.84%
266	(1)	(266)	58,641	1,923,072	1,948,342	99.84%
268	2	536	58,643	1,923,608	1,948,532	99.84%
269	-	-	58,643	1,923,608	1,948,625	99.84%
270	3	810	58,646	1,924,418	1,948,718	99.85%
274	1	274	58,647	1,924,692	1,949,078	99.85%
275	1	275	58,648	1,924,967	1,949,167	99.85%
279	1	279	58,649	1,925,246	1,949,519	99.85%
280	1	280	58,650	1,925,526	1,949,606	99.85%
281	1	281	58,651	1,925,807	1,949,692	99.86%
284	2	568	58,653	1,926,375	1,949,947	99.86%
287	4	1,148	58,657	1,927,523	1,950,196	99.87%
288	1	288	58,658	1,927,811	1,950,275	99.87%
290	1	290	58,659	1,928,101	1,950,431	99.87%
291	1	291	58,660	1,928,392	1,950,508	99.87%
292	1	292	58,661	1,928,684	1,950,584	99.87%
293	2	586	58,663	1,929,270	1,950,659	99.88%
294	1	294	58,664	1,929,564	1,950,732	99.88%
296	1	296	58,665	1,929,860	1,950,876	99.88%
297	2	594	58,667	1,930,454	1,950,947	99.88%

298	2	596	58,669	1,931,050	1,951,016	99.89%
303	2	606	58,671	1,931,656	1,951,351	99.89%
307	3	921	58,674	1,932,577	1,951,611	99.89%
309	2	618	58,676	1,933,195	1,951,735	99.90%
311	1	311	58,677	1,933,506	1,951,855	99.90%
319	1	319	58,678	1,933,825	1,952,327	99.90%
322	1	322	58,679	1,934,147	1,952,501	99.90%
326	1	326	58,680	1,934,473	1,952,729	99.90%
330	1	330	58,681	1,934,803	1,952,953	99.91%
332	1	332	58,682	1,935,135	1,953,063	99.91%
335	1	335	58,683	1,935,470	1,953,225	99.91%
336	1	336	58,684	1,935,806	1,953,278	99.91%
337	1	337	58,685	1,936,143	1,953,330	99.91%
341	1	341	58,686	1,936,484	1,953,534	99.91%
346	2	692	58,688	1,937,176	1,953,784	99.92%
349	1	349	58,689	1,937,525	1,953,928	99.92%
357	1	357	58,690	1,937,882	1,954,304	99.92%
358	1	358	58,691	1,938,240	1,954,350	99.92%
363	-	-	58,691	1,938,240	1,954,575	99.92%
367	-	-	58,691	1,938,240	1,954,755	99.92%
371	1	371	58,692	1,938,611	1,954,935	99.93%
374	-	-	58,692	1,938,611	1,955,067	99.93%
376	2	752	58,694	1,939,363	1,955,155	99.93%
391	1	391	58,695	1,939,754	1,955,785	99.93%
392	1	392	58,696	1,940,146	1,955,826	99.93%
393	1	393	58,697	1,940,539	1,955,866	99.93%
394	2	788	58,699	1,941,327	1,955,905	99.94%
397	1	397	58,700	1,941,724	1,956,016	99.94%
398	1	398	58,701	1,942,122	1,956,052	99.94%
402	-	-	58,701	1,942,122	1,956,192	99.94%
405	-	-	58,701	1,942,122	1,956,297	99.94%
407	-	-	58,701	1,942,122	1,956,367	99.94%
411	1	411	58,702	1,942,533	1,956,507	99.94%
419	1	419	58,703	1,942,952	1,956,779	99.94%
425	1	425	58,704	1,943,377	1,956,977	99.95%
426	1	426	58,705	1,943,803	1,957,009	99.95%
432	1	432	58,706	1,944,235	1,957,195	99.95%
444	1	444	58,707	1,944,679	1,957,555	99.95%
446	1	446	58,708	1,945,125	1,957,613	99.95%
465	1	465	58,709	1,945,590	1,958,145	99.95%
467	1	467	58,710	1,946,057	1,958,199	99.96%
484	1	484	58,711	1,946,541	1,958,641	99.96%
499	1	499	58,712	1,947,040	1,959,016	99.96%
504	1	504	58,713	1,947,544	1,959,136	99.96%
507	1	507	58,714	1,948,051	1,959,205	99.96%
511	1	511	58,715	1,948,562	1,959,293	99.96%
526	1	526	58,716	1,949,088	1,959,608	99.97%
532	1	532	58,717	1,949,620	1,959,728	99.97%
547	1	547	58,718	1,950,167	1,960,013	99.97%
556	1	556	58,719	1,950,723	1,960,175	99.97%
574	1	574	58,720	1,951,297	1,960,481	99.97%
579	1	579	58,721	1,951,876	1,960,561	99.97%
589	1	589	58,722	1,952,465	1,960,711	99.98%
593	1	593	58,723	1,953,058	1,960,767	99.98%

663	1	663	58,724	1,953,721	1,961,677	99.98%
670	1	670	58,725	1,954,391	1,961,761	99.98%
672	1	672	58,726	1,955,063	1,961,783	99.98%
753	1	753	58,727	1,955,816	1,962,593	99.98%
756	1	756	58,728	1,956,572	1,962,620	99.99%
830	-	-	58,728	1,956,572	1,963,212	99.99%
841	1	841	58,729	1,957,413	1,963,300	99.99%
884	1	884	58,730	1,958,297	1,963,601	99.99%
912	1	912	58,731	1,959,209	1,963,769	99.99%
928	-	-	58,731	1,959,209	1,963,849	99.99%
1,019	1	1,019	58,732	1,960,228	1,964,304	99.99%
1,026	1	1,026	58,733	1,961,254	1,964,332	99.99%
1,338	1	1,338	58,734	1,962,592	1,965,268	100.00%
1,808	1	1,808	58,735	1,964,400	1,966,208	100.00%
5,971	-	-	58,735	1,964,400	1,970,371	100.00%
7,876	-	-	58,735	1,964,400	1,972,276	100.00%
13,847	1	13,847	58,736	1,978,247	1,978,247	100.00%

EXHIBIT MND-7

Line No.	Description	12 Months Ended 9/30/2023	Future Test Year	Fully Projected Future Test Year
1	Transaction Costs - Amortized	$ -	$ -	$ 117,570
2				
3	**Total Transaction Costs Acquisition Adjustments**		$ -	$ 117,570
4				
5	Adjustment		$ -	$ 117,570
6				
7	Acqusition Transaction Costs	Total	Amortize Over 5 Years	
8	Kensington	$ 28,240	$ 5,648	
9	Mahoning	543,227	108,645	
10	Overbrook	16,381	3,276	
11	Total	$ 587,848	$ 117,570	

Line No.	Description	12 Months Ended 12/31/2017	Future Test Year	Fully Projected Future Test Year
1	Real Estate Taxes	$ 440,481	$ 335,638 **(a)**	$ 343,022 **(b)**
2	Bethel	-	-	-
3	Mahoning Township	6,692	6,851	7,001
4				
5	**Total Real Estate Taxes**	$ 447,173	$ 342,489	$ 350,024
6				
7	Adjustment		$ (104,684)	$ 7,535
8				

Line No.	Description	12 Months Ended 12/31/2023	Future Test Year	Fully Projected Future Test Year
9				
10				
11				
12				
13	PURTA	$ 268,555	$ 274,933	$ 280,982
14	Less Refund	112,629	-	-
15	Property Tax	59,297	60,705	62,041
16				
17	Total	$ 440,481	$ 335,638	$ 343,022
18				
19	**Inflation Rate:**			
20	Future Test Year	2.38%		
21	Fully Projected Future Test Year	2.20%		
22				
23	**Reference Notes:**			
24	**(a)** Based upon historic test year (less refund), with Future Test Year inflation rate.			
25	**(b)** Based upon Future Test Year cost with Fully Projected Future Test Year inflation rate.			

Historical:

	12-Months Ending 9/30/2023	Future Test Year	Fully Projected Future Test Year
VW Pennsylvania	$ 11,905	15,049	16,891
Mahoning Township	-	239,879	309,939
	$ 11,905	$ 254,928	$ 326,830
Adjustment		$ 243,023	$ 71,902
Amortization of Mahoning Acquisition Adjustment			$ 153,034

Reference Notes:
(a) Data provided by Company.

EXHIBIT MND-8

Bureau of Technical Utility Services
Water/Wastewater Division
Data Request Set 1

Joint Application of SUEZ Water Pennsylvania, Inc. and Kensington Water Company at Docket Nos. A-2019-3012193 and A-2019-3012194

A-17. Please quantify SUEZ's projected capital improvement expenses for the first five years of SUEZ's ownership of Kensington's system broken down by major plant accounts and by year.

Answer:

There are currently no major deficiencies within Kensington's assets. As a result, SUEZ does not project any large capital improvement expenses for the first five years of SUEZ's ownership of the system. If an when a capital improvement is required, i.e., to replace a chemical pump, those expenses will be covered via SUEZ's blanket capital budgets.

SUEZ will not collect a distribution system improvement charge ("DSIC") prior to the first base rate case in which the Kensington system is included, until and unless SUEZ files an amendment to its water Long-Term Infrastructure Improvement Plan ("Amended Water LTIIP") that does not reprioritize other existing commitments in other service areas; the Commission approves the Amended Water LTIIP, as modified in the discretion of the Commission; and SUEZ files a compliance tariff supplement that incorporates Kensington into its existing water DSIC tariff, including all customer safeguards applicable thereto, after Commission approval of the Amended Water LTIIP.

Answer provided by: John D. Hollenbach, Vice President and General Manager, SUEZ Water Pennsylvania Inc.

Date: September 6, 2019

VERIFICATION

I, John D. Hollenbach, hereby state that the facts set forth above are true and correct to the best of my knowledge, information and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: Sept 5, 2019

John D Hollenbach

EXHIBIT MND-9

Joint Application of SUEZ Water Pennsylvania, Inc. and Overbrook Water Company at Docket Nos. A-2019-3014990 and A-2019-3014991
Bureau of Technical Utility Services (TUS)
Water/Wastewater Division
TUS Data Request Set 1

A-11. Please provide a five-year history of Overbrook's DEP compliance with an explanation of each violation, if any.

Answer:

Please see Attachment A-11.

Answer provided by:

William Kelvington, Director of Operations, Suez Water Pennsylvania Inc.

Date:

January 17, 2020

*** PWSID = 2400082 | SYSTEM NAME = OVERBROOK WATER COMPANY ***
*** SystemType = COMMUNITY | DEP REGION - NORTHEAST ***
*** eFACTS SiteID= 4924 ***

Violation Information for Federal Fiscal Years 2016 through 2020

Contaminant ID	Sample Point ID	Violation ID	Violation Type	Sample Type	Violation Awareness Date	Compliance Value	Enforcement Action 1	Enforcement Action 2	Enforcement Action 3	Enforcement Action 4	Enforcement Action 5	Enforcement Action 6	Fiscal Year
CCR REPORT		31440	CCR NOT SUBMITTED		08/21/2019		VIOLATION NOTICE	REPORT RECEIVED LATE	COMPLIANCE ACHIEVED				2019
DI (2-ETHYLHEXYL) PHTHALATE (S	102	04270	FAILURE TO MONITOR/REPORT ROUTINE SAMPLES FOR CONTAM. SPECIFIED	ENTRY POINT	01/22/2018		VIOLATION MEETING	PUBLIC NOTICE REQ	COMPLIANCE ACHIEVED	PUBLIC NOTICE ISSUED			2018
CCR REPORT		25519	CCR NOT SUBMITTED		08/20/2018		NOTICE OF VIOLATION	REPORT RECEIVED LATE	COMPLIANCE ACHIEVED				2018

VERIFICATION

I, William C. Kelvington, hereby state that the facts set forth above are true and correct to the best of my knowledge, information and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: February 28, 2020

County	Housing Units (As of 7/1/2022)	Median Household Income (in 2022)	Persons in Poverty	Unemployment Rate (March 2024)
Columbia*	29,843	$ 59,457	13.9%	3.5%
Cumberland	110,884	$ 82,849	7.9%	2.8%
Dauphin	127,758	$ 71,046	12.3%	3.1%
Luzerne*	151,347	$ 60,836	15.2%	4.0%
Montour	8,130	$ 72,626	9.3%	2.4%
Perry	20,041	$ 76,103	8.7%	2.7%
Schuylkill*	67,314	$ 63,574	12.2%	3.5%
Wyoming	12,865	$ 67,968	11.6%	2.9%
York	189,822	$ 79,183	9.1%	3.0%
data extracted from US Census				
	least amount of poverty			PA Rate: 3.4%
	most amount of poverty			US Rate: 3.8%
	* below ALICE survival budget:			$ 65,796

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:		
v.	:	Docket Nos.	R-2024-3045192
Veolia Water Pennsylvania, Inc.	:		R-2024-3045193

VERIFICATION

I, Morgan N. DeAngelo, hereby state that the facts above set forth in my Direct Testimony, OCA Statement 1, are true and correct (or are true and correct to the best of my knowledge, information, and belief) and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: May 17, 2024

Signature: Morgan N. DeAngelo
Morgan N. DeAngelo

Address: Office of Consumer Advocate
555 Walnut Street
5th Floor, Forum Place
Harrisburg, PA 17101-1923

OCA St. 2

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION	:	
	:	R-2024-3045192 (Water)
V.	:	R-2024-3045193 (Wastewater)
	:	
VEOLIA WATER PENNSYLVANIA, INC.	:	

DIRECT TESTIMONY
OF
LAFAYETTE K. MORGAN, JR.

ON BEHALF OF THE
OFFICE OF CONSUMER ADVOCATE

MAY 17, 2024

EXETER
ASSOCIATES, INC.
10480 Little Patuxent Parkway, Suite 300
Columbia, Maryland 21044

TABLE OF CONTENTS

I. Introduction

Q. **PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A. My name is Lafayette K. Morgan, Jr. My business address is 10480 Little Patuxent Parkway, Suite 300, Columbia, Maryland, 21044. I am a Public Utilities Consultant working with Exeter Associates, Inc. ("Exeter"). Exeter is a consulting firm specializing in issues pertaining to public utilities.

Q. **PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND QUALIFICATIONS.**

A. I received a Master of Business Administration degree from The George Washington University. The major area of concentration for this degree was Finance. I received a Bachelor of Business Administration degree with concentration in Accounting from North Carolina Central University. I was previously a CPA licensed in the state of North Carolina, however, in 2009, I elected to place my license in an inactive status as I focused on start-up activities for other business interests.

Q. **PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE**.

A. From May 1984 until June 1990, I was employed by the North Carolina Utilities Commission - Public Staff in Raleigh, North Carolina. I was responsible for analyzing testimony, exhibits, and other data presented by parties before the North Carolina Utilities Commission. I had the additional responsibility of performing the examination of books and records of utilities involved in rate proceedings and summarizing the results into testimony and exhibits for presentation before that Commission. I was also involved in numerous special projects, including participating in compliance and prudence audits of a major utility, and conducting research on several issues affecting natural gas and electric utilities.

From June 1990 until July 1993, I was employed by Potomac Electric Power Company (Pepco) in Washington, D.C. At Pepco, I was involved in the preparation of the cost of service, rate base and ratemaking adjustments supporting Pepco's requests for revenue increases in the State of Maryland and the District of Columbia.

From July 1993 through 2010, I was employed by Exeter as a Senior Regulatory Analyst. During that period, I was involved in the analysis of the operations of public utilities, with emphasis on utility rate regulation. I reviewed and analyzed utility rate filings, focusing primarily on revenue requirements determination. This work involved natural gas, water, electric, and telephone companies.

In 2010, I left Exeter to focus on start-up activities for other ongoing business interests. In late 2014, I returned to Exeter continuing to work in a similar capacity as prior to my hiatus.

Q. **HAVE YOU PREVIOUSLY TESTIFIED IN REGULATORY PROCEEDINGS ON UTILITY RATES?**

A. Yes. I have previously presented testimony and affidavits on numerous occasions before the Colorado Public Utilities Commission, the Georgia Public Service Commission, the Illinois Commerce commission, the Kansas Corporation Commission, the Kentucky Public Service Commission, the Louisiana Public Service Commission, the Maine Public Utilities Commission, the Maryland Public Service Commission, the Massachusetts Department of Public Utilities, the North Carolina Utilities Commission, the Public Utilities Commission of Ohio, the Corporation Commission of Oklahoma, the Pennsylvania Public Utility Commission, the Philadelphia Gas Commission, the Philadelphia Water, Sewer and Storm Water Rate Board, the Public Utilities Commission of Rhode Island, the Public Service

Commission of South Carolina, the Public Utility Commission of Texas, the Vermont Public Service Board, the Virginia Corporation Commission, the West Virginia Public Service Commission, the Wyoming Public Service Commission, and the Federal Energy Regulatory Commission ("FERC"). My resume is attached hereto as Appendix

Q. **ON WHOSE BEHALF ARE YOU APPEARING?**

A. I am presenting this testimony on behalf of the Pennsylvania Office of Consumer Advocate ("OCA").

Q. **WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

A. Exeter has been retained by the OCA to assist in the evaluation of the general rate filing submitted by Veolia Water Pennsylvania, Inc. ("Veolia" or "the Company") for its water and wastewater services. I have been asked by the OCA to present my findings with respect to Veolia's revenue requirement and its proposed rate increase. I calculate Veolia's rate base, pro forma operating income under present rates, and overall revenue deficiency based upon my recommended adjustments to Veolia's claims. My findings are based upon incorporating the recommendations and findings of other OCA witnesses who are also presenting testimony in this proceeding.

Q. **IN CONNECTION WITH THIS CASE, HAVE YOU PERFORMED AN EXAMINATION AND REVIEW OF VEOLIA'S TESTIMONY AND EXHIBITS?**

A. Yes. I have reviewed Veolia's testimonies, exhibits and its rate filing. I have also reviewed Veolia's responses to the OCA, the Office of Small Business Advocate ("OSBA"), and the Bureau of Investigation & Enforcement ("I&E") interrogatories.

Q. **WHAT PERIOD HAVE YOU USED IN MAKING YOUR DETERMINATION OF VEOLIA'S REVENUE REQUIREMENTS?**

A. I used the Fully Projected Future Test Year (FPFTY) ending October 31, 2025, as filed by Veolia, as the basis for determining its rate year revenue requirements.

Q. **HAVE YOU PREPARED SCHEDULES TO ACCOMPANY YOUR TESTIMONY?**

A. Yes. I have prepared Schedules LKM-W-1 through LKM-W-19 for the water revenue requirement. Schedule LKM-W-1 provides a summary of revenues and expenses under present and proposed rates. Schedule LKM-W-2 summarizes my adjustments to Veolia's FPFTY rate base. Schedule LKM-W-3 provides a summary of my adjustments to the FPFTY revenues and expenses and the resulting operating income. The various adjustments that I am recommending to the Company's claimed rate base, revenues and operating expenses are presented on Schedules LKM-W-4 through LKM-W-19.

For the wastewater operations, I have prepared a similar set of schedules. LKM-WW-1 through LKM-WW-12 for the wastewater revenue requirement. Schedule LKM-WW-1 provides a summary of revenues and expenses under present and proposed rates. Schedule LKM-WW-2 summarizes my adjustments to Veolia's FPFTY rate base. Schedule LKM-WW-3 provides a summary of my adjustments to the FPFTY revenues and expenses and the resulting operating income. The various adjustments that I am recommending to the Company's claimed rate base, revenues and operating expenses are presented on Schedules LKM-WW-4 through LKM-WW-12.

Q. **HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?**

A. First, I provide a summary of Veolia's filing and my findings and recommendations. Then, I document and explain each of the adjustments I made to Veolia's water and

wastewater rate base and operating income to arrive at the FPFTY revenue requirement shown on Schedules LKM-W-1 and LKM-WW-1. My discussion of these adjustments is organized into sections corresponding to the issue being addressed. These sections are set forth in the Table of Contents for this testimony.

II. Summary and Recommendations

Q. **PLEASE SUMMARIZE THE RATE RELIEF REQUESTED BY VEOLIA IN ITS FILING.**

A. On February 16, 2024, Veolia filed its base rate case with the Pennsylvania Public Utility Commission (the Commission) for a total water rate increase of $15,494,620 and a total wastewater rate increase of $468,719. On a total combined Company basis, the increase in revenue is $16,063,339. The $16,063,339 increase is based on the fully projected future test year ending October 31, 2025. Based on the Company's request, the total water bill for a residential customer using an average of 3,500 gallons of water per month would increase from $49.64 to $60.79 or by 22 percent. The total water bill for a commercial customer with a 2" meter using 25,000 gallons of water per month would increase from $353.93 to $433.34 or by 22 percent, and the total water bill for an industrial customer with a 4" meter using 100,000 gallons of water per month would increase from $1,191.56 to $1,514.71 or by 27 percent.

For wastewater customers, the total wastewater bill for a residential customer would increase from a flat rate of $56.20 to $77.00, or by 37 percent. The total wastewater bill for a commercial customer using 25,000 gallons of water per month would increase from $197.32 to $225.33, or by 14 percent, and the total wastewater bill for an industrial customer using 100,000 gallons of water per month would increase from $467.72 to $1,569.40 or by 236 percent.

Q. **PLEASE SUMMARIZE YOUR FINDINGS AND RECOMMENDATIONS.**

A. As shown on Schedule LKM-W-1, I have determined that Veolia's proposed revenue increase of $15,494,620 should be decreased by $10,928,031 for the FPFTY ending October 31, 2025. The resulting increase in revenues would be $4,566,589. With respect to wastewater services, on Schedule LKM-WW-1, I have determined that Veolia's proposed wastewater annual revenue increase of $468,719 should be decreased by $40,860 for the FPFTY. This would result in a revenue increase of $427,859. In summary, I am recommending an overall increase of no more than $4,994,448 on a combined basis. The increase in revenues that I am recommending is based on the overall rate of return on rate base of 6.85 percent as recommended by OCA witness Garrett. In comparison, Veolia is seeking an overall return of 8.08 percent.

Q. **WHAT IS OCA WITNESS GARRETT RECOMMENDING WITH RESPECT TO THE CAPITAL STRUCTURE AND RATE OF RETURN?**

A. Mr. Garrett is recommending a capital structure for ratemaking purposes that is composed of 50 percent equity and 50 percent long-term debt instead of the Company-proposed 46 percent long-term debt and 54 percent common equity. For the cost of capital, Mr. Garrett is recommending a return on equity of 9.1 percent.

Q. **WHAT IS THE EFFECT OF MR. GARRETT'S CAPITAL STRUCTURE ON THE COMPANY'S PROPOSED INCREASE IN THE OVERALL REVENUE REQUIREMENT?**

A. Mr. Garrett's recommended capital structure decreases the requested revenue increase by $1,486,877 for water operations and $23,777 for wastewater operations. This amount is based upon the Company's cost of service except for using Mr. Garrett's recommended capital structure. Stated differently, for purposes of illustration, the other

cost of capital components and the cost of service remained at the Company requested values.

Q. **WHAT IS THE EFFECT OF MR. GARRETT'S CHANGE IN THE RETURN ON EQUITY ("ROE") ON THE COMPANY'S REVENUE REQUIREMENT?**

A. Mr. Garrett's recommended ROE of 9.1 percent reduces Veolia's requested revenue increase by $4,555,900 for water operations and $72,851 for wastewater operations. This amount is based upon the Company's cost of service except for using Mr. Garrett's recommended ROE.

Q. **WHAT IS THE COMBINED EFFECT OF MR. GARRETT'S RECOMMENDED CAPITAL STRUCTURE AND RETURN ON EQUITY ON THE COMPANY'S REVENUE REQUIREMENT?**

A. The combined effect of Mr. Garrett's capital structure and ROE decreases the Company's water operations revenue requirement by $5,696,133 and wastewater operations by $91,085, assuming all else remains unchanged.

III. OCA's Adjustments to the Cost of Service

Acquisition Adjustments

Q. **PLEASE EXPLAIN YOUR ADJUSTMENT TO THE COMPANY'S ACQUISITION ADJUSTMENT CLAIMS.**

A. The Company has requested to include positive acquisition adjustments related to its acquisition of the Kensington, Overbrook and Mahoning Township service areas. OCA witness Morgan DeAngelo has evaluated the Company's requested claims, and she recommends that the costs of Kensington and Overbrook be removed. For Mahoning, rather than amortize the amount more than depreciated original cost, Ms. DeAngelo recommends that the entire purchase price be allowed in rate base as the rate making

rate base of that acquisition was determined in the acquisition proceeding because it was filed pursuant to Section 1329. On Schedule LKM-W-5, I present the adjustment to reduce rate base by $448,470 to remove the Kensington and Overbrook acquisition adjustments from the water operations rate base. On that schedule, I also remove the related amortization of the acquisition adjustments. This results in a decrease in operating expenses of $49,830.

Plant Held for Future Use

Q. **PLEASE EXPLAIN YOUR ADJUSTMENT TO THE COMPANY'S PLANT HELD FOR FUTURE USE CLAIM.**

A. The Company has included Plant Held for Future Use in its water rate base claim. Plant Held for Future Use is typically not used and useful in providing service, so it is not eligible for inclusion in rate base. Therefore, I am recommending an adjustment to remove the $52,964 from the water operations rate base on Schedule LKM-W-6. Additionally, in the response to OCA-7-23, Veolia also acknowledged that this account should be removed from the cost of service.

Allowance for Cash Working Capital

Q. **HOW DO YOU DEFINE CASH WORKING CAPITAL?**

A. For ratemaking purposes, cash working capital is the investment that a utility needs to have on hand to fund its day-to-day operations. Positive cash working capital represents funds provided by investors that should be included in rate base so that the utility earns a return on it. Negative cash working capital represents funds supplied by ratepayers that should be recognized as a rate base offset to reflect funds advanced for operations by ratepayers.

Q. **HOW DID THE COMPANY REFLECT CASH WORKING CAPITAL IN ITS FILING?**

A. The Company's cash working capital allowance is calculated based upon the results of a lead/lag study. A lead/lag study is an in-depth analysis that measures the difference between the lapse of time when a company receives revenue for the provision of service and the lapse of time when a company pays for the costs of providing service. This difference is expressed as a number of days and is used to calculate the level of investor-supplied funds advanced for operations, or the funds advanced by customers for operations.

Q. **WHAT CHANGES HAVE YOU MADE TO THE ALLOWANCE FOR CASH WORKING CAPITAL?**

A. I have made an adjustment to cash working capital to reduce rate base. This adjustment is the result of reflecting the adjustments I have recommended be made to Operation & Maintenance ("O&M") expenses and taxes in the lead/lag study. The O&M expenses are the bases on which the lead/lag working capital is calculated. Therefore, when deriving the allowance for cash working capital, it is appropriate to reflect any O&M expense adjustment made to the cost of service in the lead/lag study. On Schedule LKM-W-4, I present this adjustment which reduces the working capital allowance for water operations by $59,362. On Schedule LKM-WW-4, I present a similar adjustment to wastewater operations which reduces the working capital allowance by $471.

Payroll Expense

Q. **PLEASE EXPLAIN YOUR ADJUSTMENT TO PAYROLL EXPENSE.**

A. Veolia calculated its annualized payroll expense based upon 106 actual number of employees, 3 vacancies and 11 new employees. The Company's adjustment includes

the annualization of the Short-term Incentive Compensation plan, Overtime Payroll, Stand-by Pay and Substitution payroll costs. The Company's FPFTY payroll costs are calculated off the historical test year amounts which were escalated to reflect the payroll rate increases during the FTY and the FPFTY. Hence, the FTY annual payroll amount for the existing employees was derived by applying a 2.85 percent pay rate increase to the HTY annual payroll amount. Likewise, the FPFTY annualized payroll for the existing employees was determined by applying a 2.75 percent wage rate increase to the FTY payroll amount. With respect to the employee vacancies and new employees, the Company included its estimate for the annual costs of these employees to the FTY payroll, and for the FPFTY, the Company escalated the cost of these two groups by the FPFTY annual wage increase of 2.75 percent.

I have made several adjustments to the annual level of payroll. First, I adjusted payroll expense to remove the costs associated with the 3 vacant positions. During the HTY the Company averaged approximately 101 employees. For the 12 months ended September 30, 2021, and 2022, the Company averaged less than 100 employees. These average amounts are less than the 109 employees the Company is claiming *before* reflecting the proposed new hires that were included in the FPFTY payroll. I am removing the vacant positions to recognize that there is generally a level of vacancy due to employee attrition. Employee attrition is not a phenomenon unique to Veolia but is common for most organizations. Inclusion of the costs of the 3 vacant positions would likely lead to an over recovery of payroll costs. The removal of the payroll costs for the vacant positions results in a decrease of $220,492.

The second adjustment I am recommending relates to the Company's proposed 11 new positions. According to the response to OCA-7-7, 4 of the 11 positions are on

hold for hiring and 1 position has been filled internally. Therefore, I have removed the annual payroll costs related to 5 positions from the Company's claim. These 5 positions are composed of 4 positions that Veolia has put on hold and 1 position that was filled internally. The 4 positions were removed because hiring those employees is not known and certain. The annual payroll costs of the 1 position that was filled internally has been removed because the cost of the individual's previous position remains in the cost of service. If not removed, the payroll costs related to that individual will be double counted. The removal of the vacant positions payroll costs results in a decrease of $575,703.

My adjustment to the FPFTY payroll expense is summarized on Schedule LKM-W-7 for water. The combination of the above adjustments results in a decrease in water operations payroll expense of $821,808.

Chemical Expense

Q. **PLEASE EXPLAIN VEOLIA'S ADJUSTMENT TO CHEMICAL EXPENSE FOR WATER OPERATIONS.**

A. For water operations, the Company has proposed an adjustment to increase its chemical expense by $369,000 over the HTY amount. Veolia's approach to determining its FPFTY level of chemical expense for water operations is derived in two steps. The first step is based upon calculating the annualized chemical expense for the FTY. The second step involves escalating the annualized FTY expense by applying an inflation escalation rate to the Company's annualized FTY chemical expense for water operations.

Q. **WHAT IS YOUR CONCERN ABOUT THE COMPANY'S CHEMICAL EXPENSE CLAIM FOR WATER OPERATIONS?**

A. I am concerned about the reasonableness of the derivation of the annualized FTY chemical expense, which is then escalated to derive the FPFTY level of chemical expense for water operations. To determine the annualized chemical expense for water, Veolia calculates a projected level of chemical expense for 2024 based on estimated chemical usage volumes and projected unit prices. However, the Company does not provide any information showing how the annual volume was derived nor does it provide the supporting documentation for the estimated unit prices. The supporting data to which I was referred is the response to I&E-RE-16-D. In that data request response, the Company presents a calculation of the chemical expense for 2021, 2022, 2023 and 2024. The amounts presented for 2021, 2022 and 2023 in the response to I&E-RE-16-D does not equal any of the amounts presented in the Company's adjustment to chemical expense (Exhibit No. GRH-3, Schedule-10, Adjustment No. 9) for those years. The FTY chemical expense was derived by applying the Company's estimate of the average unit price as of August 2024 to an estimated annual usage amount. When one compares the annual usage amounts for each of the years presented, they are the same usage volume for each year. In other words, there is no way to compare the historical usage to what was claimed for the FTY. Given the annual expense amounts provided in the response to I&E-RE-16-D, it is clear that the amounts presented in that response were determined independently and on a different basis than the actual expense presented in the cost of service.

For the FPFTY chemical expense for water operations, the Company derived the chemical costs by escalating its FTY estimate by a 2.20 percent inflation rate to derive the water operations FPFTY chemical expense claim.

Q. **WHAT ADJUSTMENT HAVE YOU MADE TO THE WATER OPERATIONS CHEMICAL EXPENSE?**

A. I am recommending an adjustment to reverse the Company's adjustment to chemical expense for two reasons. First, as I explained above, I do not find the level of chemical expense presented by the Company to be reasonable. The second reason is that to derive the FPFTY chemical expense, the Company relies on an inflation escalation adjustment. I do not believe the use of an inflation escalation factor should be the sole basis for determining the level of the FPFTY chemical or other O&M expenses. Since the Company has used inflation escalation to determine the FPFTY expense for several categories of expenses, I will explain my disagreement with the use of inflation escalation to determine the FPFTY chemical expense, as well as other expenses, in a separate section later in this testimony. Based on the foregoing explanation, I am recommending an adjustment to decrease water operations chemical expense by $368,507 on Schedule LKM-W-8.

Q. **PLEASE EXPLAIN VEOLIA'S ADJUSTMENT TO CHEMICAL EXPENSE FOR WASTEWATER OPERATIONS.**

A. For wastewater operations, the Company has proposed an adjustment to increase its chemical expense by $230 over the HTY amount. Veolia's calculations are based solely on escalating the HTY amount by its inflation rate. First, the Company calculates the wastewater chemical expense 3-year average. The company then applies an inflation escalation of 2.375 percent to the 3-year average amount to derive the FTY level of

expense. To derive the FPFTY level of expense, the Company applies a 2.20 percent inflation escalation rate to the FTY expense that it calculated to derive the FPFTY amount.

Q. **WHAT ADJUSTMENT HAVE YOU MADE TO THE WASTEWATER OPERATIONS CHEMICAL EXPENSE?**

A. I am recommending an adjustment to reverse the Company's increase in chemical expense. As I explained above, I do not believe the use of an inflation escalation should be the sole basis to determine the FPFTY O&M expenses. I will explain my disagreement with the use of inflation escalation to determine the FPFTY chemical expense, as well as other expenses, in a separate section later in this testimony. Based on the foregoing explanation, I am recommending an adjustment to decrease wastewater operations chemical expense by $230 on Schedule LKM-WW-10.

Purchased Power

Q. **PLEASE EXPLAIN YOUR ADJUSTMENT TO PURCHASED POWER EXPENSE.**

A. For the water operations, the Company derived its Purchased Power expense for the FPFTY by first developing the FPFTY cost per kWh using an estimate of the purchased power rate based on a 3-year trend of the purchased power cost per kWh. The Company then adjusted the HTY and FTY by the percentage change in the trended rate to calculate the annual level of purchased power expense.

I am recommending an adjustment which reverses the Company's adjustment. I am reversing the Company's adjustment because I do not believe the Company's approach to estimating the FPFTY purchased power expense is reasonable. Power costs are composed of two primary components. The delivery (or distribution) service and

the power supply service. The distribution service is regulated, and rates are fixed until changed by the Commission. Hence, the distribution rate generally does not change annually. The power supply costs are generally governed by contractual arrangements for large users that spell out when prices might change and by how much. Thus, the Company should have a more reasonable means of determining its power supply, besides cost trending, because of its service relationship with its power supply provider. Since the delivery component of power costs is not likely to change annually, it is unreasonable to escalate the delivery component annually as done by Veolia. Finally, the Company held its annual kWh consumption steady, at the HTY level, for the projected periods. This is not likely because power consumption fluctuates from year to year, as can be seen on Exhibit No. GRH-3, Schedule-8, Adjustment No.7.

The Company did not propose a purchased power adjustment for wastewater operations.

On Schedule LKM-W-9, I am recommending an adjustment which reduces purchased power expense for water operations by $743,710.

Transportation Expense

Q. **PLEASE EXPLAIN YOUR ADJUSTMENT TO TRANSPORTATION EXPENSE.**

A. For the water operations, the Company derived its transportation expense in two components. First, the Company separated the transportation costs by identifying the lease costs and non-lease related costs. The non-lease related costs were escalated by the inflation rate to derive the FPFTY increase in non-lease related transportation expense. The Company then added the lease costs which were based on the number of vehicles at the average monthly lease cost.

The adjustment I am recommending removes the inflation escalation component of the transportation expense from the water operations cost of service. This adjustment is presented on Schedule LKM-W-10.

Rate Case Expense

Q. **PLEASE EXPLAIN YOUR ADJUSTMENT TO RATE CASE EXPENSE.**

A. The Company is proposing to recover the total rate case expenses related to this proceeding of $709,379 over a three-year period. I am recommending a five-year normalization instead. The five-year normalization is based upon the time period between the prior rate case and this proceeding. Therefore, on Schedule LKM-W-11, I have decreased rate case expense by $94,584 for water operations. The Company did not include a rate case expense adjustment for wastewater operations.

Inflation Escalation

Q. **PLEASE EXPLAIN THE COMPANY'S INFLATION ESCALATION ADJUSTMENTS?**

A. Earlier in my testimony, I explained that the Company based its rate increase request on a FPFTY. As such, it is expected that the cost of service would be based on forecasted cost elements. In Veolia's cost of service it has based a number of adjustments primarily on inflation escalation. According to Company witness Herbert, the inflation rates used to calculate the inflation-related adjustments for the FTY and FPFTY are based on the Consumer Price Index ("CPI") as published by the Blue Chip Financial Forecasts as of September 1, 2023.[1] His calculation averages four quarters of projected 2024 CPI for the FTY inflation rate. For the FPFTY inflation rate, the rate he used is based on the first quarter of 2025 forecasted CPI which he holds constant for

[1] Direct testimony of Gregory Herbert at 15.

all four quarters. The expenses that are adjusted based on inflation escalation, for both water and wastewater, are:

- Group Health and Life Insurance
- Pension
- Post-Retirement Benefits Other than Pensions ("PBOP")
- 401K
- Materials & Supplies
- Lab Testing Fees
- Purchased Water
- Chemicals Expense
- Fuel for Power Production
- Outside Contractors
- Outside Professional Services
- Transportation
- Workers Compensation
- Office Expense
- Rental of Equipment
- Fringe Benefits Transferred
- Other O&M Expense
- Real Estate Taxes

Q. **IS THE COMPANY'S INFLATION ESCALATION ADJUSTMENT REASONABLE?**

A. No. I disagree with the use of inflation escalation solely as the basis of determining the FPFTY level of expenses. These inflationary adjustments are not known and measurable because they are blanket cost increases that are based on a basket of goods and services in the general economy. In fact, the CPI is based on a basket of household goods and services. Many of the expenses to which the Company applied the inflation escalation are not household goods and services, so their price changes are not being measured by the CPI. More importantly, for ratemaking purposes, the costs, and cost increases included in the cost of service should be related to the specific activities, initiatives, and plana that the Company intends to undertake during the rate effective

period. Those costs should be based upon evidence or documentation that can be identified, supported, and calculated with a degree of certainty. The inflation escalation does none of those things. For example, the inflation rate itself, used by the Company to escalate costs for the FPFTY expenses is essentially an estimate of an estimate. On Exhibit No. GRH-3, Schedule 31, Adjustment No. 30, the reference note indicates that the first quarter 2025 inflation rate (which is an estimate) is being held constant for all quarters of 2025 because an index for those quarters is not available. Hence, the first quarter estimated inflation rate is being used as an estimate for the other quarters.

I disagree with the Company's approach to developing the FPFTY cost of service not only because it is not based upon planned activities or normal Company operations, but I do not believe the Company's blanket inflation approach is what was envisioned by Act 11.

Q. **WHAT IS THE BASIS FOR YOUR STATEMENT THAT THE INFLATION ESCALATION APPROACH USED BY THE COMPANY WAS NOT WHAT WAS ENVISIONED BY ACT 11**?

A. In the Final Implementation Order in Docket No. M-2012-2293611, the Commission stated the basis upon which FPFTY amounts will be evaluated. On page 5 of the Final Implementation Order in Docket No. M-2012-2293611, the Commission stated:

> Section 315 of the Code, 66 Pa. C.S. § 315, contains the burden of proof a utility has in various proceedings before the Commission. With the enactment of Act 11, the burden of proof standard for utilities in rate proceedings has been amended to permit use of either a future test year or a "fully-projected future test year" in rate cases. The fully-projected test year is defined as the 12-month period that begins with the first month that the new rates will be placed into effect, after application of the full suspension period permitted under Section 1308(d). *See* 66 Pa. C.S. § 1308(d).

Then on page 7 of the same order, the Commission stated:

> Moreover, we expect that in subsequent base rate cases, the utility will be prepared to address the accuracy of the fully-projected test year projections made in its prior base rate case…

§ 315 (e) of the Pennsylvania code addresses the burden of proof. It states:

> **…**Whenever a utility utilizes a future test year or a fully projected future test year in any rate proceeding and such future test year or a fully projected test year forms a substantive basis for the final rate determination of the commission, the utility shall provide, as specified by the commission in its final order, appropriate data evidencing the accuracy of the estimates contained in the future test year or a fully projected future test year, and the commission may after reasonable notice and hearing, in its discretion, adjust the utility's rates on the basis of such data. Notwithstanding section 1315 (relating to limitation on consideration of certain costs for electric utilities), the commission may permit facilities which are projected to be in service during the fully projected future test year to be included in the rate base.

It is clear from reading the Commission's order and § 315 (e) that the accuracy and the reasonableness of the projections are expected. This means that projections should be based upon actual planned activities using the best cost estimates available, so that the accuracy can be evaluated. Escalating the historical amounts by an inflation factor is not a method of cost projection for ratemaking because it bears no relationship to the activities planned for the rate year. In fact, the utility does not meet its burden of proof by applying the inflation to all its costs because there is no way to assess the reasonableness of the FPFTY expenses relative to HTY or the FTY expenses. In my experience with other utilities filing a FPFTY, the utilities have been able to demonstrate and explain reasons for FPFTY cost changes based upon specific causes such as unit price increases, planned activities, and abnormal activity in the HTY. For Veolia, no such detail or causes can be provided because the only explanation is the choice of the inflation escalation rate.

Q. **ARE THERE OTHER REASONS TO REMOVE THE INFLATION ESCALATION FROM THE COSTS OF SERVICE?**

A. Yes. For several of these expenses, the inflation escalation is improper because there is not a direct correlation of changes in the expense with the change in inflation, or the expense is based on cost elements that are fixed by contract or some other mechanism. I placed the expenses in groups and discuss them below.

The first group is composed of:

- Group Health and Life Insurance
- Pension
- Post-Retirement Benefits Other than Pensions ("PBOP")
- 401k
- Fringe Benefits Transferred
- Workers Compensation

These expenses change from year to year based on participants in the plan and actuarial methods. The 401k expense is based on participants and salary levels since contributions to the 401k are based on a percentage of the participants' salaries and wages. Therefore, it is not appropriate to use the inflation factor solely as the means of estimating the future level of these expenses.

The second group is composed of:

- Purchased Water
- Real Estate Taxes
- Rental of Equipment

In this group, purchased water is generally subject to a tariff that does not normally change from year to year. Real Estate Taxes rates are determined by municipal authority and not pegged to inflation. Finally, equipment rental costs are generally subject to a lease which are unchanged during the term of the lease. Again, it is not appropriate to use the inflation factor solely as the means of estimating the future level of these expenses.

Q. **PLEASE SUMMARIZE YOUR ADJUSTMENT TO REVERSE THE COMPANY'S INFLATION ESCALATION ADJUSTMENTS.**

A. I have already identified the adjustments made by the Company based on inflation escalation. I have compiled these adjustments into one schedule which I summed up to remove from the cost of service. On Schedule LKM-W-12, I present my adjustment which reduces the water O&M expenses by $475,389. On Schedule LKM-WW-10, I present my adjustment which reduces the wastewater O&M expenses by $910.

Acquisition Transaction Amortization

Q. **PLEASE EXPLAIN YOUR ADJUSTMENT TO THE AMORTIZATION OF TRANSACTION COSTS RELATED TO ACQUISITIONS.**

A. In the water operations cost of service, the Company has proposed an adjustment to amortize the transaction costs incurred by the Company for the Kensington, Overbrook and Mahoning Township acquisitions over a five-year period. The Company states that "the five-year amortization period is reasonable, as it acknowledges the expense should be spread over a period of years to mitigate the burden of recovering these costs from revenues of customers' rates."[2]

The adjustment I am recommending normalizes the transaction costs over a ten-year period instead of the five years proposed by the Company. I have chosen the ten-year period to be consistent with the Company's proposed amortization of acquisition adjustment. The acquisition transaction costs are costs incurred to acquire and establish ownership of the Kensington, Overbrook and Mahoning Township service areas.

[2] Response to OCA-7-42.

Since I consider the transaction costs to be one of the components of the cost of acquiring those systems, I see no reason to have a different recovery period from the acquisition adjustment. Moreover, consistent with the Company's acknowledgement of mitigating the burden of recovering these costs from its customers, I believe the ten-year period will accomplish the mitigation of the cost burden on customers. On Schedule LKM-W-13, I present this adjustment to decrease the amortization acquisition transaction costs by $58,785.

Purchased Water Expenses

Q. **PLEASE FURTHER CLARIFY YOUR ADJUSTMENT TO THE COMPANY'S PURCHASED WATER EXPENSE.**

A. The Company's purchased water expense for the FPFTY is determined from escalating the purchased water expense for the Veolia Water Pennsylvania and Mahoning Township service areas by the inflation factor and increasing the Bethel Water service area to reflect the January 2024 rate increase from the Bethel/Chester Water Authority.

Earlier, I explained that I was recommending an adjustment to remove the inflation escalation of purchased water. However, I have allowed the recovery of the Bethel/Chester Water Authority rate increase based upon the supporting documentation provided by the Company.

Depreciation Expense

Q. **PLEASE EXPLAIN THE ADJUSTMENT TO DEPRECIATION EXPENSE.**

A. OCA witness Garrett has recommended an adjustment which decreases depreciation expense by $2,144,164. The adjustment shown on Schedule LKM-W-16 includes his recommendation in the revenue requirement.

Customer Assistance Plan ("CAP")

Q. **PLEASE EXPLAIN YOUR DERIVATION OF THE ADJUSTMENT TO CAP EXPENSES.**

A. Veolia proposed the inclusion of $1,000,000 in CAP costs to be recovered in the cost of service. However, OCA witness DeMarco has recommended that the total CAP expense should be $1,096,083. On page 7 of Veolia witness Cagle's direct testimony, he mentions that there is a $300,000 Veolia shareholders' commitment. I have reduced the $1,096,083 that Mr. DeMarco recommends by the $300,000 from Veolia, resulting in a net amount of $796,083 to include in the cost of service. Since Veolia has included $1,000,000 in the cost of service, I subtracted the $796,083 from the $1,000,000 to arrive at the adjustment which reduces operating expenses by $203,917 on Schedule LKM-W-17.

Q. **DO YOU AGREE WITH COMPANY WITNESS CAGLE PROPOSED RATEMAKING TREATMENT FOR CAP EXPENDITURES?**

A. No. According to Mr. Cagle, the Company is proposing to track the difference between the overall costs of the CAP and the proposed $1,000,000 target amount and record the difference in a regulatory asset or liability to be addressed in the Company's next rate case filing since the Company is uncertain about the costs because it does not have experience with the plan. I am recommending that the regulatory asset or liability not be authorized.

Interest Synchronization

Q. **PLEASE EXPLAIN YOUR INTEREST SYNCHRONIZATION ADJUSTMENT.**

A. To determine the tax deductible interest expense for ratemaking, I have multiplied the OCA's recommended rate base by the weighted cost of debt included in the capital

structure recommended by OCA witness David Garrett. This procedure synchronizes the interest expense deduction for tax purposes with the interest component of the return on rate base to be recovered from ratepayers. As shown on Schedule LKM-W-18, this adjustment increases the interest expense deduction by $642,538 to a total of $8,180,058 compared to the interest deduction of $7,537,520 calculated by Veolia. This decreases federal income and state income taxes for water operations by $124,152 and $51,339, respectively. Also shown on Schedule LKM-WW-11, this adjustment increases the interest expense deduction by $9,689 to $131,709 compared to the interest deduction of $122,020 calculated by Veolia. This decreases federal and state income taxes for wastewater operations by $1,872 and $774, respectively.

Q. DOES THIS COMPLETE YOUR DIRECT TESTIMONY?

A. Yes, it does. However, I received the responses to certain data requests too late review and incorporate in this testimony. I reserve the right to supplement my testimony should it become necessary after reviewing those data request responses.

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION	:	
V.	:	R-2024-3045192 (Water) R-2024-3045193 (Wastewater)
VEOLIA WATER PENNSYLVANIA, INC.	:	

SCHEDULES ACCOMPANYING THE
DIRECT TESTIMONY
OF
LAFAYETTE K. MORGAN, JR

VEOLIA WATER PENNSYLVANIA INC.

Combined Water Operations

Summary of Operating Income
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Company Amounts at Present Rates [1/]	OCA Adjustments	Amounts After OCA Adjustments	Pro Forma Change in Revenues	Amounts After Change in Revenues
	(1)	(2)	(3)	(4)	(5)	(6)
	Operating Revenues					
1	Operating Revenues	$ 58,763,695	$ -	$ 58,763,695	$ -	$ 58,763,695
2	Revenue Increase	-	-	-	4,566,589	4,566,589
3	Total Operating Revenues	$ 58,763,695	$ -	$ 58,763,695	$ 4,566,589	$ 63,330,284
4						
5	Operating Expenses					
6	O&M Expenses	$ 25,332,688 -	$ (2,851,012)	$ 22,481,676	$ 47,447	$ 22,529,123
7	Depreciation	11,591,125	(2,144,164)	9,446,961	-	9,446,961
8	Amortization of Acquisition Adjustment	230,340	(108,615)	121,725	-	121,725
9	Taxes Other Than Income Taxes	1,268,711	-	1,268,711	-	1,268,711
10	Total Operating Expenses	$ 38,422,863	$ (5,103,791)	$ 33,319,072	$ 47,447	$ 33,366,519
11						
12	Operating Income Before Income Taxes	$ 20,340,831	$ 5,103,791	$ 25,444,622	$ 4,519,142	$ 29,963,764
13						
14	Federal & State Income Taxes	$ 3,148,686	$ 1,218,462	$ 4,367,148	$ 1,234,273	$ 5,601,420
15						
16	Net Operating Income	$ 17,192,146	$ 3,885,329	$ 21,077,475	$ 3,284,869	$ 24,362,344
17						
18	Rate Base	$ 356,215,489		$ 355,654,693		$ 355,654,693
19						
20	Return On Rate Base	4.83%		5.93%		6.85%

Notes:

[1/] Exhibit No. GRH-2, Schedule -1, Page 2, .

VEOLIA WATER PENNSYLVANIA INC.

Veolia Water, Bethel Water, Kensington Water & Overbrook Water

Summary of Operating Income
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Company Amounts at Present Rates [1/]	OCA Adjustments	Amounts After OCA Adjustments	Pro Forma Change in Revenues	Amounts After Change in Revenues
	(1)	(2)	(3)	(4)	(5)	(6)
	Operating Revenues					
1	Operating Revenues	$ 58,122,857	$ -	$ 58,122,857	$ -	$ 58,122,857
2	Revenue Increase	-	-	-	-	-
3	Total Operating Revenues	$ 58,122,857	$ -	$ 58,122,857	$ -	$ 58,122,857
4						
5	Operating Expenses					
6	O&M Expenses	$ 24,822,808 -	$ -	$ 24,822,808	$ -	$ 24,822,808
7	Depreciation	11,373,158	-	11,373,158	-	11,373,158
8	Amortization of Acquisition Adjustment	107,574	-	107,574	-	107,574
9	Taxes Other Than Income Taxes	1,261,241	-	1,261,241	-	1,261,241
10	Total Operating Expenses	$ 37,564,781	$ -	$ 37,564,781	$ -	$ 37,564,781
11						
12	Operating Income Before Income Taxes	$ 20,558,076	$ -	$ 20,558,076	$ -	$ 20,558,076
13						
14	Federal & State Income Taxes	$ 3,251,883	$ -	$ 3,251,883	$ -	$ 3,251,883
15						
16	Net Operating Income	$ 17,306,192	$ -	$ 17,306,192	$ -	$ 17,306,192
17						
18	Rate Base	$ 349,877,351		$ 349,877,351		$ 349,877,351
19						
20	Return On Rate Base	4.95%		4.95%		4.95%

Notes:

[1/] Exhibit No. GRH-2, Schedule -1, Page 2, Column 8.

VEOLIA WATER PENNSYLVANIA INC.

Mahoning Township

Summary of Operating Income
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Company Amounts at Present Rates [1/]	OCA Adjustments	Amounts After OCA Adjustments	Pro Forma Change in Revenues	Amounts After Change in Revenues
	(1)	(2)	(3)	(4)	(5)	(6)
	Operating Revenues					
1	Operating Revenues	$ 640,838	$ -	$ 640,838	$ -	$ 640,838
2	Revenue Increase	-	-	-	-	-
3	Total Operating Revenues	$ 640,838	$ -	$ 640,838	$ -	$ 640,838
4						
5	Operating Expenses					
6	O&M Expenses	$ 509,880 -	$ -	$ 509,880	$ -	$ 509,880
7	Depreciation	217,967	-	217,967	-	217,967
8	Amortization of Acquisition Adjustment	122,766	-	122,766	-	122,766
9	Taxes Other Than Income Taxes	7,469	-	7,469	-	7,469
10	Total Operating Expenses	$ 858,082	$ -	$ 858,082	$ -	$ 858,082
11						
12	Operating Income Before Income Taxes	$ (217,244)	$ -	$ (217,244)	$ -	$ (217,244)
13						
14	Federal & State Income Taxes	$ (103,198)	$ -	$ (103,198)	$ -	$ (103,198)
15						
16	Net Operating Income	$ (114,047)	$ -	$ (114,047)	$ -	$ (114,047)
17						
18	Rate Base	$ 6,338,138		$ 6,338,138		$ 6,338,138
19						
20	Return On Rate Base	-1.80%		-1.80%		-1.80%

Notes:

[1/] Exhibit No. GRH-2, Schedule -1, Page 2, Column 8.

VEOLIA WATER PENNSYLVANIA INC.

Combined Water Operations

Summary of Revenue Increase at OCA Rate of Return
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description		Amount	Source
1	Adjusted Rate Base		$ 355,654,693	Schedule LKM-2-W, Page 2
2	Required Rate of Return		6.850%	
3				
4	Net Operating Income Required		$ 24,362,346	
5	Net Operating Income at Present Rates		21,077,475	Schedule LKM-1-W, Page 1
6				
7	Income Deficiency/(Surplus)		$ 3,284,871	
8	Revenue Multiplier		1.390188	
9				
10	Required Change in Company Revenue		$ 4,566,589	
11				
12	Proposed Revenue Change		$ 4,566,589	
13	Less: Uncollectibles	0.5390% [1/]	24,614	
14	Revenues After Uncollectibles		4,541,975	
15	PUC / OCA & SBA Assessment	0.5000% [1/]	22,833	
16	Income Before State Taxes		$ 4,519,142	
17	State Income Tax Effect Tax Rate	7.99%		
18	Less: State Income Tax		361,079	
19				
20	Income Before Federal Taxes		$ 4,158,063	
21	Federal Income Tax	21.00%	873,193	
22				
23	Net Income Surplus/(Deficiency)		$ 3,284,869	

24	**Calculation Gross-up Factor**	
25	Gross Revenues	1.000000
26	Uncollectibles	0.005390 [1/]
27	PUC / OCA & SBA Assessment	0.005000 [1/]
28	State Taxable Income	0.989610
29	State Income Tax Effect	0.079070
30	Federal Taxable Income	0.910540
31	Federal Tax Effect	0.191213
32	Net Income Factor	0.719327
33	Gross-Up Factor	1.390188

Notes:
[1/] Exhibit No. GRH-2 (Excel Version), GRCF Tab.

VEOLIA WATER PENNSYLVANIA INC.

Combined Water Operations

Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 568,463,834	$ (501,434)	$ 567,962,400
2	Acquisition Adjustment	1,104,896	-	1,104,896
3	Accumulated Depreciation	(100,498,294)	-	(100,498,294)
4	Net Plant in Service	$ 469,070,435	$ (501,434)	$ 468,569,001
5	Additions			
6	Working Capital	$ 800,305	$ (59,362)	$ 740,943
7	Materials & Supplies	1,656,030	-	1,656,030
8	Total Rate Base Additions	$ 2,456,335	$ (59,362)	$ 2,396,973
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	(91,198,127)	-	(91,198,127)
12	Regulatory Liability - New Fed Rate	(8,435,964)	-	(8,435,964)
13	Regulatory Liability - 2018 Portion	(832,495)	-	(832,495)
14	Accumulated Deferred Income Taxes	(14,844,697)	-	(14,844,697)
15	Total Rate Base Deductions	$ (115,311,282)	$ -	$ (115,311,282)
16				
17	Total Rate Base	$ 356,215,489	$ (560,796)	$ 355,654,693

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Veolia Water, Bethel Water, Kensington Water & Overbrook Water

Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 560,295,367	$ -	$ 560,295,367
2	Acquisition Adjustment	-		
3	Accumulated Depreciation	(97,603,902)	-	(97,603,902)
4	Net Plant in Service	$ 462,691,464	$ -	$ 462,691,464
5	Additions			
6	Working Capital	$ 795,082	$ -	$ 795,082
7	Materials & Supplies	1,656,030	-	1,656,030
8	Total Rate Base Additions	$ 2,451,112	$ -	$ 2,451,112
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	(91,198,127)	-	(91,198,127)
12	Regulatory Liability - New Fed Rate	(8,435,964)	-	(8,435,964)
13	Regulatory Liability - 2018 Portion	(832,495)	-	(832,495)
14	Accumulated Deferred Income Taxes	(14,798,641)	-	(14,798,641)
15	Total Rate Base Deductions	$ (115,265,226)	$ -	$ (115,265,226)
16				
17	Total Rate Base	$ 349,877,351	$ -	$ 349,877,351

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.
Mahoning Township
Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 8,168,467	$ -	$ 8,168,467
2	Acquisition Adjustment	1,104,896	-	1,104,896
3	Accumulated Depreciation	(2,894,392)	-	(2,894,392)
4	Net Plant in Service	$ 6,378,971	$ -	$ 6,378,971
5	Additions			
6	Working Capital	$ 5,223	$ -	$ 5,223
7	Materials & Supplies	-	-	-
8	Total Rate Base Additions	$ 5,223	$ -	$ 5,223
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	-	-	-
12	Regulatory Liability - New Fed Rate	-	-	-
13	Regulatory Liability - 2018 Portion	-	-	-
14	Accumulated Deferred Income Taxes	(46,056)	-	(46,056)
15	Total Rate Base Deductions	$ (46,056)	$ -	$ (46,056)
16				
17	Total Rate Base	$ 6,338,138	$ -	$ 6,338,138

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.
Veolia Water, Kensington Water & Overbrook Water
Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 551,578,019	$ -	$ 551,578,019
2	Acquisition Adjustment	-		
3	Accumulated Depreciation	(96,999,406)	-	(96,999,406)
4	Net Plant in Service	$ 454,578,614	$ -	$ 454,578,614
5	Additions			
6	Working Capital	$ 749,697	$ -	$ 749,697
7	Materials & Supplies	1,656,030	-	1,656,030
8	Total Rate Base Additions	$ 2,405,727	$ -	$ 2,405,727
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	(84,960,608)	-	(84,960,608)
12	Regulatory Liability - New Fed Rate	(8,301,533)	-	(8,301,533)
13	Regulatory Liability - 2018 Portion	(756,507)	-	(756,507)
14	Accumulated Deferred Income Taxes	(14,747,777)	-	(14,747,777)
15	Total Rate Base Deductions	$ (108,766,425)	$ -	$ (108,766,425)
16				
17	Total Rate Base	$ 348,217,916	$ -	$ 348,217,916

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.
Bethel Water
Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 8,717,347	$ -	$ 8,717,347
2	Acquisition Adjustment	-		
3	Accumulated Depreciation	(604,497)	-	(604,497)
4	Net Plant in Service	$ 8,112,850	$ -	$ 8,112,850
5	Additions			
6	Working Capital	$ 45,385	$ -	$ 45,385
7	Materials & Supplies	-	-	-
8	Total Rate Base Additions	$ 45,385	$ -	$ 45,385
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	(6,237,519)	-	(6,237,519)
12	Regulatory Liability - New Fed Rate	(134,430)	-	(134,430)
13	Regulatory Liability - 2018 Portion	(75,988)	-	(75,988)
14	Accumulated Deferred Income Taxes	(50,864)	-	(50,864)
15	Total Rate Base Deductions	$ (6,498,801)	$ -	$ (6,498,801)
16				
17	Total Rate Base	$ 1,659,435	$ -	$ 1,659,435

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Combined Water Operations

Summary of Rate Base Adjustments
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Source	Amount
1	Rate Base per Company Filing	Schedule LKM-2, Page 1	$ 356,215,489
2			
3			
4	OCA Adjustments:		
5	Remove Acquisition Adjustments		$ (448,470)
6	Adjustment to Remove Plant Held for Future Use		(52,964)
7	Cash Working Capital		(59,362)
8			-
9			
10	Total Ratemaking Adjustments		$ (560,796)
11			
12	Adjusted Rate Base per OCA		$ 355,654,693

VEOLIA WATER PENNSYLVANIA INC.

Combined Water Operations

Summary of Adjustments to Income Before Income Taxes
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount	Source
1	Operating Income per Company	$ 17,192,146	Schedule LKM-W-1
2			
3	OCA Adjustments:		
4	Payroll Expense	$ 597,355	
5	Reverse VWPA's Chemical Expense Inflation	267,860	
6	Reverse VWPA's Purchased Power Adjustment	540,587	
7	Transportation Expense for Increase in Vehicle Leases	32,905	
8	Normalize Rate Case Expense	68,751	
9	Remove Inflation Escalation	345,550	
10	Amortize Acquisition Transaction Costs	42,730	
11	Normalize Lab Testing Fees	16,093	
12	Adjustment to Normalize Outside Contractors Expense	55,016	
13	Depreciation Expense	1,558,548	
14	Remove Acquisition Adjustments Amortization	36,220	
15	Customer Assistance Plan Expense	148,223	
16	Interest Synchronization	175,491	
17		-	
18	Total OCA Adjustments	3,885,329	
19			
20	Operating Income per OCA	$ 21,077,475	

VEOLIA WATER PENNSYLVANIA INC.

Combined Water Operations

Summary of Adjustments to Income Before Income Taxes
For the Fully Projected Test Year Ending October 30, 2025

Line No.		Operating Revenues	O&M Expenses	Depreciation & Amortization	Amortization of Acquisition Adjustment	Taxes Other Than Income	State & Federal Income Taxes	Operating Income Before Income Taxes
1	Amount per Company	$ 58,763,695	$ 25,332,688	$ 11,591,125	$ 230,340	$ 1,268,711	$ 3,148,686	$ 17,192,146
2								
3	OCA Adjustments:							
4	Payroll Expense	$ -	$ (821,808)	$ -	$ -	$ -	$ 224,453	$ 597,355
5	Reverse VWPA's Chemical Expense Inflation	-	(368,507)	-	-	-	100,647	267,860
6	Reverse VWPA's Purchased Power Adjustment	-	(743,710)	-	-	-	203,123	540,587
7	Transportation Expense for Increase in Vehicle Leases	-	(45,269)	-	-	-	12,364	32,905
8	Normalize Rate Case Expense	-	(94,584)	-	-	-	25,833	68,751
9	Remove Inflation Escalation	-	(475,389)	-	-	-	129,839	345,550
10	Amortize Acquisition Transaction Costs	-	-	-	(58,785)	-	16,055	42,730
11	Normalize Lab Testing Fees	-	(22,140)	-	-	-	6,047	16,093
12	Adjustment to Normalize Outside Contractors Expense	-	(75,688)	-	-	-	20,672	55,016
13	Depreciation Expense	-		(2,144,164)	-	-	585,616	1,558,548
14	Remove Acquisition Adjustments Amortization	-	-	-	(49,830)	-	13,610	36,220
15	Customer Assistance Plan Expense	-	(203,917)	-	-	-	55,694	148,223
16	Interest Synchronization	-	-	-	-	-	(175,491)	175,491
17								
18	Total OCA Adjustments	$ -	$ (2,851,012)	$ (2,144,164)	$ (108,615)	$ -	$ 1,218,462	$ 3,885,329
19								
20	Total Adjusted Income Before Income Taxes	$ 58,763,695	$ 22,481,676	$ 9,446,961	$ 121,725	$ 1,268,711	$ 4,367,148	$ 21,077,475

VEOLIA WATER PENNSYLVANIA INC.
Water Operations
Adjustment to Cash Working Capital
Summary of Adjustments to Income Before Income Taxes

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	OCA Adjustments	Expense Claim FPFTY After OCA Adjustments Proposed Rates 10/31/2025	FPFTY After OCA Adjustments Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 469,501	$ 7,418,529	$ (821,808)	$ 6,596,722	$ 417,491
Employee Group Health & Life	34.5	10.1	24.4	106,752	1,596,912		1,596,912	106,752
Employee Pension Benefits	34.5	29.3	5.2	9,008	632,288		632,288	9,008
Other Employee Benefits	34.5	276.0	(241.5)	(294,362)	444,895		444,895	(294,362)
Purchased Water	34.5	26.6	7.9	39,787	1,838,244		1,838,244	39,787
Purchased Power	34.5	57.1	(22.6)	(178,732)	2,886,605	(743,710)	2,142,895	(132,683)
Fuel for Power Production	34.5	38.8	(4.3)	(25)	2,093		2,093	(25)
Chemicals	34.5	27.9	6.6	24,313	1,344,558	(368,507)	976,051	17,649
Materials and Supplies	34.5	29.1	5.4	6,028	407,435		407,435	6,028
Management and Service Fees	34.5	14.7	19.8	250,149	4,611,336		4,611,336	250,149
Lab Testing Fees	34.5	26.2	8.3	4,828	212,334	(22,140)	190,194	4,325
Outside Contractors	34.5	30.9	3.6	16,879	1,711,389	(75,688)	1,635,701	16,133
Outside Professional Services	34.5	45.0	(10.5)	(2,548)	88,583		88,583	(2,548)
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-		-	-
Rental of Equipment	34.5	7.9	26.6	9,102	124,900		124,900	9,102
Transportation Expense	34.5	38.1	(3.6)	(7,381)	748,343	(45,269)	703,074	(6,934)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	-	-		-	-
Worker Compensation	34.5	(130.5)	165.0	21,743	48,098		48,098	21,743
Regulatory Commission Expense	34.5	(101.5)	136.0	132,315	448,734	(94,584)	354,150	131,957
Office Expense and Utilities	34.5	8.9	25.6	60,435	861,668		861,668	60,435
Postage and Air Freight Expense	34.5	40.3	(5.8)	(6,100)	383,875		383,875	(6,100)
Other O&M	34.5	30.3	4.2	1,889	164,161	(475,389)	(311,228)	(3,581)
Real Estate Tax	34.5	(26.9)	61.4	57,703	343,022		343,022	57,703
Payroll	34.5	18.5	16.0	40,251	918,219		918,219	40,251
Federal Income Taxes	34.5	37.0	(2.5)	(10,447)	4,316,438		4,316,438	(29,565)
State Income Taxes	34.5	28.8	5.8	9,760	1,791,883		1,791,883	28,228
Total				$ 760,848				$ 740,943
CWC per Company								800,305
Adjustment								$ (59,362)

VEOLIA WATER PENNSYLVANIA INC.

Veolia Water, Bethel Water, Kensington Water & Overbrook Water

Adjustment to Remove Acquisition Adjustments
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
	Rate Base	
1	Kensington Acquisition Adjustment	$ 202,500 [1/]
2	Overbrook Acquisition Adjustment	245,970 [1/]
3		
4	Adjustment to Plant in Service	$ (448,470)
5		
6	Operating Expenses	
7	Amortization of Kensington Acquisition Adjustment	$ 22,500 [2/]
8	Amortization of Overbrook Acquisition Adjustment	27,330 [2/]
	Adjustment to Amortization Expense	$ (49,830)

Notes:

[1/] Exhibit No. GRH-1, Schedule 1.1.

[1/] Exhibit No. GRH-3, Schedule 34.

VEOLIA WATER PENNSYLVANIA INC.
Veolia Water, Bethel Water, Kensington Water & Overbrook Water
Adjustment to Remove Plant Held for Future Use
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	Kensington Acquisition Adjustment	$ 52,964 [1/]
2		
3	Adjustment to Plant in Service	$ (52,964)

Notes:
[1/] Exhibit No. GRH-1, Schedule 1.1.

VEOLIA WATER PENNSYLVANIA INC.

Veolia Water, Bethel Water, Kensington Water & Overbrook Water

Adjustment to Payroll Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	Adjustment to Payroll Expense	$ 821,808 [1/]
2	Adjustment to Operating Expense	$ (821,808)

Notes:
[1/] Calculated from data provided in Workpaper GRH-3.1.

VEOLIA WATER PENNSYLVANIA INC.

Veolia Water, Bethel Water, Kensington Water & Overbrook Water

Adjustment to Reverse VWPA's Chemical Expense Adjustment
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	FTY Chemical Expense Inflation Escalation	$ 339,344 [1/]
2		
3	FPFTY Chemical Expense Inflation Escalation	29,163 [1/]
4		
5	Adjustment to Operating Expense	$ (368,507)

Notes:
[1/] Exhibit No. GRH-3, Schedule 10.

VEOLIA WATER PENNSYLVANIA INC.

Veolia Water, Bethel Water, Kensington Water & Overbrook Water

Adjustment to Reverse VWPA's Purchased Power Adjustment
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	FTY Purchased Power Inflation Escalation	$ 343,730 [1/]
2		
3	FPFTY Purchased Power Inflation Escalation	399,980 [1/]
4		
5	Adjustment to Operating Expense	$ (743,710)

Notes:
[1/] Exhibit No. GRH-3, Schedule 8.

VEOLIA WATER PENNSYLVANIA INC.
Veolia Water, Bethel Water, Kensington Water & Overbrook Water
Adjustment to Transportation Expense for Increase in Vehicle Leases
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description		Amount [1/]
1	FPFTY Vehicle Leases	$	591,887
2	Other Transportation Expenses		
3	Car Allowance		-
4	Fuel		254,005
5	Maintenance & Repair		110,391
6	Insurance		32,274
7	Other		59,339
8			
9	Total Transportation Costs	$	1,047,896
10	Less Cap and Billed Out		(344,889)
11			
12	FPFTY Total Transportation Expense per OCA	$	703,007
13	FPFTY Total Transportation Expense per Company		748,276
14			
15	Adjustment to Operating Expenses	$	(45,269)

Notes:
[1/] Exhibit No. GRH-3, Schedule 18.

VEOLIA WATER PENNSYLVANIA INC.

Veolia Water, Bethel Water, Kensington Water & Overbrook Water

Adjustment to Normalize Rate Case Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	Total Rate Case Expenses	$ 709,379 [1/]
2	Normalization Period (Years)	5
3		
4	Normalized Rate Case Expense per OCA	$ 141,876
5	Normalized Rate Case Expense per Company	236,460 [1/]
6		
7	Adjustment to Operating Expense	$ (94,584)

Notes:
[1/] Exhibit No. GRH-3, Schedule 21.

VEOLIA WATER PENNSYLVANIA INC.

Veolia Water, Bethel Water, Kensington Water & Overbrook Water

Adjustment to Remove Inflation Escalation
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount	
1	Group Health and Life Insurance	$ 34,399	1/
2	Pension	13,620	2/
3	Post-Retirement Benefits Other than Pensions ("PBOP")	(18,760)	3/
4	401K (Other Benefits)	2	4/
5	Purchased Water	6,467	5/
6	Fuel for Power Production	93	6/
7	Chemicals Expense	368,507	7/
8	Materials & Supplies	17,590	8/
9	Rental of Equipment	5,530	9/
10	Office Expense	28,934	10/
11	Other O&M Expense	19,007	11/
	Total Inflation Adjustments	$ 475,389	
	Adjustment to Operating Expenses.	$ (475,389)	

Notes:

1/ Exhibit No. GRH-3, Schedule 3.
2/ Exhibit No. GRH-3, Schedule 4.
3/ Exhibit No. GRH-3, Schedule 5.
4/ Exhibit No. GRH-3, Schedule 6.
5/ Exhibit No. GRH-3, Schedule 7.
6/ Exhibit No. GRH-3, Schedule 9.
7/ Exhibit No. GRH-3, Schedule 10.
8/ Exhibit No. GRH-3, Schedule 11.
9/ Exhibit No. GRH-3, Schedule 17.
10/ Exhibit No. GRH-3, Schedule 25.
11/ Exhibit No. GRH-3, Schedule 27.

VEOLIA WATER PENNSYLVANIA INC.

Veolia Water, Bethel Water, Kensington Water & Overbrook Water

Adjustment to Amortize Acquisition Transaction Costs
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
	Acquisition Transaction Costs	
1	Kensington	$ 28,240 [1/]
2	Mahoning	543,227 [1/]
3	Overbrook	16,381 [1/]
4	Total	$ 587,848
5	Amortization Period	10
6	Transaction Costs Amortization Costs per OCA	$ 58,785
7	Transaction Costs Amortization Costs per Company	117,570
	Adjustment to Amortization Expense	$ (58,785)

Notes:
[1/] Exhibit No. GRH-3, Schedule 30.

VEOLIA WATER PENNSYLVANIA INC.

Veolia Water, Bethel Water, Kensington Water & Overbrook Water

Adjustment to Normalize Lab Testing Fees
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	3-Year Average Lab Testing Fees	$ 190,194 [1/]
2		
3	FPFTY Lab Testing Fees Per Company	212,334 [1/]
4		
5	Adjustment to Operating Expense	$ (22,140)

Notes:
[1/] Exhibit No. GRH-3, Schedule 13.

VEOLIA WATER PENNSYLVANIA INC.

Veolia Water, Bethel Water, Kensington Water & Overbrook Water

Adjustment to Normalize Outside Contractors Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	2-Year Average Outside Contractors Expense	$ 1,635,701 [1/]
2		
3	FPFTY Outside Contractors Expense Per Company	1,711,389 [1/]
4		
5	Adjustment to Operating Expense	$ (75,688)

Notes:
[1/] Exhibit No. GRH-3, Schedule 14.

VEOLIA WATER PENNSYLVANIA INC.

Veolia Water, Bethel Water, Kensington Water & Overbrook Water

Adjustment to Depreciation Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	Reflect OCA witness Garrett Recommendation	$ 2,144,164 [1/]
2	Adjustment to Depreciation Expense	$ (2,144,164)

Notes:
[1/] Per OCA Witness Garrett.

VEOLIA WATER PENNSYLVANIA INC.

Veolia Water, Bethel Water, Kensington Water & Overbrook Water

Adjustment to Customer Assistance Plan Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	CAP Expenditures Recommended by OCA witness DeMarco	$ 1,096,083 [1/]
2	Veolia Shareholders Funding Commitment	300,000
3	Net Amount to be Recovered from Customers	796,083
4	Customer Assistance Plan Expense Included in the Cost of Service	1,000,000 [2/]
5	Adjustment to Operating Expense	$ (203,917)

Notes:
[1/] Per OCA Witness DeMarco.
[2/] Exhibit No. GRH-3, Schedule -29.

VEOLIA WATER PENNSYLVANIA INC.

Interest Synchronization Adjustment
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description		Amount	
1	Company Rate Base	$	355,654,693	1/
2	Weighted Cost of Debt		2.30%	2/
3				
4	Adjusted Interest Deduction	$	8,180,058	
5	Interest Deduction Per Company		7,537,520	3/
6				
7	Adjustment to Synchronize Interest Expense	$	642,538	
8	Effective State Income Tax Rate		7.99%	
9				
10	Adjustment to State Income Taxes	$	(51,339)	
11				
12	Federal Income Tax Base	$	591,199	
13	Federal Income Tax Rate		21.00%	
14				
15	Adjustment to Federal Income Taxes	$	(124,152)	

Notes:

1/ Schedule LKM-W-2, Page 1.

2/ Schedule LKM-W-19.

3/ Exhibit No. GRH-3, Schedule 35, Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Calculation of Overall Rate of Return
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Capitalization Ratio	Cost Rate	Weighted Cost
1	Long-Term Debt	50.00%	4.60%	2.30%
2	Short-Term Debt	0.00%	0.00%	0.00%
3	Total Debt	50.00%	4.60%	2.30%
4	Preferred Stock	0.00%	0.00%	0.00%
5	Common Equity	50.00%	9.10%	4.55%
6				
7	Total	100.00%		6.85%

Notes:
Per OCA Witness Garrett.

VEOLIA WATER PENNSYLVANIA INC.

Combined Wastewater Operations

Summary of Operating Income
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Company Amounts at Present Rates [1/]	OCA Adjustments	Amounts After OCA Adjustments	Pro Forma Change in Revenues	Amounts After Change in Revenues
	(1)	(2)	(3)	(4)	(5)	(6)
	Operating Revenues					
1	Operating Revenues	$ 1,636,049	$ -	$ 1,636,049	$ -	$ 1,636,049
2	Revenue Increase	-	-	-	427,859	427,859
3	Total Operating Revenues	$ 1,636,049	$ -	$ 1,636,049	$ 427,859	$ 2,063,908
4						
5	Operating Expenses					
6	O&M Expenses	$ 1,155,148 -	$ (48,487)	$ 1,106,661	$ 2,148	$ 1,108,809
7	Depreciation	326,830	-	326,830	-	326,830
8	Amortization of Acquisition Adjustment	153,034	-	153,034	-	153,034
9	Taxes Other Than Income Taxes	52	-	52	-	52
10	Total Operating Expenses	$ 1,635,064	$ (48,487)	$ 1,586,577	$ 2,148	$ 1,588,725
11						
12	Operating Income Before Income Taxes	$ 985	$ 48,487	$ 49,472	$ 425,711	$ 475,183
13						
14	Federal & State Income Taxes	$ (43,948)	$ 10,597	$ (33,351)	$ 116,271	$ 82,920
15						
16	Net Operating Income	$ 44,933	$ 37,890	$ 82,823	$ 309,440	$ 392,263
17						
18	Rate Base	$ 5,726,939		$ 5,726,468		$ 5,726,468
19						
20	Return On Rate Base	0.78%		1.45%		6.85%

Notes:
[1/] Exhibit No. GRH-4, Schedule -1, Page 1, .

VEOLIA WATER PENNSYLVANIA INC.

Mahoning Township Wastewater

Summary of Operating Income
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Company Amounts at Present Rates [1/]	OCA Adjustments	Amounts After OCA Adjustments	Pro Forma Change in Revenues	Amounts After Change in Revenues
	(1)	(2)	(3)	(4)	(5)	(6)
	Operating Revenues					
1	Operating Revenues	$ 1,589,420	$ -	$ 1,589,420	$ -	$ 1,589,420
2	Revenue Increase	-	-	-	-	-
3	Total Operating Revenues	$ 1,589,420	$ -	$ 1,589,420	$ -	$ 1,589,420
4						
5	Operating Expenses					
6	O&M Expenses	$ 1,056,124 -	$ -	$ 1,056,124	$ -	$ 1,056,124
7	Depreciation	309,939	-	309,939	-	309,939
8	Amortization of Acquisition Adjustment	153,034	-	153,034	-	153,034
9	Taxes Other Than Income Taxes	4	-	4	-	4
10	Total Operating Expenses	$ 1,519,101	$ -	$ 1,519,101	$ -	$ 1,519,101
11						
12	Operating Income Before Income Taxes	$ 70,319	$ -	$ 70,319	$ -	$ 70,319
13						
14	Federal & State Income Taxes	$ (19,353)	$ -	$ (19,353)	$ -	$ (19,353)
15						
16	Net Operating Income	$ 89,672	$ -	$ 89,672	$ -	$ 89,672
17						
18	Rate Base	$ 5,289,456		$ 5,289,456		$ 5,289,456
19						
20	Return On Rate Base	1.70%		1.70%		1.70%

Notes:
[1/] Exhibit No. GRH-4, Schedule -1, Page 2, Column 8.

VEOLIA WATER PENNSYLVANIA INC.

Columbia County Wastewater

Summary of Operating Income
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Company Amounts at Present Rates [1/]	OCA Adjustments	Amounts After OCA Adjustments	Pro Forma Change in Revenues	Amounts After Change in Revenues
	(1)	(2)	(3)	(4)	(5)	(6)
	Operating Revenues					
1	Operating Revenues	$ 46,629	$ -	$ 46,629	$ -	$ 46,629
2	Revenue Increase	-	-	-	-	-
3	Total Operating Revenues	$ 46,629	$ -	$ 46,629	$ -	$ 46,629
4						
5	Operating Expenses					
6	O&M Expenses	$ 99,024 -	$ -	$ 99,024	$ -	$ 99,024
7	Depreciation	16,891	-	16,891	-	16,891
8	Amortization of Acquisition Adjustment	-	-	-	-	-
9	Taxes Other Than Income Taxes	48	-	48	-	48
10	Total Operating Expenses	$ 115,963	$ -	$ 115,963	$ -	$ 115,963
11						
12	Operating Income Before Income Taxes	$ (69,334)	$ -	$ (69,334)	$ -	$ (69,334)
13						
14	Federal & State Income Taxes	$ (24,595)	$ -	$ (24,595)	$ -	$ (24,595)
15						
16	Net Operating Income	$ (44,739)	$ -	$ (44,739)	$ -	$ (44,739)
17						
18	Rate Base	$ 437,484		$ 437,484		$ 437,484
19						
20	Return On Rate Base	-10.23%		-10.23%		-10.23%

Notes:
[1/] Exhibit No. GRH-4, Schedule -1, Page 3, Column 8.

VEOLIA WATER PENNSYLVANIA INC.

Combined Wastewater Operations

Summary of Revenue Increase at OCA Rate of Return
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description		Amount	Source
1	Adjusted Rate Base		$ 5,726,468	Schedule LKM-2-WW, Page 2
2	Required Rate of Return		6.850%	
3				
4	Net Operating Income Required		$ 392,263	
5	Net Operating Income at Present Rates		82,823	Schedule LKM-1-WW, Page 1
6				
7	Income Deficiency/(Surplus)		$ 309,440	
8	Revenue Multiplier		1.382688	
9				
10	Required Change in Company Revenue		$ 427,859	
11				
12	Proposed Revenue Change		$ 427,859	
13	Less: Uncollectibles	0.0020% 1/	9	
14	Revenues After Uncollectibles		427,850	
15	PUC / OCA & SBA Assessment	0.5000% 1/	2,139	
16	Income Before State Taxes		$ 425,711	
17	State Income Tax Effect Tax Rate	7.99%		
18	Less: State Income Tax		34,014	
19				
20	Income Before Federal Taxes		$ 391,697	
21	Federal Income Tax	21.00%	82,256	
22				
23	Net Income Surplus/(Deficiency)		$ 309,440	

24	**Calculation Gross-up Factor**	
25	Gross Revenues	1.000000
26	Uncollectibles	0.000020 1/
27	PUC / OCA & SBA Assessment	0.005000 1/
28	State Taxable Income	0.994980
29	State Income Tax Effect	0.079500
30	Federal Taxable Income	0.915480
31	Federal Tax Effect	0.192251
32	Net Income Factor	0.723229
33	Gross-Up Factor	1.382688

Notes:

1/ Exhibit No. GRH-4 (Excel Version), GRCF Tab.

VEOLIA WATER PENNSYLVANIA INC.

Combined Wastewater

Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 7,594,754	$ -	$ 7,594,754
2	Acquisition Adjustment	1,377,307	-	1,377,307
3	Accumulated Depreciation	(3,263,852)	-	(3,263,852)
4	Net Plant in Service	$ 5,708,209	$ -	$ 5,708,209
5	Additions			
6	Working Capital	$ 18,730	$ (471)	$ 18,259
7	Materials & Supplies	-	-	-
8	Total Rate Base Additions	$ 18,730	$ (471)	$ 18,259
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	-	-	-
12	Regulatory Liability - New Fed Rate	-	-	-
13	Regulatory Liability - 2018 Portion	-	-	-
14	Accumulated Deferred Income Taxes	-	-	-
15	Total Rate Base Deductions	$ -	$ -	$ -
16				
17	Total Rate Base	$ 5,726,939	$ (471)	$ 5,726,468

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Columbia County Wastewater

Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 437,003	$ -	$ 437,003
2	Acquisition Adjustment	-		
3	Accumulated Depreciation	(2,957)	-	(2,957)
4	Net Plant in Service	$ 434,046	$ -	$ 434,046
5	Additions			
6	Working Capital	$ 3,438	$ -	$ 3,438
7	Materials & Supplies	-	-	-
8	Total Rate Base Additions	$ 3,438	$ -	$ 3,438
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	-	-	-
12	Regulatory Liability - New Fed Rate	-	-	-
13	Regulatory Liability - 2018 Portion	-	-	-
14	Accumulated Deferred Income Taxes	-	-	-
15	Total Rate Base Deductions	$ -	$ -	$ -
16				
17	Total Rate Base	$ 437,484	$ -	$ 437,484

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.
Mahoning Township Wastewater
Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 7,157,751	$ -	$ 7,157,751
2	Acquisition Adjustment	1,377,307	-	1,377,307
3	Accumulated Depreciation	(3,260,894)	-	(3,260,894)
4	Net Plant in Service	$ 5,274,164	$ -	$ 5,274,164
5	Additions			
6	Working Capital	$ 15,292	$ -	$ 15,292
7	Materials & Supplies	-	-	-
8	Total Rate Base Additions	$ 15,292	$ -	$ 15,292
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	-	-	-
12	Regulatory Liability - New Fed Rate	-	-	-
13	Regulatory Liability - 2018 Portion	-	-	-
14	Accumulated Deferred Income Taxes	-	-	-
15	Total Rate Base Deductions	$ -	$ -	$ -
16				
17	Total Rate Base	$ 5,289,456	$ -	$ 5,289,456

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Combined Wastewater Operations

Summary of Adjustments to Income Before Income Taxes
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount	Source
1	Operating Income per Company	$ 44,933	Schedule LKM-WW-1
2			
3	OCA Adjustments:		
4	Normalize Materials and Supplies	$ 166	
5	Normalize Lab Testing Fees	3,602	
6	Normalize Outside Contractors Expense	29,248	
7	Normalize Outside Professional Services	1,533	
8	Normalize Office Expense	34	
9	Remove Inflation Escalation	661	
10	Interest Synchronization	2,646	
11		-	
12	Total OCA Adjustments	37,890	
13			
14	Operating Income per OCA	$ 82,823	

VEOLIA WATER PENNSYLVANIA INC.

Combined Wastewater Operations

Summary of Adjustments to Income Before Income Taxes
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Operating Revenues	O&M Expenses	Depreciation & Amortization	Amortization of Acquisition Adjustment	Taxes Other Than Income	State & Federal Income Taxes	Operating Income Before Income Taxes
1	Amount per Company	$ 1,636,049	$ 1,155,148	$ 326,830	$ 153,034	$ 52	$ (43,948)	$ 44,933
2								
3	OCA Adjustments:							
4	Normalize Materials and Supplies	$ -	$ (228)	$ -	$ -	$ -	62	$ 166
5	Normalize Lab Testing Fees	-	(4,955)	-	-	-	1,353	3,602
6	Normalize Outside Contractors Expense	-	(40,238)	-	-	-	10,990	29,248
7	Normalize Outside Professional Services	-	(2,109)	-	-	-	576	1,533
8	Normalize Office Expense	-	(47)	-	-	-	13	34
9	Remove Inflation Escalation	-	(910)	-	-	-	249	661
10	Interest Synchronization	-	-	-	-	-	(2,646)	2,646
11								
12	Total OCA Adjustments	$ -	$ (48,487)	$ -	$ -	$ -	$ 10,597	$ 37,890
13								
14	Total Adjusted Income Before Income Taxes	$ 1,636,049	$ 1,106,661	$ 326,830	$ 153,034	$ 52	$ (33,351)	$ 82,823

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Cash Working Capital
For the Fully Projected Test Year Ending October 30, 2025

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	OCA Adjustments	Expense Claim FPFTY After OCA Adjustments Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 4,076		$ 4,076	$ 258
Employee Group Health & Life	34.5	10.1	24.4	596	(332)	264	18
Employee Pension Benefits	34.5	29.3	5.2	171	(95)	76	1
Other Employee Benefits	34.5	276	-241.5	67	(19)	48	(32)
Purchased Water	34.5	26.6	7.9	-		-	-
Purchased Power	34.5	57.1	-22.6	-		-	-
Fuel for Power Production	34.5	38.8	-4.3	-		-	-
Chemicals	34.5	27.9	6.6	-	(230)	(230)	(4)
Materials and Supplies	34.5	29.1	5.4	5,015	(228)	4,787	71
Management and Service Fees	34.5	14.7	19.8	-		-	-
Lab Testing Fees	34.5	26.2	8.3	108,368	(4,955)	103,413	2,352
Outside Contractors	34.5	30.9	3.6	880,038	(40,238)	839,800	8,283
Outside Professional Services	34.5	45	-10.5	46,127	(2,109)	44,018	(1,266)
Rental - Building/Real Property	34.5	-13.2	47.7	-		-	-
Rental of Equipment	34.5	7.9	26.6	-		-	-
Transportation Expense	34.5	38.1	-3.6	420	234	654	(6)
Prop& Gen Liab. Insurance	34.5	-130.5	165	-		-	-
Worker Compensation	34.5	-130.5	165	1		1	-
Regulatory Commission Expense	34.5	-101.5	136	13,682		13,682	5,098
Office Expense and Utilities	34.5	8.9	25.6	1,027	(47)	980	69
Postage and Air Freight Expense	34.5	40.3	-5.8	-		-	-
Other O&M	34.5	30.3	4.2	-		-	-
Real Estate Tax	34.5	-26.9	61.4	-		-	-
Payroll	34.5	18.5	16	4		4	-
Federal Income Taxes	34.5	37	-2.5	57,482		57,482	(394)
State Income Taxes	34.5	28.75	5.75	23,688		23,688	373
Total CWC per OCA							14,821
Total CWC per Company							15,292
Adjustment							$ (471)

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Normalize Materials and Supplies
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	3-Year Average Materials & Supplies Expense	$ 4,932 [1/]
2		
3	FPFTY Materials & Supplies Expense per Company	5,160 [1/]
4		
5	Adjustment to Operating Expense	$ (228)

Notes:
[1/] Exhibit No. GRH-5, Schedule 8.

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Normalize Lab Testing Fees
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	2-Year Average Lab Testing Expense	$ 107,082 [1/]
2		
3	FPFTY Lab Testing Fees per Company	112,037 [1/]
4		
5	Adjustment to Operating Expense	$ (4,955)

Notes:
[1/] Exhibit No. GRH-5, Schedule 9.

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Normalize Outside Contractors Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	2-Year Average Outside Contractors Expense	$ 869,595 [1/]
2		
3	FPFTY Outside Contractors Expense Per Company	909,833 [1/]
4		
5	Adjustment to Operating Expense	$ (40,238)

Notes:
[1/] Exhibit No. GRH-5, Schedule 10.

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Normalize Outside Professional Services
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	3-Year Average Outside Professional Services	$ 45,579 [1/]
2		
3	FPFTY Outside Professional Service Expense Per Company	47,688 [1/]
4		
5	Adjustment to Operating Expense	$ (2,109)

Notes:
[1/] Exhibit No. GRH-5, Schedule 11.

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Normalize Office Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	3-Year Average Office Expense	$ 1,010 [1/]
2		
3	FPFTY Office Expense Per Company	1,057 [1/]
4		
5	Adjustment to Operating Expense	$ (47)

Notes:
[1/] Exhibit No. GRH-5, Schedule 17.

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Remove Inflation Escalation
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount	
1	Group Health and Life Insurance	$ 332	1/
2	Pension	95	2/
3	Post-Retirement Benefits Other than Pensions (“PBOP”)	19	3/
4	Chemicals Expense	230	4/
5	Transportation Expense	234	5/
	Total Inflation Adjustments	$ 910	
	Adjustment to Operating Expenses.	$ (910)	

Notes:

1/ Exhibit No. GRH-5, Schedule 3.
2/ Exhibit No. GRH-5, Schedule 4.
3/ Exhibit No. GRH-5, Schedule 5.
4/ Exhibit No. GRH-5, Schedule 7.
5/ Exhibit No. GRH-5, Schedule 12.

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Interest Synchronization Adjustment
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description		Amount	
1	Company Rate Base	$	5,726,468	1/
2	Weighted Cost of Debt		2.30%	2/
3				
4	Adjusted Interest Deduction	$	131,709	
5	Interest Deduction Per Company		122,020	3/
6				
7	Adjustment to Synchronize Interest Expense	$	9,689	
8	Effective State Income Tax Rate		7.99%	
9				
10	Adjustment to State Income Taxes	$	(774)	
11				
12	Federal Income Tax Base	$	8,915	
13	Federal Income Tax Rate		21.00%	
14				
15	Adjustment to Federal Income Taxes	$	(1,872)	

Notes:

1/ Schedule LKM-WW-2, Page 1.

2/ Schedule LKM-WW-12.

3/ Exhibit No. GRH-5, Schedule 21, Page 1.

Docket No. R-2024-3045193
Schedule LKM-WW-12

VEOLIA WATER PENNSYLVANIA INC.

Calculation of Overall Rate of Return
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Capitalization Ratio	Cost Rate	Weighted Cost
1	Long-Term Debt	50.00%	4.60%	2.30%
2	Short-Term Debt	0.00%	0.00%	0.00%
3	Total Debt	50.00%	4.60%	2.30%
4	Preferred Stock	0.00%	0.00%	0.00%
5	Common Equity	50.00%	9.10%	4.55%
6				
7	Total	100.00%		6.85%

Notes:
Per OCA Witness Garrett.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	Docket Nos. R-2024-3045192
v.	:	R-2024-3045193
Veolia Water Pennsylvania, Inc.	:	

VERIFICATION

I, Lafayette K. Morgan Jr., hereby state that the facts set forth in my Direct Testimony, OCA Statement 2, are true and correct (or are true and correct to the best of my knowledge, information, and belief) and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: May 17, 2024

Signature: Lafayette Morgan Jr.
Lafayette K. Morgan Jr.

Consultant Address: Exeter Associates, Inc.
10480 Little Patuxent Parkway
Suite 300
Columbia, MD 21044-3575

OCA St. 3

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	**:**	
v.	**:**	**Docket Nos. R-2024-3045192 (Water)**
Veolia Water Pennsylvania, Inc.	**:**	**R-2023-3045193 (Wastewater)**

DIRECT TESTIMONY

OF

DAVID J. GARRETT

ON BEHALF OF

THE PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

May 17, 2024

TABLE OF CONTENTS

LIST OF EXHIBITS

Part One: Rate of Return

Part Two: Depreciation

APPENDICES

I. INTRODUCTION

Q. State your name and occupation.

A. My name is David J. Garrett. I am a consultant specializing in public utility regulation. I am the managing member of Resolve Utility Consulting PLLC.

Q. Summarize your educational background and professional experience.

A. I received a B.B.A. with a major in Finance, an M.B.A., and a Juris Doctor from the University of Oklahoma. I worked in private legal practice for several years before accepting a position as assistant general counsel at the Oklahoma Corporation Commission in 2011. At the commission, I worked in the Office of General Counsel in regulatory proceedings. In 2012, I began working for the Public Utility Division as a regulatory analyst providing testimony in regulatory proceedings. After leaving the commission, I formed Resolve Utility Consulting PLLC, where I have represented various consumer groups and state agencies in utility regulatory proceedings, primarily in the areas of cost of capital and depreciation. I am a Certified Depreciation Professional with the Society of Depreciation Professionals. I am also a Certified Rate of Return Analyst with the Society of Utility and Regulatory Financial Analysts. A more complete description of my qualifications and regulatory experience is included in my curriculum vitae.[1]

Q. On whose behalf are you testifying in this proceeding?

A. I am testifying on behalf of the Pennsylvania Office of Consumer Advocate ("OCA").

[1] Exhibit DJG-1.

Q. Describe the purpose and scope of your testimony in this proceeding.

A. My testimony addresses Veolia Water Pennsylvania's ("VWPA" or the "Company") proposed rate of return in response to the direct testimony of Company witness Harold Walker in the Company's water and wastewater rate filings. I also address VWPA's depreciation study and proposed depreciation rates, for water and for wastewater, in response to the direct testimony of Company witness Dane Watson.

Q. Please describe the organization of your testimony.

A. In the executive summary below, I provide an overview of cost of capital issues, my recommendations, and my response to the Company's testimony on these issues. In the sections that follow, I discuss the legal standards governing the awarded return issue as well as the general concepts involved in estimating the cost of equity. I discuss the concepts of risk and return. I provide detailed analysis of the Discounted Cash Flow ("DCF") Model, the Capital Asset Pricing Model ("CAPM"), including my results for these models and my responses to Mr. Walker's results. I also address capital structure, which is a key component to the cost of capital. In the executive summary, I also outline my recommendation that the Commission not adopt the Company's proposed depreciation study to determine the separate rate base for water and wastewater. In the following sections, I address the principles to follow in establishing appropriate depreciation allowances and service lives, and my responses to Mr. Watson's proposed change in methodology.

II. EXECUTIVE SUMMARY

A. Rate of Return Summary

Q. Please summarize your rate of return recommendation to the Commission.

A. My testimony can be distilled to the following recommendations and conclusions, which apply to the proposed water revenue increase and proposed wastewater revenue increase:

- The Commission should reject the Company's proposed return on equity ("ROE") of 10.80% as excessive and unsupported. An objective cost of equity analysis shows that the Company's market-determined cost of equity is notably lower than the Company's proposed ROE.
- Based on the results of my financial modeling using the DCF and CAPM models, I recommend that the Commission set the Company's market-determined cost of equity at 9.1%, which is based on the top end of the range of my CAPM and DCF model results. However, if the Commission accepts the Company's proposed capital structure, then I recommend the Commission grant only the 8.6% ROE supported by my models. If the Commission were to adopt the Company's proposed 10.80% ROE over my recommended 9.1% ROE, at VWPA's claimed rate base for water operations, it would cost consumers an additional $4,555,900 per year in rates.[2] Similarly, the Commission's adoption of the Company's proposed 10.80% ROE rather than my recommended 9.1% ROE, at VWPA's claimed rate base for

[2] OCA St. 2, Lafayette Morgan Direct, pp. 6-7.

wastewater operations would cost the wastewater consumers an additional $72,851 per year in rates.[3]

- VWPA's proposed capital structure deviates from the average debt ratio of its own proxy group. If the Commission were to adopt the Company's proposed capital structure, it would unreasonably increase the revenue requirement by $1,486,877 per year for the water operations rate base and $23,777 per year for the wastewater rate base.[4]
- I propose the Commission impute a capital structure for ratemaking purposes that is equal to the average capital structure of the total proxy group, which consists of 50% debt and 50% equity.
- My proposed adjustments to the Company's ROE and capital structure result in an overall weighted rate of return of 6.85%, to apply to the Company's water operations and wastewater operations, which better balances the interests of consumers and shareholders in contrast to the Company's excessive rate or return proposal.

B. Depreciation Summary

Q. Please summarize the Company's proposed depreciation rates.

A. VWPA's proposed depreciation rates for water and wastewater assets amount to a total annual depreciation accrual of $8.6 million. The Company's depreciation claim for water

[3] OCA St. 2, Lafayette Morgan Direct, pp. 6-7.

[4] OCA St. 2, Lafayette Morgan Direct, p. 6.

and wastewater is based on Mr. Watson's depreciation study for water and wastewater assets based on plant balances as of December 31, 2021, applying the equal life group ("ELG") method to calculate his proposed remaining lives for the Company's depreciable plant.

Q. Please summarize your adjustments to the Company's proposed depreciation rates.

A. I recommend that the Commission authorize depreciation rates for the Company's water and wastewater assets that are calculated using the average life group ("ALG") method. Additionally, I recommend adjustments to the service lives for certain plant assets.

- The Commission should reject the Company's use of the ELG method which effectively results in an accelerated form of cost recovery from water and wastewater consumers. The Company's use of the ELG method, rather than the widely applied ALG method, increases the annual depreciation accrual charged to customers by approximately $1.6 million, for water and wastewater plant collectively. In other words, even if no other adjustments are made to the depreciation study except the adoption of the majority-view ALG method, it would result in a decrease of $1.6 million to the Company's proposed annual depreciation accrual for water and wastewater operations. The Commission should reject the Company's use of the ELG method which effectively results in an accelerated form of cost recovery from water and wastewater consumers.
- The Commission should adopt my recommended service life adjustments that are soundly supported by my analysis of the Company's historical retirement data.

- The combined result of my application of the ALG method and certain service life adjustments are summarized in the table below.[5]

Figure 1:
Summary Depreciation Accrual Adjustment

Plant Function	Veolia Accrual	OCA Accrual	OCA Adjustment
Water Plant			
Source of Supply	297,279	199,469	(97,809)
Pumping Equipment	818,842	475,250	(343,592)
Treatment Equipment	1,815,141	1,118,093	(697,048)
Transmission and Distribution	6,063,697	5,233,181	(830,516)
General Plant	1,523,370	1,378,174	(145,196)
Total Water Plant	10,518,329	8,404,168	(2,114,161)
Sewer Plant			
Collection, Treatment and Disposal	254,631	224,628	(30,004)
General Plant	2,230	2,230	-
Total Sewer Plant	256,861	226,857	(30,004)
TOTAL PLANT STUDIED	**$ 10,775,190**	**$ 8,631,026**	**$ (2,144,164)**

[5] Exhibit DJG-16; *see also* Exhibit DJG-17 and DJG-18 for detailed depreciation rate calculations and comparisons.

PART ONE: RATE OF RETURN

III. REGULATORY STANDARDS

Q. Discuss the legal standards governing the awarded rate of return on capital investments for regulated utilities.

A. In *Wilcox v. Consolidated Gas Co. of New York*, [6] the Supreme Court first addressed the meaning of a fair rate of return for public utilities. The Court found that "the amount of risk in the business is a most important factor" in determining the appropriate allowed rate of return.[7] Later, in two landmark cases, the Court set forth the standards by which utilities are allowed to earn a return on capital investments. In *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia*, [8] the Court held:

> A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public . . . but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties.[9]

In *Federal Power Commission v. Hope Natural Gas Company*,[10] the Court expanded on the guidelines set forth in *Bluefield* and stated:

---

[6] *Wilcox v. Consolidated Gas Co. of New York*, 212 U.S. 19 (1909).

[7] *Id*. at 48.

[8] *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679 (1923).

[9] *Id.* at 692-93.

[10] *Federal Power Commission v. Hope Natural Gas Co*., 320 U.S. 591 (1944).

> From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.[11]

The cost of capital models I have employed in this case are in accordance with the foregoing legal standards.

Q. Should the awarded rate of return be based on the Company's actual cost of capital?

A. Yes. The *Hope* Court makes it clear that the allowed return should be based on the actual cost of capital. Moreover, the awarded return must also be fair, just, and reasonable under the circumstances of each case. Under the rate base rate of return model, a utility should be allowed to recover all its reasonable expenses, its capital investments through depreciation, and a return on its capital investments sufficient to satisfy the required return of its investors. The "required return" from the investors' perspective is synonymous with the "cost of capital" from the utility's perspective. Scholars agree that the allowed rate of return should be based on the actual cost of capital:

> Since by definition the cost of capital of a regulated firm represents precisely the expected return that investors could anticipate from other investments while bearing no more or less risk, and since investors will not provide capital unless the investment is expected to yield its opportunity cost of capital, the correspondence of the definition of the cost of capital with the court's definition of legally required earnings appears clear.[12]

---

[11] *Id.* at 603 (emphasis added).

[12] A. Lawrence Kolbe, James A. Read, Jr. & George R. Hall, *The Cost of Capital: Estimating the Rate of Return for Public Utilities*, p. 21 (The MIT Press 1984).

The models I have employed in this case closely estimate the Company's market-based cost of equity. If the Commission sets the awarded return based on my lower, and more reasonable, rate of return, it will comply with the U.S. Supreme Court's standards, allow the Company to maintain its financial integrity, and satisfy the claims of its investors. On the other hand, if the Commission sets the allowed rate of return *higher* than the true cost of capital, it arguably results in an inappropriate transfer of wealth from ratepayers to shareholders.

Q. What does this legal standard mean for determining the awarded return and the cost of capital?

A. It is important to understand that the *awarded* return and the *cost* of capital are different but related concepts. The two concepts are related in that the legal and technical standards encompassing this issue require that the awarded return reflect the true cost of capital. On the other hand, the two concepts are different in that the legal standards do not mandate that awarded returns exactly match the cost of capital. Awarded returns are set through the regulatory process and may be influenced by factors other than objective market drivers. The cost of capital, on the other hand, should be evaluated objectively and be closely tied to economic realities. In other words, the cost of capital is driven by stock prices, dividends, growth rates, and — most importantly — it is driven by risk. The cost of capital can be estimated by financial models used by firms, investors, and academics around the world for decades. The problem is, with respect to regulated utilities, there has been a trend in which awarded returns fail to closely track with actual market-based cost of capital as further discussed below. To the extent this occurs, the results are detrimental to ratepayers and the state's economy.

Q. Describe the economic impact that occurs when the awarded return strays too far from the U.S. Supreme Court's cost of equity standard.

A. When the awarded ROE is set far above the *cost* of equity, it runs the risk of violating the U.S. Supreme Court's standards that the awarded return should be *based on the cost of capital*. If the Commission were to adopt the Company's position in this case, it would be permitting an excess transfer of wealth from customers to Company shareholders. Moreover, establishing an awarded return that far exceeds the true cost of capital effectively prevents the awarded returns from changing along with economic conditions. This is especially true given the fact that regulators tend to be influenced by the awarded returns in other jurisdictions, regardless of the various unknown factors influencing those awarded returns. This is yet another reason why it is crucial for regulators to focus on the target utility's actual *cost* of equity, rather than awarded returns from other jurisdictions. Awarded returns may be influenced by settlements and other political factors not based on true market conditions. In contrast, the market-based cost of equity as estimated through objective models is not influenced by these factors but is instead driven by market-based factors. If regulators rely too heavily on the awarded returns from other jurisdictions, it can create a cycle over time that bears little relation to the market-based cost of equity.

IV. GENERAL CONCEPTS AND METHODOLOGY

Q. Discuss your approach to estimating the cost of equity in this case.

A. While a competitive firm must estimate its own cost of capital to assess the profitability of competing capital projects, regulators determine a utility's cost of capital to establish a fair rate of return. The legal standards set forth above do not include specific guidelines regarding the models that must be used to estimate the cost of equity. Over the years,

however, regulatory commissions have consistently relied on several models. The models I have employed in this case have been the two most widely used and accepted in regulatory proceedings for many years. These models are the DCF Model and the CAPM. The specific inputs and calculations for these models are described in more detail below.

Q. Please explain why multiple models are used to estimate the cost of equity.

A. The models used to estimate the cost of equity attempt to measure the return on equity required by investors by estimating several different inputs. It is preferable to use multiple models because the results of any one model may contain a degree of imprecision, especially depending on the reliability of the inputs used at the time of conducting the model. By using multiple models, the analyst can compare the results of the models and look for outlying results and inconsistencies. Likewise, if multiple models produce a similar result, it may indicate a narrower range for the cost of equity estimate.

Q. Please discuss the benefits of choosing a proxy group of companies in conducting cost of capital analyses.

A. The cost of equity models in this case can be used to estimate the cost of capital of any individual, publicly-traded company. There are advantages, however, to conducting cost of capital analyses on a "proxy group" of companies that are comparable to the target company. First, it is better to assess the financial soundness of a utility by comparing it to a group of other financially sound utilities. Second, using a proxy group provides more reliability and confidence in the overall results because there is a larger sample size. Finally, the use of a proxy group is often a pure necessity when the target company is a subsidiary that is not publicly traded. This is because the financial models used to estimate

the cost of equity require information from publicly-traded firms, such as stock prices and dividends.

Q. Describe the proxy group you selected in this case.

A. In this case, I chose to use the same utility proxy group that Mr. Walker used for his analyses. There could be reasonable arguments made for the inclusion or exclusion of a particular company in a proxy group; however, the cost of equity results are influenced far more by the underlying assumptions and inputs to the various financial models than the composition of the proxy group.[13] By using the same utility proxy group, we can remove a relatively insignificant variable from the equation and focus on the primary factors driving the Company's cost of equity estimate in this case.

V. RISK AND RETURN CONCEPTS

Q. Please discuss the general relationship between risk and return.

A. As discussed above, risk is the most important factor for the Commission to consider when determining the allowed return. There is a direct relationship between risk and return: the more (or less) risk an investor assumes, the larger (or smaller) return the investor will demand. There are two primary types of risk: firm-specific risk and market risk. Firm-specific risk affects individual companies, while market risk affects all companies in the market to varying degrees.

[13] *See* Exhibit DJG-2.

Q. Discuss the differences between firm-specific risk and market risk.

A. Firm-specific risk affects individual companies, rather than the entire market. For example, a competitive firm might overestimate customer demand for a new product, resulting in reduced sales revenue. This is an example of a firm-specific risk called "project risk."[14] There are several other types of firm-specific risks, including: (1) "financial risk" — the risk that equity investors of leveraged firms face as residual claimants on earnings; (2) "default risk" — the risk that a firm will default on its debt securities; and (3) "business risk" — which encompasses all other operating and managerial factors that may result in investors realizing less than their expected return in that particular company.

While firm-specific risk affects individual companies, market risk affects all companies in the market to varying degrees. Examples of market risk include interest rate risk, inflation risk, and the risk of major socio-economic events. When there are changes in these risk factors, they affect all firms in the market to some extent.[15]

Analysis of the U.S. market in 2001 provides a good example for contrasting firm-specific risk and market risk. During that year, Enron Corp.'s stock fell from $80 per share and the company filed for bankruptcy at the end of the year. If an investor's portfolio had held only Enron stock at the beginning of 2001, this irrational investor would have lost the entire investment by the end of the year due to assuming the full exposure of Enron's firm-specific risk (in that case, imprudent management). On the other hand, a rational, diversified investor who invested the same amount of capital in a portfolio holding every

---

[14] Aswath Damodaran, *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset*, pp. 62-63 (3rd ed., John Wiley & Sons, Inc. 2012).

[15] *See* Zvi Bodie, Alex Kane & Alan J. Marcus, *Essentials of Investments*, p. 149 (9th ed., McGraw-Hill/Irwin 2013).

stock in the S&P 500 would have had a much different result that year. The rational investor would have been relatively unaffected by the fall of Enron because her portfolio included 499 other stocks. Each of those stocks, however, would have been affected by various *market* risk factors that occurred that year, including the terrorist attacks on September 11th, which affected all stocks in the market. Thus, the rational investor would have incurred a relatively minor loss due to market risk factors, while the irrational investor would have lost everything due to firm-specific risk factors.

Q. Can investors minimize firm-specific risk through portfolio diversification?

A. Yes. A fundamental concept in finance is that firm-specific risk can be minimized through diversification.[16] If someone irrationally invested all their funds in one firm (such as Enron), they would be exposed to all the firm-specific risk *and* the market risk inherent in that single firm. Rational investors, however, are risk-averse and seek to eliminate risk they can control. Investors can essentially eliminate firm-specific risk by adding more stocks to their portfolio through a process called "diversification."

There are two reasons why diversification eliminates firm-specific risk. First, each stock in a diversified portfolio represents a much smaller percentage of the overall portfolio than it would in a portfolio of just one or a few stocks. Thus, any firm-specific action that changes the stock price of one stock in the diversified portfolio will have only a small impact on the entire portfolio.[17]

---

[16] *See* John R. Graham, Scott B. Smart & William L. Megginson, *Corporate Finance: Linking Theory to What Companies Do*, pp. 179-80 (3rd ed., South Western Cengage Learning 2010).

[17] *See* Aswath Damodaran, *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset*, p. 64 (3rd ed., John Wiley & Sons, Inc. 2012).

The second reason why diversification eliminates firm-specific risk is that the effects of firm-specific actions on stock prices can be either positive or negative for each stock. Thus, in large diversified portfolios, the net effect of these positive and negative firm-specific risk factors will be essentially zero and will not affect the value of the overall portfolio.[18] Firm-specific risk is also called "diversifiable risk" because it can be easily eliminated through diversification.

Q. Do investors expect an additional return for assuming firm-specific risks?

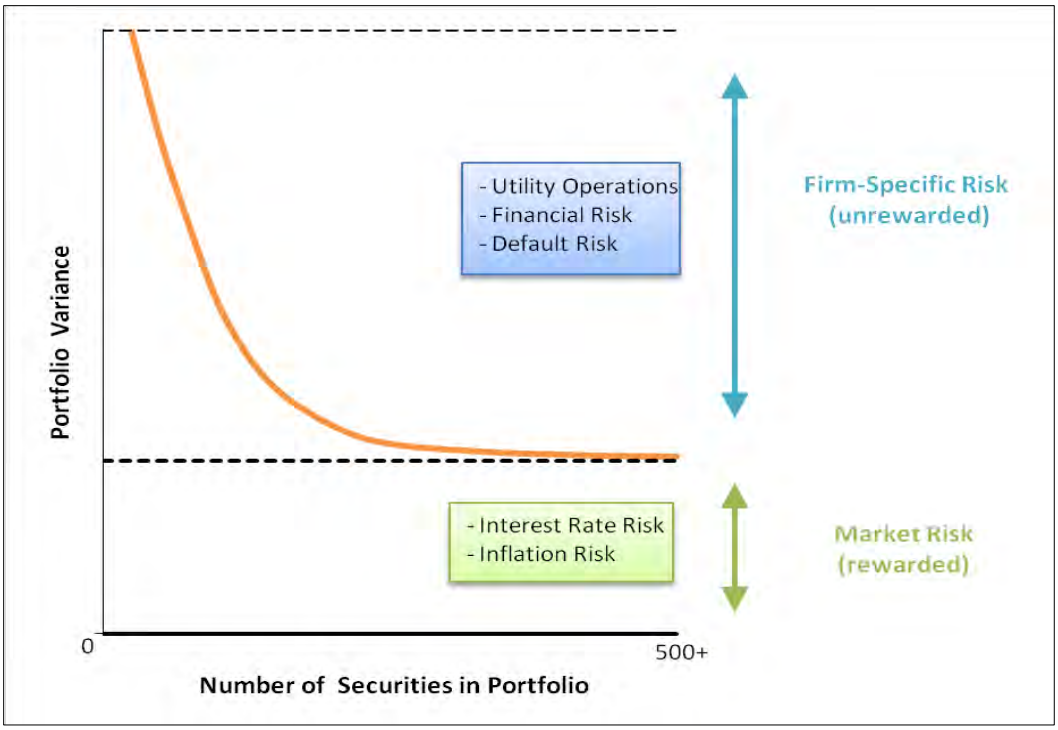
A. No. Because investors eliminate firm-specific risk through diversification, they know they cannot expect a higher return for assuming the firm-specific risk in any one company. Thus, the risks associated with an individual firm's operations are not rewarded by the market. In fact, firm-specific risk is also called "unrewarded" risk for this reason. Market risk, on the other hand, cannot be eliminated through diversification. Because market risk cannot be eliminated through diversification, investors expect a return for assuming this type of risk. Market risk is also called "systematic risk." Scholars recognize the fact that market risk, or "systematic risk," is the only type of risk for which investors expect a return for bearing:

[18] *Id*.

> If investors can cheaply eliminate some risks through diversification, then we should not expect a security to earn higher returns for risks that can be eliminated through diversification. Investors can expect compensation *only* for bearing systematic risk (i.e., risk that cannot be diversified away).[19]

These important concepts are illustrated in the figure below. Some form of this figure is found in many financial textbooks.

Figure 2:
Effects of Portfolio Diversification



This figure shows that as stocks are added to a portfolio, the amount of firm-specific risk is reduced until it is essentially eliminated. No matter how many stocks are added, however, there remains a certain level of fixed market risk. The level of market risk will vary from firm to firm. Market risk is the only type of risk that is rewarded by the market

[19] *See* John R. Graham, Scott B. Smart & William L. Megginson, *Corporate Finance: Linking Theory to What Companies Do*, p. 180 (3rd ed., South Western Cengage Learning 2010).

and is thus the primary type of risk the Commission should consider when determining the allowed return for the utilities it regulates.

Q. Describe how market risk is measured.

A. Investors who want to eliminate firm-specific risk must hold a fully diversified portfolio. To determine the amount of risk that a single stock adds to the overall market portfolio, investors measure the covariance between a single stock and the market portfolio. The result of this calculation is called "beta."[20] Beta represents the sensitivity of a given security to the market as a whole. The market portfolio of all stocks has a beta equal to one. Stocks with betas greater than one are relatively more sensitive to market risk than the average stock. For example, if the market increases (decreases) by 1.0%, a stock with a beta of 1.5 will, on average, increase (decrease) by 1.5%. In contrast, stocks with betas of less than one are less sensitive to market risk, such that if the market increases (decreases) by 1.0%, a stock with a beta of 0.5 will, on average, only increase (decrease) by 0.5%. Thus, stocks with low betas are relatively insulated from market conditions. The beta term is used in the CAPM to estimate the cost of equity, which is discussed in more detail later.[21]

Q. Are public utilities characterized as defensive firms that have low betas, low market risk, and are relatively insulated from overall market conditions?

A. Yes. Although market risk affects all firms in the market, it affects different firms to varying degrees. Firms with high betas are affected more than firms with low betas, which

[20] *Id*. at 180-81.

[21] Though it will be discussed in more detail later, Exhibit DJG-9 shows that the average beta of the proxy group was less than 1.0. This confirms the well-known concept that utilities are relatively low-risk firms.

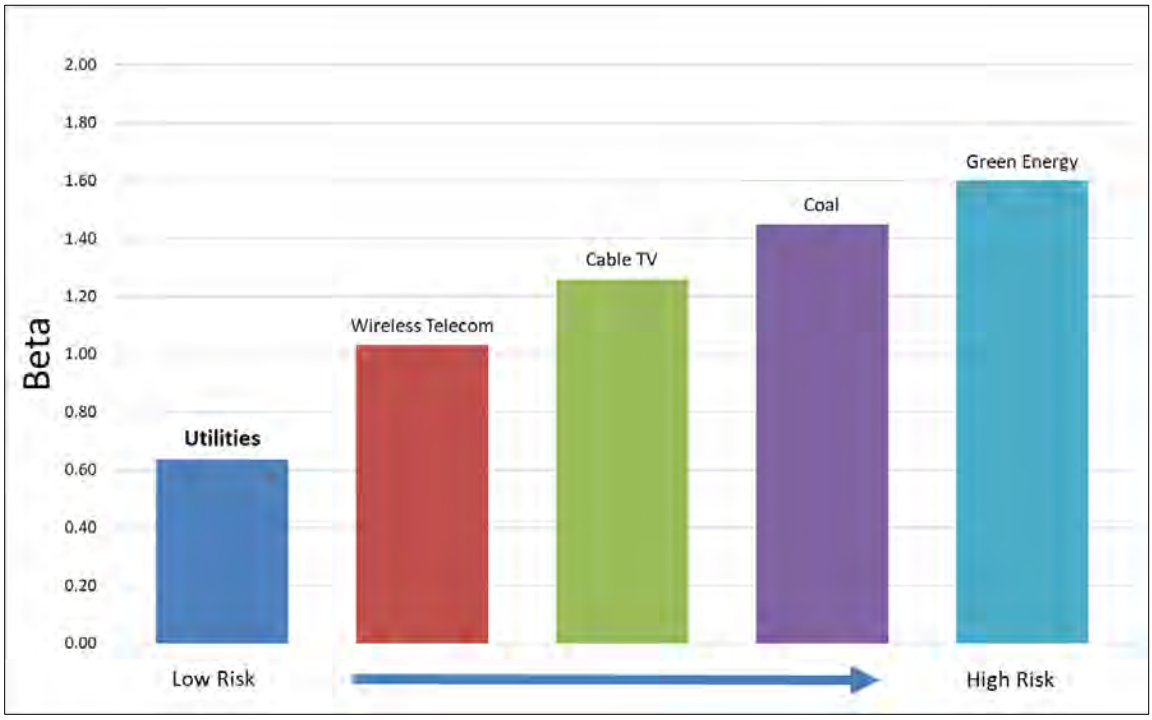
is why firms with high betas are riskier. Stocks with betas greater than one are generally known as "cyclical stocks." Firms in cyclical industries are sensitive to recurring patterns of recession and recovery known as the "business cycle."[22] Thus, cyclical firms are exposed to a greater level of market risk. Securities with betas less than one, on the other hand, are known as "defensive stocks." Companies in defensive industries, such as public utility companies, "will have low betas and performance that is comparatively unaffected by overall market conditions."[23] In fact, financial textbooks often use utility companies as prime examples of low-risk, defensive firms. The figure below compares the betas of several industries and illustrates that the utility industry is one of the least risky industries in the U.S. market.[24]

[22] *See* Zvi Bodie, Alex Kane & Alan J. Marcus, *Essentials of Investments*, p. 382 (9th ed., McGraw-Hill/Irwin 2013).

[23] *Id*. at 383.

[24] *See* Betas by Sector (US) available at http://pages.stern.nyu.edu/~adamodar/ (2018). (After clicking the link, click "Data" then "Current Data" then "Risk / Discount Rate" from the drop down menu, then "Total Beta by Industry Sector"). The exact beta calculations are not as important as illustrating the well-known fact that utilities are very low-risk companies. The fact that the utility industry is one of the lowest risk industries in the country should not change from year to year.

Figure 3:
Beta by Industry



The fact that utilities are defensive firms that are exposed to little market risk is beneficial to society. When the business cycle enters a recession, consumers can be assured that their utility companies will be able to maintain normal business operations and provide safe and reliable service under efficient management. Likewise, utility investors can be confident that utility stock prices will not widely fluctuate. So, while it is recognized and accepted that utilities are defensive firms that experience little market risk and are relatively insulated from market conditions, this fact should also be appropriately reflected in the Company's awarded return.

VI. DISCOUNTED CASH FLOW ANALYSIS

Q. Describe the DCF Model.

A. The DCF Model is based on a fundamental financial model called the "dividend discount model," which maintains that the value of a security is equal to the present value of the future cash flows it generates.[25] Cash flows from common stock are paid to investors in the form of dividends. There are several variations of the DCF Model. These versions, along with other formulas and theories related to the DCF Model, are discussed in more detail in Appendix A.

Q. Describe the inputs to the DCF Model.

A. There are three primary inputs in the DCF Model: (1) stock price; (2) dividend; and (3) the long-term growth rate. The stock prices and dividends are known inputs based on recorded data, while the growth rate projection must be estimated. I discuss each of these inputs separately below.

A. Stock Price

Q. How did you determine the stock price input of the DCF Model?

A. For the stock price (P_0), I used a 30-day average of stock prices for each company in the proxy group.[26] Analysts sometimes rely on average stock prices for longer periods (*e.g.*, 60, 90, or 180 days). According to the efficient market hypothesis, however, markets reflect all relevant information available at a particular time, and prices adjust

[25] Present value (PV) is the current value of a future sum of money or stream of cash flows given a specified rate of return. Present value takes the future value and applies a discount rate or the interest rate that could be earned if invested.

[26] Exhibit DJG-3.

instantaneously to the arrival of new information.[27] Past stock prices, in essence, reflect outdated information. The DCF Model used in utility rate cases is a derivation of the dividend discount model, which is used to determine the current value of an asset. Thus, according to the dividend discount model and the efficient market hypothesis, the value for the "P_0" term in the DCF Model should technically be the current stock price, rather than an average.

Q. Why did you use a 30-day average for the current stock price input?

A. Using a short-term average of stock prices for the current stock price input adheres to market efficiency principles while avoiding any irregularities that may arise from using a single current stock price. In the context of a utility rate proceeding, there is a significant length of time between when an application is filed and when testimony is due. Choosing a current stock price for one particular day could raise a separate issue concerning which day was chosen to be used in the analysis. In addition, a single stock price on a particular day may be unusually high or low. It is arguably ill-advised to use a single stock price in a model that is ultimately used to set rates for several years, especially if a stock is experiencing some volatility. Thus, it is preferable to use a short-term average of stock prices, which represents a good balance between adhering to well-established principles of market efficiency while avoiding any unnecessary contentions that may arise from using a

[27] *See* Eugene F. Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, Vol. 25, No. 2 The Journal of Finance, p. 383 (1970); *see also* John R. Graham, Scott B. Smart & William L. Megginson, *Corporate Finance: Linking Theory to What Companies Do*, p. 357 (3rd ed., South Western Cengage Learning 2010). The efficient market hypothesis was formally presented by Eugene Fama in 1970 and is a cornerstone of modern financial theory and practice.

single stock price on a given day. The stock prices I used in my DCF analysis are based on 30-day averages of adjusted closing stock prices for each company in the proxy group.[28]

B. Dividend

Q. Describe how you determined the dividend input of the DCF Model.

A. The dividend term in the DCF Model represents dividends per share (d_0). I used forward-looking annualized dividends published by Yahoo! Finance for the dividend input to my constant growth DCF Model.[29] Dividing these dividends by the stock prices for each proxy company results in the dividend yield for each company.[30]

Q. Are the stock price and dividend inputs for each proxy company a significant issue in this case?

A. No. Although my stock price and dividend inputs are more recent than those used by Mr. Walker, there is not a statistically significant difference between them because utility stock prices and dividends are generally quite stable. This is another reason that cost of capital models such as the CAPM and the DCF Model are well-suited to be conducted on utilities. The differences between my DCF Model and Mr. Walker's DCF Model are primarily driven by differences in our growth rate estimates, which are further discussed below.

---

[28] Exhibit DJG-3. Adjusted closing prices, rather than actual closing prices, are ideal for analyzing historical stock prices. The adjusted price provides an accurate representation of the firm's equity value beyond the mere market price because it accounts for stock splits and dividends.

[29] Exhibit DJG-4.

[30] *Id*.

A. Growth Rate

Q. Please Summarize the growth rate input in the DCF Model.

A. The most critical input in the DCF Model is the growth rate. Unlike the stock price and dividend inputs, the growth rate input (g) must be estimated. As a result, the growth rate is often the most contentious issue related to DCF model inputs in utility rate cases. The DCF model used in this case is based on the sustainable growth valuation model. Under this model, a stock is valued by the present value of its future cash flows in the form of dividends. Before future cash flows are discounted by the cost of equity, however, they must be "grown" into the future by a sustainable growth rate. As stated above, one of the inherent assumptions of this model is that these cash flows in the form of dividends grow at a sustainable rate forever. For young, high-growth firms, estimating the growth rate to be used in the model can be especially difficult, and may require the use of multi-stage growth models. For mature, low-growth firms such as utilities, however, estimating the sustainable growth rate is more transparent. The growth term of the DCF Model is one of the most important, yet least understood, aspects of cost of equity estimations in utility regulatory proceedings. I provide a more detailed explanation on the various determinants of growth below.

Q. Describe the various determinants of growth that can be considered for the growth rate input in the DCF Model.

A. Although the DCF Model directly considers the growth of dividends, there are a variety of growth determinants that should be considered when estimating growth rates. It should be noted that these various growth determinants are used primarily to determine the short-term growth rates in multi-stage DCF models. For utility companies, it is necessary to

focus primarily on a long-term growth rate in dividends. This is also known as a "sustainable" growth rate, since this is the growth rate assumed for the company's dividends in perpetuity. That is not to say that these growth determinants cannot be considered when estimating sustainable growth; however, as discussed below, sustainable growth must be constrained much more than short-term growth, especially for young firms with high growth opportunities. Additionally, I briefly discuss these growth determinants here because it may reveal some of the sources of confusion in this area.

(1) Historical Growth

Looking at a firm's actual historical experience may theoretically provide a good starting point for estimating short-term growth. However, past growth is not always a good indicator of future growth. Some metrics that might be considered here are a historical growth in revenues, operating income, and net income. Since dividends are paid from earnings, estimating historical earnings growth may provide an indication of future earnings and dividend growth.

(2) Analyst Growth Rates

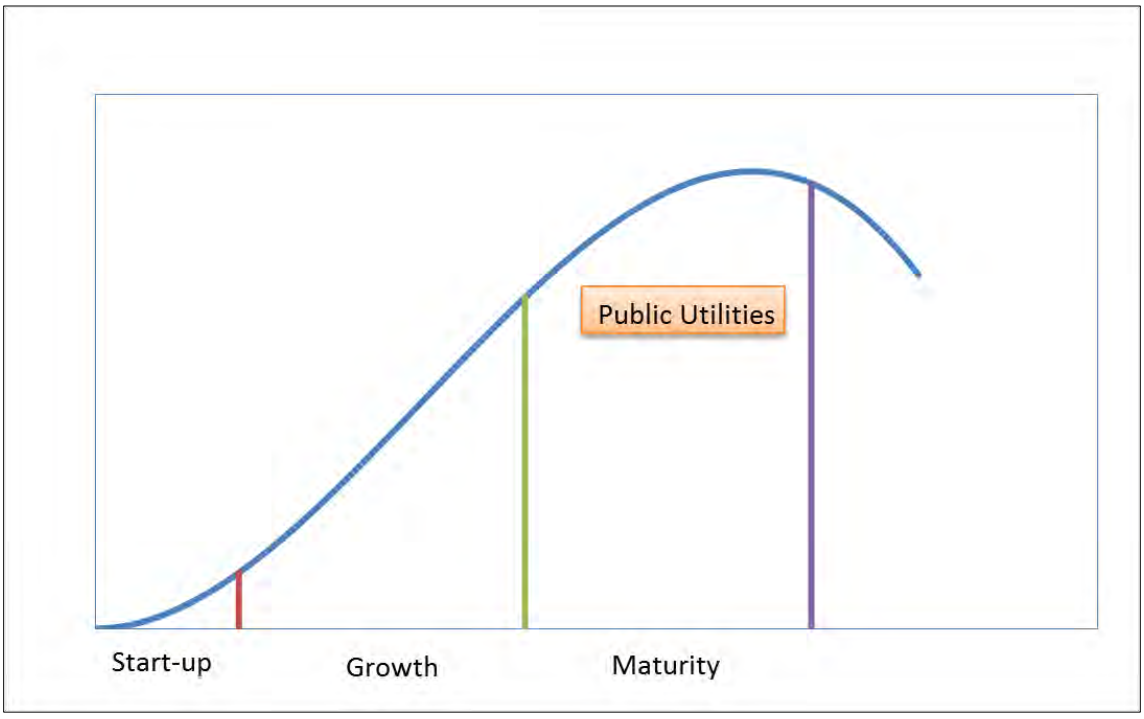
Analyst growth rates refer to short-term projections of earnings growth published by institutional research analysts such as Value Line and Bloomberg. Analyst growth rates, including the limitations with using them in the DCF Model to estimate utility cost of equity, are discussed in more detail below.

(3) Sustainable Growth Rates

In order to make the DCF Model a viable, practical model, an infinite stream of future cash flows must be estimated and then discounted back to the present. Otherwise, each annual cash flow would have to be estimated separately. Some analysts use "multi-

stage" DCF Models to estimate the value of high-growth firms through two or more stages of growth, with the final stage of growth being sustainable. However, it is not necessary to use multi-stage DCF Models to analyze the cost of equity of regulated utility companies. This is because regulated utilities are already in their "sustainable," low growth stage. Unlike most competitive firms, the growth of regulated utilities is constrained by physical service territories and limited primarily by ratepayer and load growth within those territories. The Figure below illustrates the well-known business/industry life-cycle pattern.

Figure 4:
Industry Life Cycle



In an industry's early stages, there are ample opportunities for growth and profitable reinvestment. In the maturity stage however, growth opportunities diminish, and firms choose to pay out a larger portion of their earnings in the form of dividends instead of

reinvesting them in operations to pursue further growth opportunities. Once a firm is in the maturity stage, it is not necessary to consider higher short-term growth metrics in multi-stage DCF Models; rather, it is sufficient to analyze the cost of equity using a stable growth DCF Model with one sustainable growth rate.

Q. Is the aggregate growth rate of the economy typically a limiting factor for the terminal growth rate in the DCF Model?

A. Yes. A fundamental concept in finance is that no firm can grow forever at a rate higher than the growth rate of the economy in which it operates.[31] Thus, the terminal growth rate used in the DCF Model should not exceed the aggregate economic growth rate. This is especially true when the DCF Model is conducted on public utilities because these firms have defined service territories. As stated by Dr. Damodaran: "[i]f a firm is a purely domestic company, either because of internal constraints . . . or external constraints (such as those imposed by a government), the growth rate in the domestic economy will be the limiting value."[32]

In fact, it is reasonable to assume that a regulated utility would grow at a rate that is less than the U.S. economic growth rate. Unlike competitive firms, which might increase their growth by launching a new product line, franchising, or expanding into new and developing markets, utility operating companies with defined service territories cannot do any of these things to grow. Gross Domestic Product ("GDP") is one of the most widely used measures of economic production and is used to measure aggregate economic growth.

---

[31] *See* Aswath Damodaran, *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset* 306 (3rd ed., John Wiley & Sons, Inc. 2012).

[32] Aswath Damodaran, *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset* 306 (3rd ed., John Wiley & Sons, Inc. 2012).

According to the Congressional Budget Office's Budget Outlook, the long-term forecast for nominal U.S. GDP growth is about 4%, which includes an inflation rate of 2%.[33] For mature companies in mature industries, such as utility companies, the terminal growth rate will likely fall between the expected rate of inflation and the expected rate of nominal GDP growth.

Q. Do water utilities have unique growth opportunities that most electric and gas utilities do not have?

A. Yes. Water utilities are in a unique position to adopt growth strategies which include the potential acquisition of many smaller water and wastewater systems from various municipalities and other localized government entities. My analysis of the dividend yields of the proxy group shows that these companies are likely retaining more capital in order to pursue these types of growth strategies.

Q. Given these unique growth opportunities, did you also consider a variation of the DCF Model that incorporates analysts' growth rate projections?

A. Yes. In this case, I present the results of analyst growth variation of my DCF Model because it is commonly presented in rate proceedings and because of the unique growth opportunities of water utilities.

Q. Please describe the results of your DCF Models?

A. For my DCF Models, I considered two variations: one using a sustainable growth rate and one using analysts' growth rates. The result of the analyst growth variation of my DCF Model is 9.1%, which also represents the top end of my estimated range for the Company's cost of equity in this case. In order to get an accurate assessment of the cost of equity, a

[33] Congressional Budget Office Long-Term Budget Outlook, https://www.cbo.gov/publication/59014.

model that measures market risk and its impact on individual companies must be used. This is exactly what the CAPM does. As discussed below, the results of the CAPM indicate a lower cost of equity for the Company, which indicates that VWPA's authorized ROE should not be set any higher than 9.1%.

C. Response to Mr. Walker's DCF Model

Q. Please summarize the results of Mr. Walker's DCF analyses.

A. Mr. Walker's "market value DCF cost rate estimate for the [proxy group] is 8.7%"[34] Mr. Walker then applies various adjustments to his market value DCF results, which make his final DCF result higher.

Q. Do you believe the results of Mr. Walker's market value DCF model (before adjustments) indicates a reasonable estimate for the Company's cost of equity?

A. Yes. I believe 8.7% is a reasonable estimate for the Company's cost of equity, and that results falls within my estimated range.

Q. Please describe the adjustments Mr. Walker makes to his market value DCF results to make them higher.

A. According to Mr. Walker, the market value DCF understates the Company's cost of equity because stock prices of the proxy group exceed their book values, in addition to "low dividend yields."[35]

[34] Direct Testimony of Harold Walker, p. 47, lines 17-20.

[35] *See id*. at p. 48.

Q. How do you interpret Mr. Walker's arguments that the market value DCF results are understated.

A. I do not agree with Mr. Walker's claims that the DCF Model is significantly understanding the Company's cost of equity. In fact, as later discussed in the CAPM section of my testimony, the DCF Model might actually be overstating the Company's cost of equity. In the DCF Model, dividends are in the numerator, and stock prices are in the denominator. Mr. Walker is essentially saying that the real DCF results are understating cost of equity because the numerator is too low (i.e., low dividend yields) and the denominator is too high (i.e., a market-to-book ratios). In reality, a high market-to-book ratio typically means that a firm is overvalued, however, that does not warrant a significant adjustment to the DCF Model. Rather, the DCF Model is functioning just as it was designed to, without Mr. Walker's upwardly biased adjustments. That is, the value of the firms in the proxy group can be estimated by calculating the present value of their future cash flows. The discount rate (i.e., cost of equity) implied by that calculation according to Mr. Walker's analysis is simply 8.7%. The fact that Mr. Walker believes the formula's numerator should be higher and the denominator should be lower is not only irrelevant, but also decision that is also clearly effected by bias in my view.

Q. How does Mr. Walker attempt to reconcile the market-to-book discrepancies of the proxy group.

A. Mr. Walker uses the Hamada model, in part, to adjust the base results of his DCF Model.

Q. Do you believe Mr. Walker applied the Hamada Model correctly?

A. No. As discussed in more detail below in the capital structure section of my testimony, a correct application of the Hamada Model (as property applied to the CAPM, not the DCF Model), would result in a *downward* adjustment to the indicated cost of equity under the

CAPM. This is because VWPA has less financial risk than the proxy group average as reflected in its lower debt ratio than the average debt ratio of the proxy group. The fact that Mr. Walker uses the Hamada Model to make his cost of equity estimate *higher* indicates a gross misapplication of the model.

VII. CAPITAL ASSET PRICING MODEL ANALYSIS

Q. Please describe the CAPM.

A. The CAPM is a market-based model founded on the principle that investors expect higher returns for incurring additional risk.[36] The CAPM estimates this expected return. The various assumptions, theories, and equations involved in the CAPM are discussed further in Appendix B. Using the CAPM to estimate the cost of equity of a regulated utility is consistent with the legal standards governing the fair rate of return. The U.S. Supreme Court has recognized that "the amount of *risk* in the business is a most important factor" in determining the allowed rate of return,[37] and that "the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding *risks*."[38] The CAPM is a useful model because it directly considers the amount of risk inherent in a business and directly measures the most important component of a fair rate of return analysis: Risk.

---

[36] William F. Sharpe, *A Simplified Model for Portfolio Analysis*, pp. 277-93 (Management Science IX 1963); *see also* John R. Graham, Scott B. Smart & William L. Megginson, *Corporate Finance: Linking Theory to What Companies Do*, p. 208 (3rd ed., South-Western Cengage Learning 2010).

[37] *Wilcox*, 212 U.S. at 48 (emphasis added).

[38] *Hope Natural Gas Co.*, 320 U.S. at 603 (emphasis added).

Q. Describe the inputs for the CAPM.

A. The basic CAPM equation requires only three inputs to estimate the cost of equity: (1) the risk-free rate; (2) the beta coefficient; and (3) the equity risk premium. Each input is discussed separately below.

A. The Risk-Free Rate

Q. Please explain the risk-free rate.

A. The first term in the CAPM is the risk-free rate (R_F). The risk-free rate is simply the level of return investors can achieve without assuming any risk. The risk-free rate represents the bare minimum return that any investor would require on a risky asset. Even though no investment is technically devoid of risk, investors often use U.S. Treasury securities to represent the risk-free rate because they accept that those securities essentially contain no default risk. The Treasury issues securities with different maturities, including short-term Treasury Bills, intermediate-term Treasury Notes, and long-term Treasury Bonds.

Q. Is it preferable to use the yield on long-term Treasury bonds for the risk-free rate in the CAPM?

A. Yes. In valuing an asset, investors estimate cash flows over long periods of time. Common stock is viewed as a long-term investment, and the cash flows from dividends are assumed to last indefinitely. As a result, short-term Treasury bill yields are rarely used in the CAPM to represent the risk-free rate. Short-term rates are subject to greater volatility and thus can lead to unreliable estimates. Instead, long-term Treasury bonds are usually used to represent the risk-free rate in the CAPM. I considered a 30-day average of daily Treasury

yield curve rates on 30-year Treasury bonds in my risk-free rate estimate, which resulted in a risk-free rate of 4.6%.[39]

B. The Beta Coefficient

Q. How is the beta coefficient used in this model?

A. As discussed above, beta represents the sensitivity of a given security to movements in the overall market. The CAPM states that in efficient capital markets, the expected risk premium on each investment is proportional to its beta. Recall that a security with a beta greater than 1.0 is riskier than the market portfolio. Conversely, a security with a beta less than one is less risky than the market portfolio. An index such as the S&P 500 Index is used as a proxy for the market portfolio. The historical betas for publicly traded firms are published by various institutional analysts. Beta may also be calculated through a linear regression analysis, which provides additional statistical information about the relationship between a single stock and the market portfolio. The market portfolio of all stocks has a beta equal to one. Stocks with betas greater than one are relatively more sensitive to market risk than the average stock. In contrast, stocks with betas of less than one are less sensitive to market risk.

Q. Describe the source for the betas you used in your CAPM analysis.

A. I used betas recently published by Value Line Investment Survey. The beta for each proxy company is less than 1.0, and the average beta for the total proxy group is only 0.83.[40] Thus, we have an objective measure to prove the well-known concept that utility stocks

[39] Exhibit DJG-7.

[40] Exhibit DJG-8.

are less risky than the average stock in the market. While there is evidence suggesting that betas published by sources such as Value Line may actually overestimate the risk of utilities (and thus overestimate the CAPM), I used the betas published by Value Line in the interest of reasonableness.[41]

C. The Equity Risk Premium

Q. Describe the equity risk premium.

A. The final term of the CAPM is the equity risk premium ("ERP"), which is the required return on the market portfolio less the risk-free rate ($R_M - R_F$). In other words, the ERP is the level of return investors expect above the risk-free rate in exchange for investing in risky securities. Many experts agree that "the single most important variable for making investment decisions is the equity risk premium."[42] Likewise, the ERP is arguably the single most important factor in estimating the cost of capital in this matter. There are three basic methods that can be used to estimate the ERP: (1) calculating a historical average; (2) taking a survey of experts; and (3) calculating the implied ERP. I will discuss each method in turn, noting advantages and disadvantages of these methods.

1. Historical Average

Q. Describe the historical equity risk premium.

A. The historical ERP may be calculated by simply taking the difference between returns on stocks and returns on government bonds over a certain period of time. Many practitioners

[41] *See* Appendix B for a more detailed discussion of raw beta calculations and adjustments.

[42] Elroy Dimson, Paul Marsh & Mike Staunton, *Triumph of the Optimists: 101 Years of Global Investment Returns*, p. 4 (Princeton University Press 2002).

rely on the historical ERP as an estimate for the forward-looking ERP because it is easy to obtain. However, there are disadvantages to relying on the historical ERP.

Q. What are the limitations of relying solely on a historical average to estimate the current or forward-looking ERP?

A. Some investors may rely on the historic ERP because it is convenient and easy to calculate. But what matters in the CAPM model is the current and forward-looking risk premium.[43] Some investors may think that a historic ERP provides some indication of what the prospective risk premium is; however, there is empirical evidence to suggest the prospective, forward-looking ERP is actually *lower* than the historical ERP. In a landmark publication on risk premiums around the world, *Triumph of the Optimists*, the authors suggest through extensive empirical research that the prospective ERP is lower than the historical ERP.[44] This is due in large part to what is known as "survivorship bias" or "success bias" — a tendency for failed companies to be excluded from historical indices.[45] From their extensive analysis, the authors make the following conclusion regarding the prospective ERP:

[43] John R. Graham, Scott B. Smart & William L. Megginson, *Corporate Finance: Linking Theory to What Companies Do*, p. 330 (3rd ed., South-Western Cengage Learning 2010).

[44] Elroy Dimson, Paul Marsh & Mike Staunton, Triumph of the Optimists: 101 Years of Global Investment Returns, p. 34 (Princeton University Press 2002).

[45] *Id*. at 194.

> The result is a forward-looking, geometric mean risk premium for the United States . . . of around 2½ to 4 percent and an arithmetic mean risk premium . . . that falls within a range from a little below 4 to a little above 5 percent.[46]

Indeed, these results are lower than many reported historical risk premiums. Other noted experts agree:

> The historical risk premium obtained by looking at U.S. data is biased upwards because of survivor bias. . . . The true premium, it is argued, is much lower. This view is backed up by a study of large equity markets over the twentieth century (*Triumph of the Optimists*), which concluded that the historical risk premium is closer to 4%.[47]

Regardless of the variations in historic ERP estimates, many leading scholars and practitioners agree that simply relying on a historic ERP to estimate the risk premium going forward is not ideal. Fortunately, "a naïve reliance on long-run historical averages is not the only approach for estimating the expected risk premium."[48]

Q. Did you rely on the historical ERP as part of your CAPM analysis in this case?

A. No. Due to the limitations of this approach, I primarily relied on the ERP reported in expert surveys and the implied ERP method discussed below.

2. Expert Surveys

Q. Describe the expert survey approach to estimating the ERP.

A. As its name implies, the expert survey approach to estimating the ERP involves conducting a survey of experts including professors, analysts, chief financial officers, and other

---

[46] *Id*.

[47] Aswath Damodaran, *Equity Risk Premiums: Determinants, Estimation and Implications – The 2015 Edition*, p. 17 (New York University 2015).

[48] John R. Graham, Scott B. Smart & William L. Megginson, *Corporate Finance: Linking Theory to What Companies Do*, p. 330 (3rd ed., South Western Cengage Learning 2010).

executives around the country and asking them what they think the ERP is. The IESE Business School conducts such a survey each year. Its 2024 expert survey reported an average ERP of 5.5%.[49]

3. Implied Equity Risk Premium

Q. Describe the implied equity risk premium approach.

A. The third method of estimating the ERP is arguably the best. The implied ERP relies on the stable growth model proposed by Gordon, often called the "Gordon Growth Model," which is a basic stock valuation model that has been widely used in finance for many years.[50] This model is a mathematical derivation of the DCF Model. In fact, the underlying concept in both models is the same: The current value of an asset is equal to the present value of its future cash flows. Instead of using this model to determine the discount rate of one company, we can use it to determine the discount rate for the entire market by substituting the inputs of the model. Specifically, instead of using the current stock price (P_0), we will use the current value of the S&P 500 (V_{500}). Instead of using the dividends of a single firm, we will consider the dividends paid by the entire market. Additionally, we should consider potential dividends. In other words, stock buybacks should be considered in addition to paid dividends, as stock buybacks represent another way for the firm to transfer free cash flow to shareholders. Focusing on dividends alone without

---

[49] Pablo Fernandez, et al., *Survey: Market Risk Premium and Risk-Free Rate used for 96 countries in 2024* (IESE Business School 2024), copy available at https://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID4754347_code12696.pdf?abstractid=4754347&mirid=1 IESE Business School is the graduate business school of the University of Navarra.

[50] Myron J. Gordon and Eli Shapiro, *Capital Equipment Analysis: The Required Rate of Profit* 102-10 (Management Science Vol. 3, No. 1 Oct. 1956).

considering stock buybacks could understate the cash flow component of the model, and ultimately understate the implied ERP. The market dividend yield plus the market buyback yield gives us the gross cash yield to use as our cash flow in the numerator of the discount model. This gross cash yield is increased each year over the next five years by the growth rate. These cash flows must be discounted to determine their present value. The discount rate in each denominator is the risk-free rate (R_F) plus the discount rate (K). Equation 1 below shows how the implied return is calculated. Since the current value of the S&P is known, we can solve for K, the implied market return.[51]

Equation 1:
Implied Market Return

$$V_{500} = \frac{CY_1(1+g)^1}{(1+R_F+K)^1} + \frac{CY_2(1+g)^2}{(1+R_F+K)^2} + \cdots + \frac{CY_5(1+g)^5 + TV}{(1+R_F+K)^5}$$

where:

V_{500}	=	*current value of index (S&P 500)*
CY_{1-5}	=	*average cash yield over last five years (includes dividends and buybacks)*
g	=	*compound growth rate in earnings over last five years*
R_F	=	*risk-free rate*
K	=	*implied market return (this is what we are solving for)*
TV	=	*terminal value = $CY_5 (1+R_F) / K$*

The discount rate is called the "implied" return because it is based on the current value of the index as well as the value of free cash flow to investors projected over the next five years. Thus, based on these inputs, the market is "implying" the expected return; or in other words, based on the current value of all stocks (the index price) and the projected value of future cash flows, the market is telling us the return expected by investors for investing in the market portfolio. After solving for the implied market return (K), we

[51] *See* Exhibit DJG-9 for detailed calculation.

simply subtract the risk-free rate from it to arrive at the implied ERP as shown in the following equation.

Equation 2:
Implied Equity Risk Premium

$$Implied\ Expected\ Market\ Return - R_F = Implied\ ERP$$

Q. Discuss the results of your implied ERP calculation.

A. After collecting data for the index value, operating earnings, dividends, and buybacks for the S&P 500 over the past six years, I calculated the dividend yield, buyback yield, and gross cash yield for each year. I also calculated the compound annual growth rate (g) from operating earnings. I used these inputs, along with the risk-free rate and current value of the index to calculate a current required return on the U.S. equity market of 9.7%. I subtracted the risk-free rate to arrive at the implied equity risk premium of 5.1%.[52] Dr. Damodaran, one of the world's leading experts on the ERP, promotes the implied ERP method discussed above. He calculates monthly and annual implied ERPs with this method and publishes his results. Dr. Damodaran's average ERP estimate for February 2024 using several implied ERP variations was 4.6%.[53] Additionally, Kroll (formerly Duff & Phelps) recently published an ERP estimate of 5.5%.[54]

Q. What are the results of your final ERP estimate?

A. For the final ERP estimate I used in my CAPM analysis, I considered the results of the ERP surveys, the estimated ERP reported by Kroll, the estimated ERP calculated by Dr.

---

[52] *Id*.

[53] http://pages.stern.nyu.edu/~adamodar/

[54] Kroll, Cost of Capital Recommendations and Potential Upcoming Changes – February 8, 2024 Update.

Damodaran, and the implied ERP based on my calculations.[55] The results are presented in the following figure:

Figure 5:
Equity Risk Premium Results

IESE Business School Survey	5.5%
Kroll (Duff & Phelps) Report	5.5%
Damodaran (average)	4.6%
Garrett	5.1%
Average	**5.2%**

I used the average ERP of 5.2% from these sources in my CAPM.

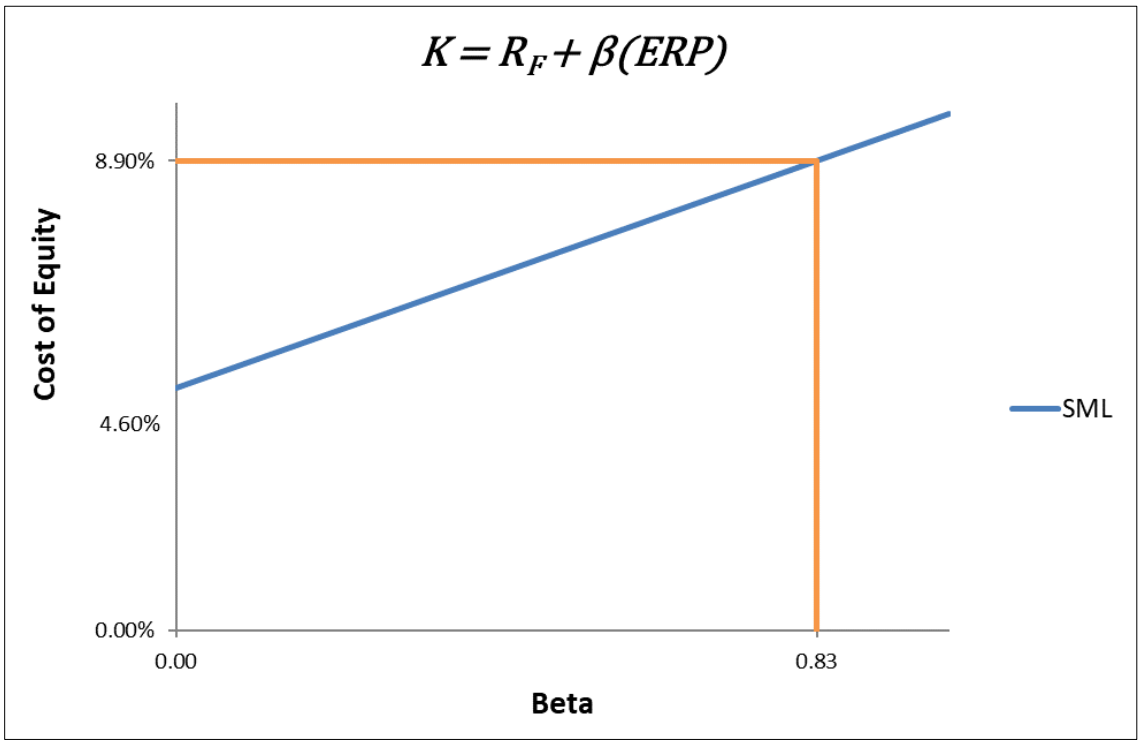
Q. Please explain the final results of your CAPM analysis.

A. Using the inputs for the risk-free rate, beta, and equity risk premium discussed above, I estimate that the Company's CAPM cost of equity is 8.7%.[56] The CAPM can be displayed graphically through what is known as the Security Market Line ("SML"). The figure below shows the expected return (cost of equity) on the y-axis, and the average beta for the proxy group on the x-axis. The SML intercepts the y-axis at the level of the risk-free rate. The slope of the SML is the equity risk premium.

[55] *See also* Exhibit DJG-10.

[56] Exhibit DJG-11.

Figure 6:
CAPM Graph



The SML provides the rate of return that will compensate investors for the beta risk of that investment. Thus, at an average beta of 0.83 for the proxy group, the estimated CAPM cost of equity for the Company is 8.9%.

D. Response to Mr. Walker's CAPM Analysis and Other Issues

Q. Please summarize the results of Mr. Walker's CAPM analyses.

A. Mr. Walker's CAPM produced a result of 11.75%,[57] which is significantly higher than my CAPM result.

[57] Direct Testimony of Harold Walker, p. 70, line 20.

Q. Did you find problems with Mr. Walker's assumptions and inputs used in his CAPM analysis?

A. Yes. The results of Mr. Walker's CAPM are nearly 300 basis points higher than my estimate. The significant overestimation of Mr. Walker's CAPM result is due to his decision to use an unrealistic input for the ERP. In addition, Mr. Walker adds a size premium which increases his CAPM result. Finally, Mr. Walker also applies another upward adjustment to his CAPM results by using the Hamada Model (discussed in the capital structure section of my testimony).

Q. Did Mr. Walker rely on a reasonable measure for the ERP?

A. No, he did not. Mr. Walker used an ERP of 7.5% in his CAPM.[58] As discussed above, I used three widely accepted methods for estimating the ERP, including consulting expert surveys, calculating the implied ERP based on aggregate market data, and considering the ERPs published by reputable analysts. The average ERP produced from my various sources is only 5.2%.[59]

Q. Please discuss and illustrate how Mr. Walker's ERP compares with other estimates for the ERP.

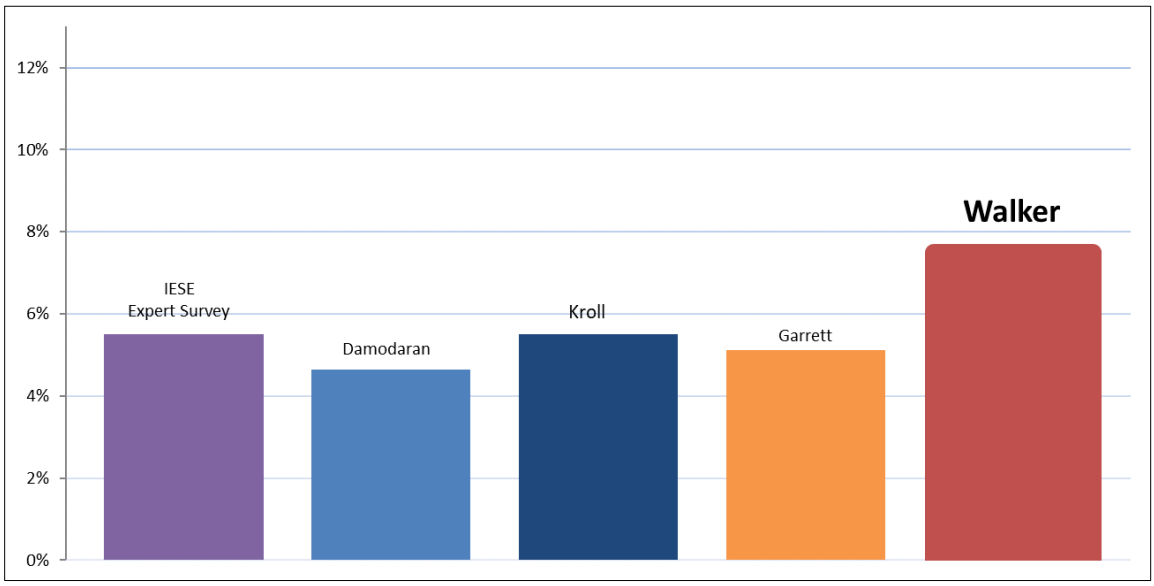
A. As discussed above, the 2024 IESE Business School expert survey reports an average ERP of 5.5%. Similarly, Kroll recently estimated an ERP of 5.5%. The following figure illustrates that Mr. Walker's ERP estimate is far out of line with objective industry expectations.[60]

[58] Direct Testimony of Harold Walker, p. 61, line 22.

[59] Exhibit DJG-10.

[60] The ERP estimated by Dr. Damodaran is the average of several ERP estimates under slightly differing assumptions.

Figure 7:
Equity Risk Premium Comparison



When compared with other independent sources for the ERP (as well as my estimate), Mr. Walker's ERP estimate is clearly outside the range of reasonableness. As a result, his CAPM cost of equity estimate is overstated and unreliable.

Q. Please describe Mr. Walker's size adjustment.

A. Mr. Walker also suggests that VWPA's size relative to the proxy group should have an increasing effect on its cost of equity,[61] and he adds 0.7% to his CAPM result to account for this size premium.

Q. Do you agree with Mr. Walker that the Company's size should have an impact on its cost of equity estimate?

A. No. The "size effect" phenomenon arose from a 1981 study conducted by Banz, which found that "in the 1936 – 1975 period, the common stock of small firms had, on average,

[61] Direct Testimony of Harold Walker, pp. 25-29.

higher risk-adjusted returns than the common stock of large firms."[62] According to Ibbotson, Banz's size effect study was "[o]ne of the most remarkable discoveries of modern finance."[63] Perhaps there was some merit to this idea at the time, but the size effect phenomenon was short-lived. Banz's 1981 publication generated much interest in the size effect and spurred the launch of significant new small cap investment funds. However, this "honeymoon period lasted for approximately two years. . . ." [64] After 1983, U.S. small-cap stocks actually underperformed relative to large cap stocks. In other words, the size effect essentially reversed.

In *Triumph of the Optimists*, the authors conducted an extensive empirical study of the size effect phenomenon around the world. They found that after the size effect phenomenon was discovered in 1981, it disappeared within a few years:

> It is clear . . . that there was a global reversal of the size effect in virtually every country, with the size premium not just disappearing but going into reverse. Researchers around the world universally fell victim to Murphy's Law, with the very effect they were documenting – and inventing explanations for – promptly reversing itself shortly after their studies were published.[65]

In other words, the authors assert that the very discovery of the size effect phenomenon likely caused its own demise. The authors ultimately concluded that it is "inappropriate to use the term 'size effect' to imply that we should automatically expect there to be a small-

---

[62] Rolf W. Banz, *The Relationship Between Return and Market Value of Common Stocks*, pp. 3-18 (Journal of Financial Economics 9 (1981)).

[63] 2015 Ibbotson Stocks, Bonds, Bills, and Inflation Classic Yearbook, p. 99 (Morningstar 2015).

[64] Elroy Dimson, Paul Marsh & Mike Staunton, *Triumph of the Optimists: 101 Years of Global Investment Returns*, p. 131 (Princeton University Press 2002).

[65] *Id*. at 133.

cap premium," yet this is exactly what utility witnesses often do in attempting to artificially inflate the cost of equity with a size premium.

Other prominent sources have agreed that the size premium is a dead phenomenon. According to Ibbotson:

> The unpredictability of small-cap returns has given rise to another argument against the existence of a size premium: that markets have changed so that the size premium no longer exists. As evidence, one might observe the last 20 years of market data to see that the performance of large-cap stocks was basically equal to that of small cap stocks. In fact, large-cap stocks have outperformed small-cap stocks in five of the last 10 years.[66]

In addition to the studies discussed above, other scholars have reached similar conclusions. According to Kalesnik and Beck:

> Today, more than 30 years after the initial publication of Banz's paper, the empirical evidence is extremely weak even before adjusting for possible biases. ... The U.S. long-term size premium is driven by the extreme outliers, which occurred three-quarters of a century ago. ... Finally, adjusting for biases ... makes the size premium vanish. If the size premium were discovered today, rather than in the 1980s, it would be challenging to even publish a paper documenting that small stocks outperform large ones.[67]

For all of these reasons, the Commission should reject Mr. Walker's proposed size adjustment.

---

[66] 2015 Ibbotson Stocks, Bonds, Bills, and Inflation Classic Yearbook, p. 112 (Morningstar 2015).

[67] Vitali Kalesnik and Noah Beck, *Busting the Myth About Size* (Research Affiliates 2014), available at https://www.researchaffiliates.com/Our%20Ideas/Insights/Fundamentals/Pages/284_Busting_the_Myth_About_Size.aspx

VIII. CAPITAL STRUCTURE

Q. Describe in general the concept of a company's "capital structure."

A. "Capital structure" refers to the way a company finances its overall operations through external financing. The primary sources of long-term, external financing are debt capital and equity capital. Debt capital usually comes in the form of contractual bond issues that require the firm to make payments, while equity capital represents an ownership interest in the form of stock. Because a firm cannot pay dividends on common stock until it satisfies its debt obligations to bondholders, stockholders are referred to as "residual claimants." The fact that stockholders have a lower priority to claims on company assets increases their risk and the required return relative to bondholders. Thus, equity capital has a higher cost than debt capital. Firms can reduce their WACC by recapitalizing and increasing their debt financing. In addition, because interest expense is deductible, increasing debt also adds value to the firm by reducing the firm's tax obligation.

Q. Please explain the concept of the "weighted average cost of capital."

A. The term "cost of capital" refers to the weighted average cost of all the components of a company's capital structure, including debt and equity. Determining the cost of debt is relatively straightforward. Interest payments on bonds are contractual, "embedded costs" that are generally calculated by dividing total interest payments by the book value of outstanding debt. Determining the cost of equity, on the other hand, is more complex. Unlike the known, contractual cost of debt, there is no explicit "cost" of equity; the cost of equity must be estimated through various financial models. Thus, the overall weighted average cost of capital includes the cost of debt and the estimated cost of equity. It is a "weighted average" because it is based upon the Company's relative levels of debt and

equity, or "capital structure." Companies in the competitive market often use their WACC as the discount rate to determine the value of capital projects, so it is important that this figure be closely estimated. The basic WACC equation used in regulatory proceedings is presented as follows:

Equation 3:
Weighted Average Cost of Capital

$$WACC = \left(\frac{D}{D+E}\right) C_D + \left(\frac{E}{D+E}\right) C_E$$

where: $WACC$ = *weighted average cost of capital*
D = *book value of debt*
C_D = *embedded cost of debt capital*
E = *book value of equity*
C_E = *market-based cost of equity capital*

Thus, the three components of the weighted average cost of capital include the following:

(1) Cost of Equity

(2) Cost of Debt

(3) Capital Structure

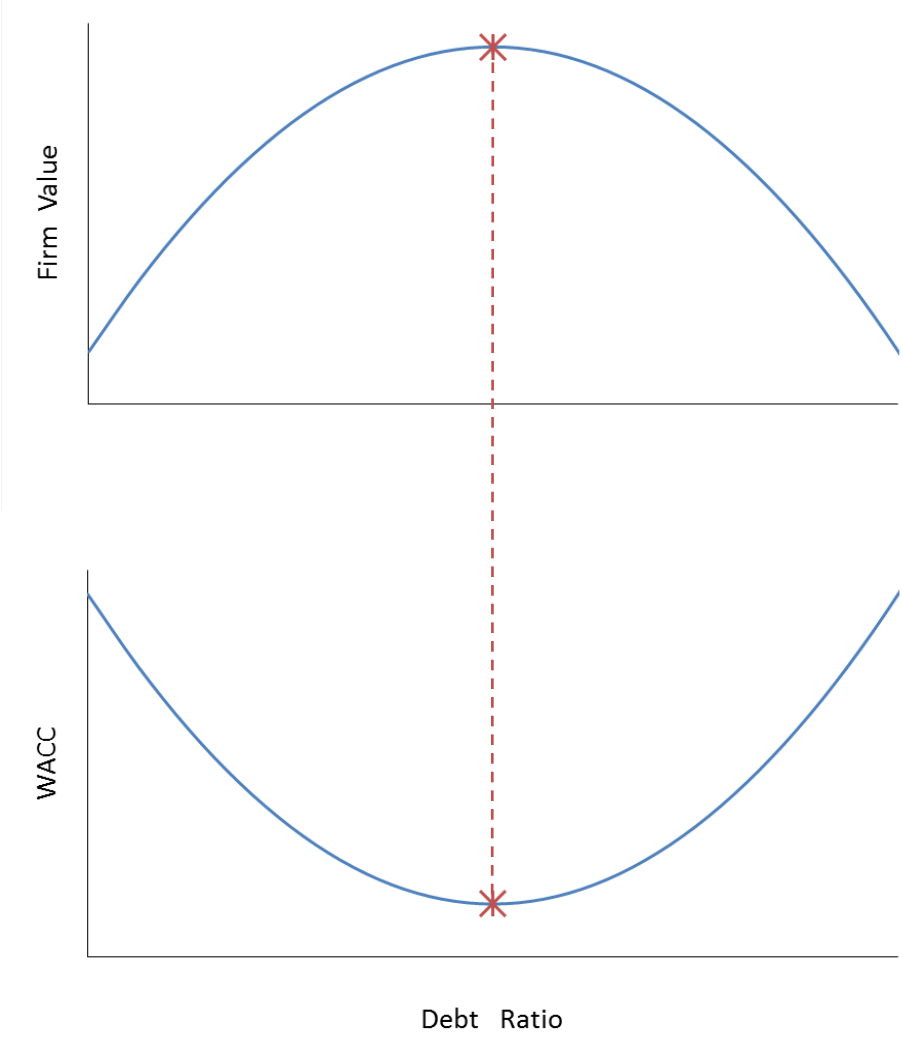
The term "cost of capital" is necessarily synonymous with the "weighted average cost of capital," and the terms are used interchangeably throughout this testimony.

Q. Is it true that, by increasing debt, competitive firms can add value and reduce their WACC?

A. Yes, it is. A competitive firm can add value by increasing debt. After a certain point, however, the marginal cost of additional debt outweighs its marginal benefit. This is because the more debt the firm uses, the higher interest expense it must pay, and the likelihood of loss increases. This also increases the risk of non-recovery for both bondholders and shareholders, causing both groups of investors to demand a greater return

on their investment. Thus, if debt financing is too high, the firm's WACC will increase instead of decrease. The following Figure illustrates these concepts.

Figure 8:
Optimal Debt Ratio



As shown in this figure, a competitive firm's value is maximized when the WACC is minimized. In both graphs, the debt ratio is shown on the x-axis. By increasing its debt ratio, a competitive firm can minimize its WACC and maximize its value. At a certain point, however, the benefits of increasing debt do not outweigh the costs.

Q. Does the rate base rate of return model effectively incentivize utilities to operate at the optimal capital structure?

A. No. While it is true that competitive firms maximize their value by minimizing their WACC, this is not the case for regulated utilities. Under the rate base rate of return model, a higher WACC results in higher rates, all else held constant. The basic revenue requirement equation is as follows:

Equation 4:
Revenue Requirement for Regulated Utilities

$$RR = O + d + T + \boldsymbol{r}(A - D)$$

where:	RR	=	*revenue requirement*
	O	=	*operating expenses*
	d	=	*depreciation expense*
	T	=	*corporate tax*
	$\boldsymbol{r}$	=	***weighted average cost of capital (WACC)***
	A	=	*plant investments*
	D	=	*accumulated depreciation*

As shown in this equation, utilities can increase their revenue requirement by *increasing* their WACC, not by minimizing it. Thus, because there is no incentive for a regulated utility to minimize its WACC, a commission standing in the place of competition must ensure that the regulated utility is operating at the lowest reasonable WACC. Left unrestrained, utilities will increase their equity and decrease their debt to unreasonably increase their profits that flow through to shareholders.

Q. Can utilities generally afford to have higher debt levels than other industries?

A. Yes. Because regulated utilities have large amounts of fixed assets, stable earnings, and low risk relative to other industries, they can afford to have relatively higher debt ratios (or "leverage"). As aptly stated by Dr. Damodaran:

> Since financial leverage multiplies the underlying business risk, it stands to reason that firms that have high business risk should be reluctant to take on financial leverage. It also stands to reason that firms that operate in stable businesses should be much more willing to take on financial leverage. *Utilities*, for instance, have historically had high debt ratios but have not had high betas, mostly because their underlying businesses have been stable and fairly predictable.[68]

Note that Dr. Damodaran explicitly contrasts utilities with firms that have high underlying business risk. Because utilities have low levels of risk and operate a stable business, they should generally operate with relatively high levels of debt to achieve their optimal capital structure.

A. Proxy and Industry Debt Ratios

Q. Please describe the debt ratios of the proxy group.

A. According to the debt ratios recently reported in Value Line for the utility proxy group, the average debt ratio of the proxy group is 50% and the average equity ratio is 50%.[69] This debt ratio is notably higher than VWPA's proposed debt ratio of only 46%. More importantly, this means that VWPA has a lower level of financial risk relative to the proxy group – a discrepancy that can be mathematically accounted for in terms of cost of equity estimation through the Hamada Model, which is discussed in more detail below.

---

[68] *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset*, p. 196 (emphasis added).

[69] Exhibit DJG-13.

Q. Please describe the debt ratios recently observed in competitive U.S. industries.

A. There are nearly 2,000 firms in U.S. industries with higher debt ratios than 50%, and with an average debt ratio of about 61%.[70] The following figure shows a sample of these industries with debt ratios higher than 56%.

[70] *See* Exhibit DJG-14.

Figure 9:
Industries with Debt Ratios Greater than 56%

Industry	# Firms	Debt Ratio
Air Transport	21	84%
Hotel/Gaming	69	82%
Hospitals/Healthcare Facilities	34	82%
Retail (Automotive)	30	78%
Brokerage & Investment Banking	30	76%
Computers/Peripherals	42	71%
Bank (Money Center)	7	68%
Cable TV	10	68%
Food Wholesalers	14	67%
Advertising	58	67%
Oil/Gas Distribution	23	66%
Rubber& Tires	3	65%
Transportation (Railroads)	4	65%
Real Estate (Operations & Services)	60	64%
Retail (Grocery and Food)	13	64%
Retail (Special Lines)	78	64%
Recreation	57	62%
Insurance (Life)	27	61%
Trucking	35	61%
Packaging & Container	25	61%
Power	48	60%
Telecom. Services	49	60%
Telecom (Wireless)	16	60%
R.E.I.T.	223	60%
Auto & Truck	31	59%
Utility (General)	15	59%
Household Products	127	58%
Office Equipment & Services	16	58%
Environmental & Waste Services	62	57%
Utility (Water)	16	57%
Retail (Distributors)	69	57%
Transportation	18	57%
Green & Renewable Energy	19	57%
Total / Average	**1,349**	**65%**

Many of the industries shown here, like public utilities, are generally well-established industries with large amounts of capital assets. The shareholders of these industries

generally prefer these higher debt ratios in order to maximize their profits. There are several notable industries that are relatively comparable to public utilities. For example, the Cable TV, Telecom, Power, and Water Utility industries all have an average debt ratio of about 60%.

Q. Are you basing your capital structure recommendation on any industry or company outside of the proxy group?

A. No. My recommended capital structure of 50% debt and 50% equity is equal to the proxy group's average capital structure.[71] I present the capital structures observed in other competitive industries to show it is not uncommon for firms to operate with relatively higher amounts of leverage.

B. The Hamada Model: Capital Structure's Effect on ROE

Q. Have you considered the impact that your capital structure recommendation could have on the company's indicated cost of equity?

A. Yes. I assessed the impact of my capital structure proposal on the Company's cost of equity estimate by using the Hamada model.

Q. What is the premise of the Hamada model?

A. The Hamada formula can be used to analyze changes in a firm's cost of capital as it adds or reduces financial leverage, or debt, in its capital structure by starting with an "unlevered" beta and then "relevering" the beta at different debt ratios. As leverage increases, equity investors bear increasing amounts of risk, leading to higher betas. Before the effects of financial leverage can be accounted for, however, the effects of leverage must first be

[71] Exhibit DJG-13.

removed, which is accomplished through the Hamada formula. The Hamada formula for unlevering beta is stated as follows:[72]

Equation 5:
Hamada Formula

$$\beta_U = \frac{\beta_L}{\left[1 + (1 - T_c)\left(\frac{D}{E}\right)\right]}$$

where: β_U = *unlevered beta (or "asset" beta)*
β_L = *average levered beta of proxy group*
T_C = *corporate tax rate*
D = *book value of debt*
E = *book value of equity*

Using this equation, the beta for the firm can be unlevered, and then "relevered" based on various debt ratios (by rearranging this equation to solve for β_L).

Q. Please summarize the results of the Hamada formula based on your proposed capital structure for the company.

A. The average capital structure of the proxy group consists of 50% debt and 50% equity. Because VWPA's debt ratio is notably lower than that of the proxy group, when VWPA is "relevered" to match the proxy group, it results in a lower ROE than if VWPA had been operating with a capital structure equal to that of the proxy group. This makes sense because VWPA has less financial risk relative to the proxy group due to the lower amount of debt in its capital structure. The results of my Hamada model are presented in the following figure.

[72] Damodaran *supra* n. 22 at 197. This formula was originally developed by Hamada in 1972.

Figure 10:
Hamada Model ROE

Unlevering Beta		
Proxy Debt Ratio	50%	[1]
Proxy Equity Ratio	50%	[2]
Proxy Debt / Equity Ratio	1.0	[3]
Tax Rate	21%	[4]
Equity Risk Premium	5.2%	[5]
Risk-free Rate	4.6%	[6]
Proxy Group Beta	0.83	[7]
Unlevered Beta	0.46	[8]

[9]	[10]	[11]	[12]
Relevered Betas and Cost of Equity Estimates			
Debt Ratio	D/E Ratio	Levered Beta	Cost of Equity
0%	0.0	0.46	7.0%
20%	0.3	0.55	7.5%
30%	0.4	0.62	7.8%
40%	0.7	0.71	8.3%
46%	0.9	0.77	8.6%
50%	1.0	0.83	8.9%
60%	1.5	1.01	9.8%

According to the results of the Hamada model, if the Commission were to adopt my capital structure recommendation, VWPA's indicated cost of equity estimate (under the CAPM) would be 8.9%. However, if the Commission's accepts the VWPA's proposed capital structure, the Company's cost of equity estimate would be 8.6% under the CAPM.[73]

[73] *See* Exhibit DJG-15.

IX. RATE OF RETURN CONCLUSION

Q. Please summarize your analyses and conclusions regarding VWPA's cost of equity.

A. A utility's awarded ROE should be based on its cost of equity, which can be estimated using various financial models. In estimating VWPA's cost of equity, I performed a cost of equity analysis on a proxy group of utility companies using the two most widely-used and widely-accepted financial models for calculating cost of equity in utility rate proceedings: the CAPM and DCF Model. I conducted two variations of both the CAPM and DCF Model. The results are shown in the figure below.

Figure 11:
Cost of Equity Model Summary

Model	Cost of Equity
CAPM (at Proxy Debt Ratio)	8.9%
Hamada CAPM (at Company-Proposed Debt Ratio)	8.6%
DCF Model (Analyst Growth)	9.1%
DCF Model (Sustainable Growth)	6.5%
Average	**8.3%**
Cost of Equity and Authorized ROE Range	**8.6% - 9.1%**

As shown in this figure, the results of my models range from 6.5% - 9.1%. However, in this particular case I do not believe the results of the sustainable growth variation of the DCF Model indicate an accurate cost of equity estimate for the Company. Thus, in my opinion, VWPA's estimated cost of equity ranges from 8.6% - 9.1%. Likewise, I believe a reasonable range for VWPA's authorize cost of equity is 8.6% - 9.1%.

Q. Please summarize your recommendation to the Commission regarding VWPA's authorized rate of return.

A. I am recommending an authorized ROE of 9.1% for VWPA, which is the top end of my estimate range or VWPA's cost of equity assuming that the Commission accepts a 50/50 capital structure recommended in my testimony. The bottom end of the range, 8.6%, represents the Company's market-based cost of equity estimate if its equity-rich capital structure is used for ratemaking purposes.

Q. Are you proposing an adjustment to VWPA's proposed ratemaking capital structure in this case?

A. Yes. I recommend the Commission reject the Company's proposed capital structure and authorize a capital structure for ratemaking purposes consisting of 50% debt and 50% equity. The average debt ratio of the proxy group is 50%. In order for the results of the CAPM to be accurate, any discrepancy between the utility's capital structure and the proxy group's capital structure must be reconciled either through a capital structure adjustment for ratemaking purposes or a lower authorized ROE as estimated through the Hamada model. In this case, since I am proposing an ROE that exceeds the results of the CAPM; thus, it is even more imperative that the Commission adjust the Company's proposed ratemaking capital structure so that the overall rate of return is not unfairly high.

Q. Please summarize your rate of return recommendation?

A. Yes. My recommendations are summarized in the following table.

Figure 12:
Awarded Rate of Return Recommendation

Capital Component	Proposed Ratio	Cost Rate	Weighted Cost
Long-Term Debt	50.0%	4.6%	2.3%
Common Equity	50.0%	9.1%	4.6%
Total	100.0%		6.85%

As shown in this figure, adopting my proposed adjustments to the Company's ROE and capital structure would result in a weighted average authorized rate of return of 6.85%.

PART TWO: DEPRECIATION

X. REGULATORY STANDARDS

Q. Please discuss the standard by which regulated utilities are allowed to recover depreciation expense.

A. In *Lindheimer v. Illinois Bell Telephone Co.*, the U.S. Supreme Court stated "depreciation is the loss, not restored by current maintenance, which is due to all the factors causing the ultimate retirement of the property. These factors embrace wear and tear, decay, inadequacy, and obsolescence."[74] The *Lindheimer* Court also recognized that the original cost of plant assets, rather than present value or some other measure, is the proper basis for calculating depreciation expense.[75] Moreover, the *Lindheimer* Court found:

> [T]he company has the burden of making a convincing showing that the amounts it has charged to operating expenses for depreciation have not been excessive. That burden is not sustained by proof that its general accounting system has been correct. The calculations are mathematical, but the predictions underlying them are essentially matters of opinion.[76]

Thus, the Commission must ultimately determine if VWPA has met its burden of proof by making a convincing showing that its proposed depreciation rates are not excessive.

---

[74] *Lindheimer v. Illinois Bell Tel. Co.*, 292 U.S. 151, 167 (1934).

[75] *Id*. (Referring to the straight-line method, the *Lindheimer* Court stated that "[a]ccording to the principle of this accounting practice, the loss is computed upon the actual cost of the property as entered upon the books, less the expected salvage, and the amount charged each year is one year's pro rata share of the total amount."). The original cost standard was reaffirmed by the Court in *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591, 606 (1944). The *Hope* Court stated: "Moreover, this Court recognized in [*Lindheimer*], supra, the propriety of basing annual depreciation on cost. By such a procedure the utility is made whole and the integrity of its investment maintained. No more is required."

[76] *Id*. at 169.

A. Depreciation System

Q. Please discuss the definition and general purpose of a depreciation system, as well as the specific depreciation system you employed for this project.

A. The legal standards set forth above do not mandate a specific procedure for conducting depreciation analysis. These standards, however, direct that analysts use a system for estimating depreciation rates that will result in the "systematic and rational" allocation of capital recovery for the utility. Over the years, analysts have developed "depreciation systems" designed to analyze grouped property in accordance with this standard. A depreciation system may be defined by several primary parameters, including: 1) a method of allocation; 2) a procedure for applying the method of allocation; 3) a technique of applying the depreciation rate; and 4) a model for analyzing the characteristics of vintage property groups.[77] In this case, I used the straight-line method, the average life group procedure, the remaining life technique, and the broad group model.[78]

Q. Did both Mr. Watson and you use the same depreciation system?

A. No. Pertinently, Mr. Watson used the equal life group ("ELG") method instead of the average life group ("ALG") method. I discuss the differences between these methods in more detail below.

[77] *See* Wolf & W. Chester Fitch, Depreciation Systems 70, 140 (Iowa State University Press 1994).
[78] *See* Appendix C for further discussion.

B. Average Life vs Equal Life Method

Q. Explain the primary difference between the ALG and ELG methods.

A. In the ALG method, a constant accrual rate based on the average life of all property in the group is applied to the surviving property.[79] In the ELG method, property is divided into subgroups that each have a common life. Pertinently, the ELG method results in higher depreciation rates in the early years of a vintage's life. This fact is confirmed by authoritative depreciation literature. According to Wolf:

> When contrasted with the average life procedure, the equal life group procedure results in annual accruals that are higher during the early years and lower in the later years.[80]

The NARUC Public Utility Depreciation Practices also makes the same conclusion about the equal life procedure:

> [T]he ELG method results in annual accruals that are higher during the early years of a vintage's life, thereby causing an increase in depreciation expense and revenue requirements during these years.[81]

In contrast, use of the average life results in the same depreciation rate applied to each age interval.

Q. Based on your experience in other regulatory jurisdictions and knowledge of the industry, which method is more commonly used?

A. In my experience, the ALG method is used by analysts and adopted by regulators in the vast majority of cases.

---

[79] *Id*. at 74-75.
[80] *Id*. at 93 (emphasis added).
[81] National Association of Regulatory Utility Commissioners, *Public Utility Depreciation Practices* 176 (NARUC 1996) (emphasis added).

Q. Does Mr. Watson typically use the ALG method in depreciation studies you have reviewed?

A. In the majority of cases in which I have reviewed Mr. Watson's depreciation studies, he is using the ALG method.

Q. Have you successfully argued for a change from the ELG method to ALG method in another jurisdiction?

A. Yes. In Duke Energy Indiana's ("DEI") 2020 rate case, the company proposed ELG depreciation rates, which had been adopted by the Indiana commission in previous cases. In that case, I and other parties argued that the ALG method should be used. The Indiana Commission found as follows:

> First, with respect to the question of whether the ELG or ALG method should be used, we find the evidence presented by OUCC witness Mr. Garrett and Industrial Group witness Mr. Andrews persuasive, as both witnesses showed that the ELG method results in unreasonably high depreciation rates. ALG depreciation rates result in systematical and rational cost recovery with near term customer rate relief and full cost recovery of utility investments. While we have determined in the past that the ELG methodology was appropriate and acknowledge the weight given to precedent in many prior decisions, we always evaluate each case as it comes before us and do not need to approve the same methodology based on prior decisions, especially in light of a changed landscape. The use of ELG in a higher than average investment cycle has the effect of unnecessarily increasing the near term depreciation expense as compared to the use of ALG.[82]

In the DEI case, the Commission correctly noted that the ELG method can result in unreasonably high depreciation rates. In order for the ELG method to be properly applied, a utility would need to revise depreciation each year. However, given the logistical realities involved with prosecuting rate cases, this would be impractical and inefficient. When a utility has made substantial, recent capital investments, depreciation expense calculated

[82] Cause No. 45253, Order of the Commission, p. 90, (June 29, 2020).

under the ELG method will always be higher than the expense calculated under the ALG method. The larger the amount of the investments, the larger the discrepancy will be between the two procedures. The Indiana commission's criticism of the ELG method would also apply here. In this case, the difference in the annual depreciation accrual between the ELG and ALG methods alone is about $1.6 million.

Q. Please provide an example of how the ELG method results in higher depreciation rates in earlier years relative to the ALG method.

A. For the following illustration, assume a group of property containing two units, one with an original cost of $4,000 and a 4-year life and the second with an original cost of $6,000 and an 8-year life.[83] Thus, the average life of this group is 6.4 years.[84] Under the ALG method, the depreciation rate is 15.625% per year (1/6.4 = 15.625%). The following table illustrates this example.

Figure 1:
ALG Procedure

Year	Balance	Retired	Rate	Annual Accrual	Accum. Deprec.
1974	10000		15.625%	1563	0
1975	10000		15.625%	1563	1563
1976	10000		15.625%	1563	3125
1977	10000	4000	15.625%	1563	4688
1978	6000		15.625%	938	2250
1979	6000		15.625%	938	3188
1980	6000		15.625%	938	4125
1981	6000	6000	15.625%	938	5063
1982	0				0

[83] *See* Wolf & W. Chester Fitch, Depreciation Systems 82 (Iowa State University Press 1994).
[84] AL = [($4,000 x 4) + ($6,000 x 8)] / $10,000 = 6.4 years.

As shown in the annual accrual column above, the full $10,000 is depreciated after eight years. Now, considering the same assumptions presented above, the following tables illustrate the same scenario except that the rate is calculated under the ELG method.

Figure 2:
ELG Procedure

Year	Balance	Retired	Rate	Annual Accrual	Accum. Deprec.
1974	10000		17.50%	1750	0
1975	10000		17.50%	1750	1750
1976	10000		17.50%	1750	3500
1977	10000	4000	17.50%	1750	5250
1978	6000		12.50%	750	3000
1979	6000		12.50%	750	3750
1980	6000		12.50%	750	4500
1981	6000	6000	12.50%	750	5250
1982	0				0

As with the ALG example presented above, the full $10,000 investment is still fully depreciated after eight years. However, there are higher rate and accrual amounts during the earlier years. The reason there is a 17.5% depreciation rate instead of a 15.625% depreciation rate in the early years is because the two units in this group are treated separately under the ELG method. The following table shows how the rates in this example are calculated.

Figure 3:
ELG Rate Development

				Annual Accrual	
Group	Group Amount	Group Life	Group Rate	1974-77	1978-81
A	4000	4	25.00%	1000	
B	6000	8	12.50%	750	750
Annual accruals				1750	750
Balance during interval				10000	6000
Annual accrual rate %				17.50%	12.50%

This example is simplified in an attempt to explain the complexities of the ELG method. In this example, the higher rate of 17.5% stayed the same for four years because there are only two units in this simple example, and the rate drops to 12.5% after the first unit retires.

Q. Please summarize your recommendation regarding the depreciation system that should be used to calculate the Company's depreciation rates.

A. As demonstrated above, the ALG method results in a fairer application of depreciation rates compared to the ELG method given the realities of ratemaking proceedings. Mr. Watson's decision to use the ELG method unnecessarily increases the annual depreciation accrual charged to customers by approximately $1.6 million. In other words, even if no other adjustments are made to the depreciation study except the adoption of the majority-view ALG method, it would result in a decrease of $1.6 million to the Company's proposed annual depreciation accrual. The Commission should adopt my proposed depreciation rates, which were calculated using the ALG method.

XI. SERVICE LIFE ANALYSIS

Q. Describe the methodology used to estimate the service lives of grouped depreciable assets.

A. The process used to study industrial property retirement is rooted in the actuarial process used to study human mortality. Just as actuarial analysts study historical human mortality data to predict how long a group of people will live, depreciation analysts study historical plant data to estimate the average lives of property groups. The most common actuarial method used by depreciation analysts is called the "retirement rate method." In the retirement rate method, original property data, including additions, retirements, transfers, and other transactions, are organized by vintage and transaction year.[85] The retirement rate method is ultimately used to develop an "observed life table," ("OLT") which shows the percentage of property surviving at each age interval. This pattern of property retirement is described as a "survivor curve." The survivor curve derived from the observed life table, however, must be fitted and smoothed with a complete curve in order to determine the ultimate average life of the group.[86] The most widely used survivor curves for this curve fitting process were developed at Iowa State University in the early 1900s and are commonly known as the "Iowa curves."[87] A more detailed explanation of how the Iowa curves are used in the actuarial analysis of depreciable property is set forth in Appendix C.

---

[85] The "vintage" year refers to the year that a group of property was placed in service (aka "placement" year). The "transaction" year refers to the accounting year in which a property transaction occurred, such as an addition, retirement, or transfer (aka "experience" year).

[86] *See* Appendix C for a more detailed discussion of the actuarial analysis used to determine the average lives of grouped industrial property.

[87] *See* Appendix B for a more detailed discussion of the Iowa curves.

Q. Describe how you analyzed VWPA's historical retirement data in order to determine the most reasonable Iowa curve to apply to each account.

A. The Company's aged property data for water plant and wastewater plant can be used to create OLTs for each account. The data points on the OLT can be plotted to form a curve (the "OLT curve"). The OLT curve is not a theoretical curve; rather, it is actual observed data from the Company's records that indicate the rate of retirement for each property group. An OLT curve by itself, however, is rarely a smooth curve, and is often not a "complete" curve (i.e., it does not end at zero percent surviving). In order to calculate average life (the area under a curve), a complete survivor curve is required. The Iowa curves are empirically derived curves based on the extensive studies of the actual mortality patterns of many different types of industrial property. The curve-fitting process involves selecting the best Iowa curve to fit the OLT curve. This can be accomplished through a combination of visual and mathematical curve-fitting techniques, as well as professional judgment.

Q. Is mathematical fitting an important part of the curve-fitting process?

A. Yes. Mathematical curve fitting promotes objective, unbiased results. While mathematical curve-fitting is important, it may not always yield the optimum result. Simply determining which Iowa curve best fits an OLT curve ignores professional judgment that may be needed for specific situations. For example, if there is insufficient historical data in a particular account and the OLT curve derived from that data is relatively short and flat, the mathematically "best" curve may be one with a very long average life. However, when there is sufficient data available, mathematical curve fitting can be used as part of an objective service life analysis.

Q. Should every portion of the OLT curve be given equal weight?

A. Not necessarily. Many analysts have observed that the points towards the end of OLT curves may often have less analytical value than other portions of the curve. Indeed, "[p]oints at the end of the curve are often based on fewer exposures and may be given less weight than points based on larger samples. The weight placed on those points will depend on the size of the exposures."[88] In accordance with this standard, an analyst may decide to truncate the tail end of the OLT curve at a certain percent of initial exposures, such as one percent. Using this approach puts greater emphasis on the most valuable portions of the curve. For my analysis in this case, I not only considered the entirety of the OLT curve, but also conducted further analyses that involved fitting Iowa curves to the most significant part of the OLT curve for certain accounts.

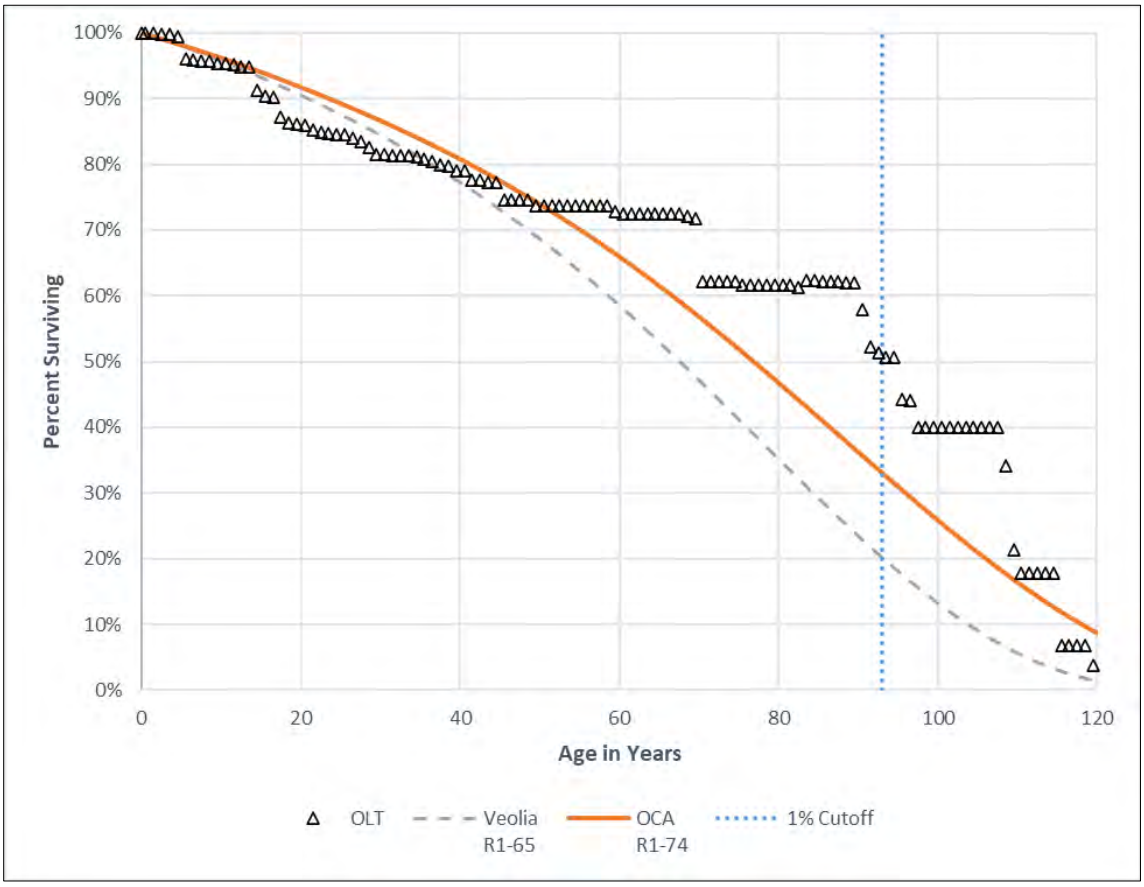
A. Account 304.20 – Source of Supply Structures and Improvements

Q. Please describe your service life estimate for this account and compare it with the Company's estimate.

A. The observed survivor curve (OLT curve) derived from the Company's data for this account is presented in the graph below. The graph also shows the Iowa curves Mr. Watson and I selected to represent the average remaining life of the assets in this account. For this account, Mr. Watson selected the R1-65 Iowa curve, and I selected the R1-74 Iowa curve. Thus, both curves have the same shape, but with a nine-year difference in average life.

[88] Wolf & W. Chester Fitch, Depreciation Systems 46 (Iowa State University Press 1994).

Figure 4:
Account 304.20 – Source of Supply Structures and Improvements



The vertical line in this graph (and the following graphs) reflects a truncation point that would eliminate data occurring after this point based on a benchmark that would excludes age intervals associated with dollars exposed to retirement that are less than 1% of the total exposures at age zero. In other words, the triangles to the right of this vertical line are associated with dollars that are much less than the preceding age intervals, and thus are statistically less relevant. The Iowa curve Mr. Watson selected for this account does not provide a good fit to the observe retirement pattern when compared with the R1-74 curve. As a result, the Iowa curve selected by Mr. Watson is shorter than the retirement pattern otherwise indicated in the OLT curve. The average life of an Iowa curve will ultimately

effect the remaining life calculation for each account. A shorter average life results in a higher depreciation rate, all else held constant. Mathematical curve fitting techniques can be used to further assess the results.

Q. Does the Iowa curve you selected result in a better fit to the OLT curve?

A. Yes. While visual curve-fitting techniques can help identify the most statistically relevant portions of the OLT curve for this account, mathematical curve-fitting techniques can also help us determine which of the proposed Iowa curves results in the closest fit. In circumstances in which there is an adequate amount of retirement experience (i.e., the OLT curve is long enough) and there is no significant evidence presented beyond the statistical data to justify a meaningful deviation from the retirement pattern indicated in the OLT curve, then mathematical curve fitting results should arguably be given more consideration in the curve selection process. Mathematical curve-fitting essentially involves measuring the "distance" between the OLT curve and the selected Iowa curve. The best mathematically-fitting curve is the one that minimizes the distance between the OLT curve and the Iowa curve, thus providing the closest fit. Professional judgment is also used to ensure that the selected Iowa curve is not unreasonable based on industry norms. The distance between the curves is calculated using the "sum-of-squared differences" ("SSD") technique. In this account, the SSD between the Company's curve and the OLT curve is 3.8347, and the SSD between the R1-74 Iowa curve I selected and the OLT curve is 1.3110, which means it results in the closer fit.[89]

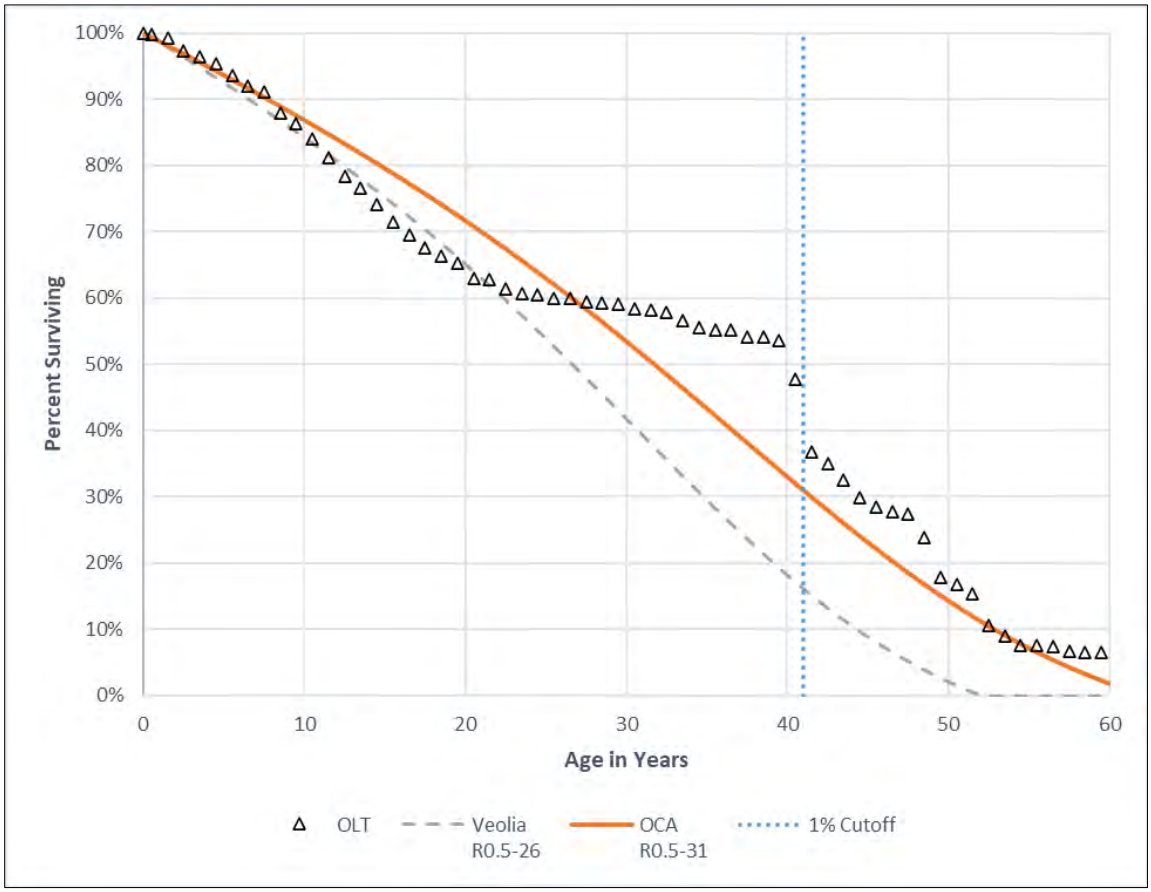
[89] Exhibit DJG-20.

B. Account 311.20 – Electric Pumping Equipment

Q. Please describe your service life estimate for this account and compare it with the Company's estimate.

A. For this Account, Mr. Watson selected the R0.5-26 curve, and I selected the R0.5-31 curve. Both of these Iowa curves are displayed in the following graph with the OLT curve.

Figure 5:
Account 311.20 – Electric Pumping Equipment



As shown in this graph, the Iowa curve selected by Mr. Watson results in a relatively close fit through the early ages, but does not result in a close fit after age 20. Although the relatively unusual shape of this OLT curve make it impractical to find an Iowa curve with a near-perfect fit, the age interval from year 20-40 are still relevant for statistical analyses.

In contrast, the R0.5-31 curve I selected balances the observed retirement pattern in both the early and middle portions of the OLT curve. Mathematical curve fitting techniques can be used to further assess the results.

Q. Does the Iowa curve you selected result in a better fit to the OLT curve?

Yes. Regardless of whether the entire OLT curve or truncated OLT curve is measured, the R0.5-31 curve I selected results in the closer fit. Specifically, the SSD between the Company's curve and the OLT curve is 1.4090, and the SSD between the R0.5-31 curve I selected and the OLT curve is 0.3475, which means it results in the closer fit to the observed retirement data.[90]

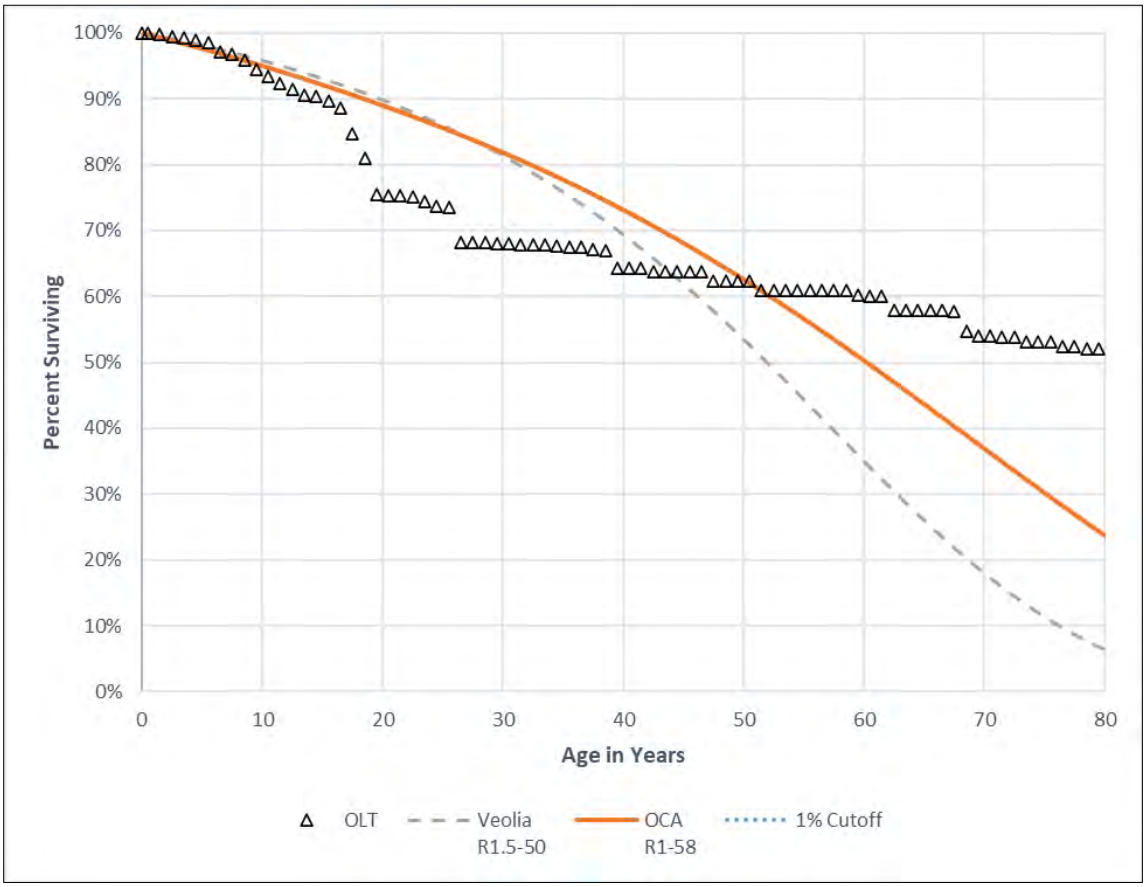
C. Account 320.30 – Water Treatment Equipment

Q. Please describe your service life estimate for this account and compare it with the Company's estimate.

A. For this Account, Mr. Watson selected the R1.5-50 curve, and I selected the R1-58 curve. Both of these Iowa curves are displayed in the following graph with the OLT curve.

[90] Exhibit DJG-21.

Figure 6:
Account 320.30 – Water Treatment Equipment



In this graph, all of the data points shown on the OLT curve are statistically relevant based on the truncation benchmark discussed above (thus, there is no vertical truncation line shown). Both Iowa curves are effectively suggesting that the retirement rate going forward will be greater than what has been observed thus far, and consequently, the OLT curve for this account will likely decline in the future relative to its current, flatter trajectory. However, the statistical data presented are nonetheless more supportive of the R1-58 Iowa curve at this time. As more retirement experience is accumulated, service life estimates can be adjusted accordingly in future depreciation studies.

Q. Does the Iowa curve you selected result in a better fit to the OLT curve?

Yes. The SSD between the Company's curve and the OLT curve is 6.0951, and the SSD between the R1-58 curve I selected and the OLT curve is 2.4667, which means it results in the closer fit to the observed retirement data.[91]

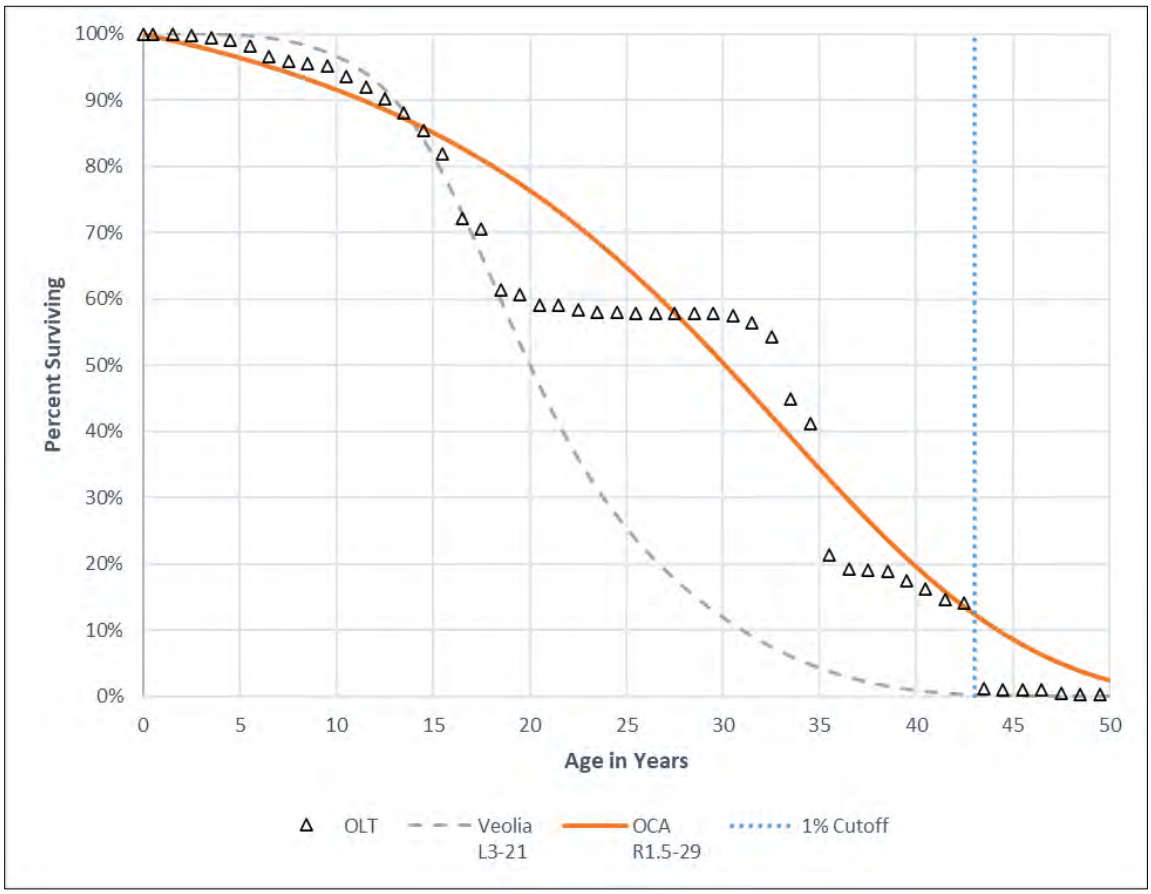
D. Account 320.30 – Chemical Treatment

Q. Please describe your service life estimate for this account and compare it with the Company's estimate.

A. For this Account, Mr. Watson selected the L3-21 curve, and I selected the R1.5-29 curve. Both of these Iowa curves are displayed in the following graph with the OLT curve.

[91] Exhibit DJG-22.

Figure 7:
Account 320.30 – Chemical Treatment



In this graph the vertical truncation line is drawn at a point in the curve where there is an immediate and significant decline in the percent surviving at one age interval. This type of pattern indicates the remaining data points are likely insignificant. A similar pattern occurs around age 35 on this OLT curve. However, the Iowa curve selected by Mr. Watson appears to give no statistical consideration to any data points occurring after age 20. This results in a significant discrepancy between his Iowa curve and the OLT curve. Put differently, the data show that of the assets that reach age 30 in this account, there are nearly 60% surviving. However, Mr. Watson's Iowa curve suggests that of the assets reaching this age, only about 10% are surviving. As a result, his proposed service life is

much shorter than what the empirical evidence indicates, which results in an unreasonably high and unsupported depreciation rate and expense for this account.

Q. Does the Iowa curve you selected result in a better fit to the OLT curve?

Yes. The SSD between the Company's curve and the OLT curve is 2.2360, and the SSD between the R1.5-29 curve I selected and the OLT curve is 0.2504, which means it results in the closer fit to the observed retirement data.[92]

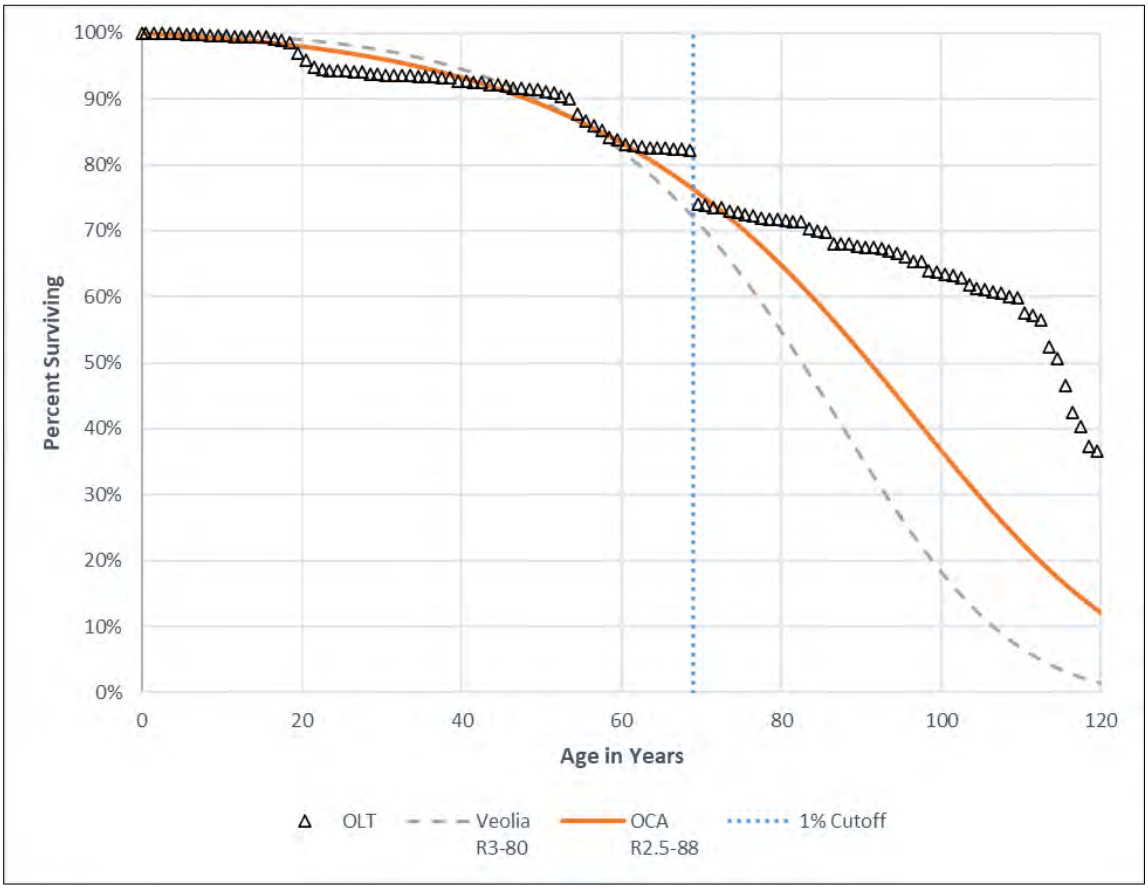
E. Account 331.40 – Transmission and Distribution Mains

Q. Please describe your service life estimate for this account and compare it with the Company's estimate.

A. For this Account, Mr. Watson selected the L3-21 curve, and I selected the R1.5-29 curve. Both of these Iowa curves are displayed in the following graph with the OLT curve.

[92] Exhibit DJG-23.

Figure 8:
Account 331.40 – Transmission and Distribution Mains



In this graph the vertical truncation line is drawn at a point in the curve where there is an immediate and significant decline in the percent surviving at one age interval. This type of pattern indicates the remaining data points are likely insignificant. Both of the selected Iowa curves do not appear to incorporate the less relevant data after this truncation point. The higher mode of Mr. Watson's proposed curve (R3 vs R2.5) results in a steeper curve that does not appear to provide as close of a fit to the relatively flatter trajectory of the OLT curve that is more reflective of the R2.5 curve shape. Mathematical curve fitting can be used for a more detailed analysis.

Q. Does the Iowa curve you selected result in a better fit to the OLT curve?

Yes. Regardless of whether the entire OLT curve or truncated OLT curve is measured, the Iowa curve I selected results in a closer mathematical fit. Specifically, the SSD between the Company's curve and the OLT curve is 6.8044, and the SSD between the R2.5-88 curve I selected and the OLT curve is 2.6590, which means it results in the closer fit.[93]

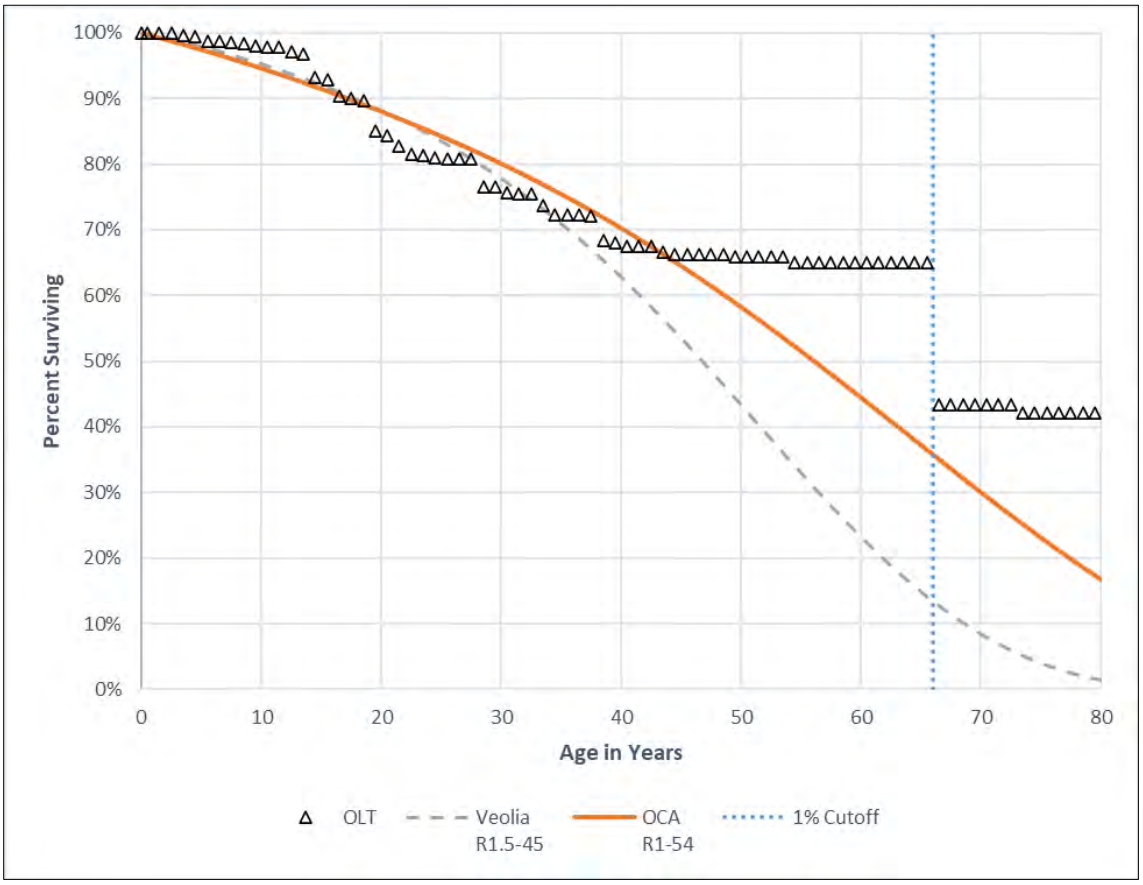
F. Account 304.50 – General Plant Office Buildings

Q. Please describe your service life estimate for this account and compare it with the Company's estimate.

A. For this Account, Mr. Watson selected the R1.5-45 curve, and I selected the R1-54 curve. Both of these Iowa curves are displayed in the following graph with the OLT curve.

[93] Exhibit DJG-24.

Figure 9:
Account 304.50 – General Plant Office Buildings



In this graph the vertical truncation line is drawn at a point in the curve where there is an immediate and significant decline in the percent surviving at one age interval. However, the flattening of the OLT curve that begins around age 40 is also an indication that the OLT curve is becoming statistically unstable. In that regard, both of the selected Iowa curves do not appear to give much consideration to the data occurring after these points in the OLT curve. Regardless, the evidence presented by the Company at this time are more supportive of a longer service life for this account than the one proposed by Mr. Watson. Mathematical curve fitting can be used for additional analyses.

Q. Does the Iowa curve you selected result in a better fit to the OLT curve?

A. Yes. Regardless of whether the entire OLT curve or truncated OLT curve is measured, the Iowa curve I selected results in a closer mathematical fit. Specifically, the SSD between the Company's curve and the OLT curve is 7.1270, and the SSD between the R1-54 curve I selected and the OLT curve is 2.7060, which means it results in the closer fit.[94]

Q. Please summarize your conclusions regarding your recommended service life adjustments.

A. I reviewed the Company's service life and retirement experience for both water and wastewater plant. My proposed service life adjustments relate to water plant only.[95] For the accounts in dispute discussed above, it is clear that the Iowa curves I propose are more reflective of the Company's retirement experience. In other words, my proposed service lives are more supported by the evidence. It is important that the Commission base its findings regarding the Company's service lives on the evidence presented rather than subjective elements and other factors outside of the statistical data and evidence.

XII. DEPRECIATION CONCLUSION

Q. Please reiterate the impact your service life adjustments would have on the Company's water and wastewater depreciation accrual amounts.

A. As shown in Figure 1 above, the combined result of my application of the ALG method and specific service life adjustments described above would reduce the Company's proposed annual depreciation accrual by $2,114,161 for water plant and $30,004 for

[94] Exhibit DJG-25.

[95] Exhibit DJG-19. Recommended service life adjustments by account are highlighted in green.

wastewater plant.[96] The development of these adjustments are set forth in Exhibits DJG-17 through DJG-27. These adjustments are fair and appropriate, and they would mitigate the accelerated cost recovery that would occur for VPWA water and wastewater customers if the Company's proposed depreciation rates were adopted.

Q. Does this conclude your testimony?

A. Yes.

[96] *See also* Exhibits DJG-17 and DJG-18 for more details.

APPENDIX A:

DISCOUNTED CASH FLOW MODEL THEORY

The Discounted Cash Flow ("DCF") Model is based on a fundamental financial model called the "dividend discount model," which maintains that the value of a security is equal to the present value of the future cash flows it generates. Cash flows from common stock are paid to investors in the form of dividends. There are several variations of the DCF Model. In its most general form, the DCF Model is expressed as follows:[1]

Equation 1:
General Discounted Cash Flow Model

$$P_0 = \frac{D_1}{(1+k)} + \frac{D_2}{(1+k)^2} + \cdots + \frac{D_n}{(1+k)^n}$$

where: P_0 = *current stock price*
$D_1 \ldots D_n$ = *expected future dividends*
k = *discount rate / required return*

The General DCF Model would require an estimation of an infinite stream of dividends. Since this would be impractical, analysts use more feasible variations of the General DCF Model, which are discussed further below.

The DCF Models rely on the following four assumptions:

1. Investors evaluate common stocks in the classical valuation framework; that is, they trade securities rationally at prices reflecting their perceptions of value;
2. Investors discount the expected cash flows at the same rate (K) in every future period;

[1] *See* Zvi Bodie, Alex Kane & Alan J. Marcus, *Essentials of Investments* 410 (9th ed., McGraw-Hill/Irwin 2013).

3. The K obtained from the DCF equation corresponds to that specific stream of future cash flows alone; and

4. Dividends, rather than earnings, constitute the source of value.

The General DCF can be rearranged to make it more practical for estimating the cost of equity. Regulators typically rely on some variation of the Constant Growth DCF Model, which is expressed as follows:

Equation 2:
Constant Growth Discounted Cash Flow Model

$$K = \frac{D_1}{P_0} + g$$

where: K = *discount rate / required return on equity*
D_1 = *expected dividend per share one year from now*
P_0 = *current stock price*
g = *expected growth rate of future dividends*

Unlike the General DCF Model, the Constant Growth DCF Model solves directly for the required return (K). In addition, by assuming that dividends grow at a constant rate, the dividend stream from the General DCF Model may be essentially substituted with a term representing the expected constant growth rate of future dividends (g). The Constant Growth DCF Model may be considered in two parts. The first part is the dividend yield (D_1/P_0), and the second part is the growth rate (g). In other words, the required return in the DCF Model is equivalent to the dividend yield plus the growth rate.

In addition to the four assumptions listed above, the Constant Growth DCF Model relies on four additional assumptions as follows:[2]

[2] *Id.* at 254-56.

1. The discount rate (K) must exceed the growth rate (g);
2. The dividend growth rate (g) is constant in every year to infinity;
3. Investors require the same return (K) in every year; and
4. There is no external financing; that is, growth is provided only by the retention of earnings.

Because the growth rate in this model is assumed to be constant, it is important not to use growth rates that are unreasonably high. In fact, the constant growth rate estimate for a regulated utility with a defined service territory should not exceed the growth rate for the economy in which it operates.

APPENDIX B:

CAPITAL ASSET PRICING MODEL THEORY

The Capital Asset Pricing Model ("CAPM") is a market-based model founded on the principle that investors demand higher returns for incurring additional risk.[3] The CAPM estimates this required return. The CAPM relies on the following assumptions:

1. Investors are rational, risk-adverse, and strive to maximize profit and terminal wealth;
2. Investors make choices based on risk and return. Return is measured by the mean returns expected from a portfolio of assets; risk is measured by the variance of these portfolio returns;
3. Investors have homogenous expectations of risk and return;
4. Investors have identical time horizons;
5. Information is freely and simultaneously available to investors.
6. There is a risk-free asset, and investors can borrow and lend unlimited amounts at the risk-free rate;
7. There are no taxes, transaction costs, restrictions on selling short, or other market imperfections; and,
8. Total asset quality is fixed, and all assets are marketable and divisible.[4]

[3] William F. Sharpe, *A Simplified Model for Portfolio Analysis* 277-93 (Management Science IX 1963); *see also* John R. Graham, Scott B. Smart & William L. Megginson, *Corporate Finance: Linking Theory to What Companies Do* 208 (3rd ed., South Western Cengage Learning 2010).

[4] *Id*.

While some of these assumptions may appear to be restrictive, they do not outweigh the inherent value of the model. The CAPM has been widely used by firms, analysts, and regulators for decades to estimate the cost of equity capital.

The basic CAPM equation is expressed as follows:

Equation 3:
Capital Asset Pricing Model

$$K = R_F + \beta_i(R_M - R_F)$$

where: K = *required return*
R_F = *risk-free rate*
β = *beta coefficient of asset i*
R_M = *required return on the overall market*

There are essentially three terms within the CAPM equation that are required to calculate the required return (K): (1) the risk-free rate (R_F); (2) the beta coefficient (β); and (3) the equity risk premium ($R_M - R_F$), which is the required return on the overall market less the risk-free rate.

Raw Beta Calculations and Adjustments

A stock's beta equals the covariance of the asset's returns with the returns on a market portfolio, divided by the portfolio's variance, as expressed in the following formula:[5]

Equation 4:
Beta

$$\beta_i = \frac{\sigma_{im}}{\sigma_m^2}$$

where: β_i = *beta of asset i*
σ_{im} = *covariance of asset i returns with market portfolio returns*
σ^2_m = *variance of market portfolio*

[5] John R. Graham, Scott B. Smart & William L. Megginson, *Corporate Finance: Linking Theory to What Companies Do* 180-81 (3rd ed., South Western Cengage Learning 2010).

Betas that are published by various research firms are typically calculated through a regression analysis that considers the movements in price of an individual stock and movements in the price of the overall market portfolio. The betas produced by this regression analysis are considered "raw" betas. There is empirical evidence that raw betas should be adjusted to account for beta's natural tendency to revert to an underlying mean.[6] Some analysts use an adjustment method proposed by Blume, which adjusts raw betas toward the market mean of one.[7] While the Blume adjustment method is popular due to its simplicity, it is arguably arbitrary, and some would say not useful at all. According to Dr. Damodaran: "While we agree with the notion that betas move toward 1.0 over time, the [Blume adjustment] strikes us as arbitrary and not particularly useful."[8] The Blume adjustment method is especially arbitrary when applied to industries with consistently low betas, such as the utility industry. For industries with consistently low betas, it is better to employ an adjustment method that adjusts raw betas toward an industry average, rather than the market average. Vasicek proposed such a method, which is preferable to the Blume adjustment method because it allows raw betas to be adjusted toward an industry average, and also accounts for the statistical accuracy of the raw beta calculation.[9] In other words, "[t]he Vasicek adjustment seeks to overcome one weakness of the Blume model by not applying the same adjustment to every security; rather, a security-specific adjustment is made depending on the

[6] *See* Michael J. Gombola and Douglas R. Kahl, *Time-Series Processes of Utility Betas: Implications for Forecasting Systematic Risk* 84-92 (Financial Management Autumn 1990).

[7] See Marshall Blume, *On the Assessment of Risk,* Vol. 26, No. 1, The Journal of Finance 1 (1971).

[8] *See* Aswath Damodaran, *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset* 187 (3rd ed., John Wiley & Sons, Inc. 2012).

[9] Oldrich A. Vasicek, *A Note on Using Cross-Sectional Information in Bayesian Estimation of Security Betas* 1233-1239 (Journal of Finance, Vol. 28, No. 5, December 1973).

statistical quality of the regression."[10] The Vasicek beta adjustment equation is expressed as follows:

Equation 5:
Vasicek Beta Adjustment

$$\beta_{i1} = \frac{\sigma^2_{\beta i0}}{\sigma^2_{\beta 0} + \sigma^2_{\beta_{i0}}}\beta_0 + \frac{\sigma^2_{\beta 0}}{\sigma^2_{\beta 0} + \sigma^2_{\beta_{i0}}}\beta_{i0}$$

where: β_{i1} = *Vasicek adjusted beta for security i*
β_{i0} = *historical beta for security i*
β_0 = *beta of industry or proxy group*
$\sigma^2_{\beta 0}$ = *variance of betas in the industry or proxy group*
$\sigma^2_{\beta i0}$ = *square of standard error of the historical beta for security i*

The Vasicek beta adjustment is an improvement on the Blume model because the Vasicek model does not apply the same adjustment to every security. A higher standard error produced by the regression analysis indicates a lower statistical significance of the beta estimate. Thus, a beta with a high standard error should receive a greater adjustment than a beta with a low standard error. As stated in Ibbotson:

[10] 2012 Ibbotson Stocks, Bonds, Bills, and Inflation Valuation Yearbook 77-78 (Morningstar 2012).

> While the Vasicek formula looks intimidating, it is really quite simple. The adjusted beta for a company is a weighted average of the company's historical beta and the beta of the market, industry, or peer group. How much weight is given to the company and historical beta depends on the statistical significance of the company beta statistic. If a company beta has a low standard error, then it will have a higher weighting in the Vasicek formula. If a company beta has a high standard error, then it will have lower weighting in the Vasicek formula. An advantage of this adjustment methodology is that it does not force an adjustment to the market as a whole. Instead, the adjustment can be toward an industry or some other peer group. *This is most useful in looking at companies in industries that on average have high or low betas*.[11]

Thus, the Vasicek adjustment method is statistically more accurate, and is the preferred method to use when analyzing companies in an industry that has inherently low betas, such as the utility industry. The Vasicek method was also confirmed by Gombola, who conducted a study specifically related to utility companies. Gombola concluded that "[t]he strong evidence of auto-regressive tendencies in *utility* betas lends support to the application of adjustment procedures such as the . . . adjustment procedure presented by Vasicek."[12] Gombola also concluded that adjusting raw betas toward the market mean of 1.0 is *too high*, and that "[i]nstead, they should be adjusted toward a value that is less than one."[13] In conducting the Vasicek adjustment on betas in previous

[11] *Id*. at 78 (emphasis added).

[12] Michael J. Gombola and Douglas R. Kahl, *Time-Series Processes of Utility Betas: Implications for Forecasting Systematic Risk* 92 (Financial Management Autumn 1990) (emphasis added).

[13] *Id*. at 91-92.

cases, it reveals that utility betas are even lower than those published by Value Line.[14] Gombola's findings are particular important here, because his study was conducted specifically on utility companies. This evidence indicates that using Value Line's betas in a CAPM cost of equity estimate for a utility company may lead to overestimated results. Regardless, adjusting betas to a level that is *higher* than Value Line's betas is not reasonable, and it would produce CAPM cost of equity results that are too high.

[14] *See e.g.* Responsive Testimony of David J. Garrett, filed March 21, 2016 in Cause No. PUD 201500273 before the Corporation Commission of Oklahoma (the Company's 2015 rate case), at pp. 56 – 59.

APPENDIX C:

THE DEPRECIATION SYSTEM

A depreciation accounting system may be thought of as a dynamic system in which estimates of life and salvage are inputs to the system, and the accumulated depreciation account is a measure of the state of the system at any given time.[15] The primary objective of the depreciation system is the timely recovery of capital. The process for calculating the annual accruals is determined by the factors required to define the system. A depreciation system should be defined by four primary factors: 1) a *method* of allocation; 2) a *procedure* for applying the method of allocation to a group of property; 3) a *technique* for applying the depreciation rate; and 4) a *model* for analyzing the characteristics of vintage groups comprising a continuous property group.[16] The figure below illustrates the basic concept of a depreciation system and includes some of the available parameters.[17]

There are hundreds of potential combinations of methods, procedures, techniques, and models, but in practice, analysts use only a few combinations. Ultimately, the system selected must result in the systematic and rational allocation of capital recovery for the utility. Each of the four primary factors defining the parameters of a depreciation system is discussed further below.

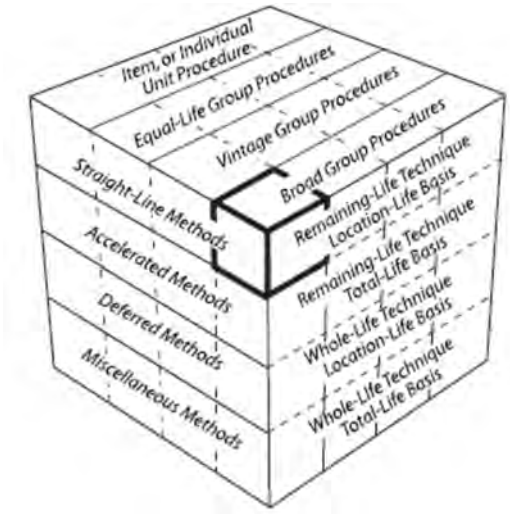
---

[15] *See* Frank K. Wolf & W. Chester Fitch, *Depreciation Systems* 69-70 (Iowa State University Press 1994).

[16] *Id.* at 70, 139-40.

[17] Edison Electric Institute, *Introduction to Depreciation* (inside cover) (EEI April 2013). Some definitions of the terms shown in this diagram are not consistent among depreciation practitioners and literature due to the fact that depreciation analysis is a relatively small and fragmented field. This diagram simply illustrates the some of the available parameters of a depreciation system.

Figure 1:
The Depreciation System Cube



1. Allocation Methods

The "method" refers to the pattern of depreciation in relation to the accounting periods. The method most commonly used in the regulatory context is the "straight-line method" — a type of age-life method in which the depreciable cost of plant is charged in equal amounts to each accounting period over the service life of plant.[18] Because group depreciation rates and plant balances often change, the amount of the annual accrual rarely remains the same, even when the straight-line method is employed.[19] The basic formula for the straight-line method is as follows:[20]

Equation 6:
Straight-Line Accrual

$$Annual\ Accrual = \frac{Gross\ Plant - Net\ Salavage}{Service\ Life}$$

[18] National Association of Regulatory Utility Commissioners, *Public Utility Depreciation Practices* 56 (NARUC 1996).

[19] *Id.*

[20] *Id.*

Gross plant is a known amount from the utility's records, while both net salvage and service life must be estimated in order to calculate the annual accrual. The straight-line method differs from accelerated methods of recovery, such as the "sum-of-the-years-digits" method and the "declining balance" method. Accelerated methods are primarily used for tax purposes and are rarely used in the regulatory context for determining annual accruals.[21] In practice, the annual accrual is expressed as a rate which is applied to the original cost of plant in order to determine the annual accrual in dollars. The formula for determining the straight-line rate is as follows:[22]

Equation 7:
Straight-Line Rate

$$Depreciation\ Rate\ \% = \frac{100 - Net\ Salvage\ \%}{Service\ Life}$$

2. Grouping Procedures

The "procedure" refers to the way the allocation method is applied through subdividing the total property into groups.[23] While single units may be analyzed for depreciation, a group plan of depreciation is particularly adaptable to utility property. Employing a grouping procedure allows for a composite application of depreciation rates to groups of similar property, rather than excessively conducting calculations for each unit. Whereas an individual unit of property has a single life, a group of property displays a dispersion of lives and the life characteristics of the group must be described statistically.[24] When analyzing mass property categories, it is important that

[21] *Id*. at 57.

[22] *Id*. at 56.

[23] Wolf *supra* n. 15, at 74-75.

[24] *Id*. at 74.

each group contains homogenous units of plant that are used in the same general manner throughout the plant and operated under the same general conditions.[25]

The "average life" and "equal life" grouping procedures are the two most common. In the average life procedure, a constant annual accrual rate based on the average life of all property in the group is applied to the surviving property. While property having shorter lives than the group average will not be fully depreciated, and likewise, property having longer lives than the group average will be over-depreciated, the ultimate result is that the group will be fully depreciated by the time of the final retirement.[26] Thus, the average life procedure treats each unit as though its life is equal to the average life of the group. In contrast, the equal life procedure treats each unit in the group as though its life was known.[27] Under the equal life procedure the property is divided into subgroups that each has a common life.[28]

3. Application Techniques

The third factor of a depreciation system is the "technique" for applying the depreciation rate. There are two commonly used techniques: "whole life" and "remaining life." The whole life technique applies the depreciation rate on the estimated average service life of a group, while the remaining life technique seeks to recover undepreciated costs over the remaining life of the plant.[29]

In choosing the application technique, consideration should be given to the proper level of the accumulated depreciation account. Depreciation accrual rates are calculated using estimates of service life and salvage. Periodically these estimates must be revised due to changing

[25] NARUC *supra* n. 18, at 61-62.

[26] *See* Wolf *supr*a n. 15, at 74-75.

[27] *Id*. at 75.

[28] *Id*.

[29] NARUC *supra* n. 18, at 63-64.

conditions, which cause the accumulated depreciation account to be higher or lower than necessary. Unless some corrective action is taken, the annual accruals will not equal the original cost of the plant at the time of final retirement.[30] Analysts can calculate the level of imbalance in the accumulated depreciation account by determining the "calculated accumulated depreciation," (a.k.a. "theoretical reserve" and referred to in these appendices as "CAD"). The CAD is the calculated balance that would be in the accumulated depreciation account at a point in time using *current* depreciation parameters.[31] An imbalance exists when the actual accumulated depreciation account does not equal the CAD. The choice of application technique will affect how the imbalance is dealt with.

Use of the whole life technique requires that an adjustment be made to accumulated depreciation after calculation of the CAD. The adjustment can be made in a lump sum or over a period of time. With use of the remaining life technique, however, adjustments to accumulated depreciation are amortized over the remaining life of the property and are automatically included in the annual accrual.[32] This is one reason that the remaining life technique is popular among practitioners and regulators. The basic formula for the remaining life technique is as follows:[33]

---

[30] Wolf *supra* n. 15, at 83.

[31] NARUC *supra* n. 18, at 325.

[32] NARUC *supra* n. 18, at 65 ("The desirability of using the remaining life technique is that any necessary adjustments of [accumulated depreciation] . . . are accrued automatically over the remaining life of the property. Once commenced, adjustments to the depreciation reserve, outside of those inherent in the remaining life rate would require regulatory approval.").

[33] *Id.* at 64.

Equation 8:
Remaining Life Accrual

$$Annual\ Accrual = \frac{Gross\ Plant - Accumulated\ Depreciation - Net\ Salvage}{Average\ Remaining\ Life}$$

The remaining life accrual formula is similar to the basic straight-line accrual formula above with two notable exceptions. First, the numerator has an additional factor in the remaining life formula: the accumulated depreciation. Second, the denominator is "average remaining life" instead of "average life." Essentially, the future accrual of plant (gross plant less accumulated depreciation) is allocated over the remaining life of plant. Thus, the adjustment to accumulated depreciation is "automatic" in the sense that it is built into the remaining life calculation.[34]

4. Analysis Model

The fourth parameter of a depreciation system, the "model," relates to the way of viewing the life and salvage characteristics of the vintage groups that have been combined to form a continuous property group for depreciation purposes.[35] A continuous property group is created when vintage groups are combined to form a common group. Over time, the characteristics of the property may change, but the continuous property group will continue. The two analysis models used among practitioners, the "broad group" and the "vintage group," are two ways of viewing the life and salvage characteristics of the vintage groups that have been combined to from a continuous property group.

The broad group model views the continuous property group as a collection of vintage groups that each has the same life and salvage characteristics. Thus, a single survivor curve and a

[34] Wolf *supra* n. 15, at 178.

[35] *See* Wolf *supra* n. 15, at 139 (I added the term "model" to distinguish this fourth depreciation system parameter from the other three parameters).

single salvage schedule are chosen to describe all the vintages in the continuous property group. In contrast, the vintage group model views the continuous property group as a collection of vintage groups that may have different life and salvage characteristics. Typically, there is not a significant difference between vintage group and broad group results unless vintages within the applicable property group experienced dramatically different retirement levels than anticipated in the overall estimated life for the group. For this reason, many analysts utilize the broad group procedure because it is more efficient.

APPENDIX D:

IOWA CURVES

Early work in the analysis of the service life of industrial property was based on models that described the life characteristics of human populations.[36] This explains why the word "mortality" is often used in the context of depreciation analysis. In fact, a group of property installed during the same accounting period is analogous to a group of humans born during the same calendar year. Each period the group will incur a certain fraction of deaths / retirements until there are no survivors. Describing this pattern of mortality is part of actuarial analysis and is regularly used by insurance companies to determine life insurance premiums. The pattern of mortality may be described by several mathematical functions, particularly the survivor curve and frequency curve. Each curve may be derived from the other so that if one curve is known, the other may be obtained. A survivor curve is a graph of the percent of units remaining in service expressed as a function of age.[37] A frequency curve is a graph of the frequency of retirements as a function of age. Several types of survivor and frequency curves are illustrated in the figures below.

1. Development

The survivor curves used by analysts today were developed over several decades from extensive analysis of utility and industrial property. In 1931 Edwin Kurtz and Robley Winfrey used extensive data from a range of 65 industrial property groups to create survivor curves representing the life characteristics of each group of property.[38] They generalized the 65 curves

[36] Wolf *supra* n. 15, at 276.

[37] *Id*. at 23.

[38] *Id*. at 34.

into 13 survivor curve types and published their results in *Bulletin 103: Life Characteristics of Physical Property*. The 13 type curves were designed to be used as valuable aids in forecasting probable future service lives of industrial property. Over the next few years, Winfrey continued gathering additional data, particularly from public utility property, and expanded the examined property groups from 65 to 176.[39] This resulted in 5 additional survivor curve types for a total of 18 curves. In 1935, Winfrey published *Bulletin 125: Statistical Analysis of Industrial Property Retirements*. According to Winfrey, "[t]he 18 type curves are expected to represent quite well all survivor curves commonly encountered in utility and industrial practices."[40] These curves are known as the "Iowa curves" and are used extensively in depreciation analysis in order to obtain the average service lives of property groups. (Use of Iowa curves in actuarial analysis is further discussed in Exhibit DJG-23, Appendix E.)

In 1942, Winfrey published *Bulletin 155: Depreciation of Group Properties*. In Bulletin 155, Winfrey made some slight revisions to a few of the 18 curve types, and published the equations, tables of the percent surviving, and probable life of each curve at five-percent intervals.[41] Rather than using the original formulas, analysts typically rely on the published tables containing the percentages surviving. This is because absent knowledge of the integration technique applied to each age interval, it is not possible to recreate the exact original published table values. In the 1970s, John Russo collected data from over 2,000 property accounts reflecting

---

[39] *Id.*

[40] Robley Winfrey, *Bulletin 125: Statistical Analyses of Industrial Property Retirements* 85, Vol. XXXIV, No. 23 (Iowa State College of Agriculture and Mechanic Arts 1935).

[41] Robley Winfrey, Bulletin 155: Depreciation of Group Properties 121-28, Vol XLI, No. 1 (The Iowa State College Bulletin 1942); see also Wolf supra n. 15, at 305-38 (publishing the percent surviving for each Iowa curve, including "O" type curve, at one percent intervals).

observations during the period 1965 – 1975 as part of his Ph.D. dissertation at Iowa State. Russo essentially repeated Winfrey's data collection, testing, and analysis methods used to develop the original Iowa curves, except that Russo studied industrial property in service several decades after Winfrey published the original Iowa curves. Russo drew three major conclusions from his research:[42]

1. No evidence was found to conclude that the Iowa curve set, as it stands, is not a valid system of standard curves;

2. No evidence was found to conclude that new curve shapes could be produced at this time that would add to the validity of the Iowa curve set; and

3. No evidence was found to suggest that the number of curves within the Iowa curve set should be reduced.

Prior to Russo's study, some had criticized the Iowa curves as being potentially obsolete because their development was rooted in the study of industrial property in existence during the early 1900s. Russo's research, however, negated this criticism by confirming that the Iowa curves represent a sufficiently wide range of life patterns, and that though technology will change over time, the underlying patterns of retirements remain constant and can be adequately described by the Iowa curves.[43]

Over the years, several more curve types have been added to Winfrey's 18 Iowa curves. In 1967, Harold Cowles added four origin-modal curves. In addition, a square curve is sometimes used to depict retirements which are all planned to occur at a given age. Finally, analysts

[42] *See* Wolf *supra* n. 15, at 37.

[43] *Id.*

commonly rely on several "half curves" derived from the original Iowa curves. Thus, the term "Iowa curves" could be said to describe up to 31 standardized survivor curves.

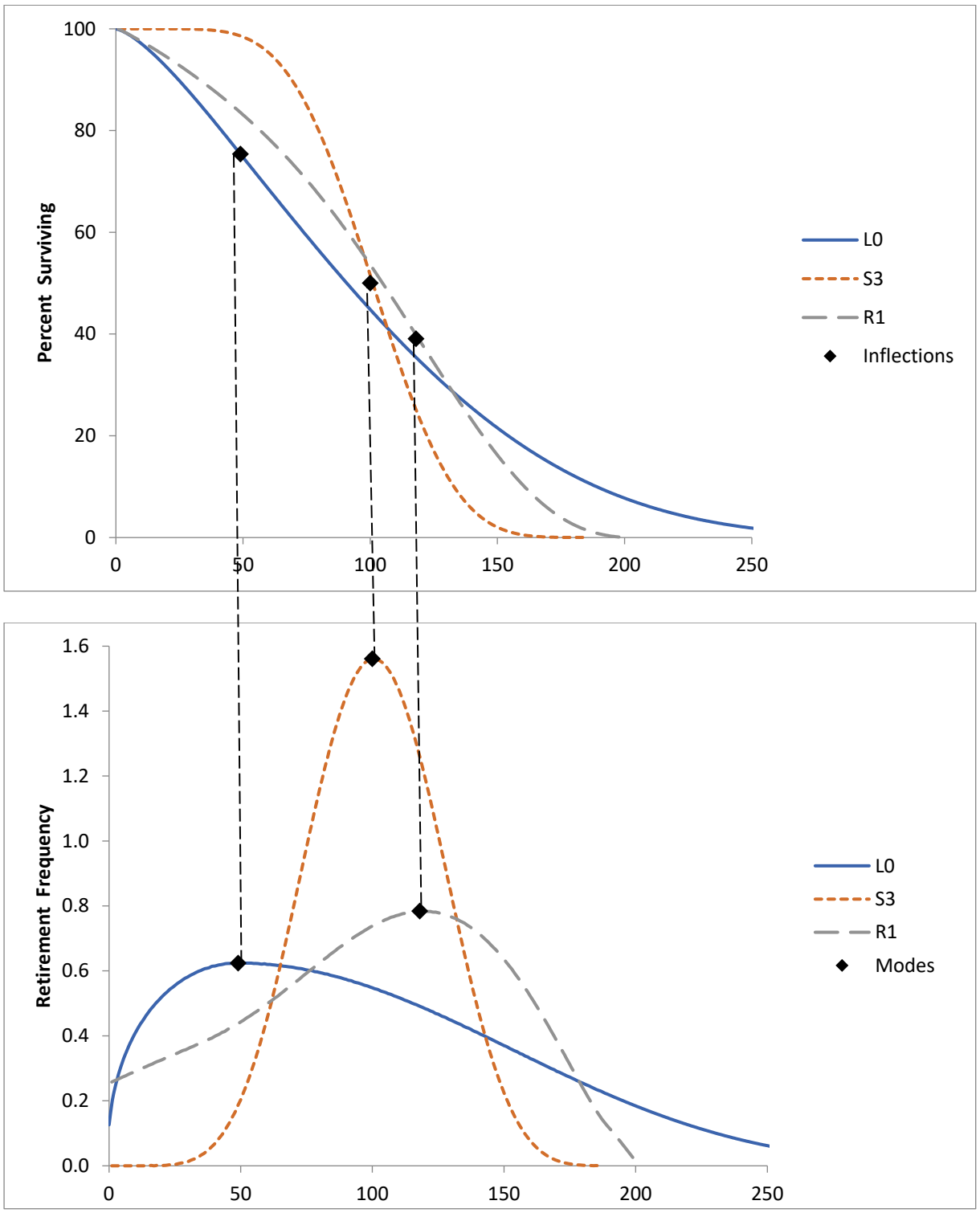
2. Classification

The Iowa curves are classified by three variables: modal location, average life, and variation of life. First, the mode is the percent life that results in the highest point of the frequency curve and the "inflection point" on the survivor curve. The modal age is the age at which the greatest rate of retirement occurs. As illustrated in the figure below, the modes appear at the steepest point of each survivor curve in the top graph, as well as the highest point of each corresponding frequency curve in the bottom graph.

The classification of the survivor curves was made according to whether the mode of the retirement frequency curves was to the left, to the right, or coincident with average service life. There are three modal "families" of curves: six left modal curves (L0, L1, L2, L3, L4, L5); five right modal curves (R1, R2, R3, R4, R5); and seven symmetrical curves (S0, S1, S2, S3, S4, S5, S6).[44] In the figure below, one curve from each family is shown: L0, S3 and R1, with average life at 100 on the x-axis. It is clear from the graphs that the modes for the L0 and R1 curves appear to the left and right of average life respectively, while the S3 mode is coincident with average life.

[44] In 1967, Harold A. Cowles added four origin-modal curves known as "O type" curves. There are also several "half" curves and a square curve, so the total amount of survivor curves commonly called "Iowa" curves is about 31 (see NARUC supra n. 119, at 68).

Figure 2:
Modal Age Illustration



The second Iowa curve classification variable is average life. The Iowa curves were designed using a single parameter of age expressed as a percent of average life instead of actual age. This was necessary in order for the curves to be of practical value. As Winfrey notes:

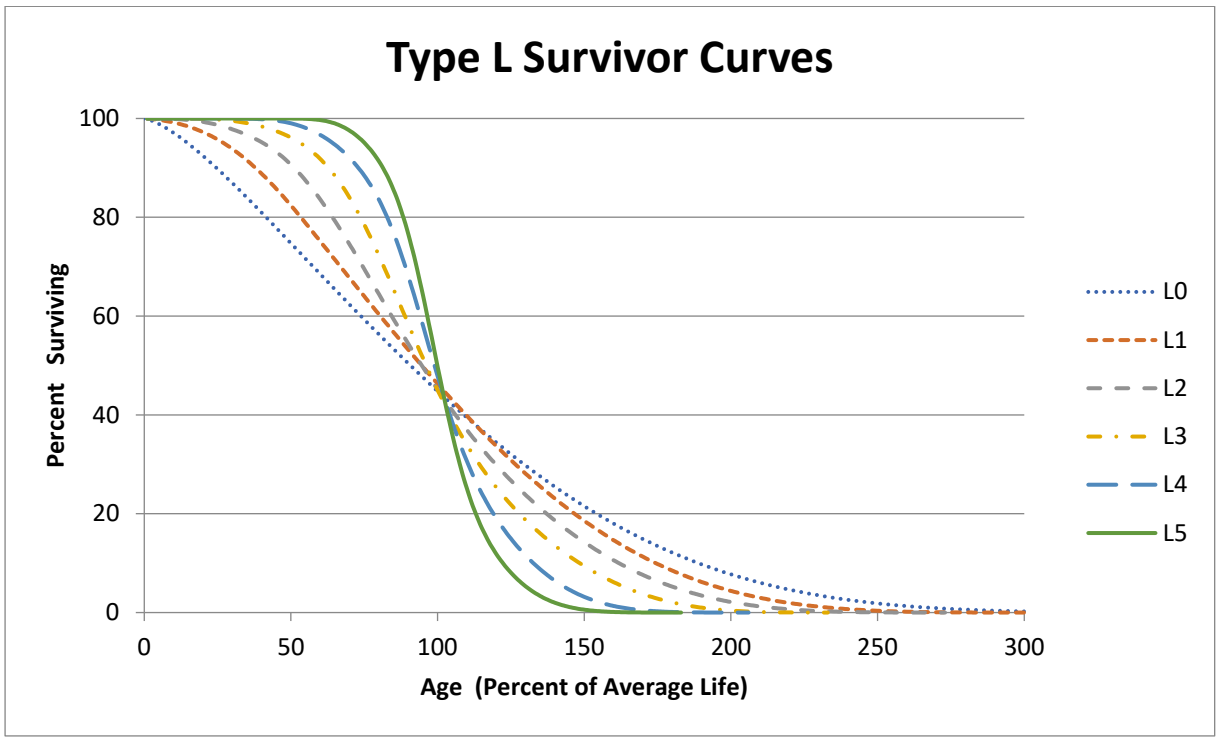
> Since the location of a particular survivor on a graph is affected by both its span in years and the shape of the curve, it is difficult to classify a group of curves unless one of these variables can be controlled. This is easily done by expressing the age in percent of average life."[45]

Because age is expressed in terms of percent of average life, any particular Iowa curve type can be modified to forecast property groups with various average lives.

The third variable, variation of life, is represented by the numbers next to each letter. A lower number (e.g., L1) indicates a relatively low mode, large variation, and large maximum life; a higher number (e.g., L5) indicates a relatively high mode, small variation, and small maximum life. All three classification variables – modal location, average life, and variation of life — are used to describe each Iowa curve. For example, a 13-L1 Iowa curve describes a group of property with a 13-year average life, with the greatest number of retirements occurring before (or to the left of) the average life, and a relatively low mode. The graphs below show these 18 survivor curves, organized by modal family.

[45] Winfrey *supra* n. 40, at 60.

Figure 3:
Type L Survivor and Frequency Curves



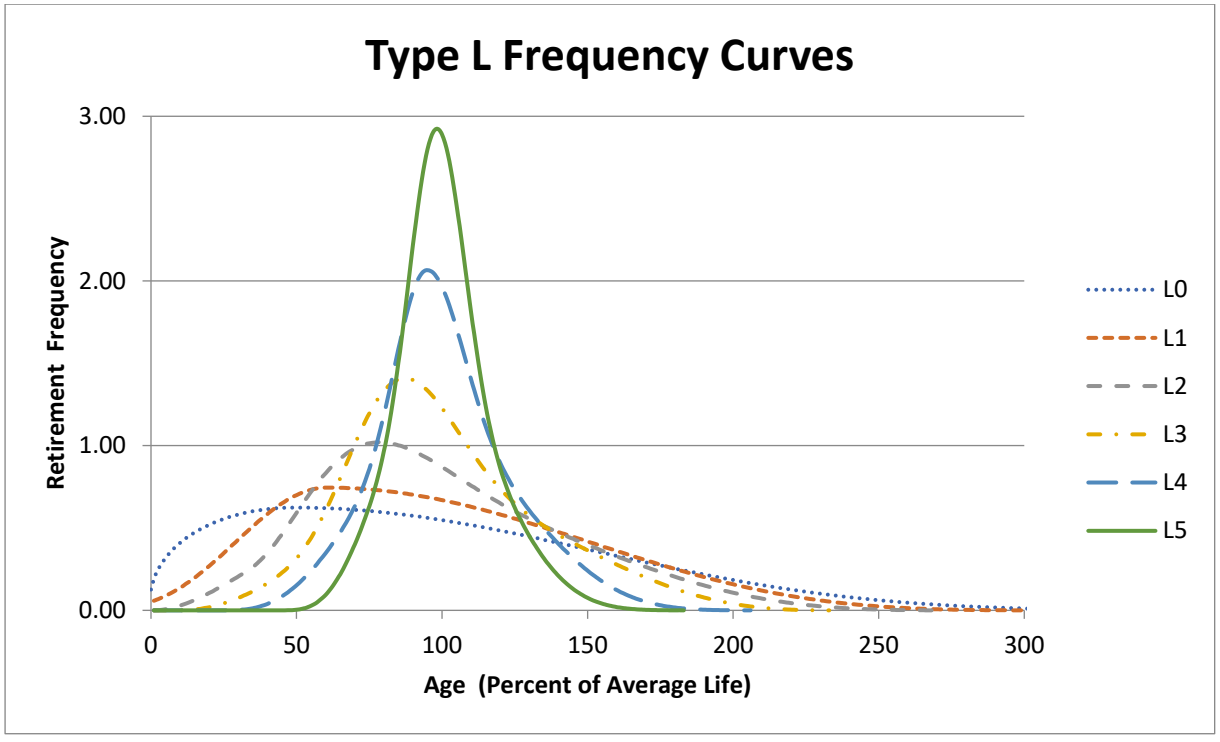
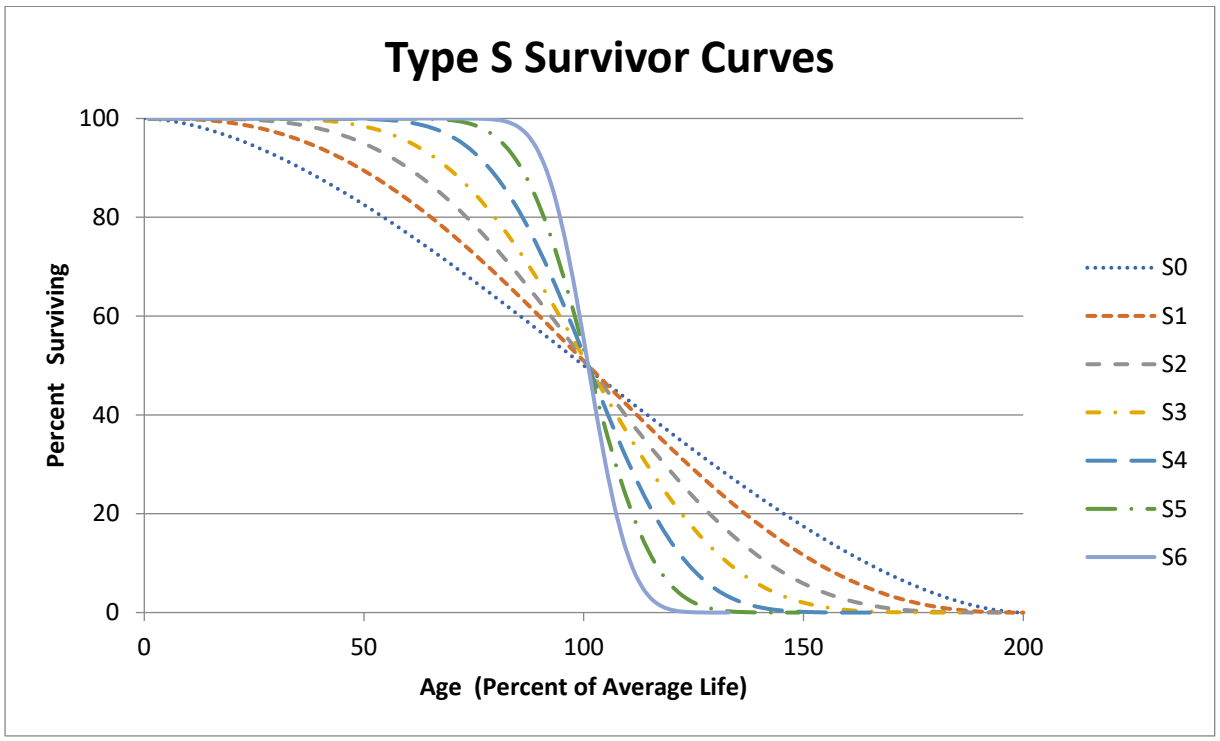


Figure 4:
Type S Survivor and Frequency Curves



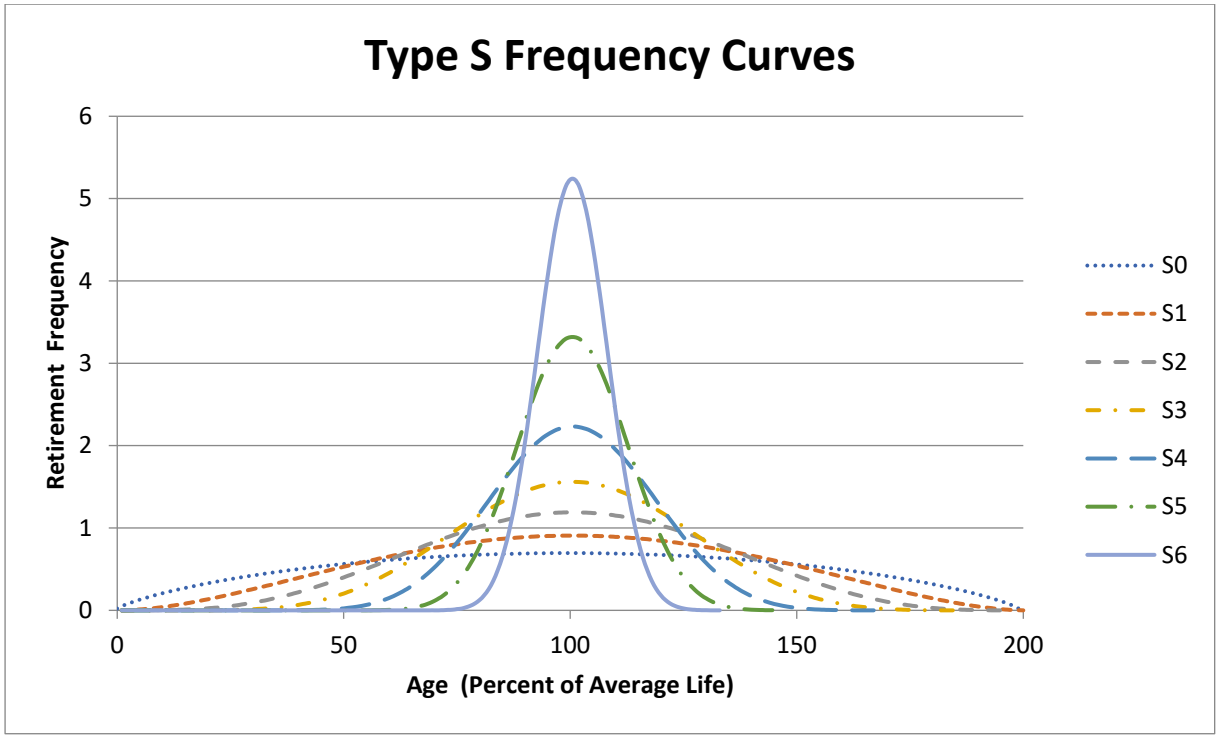
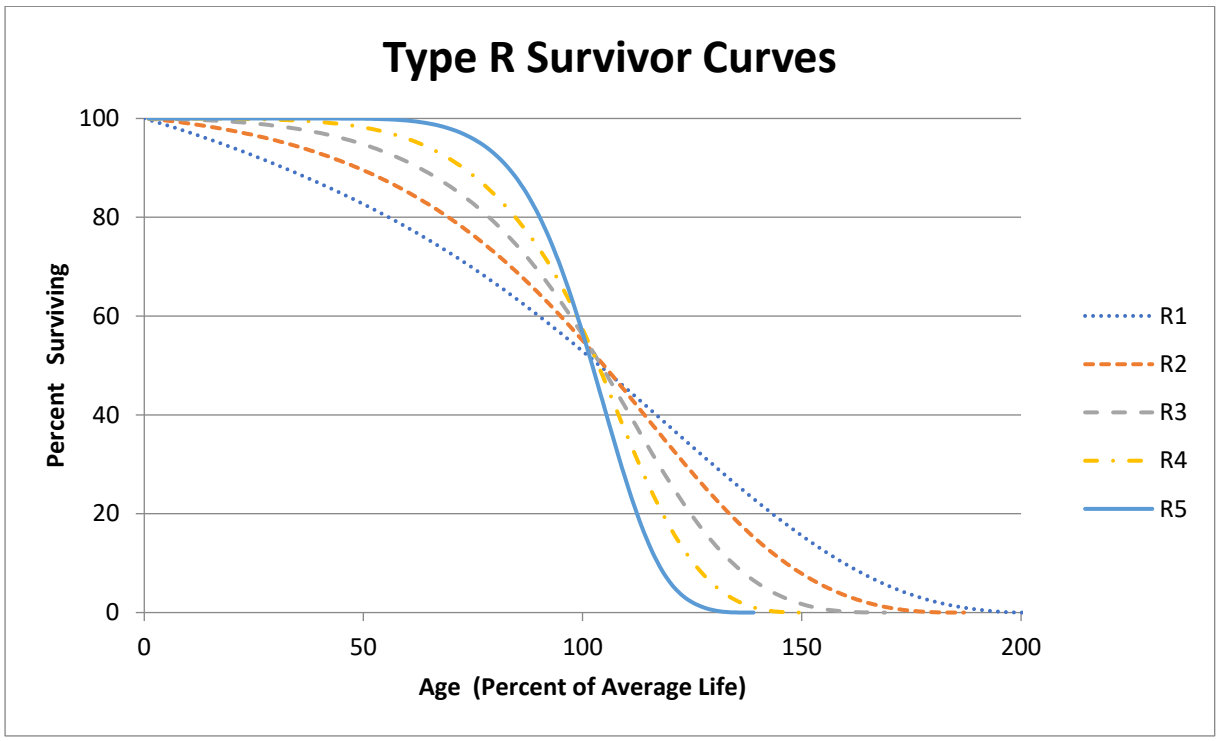
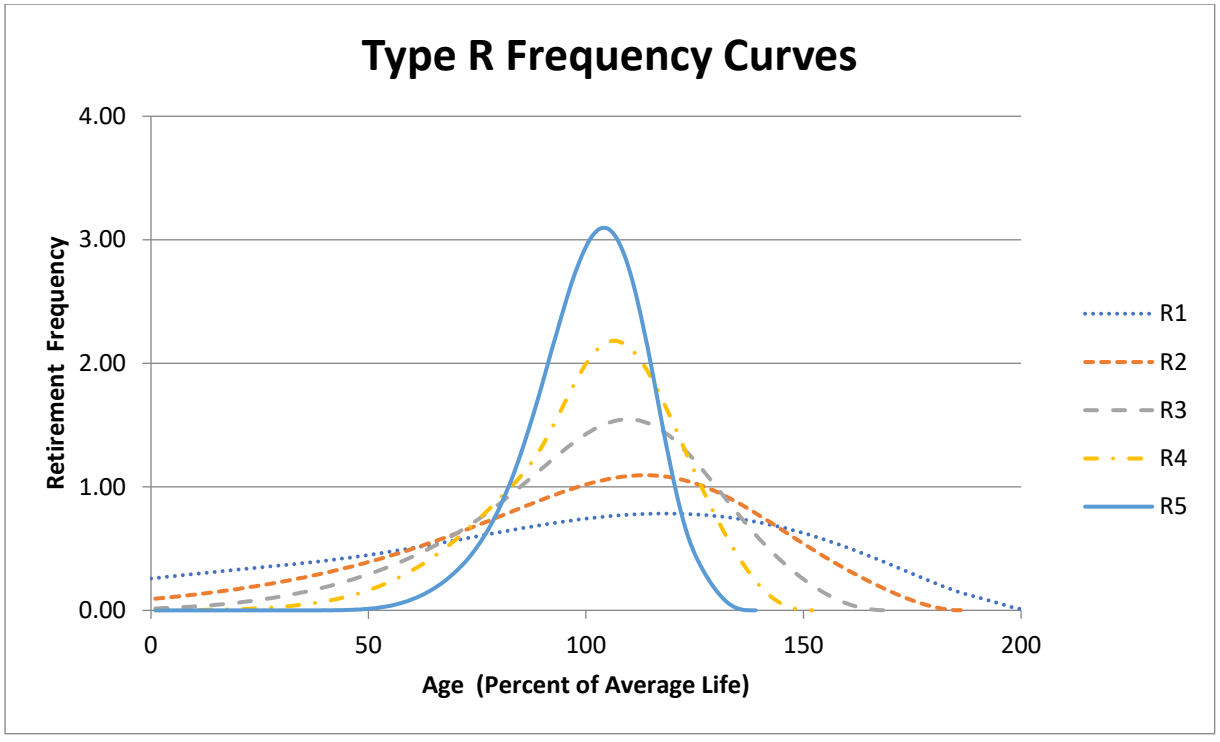


Figure 5:
Type R Survivor and Frequency Curves





As shown in the graphs above, the modes for the L family frequency curves occur to the left of average life (100% on the x-axis), while the S family modes occur at the average, and the R family modes occur after the average.

3. Types of Lives

Several other important statistical analyses and types of lives may be derived from an Iowa curve. These include: 1) average life; 2) realized life; 3) remaining life; and 4) probable life. The figure below illustrates these concepts. It shows the frequency curve, survivor curve, and probable life curve. Age M_x on the x-axis represents the modal age, while age AL_x represents the average age. Thus, this figure illustrates an "L type" Iowa curve since the mode occurs before the average.[46]

First, average life is the area under the survivor curve from age zero to maximum life. Because the survivor curve is measured in percent, the area under the curve must be divided by 100% to convert it from percent-years to years. The formula for average life is as follows:[47]

Equation 9:
Average Life

$$Average\ Life\ = \frac{Area\ Under\ Survivor\ Curve\ from\ Age\ 0\ to\ Max\ Life}{100\%}$$

Thus, average life may not be determined without a complete survivor curve. Many property groups being analyzed will not have experienced full retirement. This results in a "stub" survivor

[46] From age zero to age M_x on the survivor curve, it could be said that the percent surviving from this property group is decreasing at an increasing rate. Conversely, from point M_x to maximum on the survivor curve, the percent surviving is decreasing at a decreasing rate.

[47] *See* NARUC *supra* n. 18, at 71.

curve. Iowa curves are used to extend stub curves to maximum life in order for the average life calculation to be made (see Exhibit DJG-23, Appendix E).

Realized life is similar to average life, except that realized life is the average years of service experienced to date from the vintage's original installations.[48] As shown in the figure below, realized life is the area under the survivor curve from zero to age RL_X. Likewise, unrealized life is the area under the survivor curve from age RL_X to maximum life. Thus, it could be said that average life equals realized life plus unrealized life.

Average remaining life represents the future years of service expected from the surviving property.[49] Remaining life is sometimes referred to as "average remaining life" and "life expectancy." To calculate average remaining life at age x, the area under the estimated future potion of the survivor curve is divided by the percent surviving at age x (denoted S_X). Thus, the average remaining life formula is:

Equation 10:
Average Remaining Life

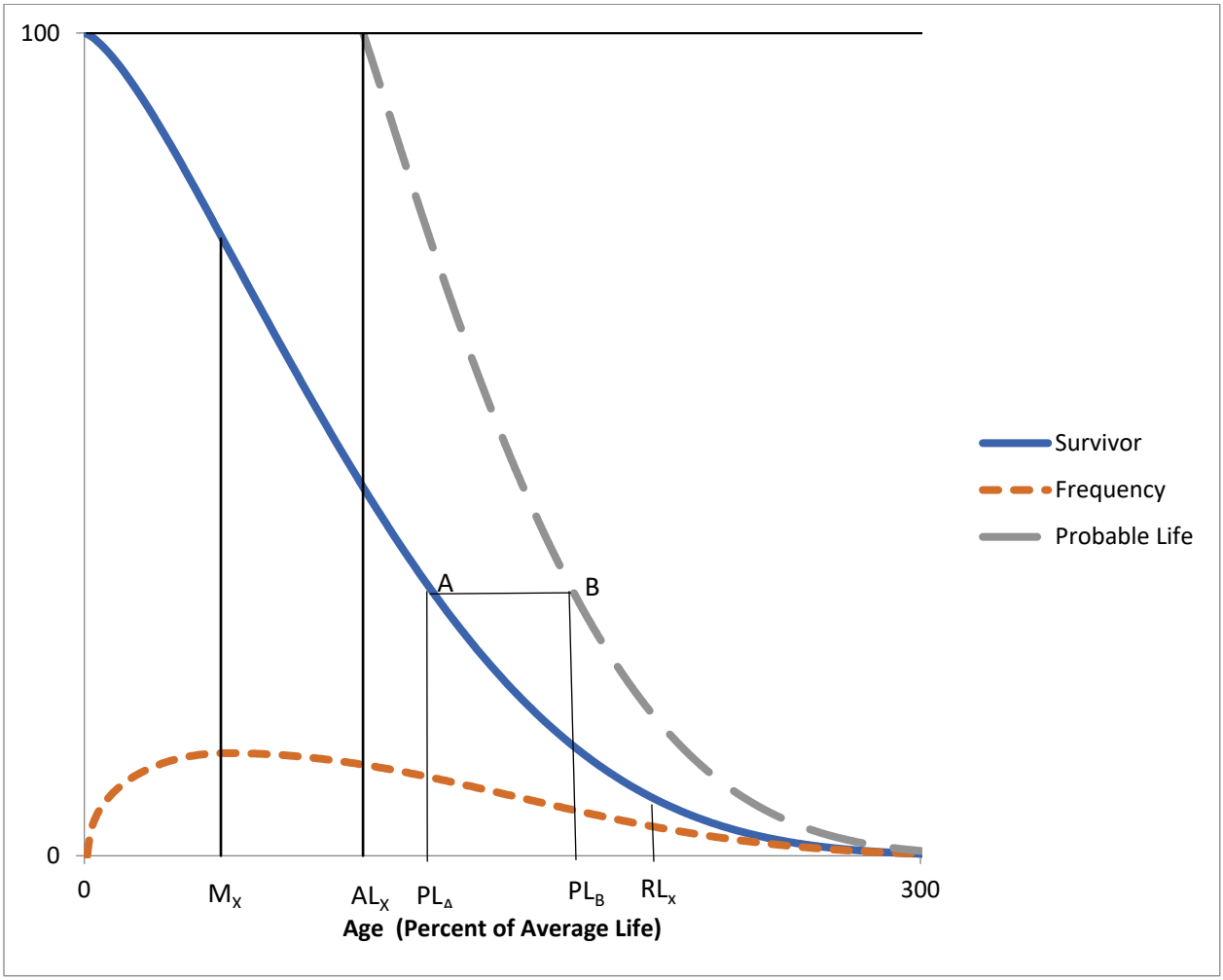
$$Average\ Remaining\ Life\ = \frac{Area\ Under\ Survivor\ Curve\ from\ Age\ x\ to\ Max\ Life}{S_X}$$

It is necessary to determine average remaining life in order to calculate the annual accrual under the remaining life technique.

[48] *Id*. at 73.

[49] *Id*. at 74.

Figure 6:
Iowa Curve Derivations



Finally, the probable life may also be determined from the Iowa curve. The probable life of a property group is the total life expectancy of the property surviving at any age and is equal to the remaining life plus the current age.[50] The probable life is also illustrated in this figure. The probable life at age PL_A is the age at point PL_B. Thus, to read the probable life at age PL_A, see the corresponding point on the survivor curve above at point "A," then horizontally to point "B" on

[50] Wolf *supra* n. 15, at 28.

the probable life curve, and back down to the age corresponding to point “B.” It is no coincidence that the vertical line from AL_X connects at the top of the probable life curve. This is because at age zero, probable life equals average life.

APPENDIX E:

ACTUARIAL ANALYSIS

Actuarial science is a discipline that applies various statistical methods to assess risk probabilities and other related functions. Actuaries often study human mortality. The results from historical mortality data are used to predict how long similar groups of people who are alive will live today. Insurance companies rely of actuarial analysis in determining premiums for life insurance policies.

The study of human mortality is analogous to estimating service lives of industrial property groups. While some humans die solely from chance, most deaths are related to age; that is, death rates generally increase as age increases. Similarly, physical plant is also subject to forces of retirement. These forces include physical, functional, and contingent factors, as shown in the table below.[51]

Figure 7:
Forces of Retirement

Physical Factors	Functional Factors	Contingent Factors
Wear and tear Decay or deterioration Action of the elements	Inadequacy Obsolescence Changes in technology Regulations Managerial discretion	Casualties or disasters Extraordinary obsolescence

While actuaries study historical mortality data in order to predict how long a group of people will live, depreciation analysts must look at a utility's historical data in order to estimate the average lives of property groups. A utility's historical data is often contained in the Continuing Property Records ("CPR"). Generally, a CPR should contain 1) an inventory of property record

[51] NARUC *supra* n. 18, at 14-15.

units; 2) the association of costs with such units; and 3) the dates of installation and removal of plant. Since actuarial analysis includes the examination of historical data to forecast future retirements, the historical data used in the analysis should not contain events that are anomalous or unlikely to recur.[52] Historical data is used in the retirement rate actuarial method, which is discussed further below.

The Retirement Rate Method

There are several systematic actuarial methods that use historical data in order to calculate observed survivor curves for property groups. Of these methods, the retirement rate method is superior, and is widely employed by depreciation analysts.[53] The retirement rate method is ultimately used to develop an observed survivor curve, which can be fitted with an Iowa curve discussed in Exhibit DJG-23, Appendix D in order to forecast average life. The observed survivor curve is calculated by using an observed life table ("OLT"). The figures below illustrate how the OLT is developed. First, historical property data are organized in a matrix format, with placement years on the left forming rows, and experience years on the top forming columns. The placement year (a.k.a. "vintage year" or "installation year") is the year of placement of a group of property. The experience year (a.k.a. "activity year") refers to the accounting data for a particular calendar year. The two matrices below use aged data — that is, data for which the dates of placements, retirements, transfers, and other transactions are known. Without aged data, the retirement rate actuarial method may not be employed. The first matrix is the exposure matrix, which shows the

[52] *Id*. at 112-13.

[53] Anson Marston, Robley Winfrey & Jean C. Hempstead, *Engineering Valuation and Depreciation* 154 (2nd ed., McGraw-Hill Book Company, Inc. 1953).

exposures at the beginning of each year.[54] An exposure is simply the depreciable property subject to retirement during a period. The second matrix is the retirement matrix, which shows the annual retirements during each year. Each matrix covers placement years 2003–2015, and experience years 2008-2015. In the exposure matrix, the number in the 2009 experience column and the 2003 placement row is $192,000. This means at the beginning of 2012, there was $192,000 still exposed to retirement from the vintage group placed in 2003. Likewise, in the retirement matrix, $19,000 of the dollars invested in 2003 was retired during 2012.

Figure 8:
Exposure Matrix

	Experience Years									
	Exposures at January 1 of Each Year (Dollars in 000's)									
Placement Years	2008	2009	2010	2011	2012	2013	2014	2015	Total at Start of Age Interval	Age Interval
2003	261	245	228	211	**192**	173	152	131	131	11.5 - 12.5
2004	267	252	236	220	202	**184**	165	145	297	10.5 - 11.5
2005	304	291	277	263	248	232	**216**	198	536	9.5 - 10.5
2006	345	334	322	310	298	284	270	**255**	**847**	8.5 - 9.5
2007	367	357	347	335	324	312	299	286	1,201	7.5 - 8.5
2008	375	366	357	347	336	325	314	302	1,581	6.5 - 7.5
2009		377	366	356	346	336	327	319	1,986	5.5 - 6.5
2010			381	369	358	347	336	327	2,404	4.5 - 5.5
2011				386	372	359	346	334	2,559	3.5 - 4.5
2012					395	380	366	352	2,722	2.5 - 3.5
2013						401	385	370	2,866	1.5 - 2.5
2014							410	393	2,998	0.5 - 1.5
2015								416	3,141	0.0 - 0.5
Total	1919	2222	2514	2796	3070	3333	3586	3827	23,268	

[54] Technically, the last numbers in each column are "gross additions" rather than exposures. Gross additions do not include adjustments and transfers applicable to plant placed in a previous year. Once retirements, adjustments, and transfers are factored in, the balance at the beginning of the next account period is called an "exposure" rather than an addition.

Figure 9:
Retirement Matrix

Placement Years	Experience Years: Retirments During the Year (Dollars in 000's) 2008	2009	2010	2011	2012	2013	2014	2015	Total During Age Interval	Age Interval
2003	16	17	18	19	**19**	20	21	23	23	11.5 - 12.5
2004	15	16	17	17	18	**19**	20	21	43	10.5 - 11.5
2005	13	14	14	15	16	17	**17**	18	59	9.5 - 10.5
2006	11	12	12	13	13	14	15	**15**	**71**	8.5 - 9.5
2007	10	11	11	12	12	13	13	14	82	7.5 - 8.5
2008	9	9	10	10	11	11	12	13	91	6.5 - 7.5
2009		11	10	10	9	9	9	8	95	5.5 - 6.5
2010			12	11	11	10	10	9	100	4.5 - 5.5
2011				14	13	13	12	11	93	3.5 - 4.5
2012					15	14	14	13	91	2.5 - 3.5
2013						16	15	14	93	1.5 - 2.5
2014							17	16	100	0.5 - 1.5
2015								18	112	0.0 - 0.5
Total	74	89	104	121	139	157	175	194	1,052	

These matrices help visualize how exposure and retirement data are calculated for each age interval. An age interval is typically one year. A common convention is to assume that any unit installed during the year is installed in the middle of the calendar year (i.e., July 1st). This convention is called the "half-year convention" and effectively assumes that all units are installed uniformly during the year.[55] Adoption of the half-year convention leads to age intervals of 0-0.5 years, 0.5-1.5 years, etc., as shown in the matrices.

The purpose of the matrices is to calculate the totals for each age interval, which are shown in the second column from the right in each matrix. This column is calculated by adding each number from the corresponding age interval in the matrix. For example, in the exposure matrix, the total amount of exposures at the beginning of the 8.5-9.5 age interval is $847,000. This number was calculated by adding the numbers shown on the "stairs" to the left (192+184+216+255=847).

[55] Wolf *supra* n. 15, at 22.

The same calculation is applied to each number in the column. The amounts retired during the year in the retirements matrix affect the exposures at the beginning of each year in the exposures matrix. For example, the amount exposed to retirement in 2008 from the 2003 vintage is $261,000. The amount retired during 2008 from the 2003 vintage is $16,000. Thus, the amount exposed to retirement in 2009 from the 2003 vintage is $245,000 ($261,000 - $16,000). The company's property records may contain other transactions which affect the property, including sales, transfers, and adjusting entries. Although these transactions are not shown in the matrices above, they would nonetheless affect the amount exposed to retirement at the beginning of each year.

The totaled amounts for each age interval in both matrices are used to form the exposure and retirement columns in the OLT, as shown in the chart below. This chart also shows the retirement ratio and the survivor ratio for each age interval. The retirement ratio for an age interval is the ratio of retirements during the interval to the property exposed to retirement at the beginning of the interval. The retirement ratio represents the probability that the property surviving at the beginning of an age interval will be retired during the interval. The survivor ratio is simply the complement to the retirement ratio (1 – retirement ratio). The survivor ratio represents the probability that the property surviving at the beginning of an age interval will survive to the next age interval.

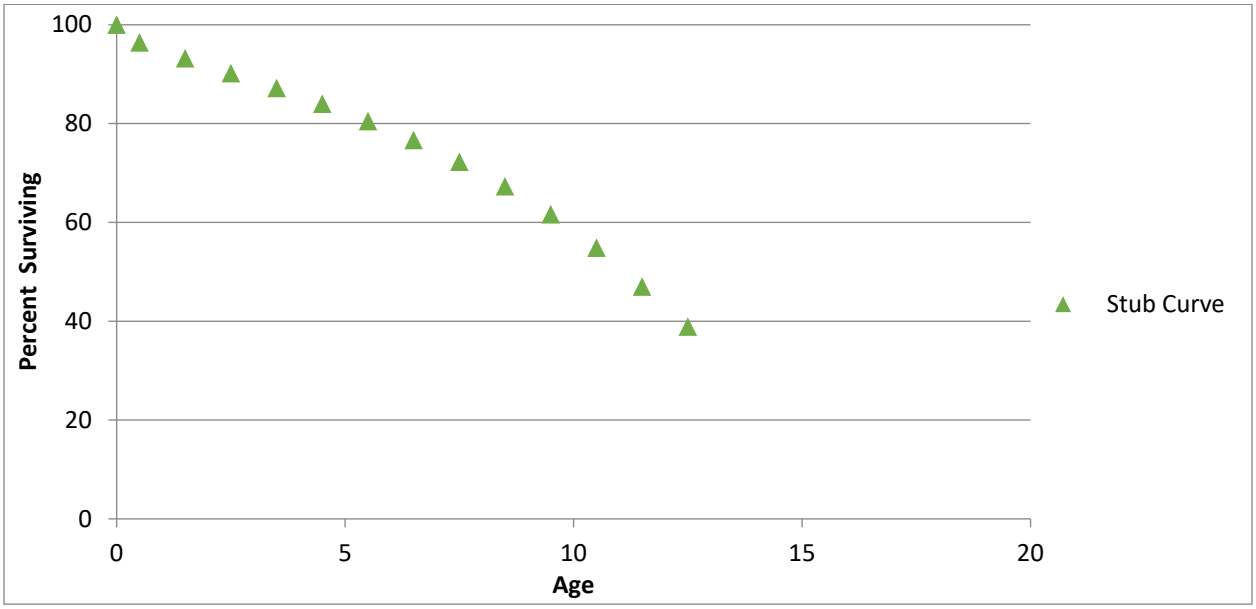
Figure 10:
Observed Life Table

Age at Start of Interval	Exposures at Start of Age Interval	Retirements During Age Interval	Retirement Ratio	Survivor Ratio	Percent Surviving at Start of Age Interval
A	B	C	D = C / B	E = 1 - D	F
0.0	3,141	112	0.036	0.964	**100.00**
0.5	2,998	100	0.033	0.967	**96.43**
1.5	2,866	93	0.032	0.968	**93.21**
2.5	2,722	91	0.033	0.967	**90.19**
3.5	2,559	93	0.037	0.963	**87.19**
4.5	2,404	100	0.042	0.958	**84.01**
5.5	1,986	95	0.048	0.952	**80.50**
6.5	1,581	91	0.058	0.942	**76.67**
7.5	1,201	82	0.068	0.932	**72.26**
8.5	847	71	0.084	0.916	**67.31**
9.5	536	59	0.110	0.890	**61.63**
10.5	297	43	0.143	0.857	**54.87**
11.5	131	23	0.172	0.828	**47.01**
					38.91
Total	23,268	1,052			

Column F on the right shows the percentages surviving at the beginning of each age interval. This column starts at 100% surviving. Each consecutive number below is calculated by multiplying the percent surviving from the previous age interval by the corresponding survivor ratio for that age interval. For example, the percent surviving at the start of age interval 1.5 is 93.21%, which was calculated by multiplying the percent surviving for age interval 0.5 (96.43%) by the survivor ratio for age interval 0.5 (0.967).

The percentages surviving in Column F are the numbers that are used to form the original survivor curve. This particular curve starts at 100% surviving and ends at 38.91% surviving. An observed survivor curve such as this that does not reach zero percent surviving is called a “stub” curve. The figure below illustrates the stub survivor curve derived from the OLT table above.

Figure 11:
Original "Stub" Survivor Curve



The matrices used to develop the basic OLT and stub survivor curve provide a basic illustration of the retirement rate method in that only a few placement and experience years were used. In reality, analysts may have several decades of aged property data to analyze. In that case, it may be useful to use a technique called "banding" in order to identify trends in the data.

Banding

The forces of retirement and characteristics of industrial property are constantly changing. A depreciation analyst may examine the magnitude of these changes. Analysts often use a technique called "banding" to assist with this process. Banding refers to the merging of several years of data into a single data set for further analysis, and it is a common technique associated with the retirement rate method.[56] There are three primary benefits of using bands in depreciation analysis:

[56] NARUC *supra* n. 18, at 113.

1. Increasing the sample size. In statistical analyses, the larger the sample size in relation to the body of total data, the greater the reliability of the result;
2. Smooth the observed data. Generally, the data obtained from a single activity or vintage year will not produce an observed life table that can be easily fit; and
3. Identify trends. By looking at successive bands, the analyst may identify broad trends in the data that may be useful in projecting the future life characteristics of the property.[57]

Two common types of banding methods are the "placement band" method and the "experience band" method." A placement band, as the name implies, isolates selected placement years for analysis. The figure below illustrates the same exposure matrix shown above, except that only the placement years 2005-2008 are considered in calculating the total exposures at the beginning of each age interval.

[57] *Id.*

Figure 12:
Placement Bands

Placement Years	Experience Years: Exposures at January 1 of Each Year (Dollars in 000's) 2008	2009	2010	2011	2012	2013	2014	2015	Total at Start of Age Interval	Age Interval
2003	261	245	228	211	192	173	152	131		11.5 - 12.5
2004	267	252	236	220	202	184	165	145		10.5 - 11.5
2005	304	291	277	263	248	232	216	198	198	9.5 - 10.5
2006	345	334	322	310	298	284	270	255	471	8.5 - 9.5
2007	367	357	347	335	324	312	299	286	788	7.5 - 8.5
2008	375	366	357	347	336	325	314	302	1,133	6.5 - 7.5
2009		377	366	356	346	336	327	319	1,186	5.5 - 6.5
2010			381	369	358	347	336	327	1,237	4.5 - 5.5
2011				386	372	359	346	334	1,285	3.5 - 4.5
2012					395	380	366	352	1,331	2.5 - 3.5
2013						401	385	370	1,059	1.5 - 2.5
2014							410	393	733	0.5 - 1.5
2015								416	375	0.0 - 0.5
Total	1919	2222	2514	2796	3070	3333	3586	3827	9,796	

The shaded cells within the placement band equal the total exposures at the beginning of age interval 4.5–5.5 ($1,237). The same placement band would be used for the retirement matrix covering the same placement years of 2005 – 2008. This of course would result in a different OLT and original stub survivor curve than those that were calculated above without the restriction of a placement band.

Analysts often use placement bands for comparing the survivor characteristics of properties with different physical characteristics.[58] Placement bands allow analysts to isolate the effects of changes in technology and materials that occur in successive generations of plant. For example, if in 2005 an electric utility began placing transmission poles with a special chemical treatment that extended the service lives of the poles, an analyst could use placement bands to isolate and analyze the effect of that change in the property group's physical characteristics. While placement

[58] Wolf *supra* n. 15, at 182.

bands are very useful in depreciation analysis, they also possess an intrinsic dilemma. A fundamental characteristic of placement bands is that they yield fairly complete survivor curves for older vintages. However, with newer vintages, which are arguably more valuable for forecasting, placement bands yield shorter survivor curves. Longer "stub" curves are considered more valuable for forecasting average life. Thus, an analyst must select a band width broad enough to provide confidence in the reliability of the resulting curve fit yet narrow enough so that an emerging trend may be observed.[59]

Analysts also use "experience bands." Experience bands show the composite retirement history for all vintages during a select set of activity years. The figure below shows the same data presented in the previous exposure matrices, except that the experience band from 2011 – 2013 is isolated, resulting in different interval totals.

[59] NARUC *supra* n. 18, at 114.

Figure 13:
Experience Bands

Placement Years	Experience Years: Exposures at January 1 of Each Year (Dollars in 000's) 2008	2009	2010	2011	2012	2013	2014	2015	Total at Start of Age Interval	Age Interval
2003	261	245	228	211	192	173	152	131		11.5 - 12.5
2004	267	252	236	220	202	184	165	145		10.5 - 11.5
2005	304	291	277	263	248	232	216	198	173	9.5 - 10.5
2006	345	334	322	310	298	284	270	255	376	8.5 - 9.5
2007	367	357	347	335	324	312	299	286	645	7.5 - 8.5
2008	375	366	357	347	336	325	314	302	752	6.5 - 7.5
2009		377	366	356	346	336	327	319	872	5.5 - 6.5
2010			381	369	358	347	336	327	959	4.5 - 5.5
2011				386	372	359	346	334	1,008	3.5 - 4.5
2012					395	380	366	352	1,039	2.5 - 3.5
2013						401	385	370	1,072	1.5 - 2.5
2014							410	393	1,121	0.5 - 1.5
2015								416	1,182	0.0 - 0.5
Total	1919	2222	2514	2796	3070	3333	3586	3827	9,199	

The shaded cells within the experience band equal the total exposures at the beginning of age interval 4.5–5.5 ($1,237). The same experience band would be used for the retirement matrix covering the same experience years of 2011 – 2013. This of course would result in a different OLT and original stub survivor than if the band had not been used. Analysts often use experience bands to isolate and analyze the effects of an operating environment over time.[60] Likewise, the use of experience bands allows analysis of the effects of an unusual environmental event. For example, if an unusually severe ice storm occurred in 2013, destruction from that storm would affect an electric utility's line transformers of all ages. That is, each of the line transformers from each placement year would be affected, including those recently installed in 2012, as well as those installed in 2003. Using experience bands, an analyst could isolate or even eliminate the 2013 experience year from the analysis. In contrast, a placement band would not effectively isolate the

[60] *Id.*

ice storm's effect on life characteristics. Rather, the placement band would show an unusually large rate of retirement during 2013, making it more difficult to accurately fit the data with a smooth Iowa curve. Experience bands tend to yield the most complete stub curves for recent bands because they have the greatest number of vintages included. Longer stub curves are better for forecasting. The experience bands, however, may also result in more erratic retirement dispersion making the curve fitting process more difficult.

Depreciation analysts must use professional judgment in determining the types of bands to use and the band widths. In practice, analysts may use various combinations of placement and experience bands in order to increase the data sample size, identify trends and changes in life characteristics, and isolate unusual events. Regardless of which bands are used, observed survivor curves in depreciation analysis rarely reach zero percent. This is because, as seen in the OLT above, relatively newer vintage groups have not yet been fully retired at the time the property is studied. An analyst could confine the analysis to older, fully retired vintage groups in order to get complete survivor curves, but such analysis would ignore some the property currently in service and would arguably not provide an accurate description of life characteristics for current plant in service. Because a complete curve is necessary to calculate the average life of the property group, however, curve fitting techniques using Iowa curves or other standardized curves may be employed in order to complete the stub curve.

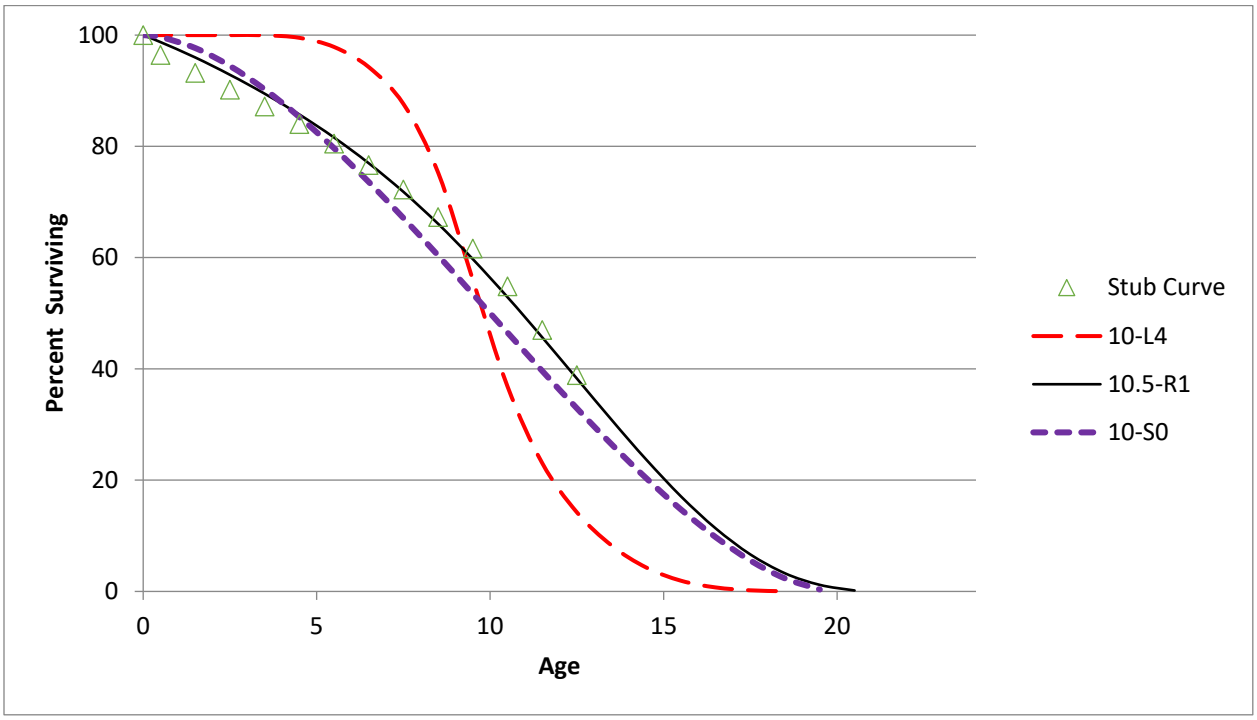
Curve Fitting

Depreciation analysts typically use the survivor curve rather than the frequency curve to fit the observed stub curves. The most commonly used generalized survivor curves used in the curve fitting process are the Iowa curves discussed above. As Wolf notes, if "the Iowa curves are

adopted as a model, an underlying assumption is that the process describing the retirement pattern is one of the 22 [or more] processes described by the Iowa curves."[61]

Curve fitting may be done through visual matching or mathematical matching. In visual curve fitting, the analyst visually examines the plotted data to make an initial judgment about the Iowa curves that may be a good fit. The figure below illustrates the stub survivor curve shown above. It also shows three different Iowa curves: the 10-L4, the 10.5-R1, and the 10-S0. Visually, it is clear that the 10.5-R1 curve is a better fit than the other two curves.

Figure 14:
Visual Curve Fitting



In mathematical fitting, the least squares method is used to calculate the best fit. This mathematical method would be excessively time consuming if done by hand. With the use of

[61] Wolf *supra* n. 15, at 46 (22 curves includes Winfrey's 18 original curves plus Cowles's four "O" type curves).

modern computer software however, mathematical fitting is an efficient and useful process. The typical logic for a computer program, as well as the software employed for the analysis in this testimony is as follows:

> First (an Iowa curve) curve is arbitrarily selected. . . . If the observed curve is a stub curve, . . . calculate the area under the curve and up to the age at final data point. Call this area the realized life. Then systematically vary the average life of the theoretical survivor curve and calculate its realized life at the age corresponding to the study date. This trial and error procedure ends when you find an average life such that the realized life of the theoretical curve equals the realized life of the observed curve. Call this the average life.
>
> Once the average life is found, calculate the difference between each percent surviving point on the observed survivor curve and the corresponding point on the Iowa curve. Square each difference and sum them. The sum of squares is used as a measure of goodness of fit for that particular Iowa type curve. This procedure is repeated for the remaining 21 Iowa type curves. The "best fit" is declared to be the type of curve that minimizes the sum of differences squared.[62]

Mathematical fitting requires less judgment from the analyst and is thus less subjective. Blind reliance on mathematical fitting, however, may lead to poor estimates. Thus, analysts should employ both mathematical and visual curve fitting in reaching their final estimates. This way, analysts may utilize the objective nature of mathematical fitting while still employing professional judgment. As Wolf notes: "The results of mathematical curve fitting serve as a guide for the analyst and speed the visual fitting process. But the results of the mathematical fitting should be checked visually and the final determination of the best fit be made by the analyst."[63]

In the graph above, visual fitting was sufficient to determine that the 10.5-R1 Iowa curve was a better fit than the 10-L4 and the 10-S0 curves. Using the sum of least squares method, mathematical fitting confirms the same result. In the chart below, the percentages surviving from

[62] Wolf *supra* n. 15, at 47.

[63] *Id*. at 48.

the OLT that formed the original stub curve are shown in the left column, while the corresponding percentages surviving for each age interval are shown for the three Iowa curves. The right portion of the chart shows the differences between the points on each Iowa curve and the stub curve. These differences are summed at the bottom. Curve 10.5-R1 is the best fit because the sum of the squared differences for this curve is less than the same sum of the other two curves. Curve 10-L4 is the worst fit, which was also confirmed visually.

Figure 15:
Mathematical Fitting

Age	Stub	Iowa Curves			Squared Differences		
Interval	Curve	10-L4	10-S0	10.5-R1	10-L4	10-S0	10.5-R1
0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0
0.5	96.4	100.0	99.7	98.7	12.7	10.3	5.3
1.5	93.2	100.0	97.7	96.0	46.1	19.8	7.6
2.5	90.2	100.0	94.4	92.9	96.2	18.0	7.2
3.5	87.2	100.0	90.2	89.5	162.9	9.3	5.2
4.5	84.0	99.5	85.3	85.7	239.9	1.6	2.9
5.5	80.5	97.9	79.7	81.6	301.1	0.7	1.2
6.5	76.7	94.2	73.6	77.0	308.5	9.5	0.1
7.5	72.3	87.6	67.1	71.8	235.2	26.5	0.2
8.5	67.3	75.2	60.4	66.1	62.7	48.2	1.6
9.5	61.6	56.0	53.5	59.7	31.4	66.6	3.6
10.5	54.9	36.8	46.5	52.9	325.4	69.6	3.9
11.5	47.0	23.1	39.6	45.7	572.6	54.4	1.8
12.5	38.9	14.2	32.9	38.2	609.6	36.2	0.4
SUM					**3004.2**	**371.0**	**41.0**

101 Park Avenue, Suite 1125
Oklahoma City, OK 73102

DAVID J. GARRETT

405.249.1050
dgarrett@resolveuc.com

EDUCATION

University of Oklahoma — Norman, OK
Master of Business Administration — 2014
Areas of Concentration: Finance, Energy

University of Oklahoma College of Law — Norman, OK
Juris Doctor — 2007
Member, American Indian Law Review

University of Oklahoma — Norman, OK
Bachelor of Business Administration — 2003
Major: Finance

PROFESSIONAL DESIGNATIONS

Society of Depreciation Professionals
Certified Depreciation Professional (CDP)

Society of Utility and Regulatory Financial Analysts
Certified Rate of Return Analyst (CRRA)

WORK EXPERIENCE

Resolve Utility Consulting PLLC — Oklahoma City, OK
Managing Member — 2016 – Present
Provide expert analysis and testimony specializing in depreciation and cost of capital issues for clients in utility regulatory proceedings.

Oklahoma Corporation Commission — Oklahoma City, OK
Public Utility Regulatory Analyst — 2012 – 2016
Assistant General Counsel — 2011 – 2012
Represented commission staff in utility regulatory proceedings and provided legal opinions to commissioners. Provided expert analysis and testimony in depreciation, cost of capital, incentive compensation, payroll and other issues.

Perebus Counsel, PLLC — Oklahoma City, OK
Managing Member — 2009 – 2011
Represented clients in the areas of family law, estate planning, debt negotiations, business organization, and utility regulation.

Moricoli & Schovanec, P.C. — Oklahoma City, OK
Associate Attorney — 2007 – 2009
Represented clients in the areas of contracts, oil and gas, business structures and estate administration.

TEACHING EXPERIENCE

University of Oklahoma — Norman, OK
Adjunct Instructor – "Conflict Resolution" — 2014 – 2021
Adjunct Instructor – "Ethics in Leadership"

Rose State College — Midwest City, OK
Adjunct Instructor – "Legal Research" — 2013 – 2015
Adjunct Instructor – "Oil & Gas Law"

PROFESSIONAL ASSOCIATIONS

Oklahoma Bar Association — 2007 – Present

Society of Depreciation Professionals — 2014 – Present
Board Member – President — 2017
Participate in management of operations, attend meetings, review performance, organize presentation agenda.

Society of Utility Regulatory Financial Analysts — 2014 – Present

Utility Regulatory Proceedings

Regulatory Agency	Utility Applicant	Docket Number	Issues Addressed	Parties Represented
Public Utilities Commission of Nevada	Southwest Gas Corporation	23-09012	Depreciation rates, service lives, net salvage	Bureau of Consumer Protection
Public Utilities Commission of the State of California	Southern California Edison	A.23-05-010	Depreciation rates, service lives, net salvage	The Utility Reform Network
Pennsylvania Public Utility Commission	Pennsylvania-American Water Company	R-2023-3043189 R-2023-3043190	Cost of capital, depreciation rates, net salvage	Pennsylvania Office of Consumer Advocate
Indiana Utility Regulatory Commission	Northern Indiana Public Service Company	45967	Depreciation rates, service lives, net salvage	Indiana Office of Utility Consumer Counselor
Massachusetts Department of Public Utilities	Massachusetts Electric Company and Nantucket Electric Company D/B/A National Grid	D.P.U. 23-150	Depreciation rates, service lives, net salvage	Massachusetts Office of the Attorney General, Office of Ratepayer Advocacy
Iowa Utilities Board	Interstate Power and Light Company	RPU-2023-0002	Depreciation rates, service lives, net salvage	Office of Consumer Advocate
Public Service Commission of South Carolina	Duke Energy Carolinas	2023-388-E 2023-403-E	Depreciation rates, service lives, net salvage	South Carolina Office of Regulatory Staff
Indiana Utility Regulatory Commission	Citizens Energy Group	45988	Depreciation rates, service lives, net salvage	Indiana Office of Utility Consumer Counselor
Railroad Commission of Texas	CenterPoint Energy Resources Corp.	OS-23-00015513	Depreciation rates, service lives, net salvage	Alliance of CenterPoint Municipalities
Indiana Utility Regulatory Commission	CenterPoint Energy Indiana South	45990	Depreciation rates, service lives, net salvage	Indiana Office of Utility Consumer Counselor
Delaware Public Service Commission	Artesian Water Company, Inc.	23-0601	Cost of capital, depreciation rates, net salvage	Division of the Public Advocate
Maryland Public Service Commission	Washington Gas Light Company	9704	Cost of capital, awarded rate of return, capital structure	Maryland Office of People's Counsel
Delaware Public Service Commission	Veolia Water Delaware Inc.	23-0598	Cost of capital, awarded rate of return, capital structure	Division of the Public Advocate
Connecticut Public Utilities Regulatory Authority	United Illuminating Company	22-08-08	Depreciation rates, service lives, net salvage	PURA Staff

Utility Regulatory Proceedings

Regulatory Agency	Utility Applicant	Docket Number	Issues Addressed	Parties Represented
Public Utility Commission of Texas	Southwestern Public Service Company	PUC 54634	Depreciation rates, service lives, net salvage	Alliance of Xcel Municipalities
Railroad Commission of Texas	SiEnergy, LP	OS-23-00013504	Depreciation rates, service lives, net salvage	Texas municipal intervenor group
Pennsylvania Public Utility Commission	Aqua Pennsylvania, Inc.	A-2022-3034143	Fair market value review	Pennsylvania Office of Consumer Advocate
Wyoming Public Service Commission	Rocky Mountain Power	20000-633-ER-23	Cost of capital and authorized rate of return	Wyoming Industrial Energy Consumers
Maryland Public Service Commission	Potomac Electric Power Company	9702	Depreciation rates, service lives, net salvage	Maryland Office of People's Counsel
Public Utilities Commission of Nevada	Nevada Power Company d/b/a NV Energy	23-06007 23-06008	Depreciation rates, service lives, net salvage	Bureau of Consumer Protection
Public Utilities Commission of Ohio	Northeast Ohio Natural Gas Corp.	23-0154-GA-AIR	Cost of capital, awarded rate of return, capital structure	Office of the Ohio Consumers' Counsel
New York State Public Service Commission	The Brooklyn Untion Gas Company and Keyspan Gas East Corporation d/b/a Nation Grid	23-G-0225 23-G-0226	Depreciation rates, service lives, net salvage, depreciation reserve	The City of New York
Idaho Public Utilities Commission	Idaho Power Company	IPC-E-23-11	Cost of capital, awarded rate of return, capital structure	Micron Technology, Inc.
Indiana Utility Regulatory Commission	Indiana Michigan Power Company	45933	Depreciation rates, service lives, net salvage	Indiana Office of Utility Consumer Counselor
Massachusetts Department of Public Utilities	Fitchburg Gas and Electric Company d/b/a Unitil	D.P.U. 23-80; D.P.U. 23-81	Depreciation rates, service lives, net salvage	Massachusetts Office of the Attorney General, Office of Ratepayer Advocacy
Kansas Corporation Commission	Evergy Kansas Central, Evergy Kansas South, and Evergy Metro	23-EKCE-775-RTS	Depreciation rates, service lives, net salvage	The Citizens' Utility Ratepayer Board
Delaware Public Service Commission	Delmarva Power & Light Company	22-0897	Cost of capital, awarded rate of return, capital structure	Division of the Public Advocate
Connecticut Public Utilities Regulatory Authority	Connecticut Water Company	23-08-32	Depreciation rates, service lives, net salvage	PURA Staff

Utility Regulatory Proceedings

Regulatory Agency	Utility Applicant	Docket Number	Issues Addressed	Parties Represented
Connecticut Public Utilities Regulatory Authority	Connecticut Natural Gas Corporation and The Southern Connecticut Gas Company	23-11-02	Depreciation rates, service lives, net salvage	PURA Staff
Railroad Commission of Texas	Atmos Pipeline – Texas	OS-23-00013758	Depreciation rates, service lives, net salvage	Atmos Texas Municipalities
Wyoming Public Service Commission	Black Hills Wyoming Gas	30026-78-GR-23	Depreciation rates, service lives, net salvage	Wyoming Office of Consumer Advocate
Indiana Utility Regulatory Commission	Indianapolis Power & Light Company d/b/a AES Indiana	45911	Depreciation rates, service lives, net salvage	Indiana Office of Utility Consumer Counselor
New Mexico Public Regulation Commission	Southwestern Public Service Company	22-00286-UT	Cost of capital, depreciation rates, net salvage	The New Mexico Large Customer Group; Occidental Permian
Public Utilities Commission of the State of California	Southern California Gas Company San Diego Gas & Electric Company	A.22-05-015 A.22-05-016	Depreciation rates, service lives, net salvage	The Utility Reform Network
Public Utilties Commission of the State of Colorado	Public Service Company of Colorado	22AL-0530E 22AL-0478E	Cost of capital, awarded rate of return, capital structure	Colorado Energy Consumers
New Mexico Public Regulatory Commission	Public Service Company of New Mexico	22-00270-UT	Cost of capital, depreciation rates, net salvage	The Albuquerque Bernalillo County Water Utility Authority
Florida Public Service Commission	Peoples Gas System	20230023-GU 20220219-GU 20220212-GU	Cost of capital, depreciation rates, net salvage	Florida Office of Public Counsel
Maryland Public Service Commission	Potomac Edison Company	9695	Cost of capital, depreciation rates, net salvage	Maryland Office of People's Counsel
Public Service Commission of the State of Montana	Montana-Dakota Utilities Company	2022.11.099	Depreciation rates, service lives, net salvage	Montana Consumer Counsel and Denbury Onshore
Indiana Utility Regulatory Commission	Indiana-American Water Company	45870	Depreciation rates, service lives, net salvage	Indiana Office of Utility Consumer Counselor
Public Service Commission of South Carolina	Dominion Energy South Carolina	2023-70-G	Depreciation rates, service lives, net salvage	South Carolina Office of Regulatory Staff
Maryland Public Service Commission	Columbia Gas of Maryland	9701	Cost of capital, awarded rate of return, capital structure	Maryland Office of People's Counsel

Utility Regulatory Proceedings

Regulatory Agency	Utility Applicant	Docket Number	Issues Addressed	Parties Represented
Pennsylvania Public Utility Commission	Columbia Water Company	R-2023-3040258	Cost of capital, awarded rate of return, capital structure	Pennsylvania Office of Consumer Advocate
Maryland Public Service Commission	Baltimore Gas and Electric Company	9692	Depreciation rates, service lives, net salvage	Maryland Office of People's Counsel
Arizona Corporation Commission	Arizona Public Service Company	E-01345A-22-0144	Cost of capital, awarded rate of return, capital structure	Residential Utility Consumer Office
Oklahoma Corporation Commission	Public Service Company of Oklahoma	PUD 2022-000093	Cost of capital, depreciation rates, net salvage	Oklahoma Industrial Energy Consumers
Public Service Commission of the State of Montana	NorthWestern Energy	2022.07.078	Cost of capital, depreciation rates, net salvage	Montana Consumer Counsel and Montana Large Customer Group
Indiana Utility Regulatory Commission	Northern Indiana Public Service Company	45772	Cost of capital, depreciation rates, net salvage	Indiana Office of Utility Consumer Counselor
Public Service Commission of South Carolina	Duke Energy Progress	2022-254-E	Depreciation rates, service lives, net salvage	South Carolina Office of Regulatory Staff
Wyoming Public Service Commission	Cheyenne Light, Fuel and Power Company D/B/A Black Hills Energy	20003-214-ER-22	Depreciation rates, service lives, net salvage	Wyoming Office of Consumer Advocate
Railroad Commission of Texas	Texas Gas Services Company	OS-22-00009896	Depreciation rates, service lives, net salvage	The City of El Paso
Public Utilities Commission of Nevada	Sierra Pacific Power Company	22-06014	Depreciation rates, service lives, net salvage	Bureau of Consumer Protection
Washington Utilities & Transportation Commission	Puget Sound Energy	UE-220066 UG-220067 UG-210918	Depreciation rates, service lives, net salvage	Washington Office of Attorney General
Public Utility Commission of Texas	Oncor Electric Delivery Company LLC	PUC 53601	Depreciation rates, service lives, net salvage	Alliance of Oncor Cities
Florida Public Service Commission	Florida Public Utilities Company	20220067-GU	Cost of capital, depreciation rates	Florida Office of Public Counsel
Public Utility Commission of Texas	Entergy Texas, Inc.	PUC 53719	Depreciation rates, decommissioning costs	Texas Municipal Group

Utility Regulatory Proceedings

Regulatory Agency	Utility Applicant	Docket Number	Issues Addressed	Parties Represented
Florida Public Service Commission	Florida City Gas	2020069-GU	Cost of capital, depreciation rates	Florida Office of Public Counsel
Connecticut Public Utilities Regulatory Authority	Aquarion Water Company of Connecticut	22-07-01	Depreciation rates, service lives, net salvage	PURA Staff
Washington Utilities & Transportation Commission	Avista Corporation	UE-220053 UG-220054 UE-210854	Cost of capital, awarded rate of return, capital structure	Washington Office of Attorney General
Federal Energy Regulatory Commission	ANR Pipeline Company	RP22-501-000	Depreciation rates, service lives, net salvage	Ascent Resources - Utica, LLC
Pennsylvania Public Utility Commission	Columbia Gas of Pennsylvania, Inc.	R-2022-3031211	Cost of capital, awarded rate of return, capital structure	Pennsylvania Office of Consumer Advocate
Public Service Commission of South Carolina	Piedmont Natural Gas Company	2022-89-G	Depreciation rates, service lives, net salvage	South Carolina Office of Regulatory Staff
Pennsylvania Public Utility Commission	UGI Utilities, Inc. - Gas Division	R-2021-3030218	Cost of capital, awarded rate of return, capital structure	Pennsylvania Office of Consumer Advocate
Public Utilities Commission of the State of California	Pacific Gas & Electric Company	A.21-06-021	Depreciation rates, service lives, net salvage	The Utility Reform Network
Pennsylvania Public Utility Commission	PECO Energy Company - Gas Division	R-2022-3031113	Cost of capital, awarded rate of return, capital structure	Pennsylvania Office of Consumer Advocate
Oklahoma Corporation Commission	Oklahoma Gas & Electric Company	PUD 202100164	Cost of capital, depreciation rates, net salvage	Oklahoma Industrial Energy Consumers
Massachusetts Department of Public Utilities	NSTAR Electric Company D/B/A Eversource Energy	D.P.U. 22-22	Depreciation rates, service lives, net salvage	Massachusetts Office of the Attorney General, Office of Ratepayer Advocacy
Michigan Public Service Company	DTE Electric Company	U-20836	Cost of capital, awarded rate of return, capital structure	Michigan Environmental Council and Citizens Utility Board of Michigan
New York State Public Service Commission	Consolidated Edison Company of New York, Inc.	22-E-0064 22-G-0065	Depreciation rates, service lives, net salvage, depreciation reserve	The City of New York
Pennsylvania Public Utility Commission	Aqua Pennsylvania Wastewater / East Whiteland Township	A-2021-3026132	Fair market value estimates for wastewater assets	Pennsylvania Office of Consumer Advocate

Utility Regulatory Proceedings

Regulatory Agency	Utility Applicant	Docket Number	Issues Addressed	Parties Represented
Public Service Commission of South Carolina	Kiawah Island Utility, Inc.	2021-324-WS	Cost of capital, awarded rate of return, capital structure	South Carolina Office of Regulatory Staff
Pennsylvania Public Utility Commission	Aqua Pennsylvania Wastewater / Willistown Township	A-2021-3027268	Fair market value estimates for wastewater assets	Pennsylvania Office of Consumer Advocate
Indiana Utility Regulatory Commission	Northern Indiana Public Service Company	45621	Depreciation rates, service lives, net salvage	Indiana Office of Utility Consumer Counselor
Arkansas Public Service Commission	Southwestern Electric Power Company	21-070-U	Cost of capital, depreciation rates, net salvage	Western Arkansas Large Energy Consumers
Federal Energy Regulatory Commission	Southern Star Central Gas Pipeline	RP21-778-002	Depreciation rates, service lives, net salvage	Consumer-Owned Shippers
Railroad Commission of Texas	Participating Texas gas utilities in consolidated proceeding	OS-21-00007061	Securitization of extraordinary gas costs arising from winter storms	The City of El Paso
Public Service Commission of South Carolina	Palmetto Wastewater Reclamation, Inc.	2021-153-S	Cost of capital, awarded rate of return, capital structure, ring-fencing	South Carolina Office of Regulatory Staff
Public Utilties Commission of the State of Colorado	Public Service Company of Colorado	21AL-0317E	Cost of capital, depreciation rates, net salvage	Colorado Energy Consumers
Pennsylvania Public Utility Commission	City of Lancaster - Water Department	R-2021-3026682	Cost of capital, awarded rate of return, capital structure	Pennsylvania Office of Consumer Advocate
Public Utility Commission of Texas	Southwestern Public Service Company	PUC 51802	Depreciation rates, service lives, net salvage	The Alliance of Xcel Municipalities
Pennsylvania Public Utility Commission	The Borough of Hanover - Hanover Municipal Waterworks	R-2021-3026116	Cost of capital, awarded rate of return, capital structure	Pennsylvania Office of Consumer Advocate
Maryland Public Service Commission	Delmarva Power & Light Company	9670	Cost of capital and authorized rate of return	Maryland Office of People's Counsel
Oklahoma Corporation Commission	Oklahoma Natural Gas Company	PUD 202100063	Cost of capital, awarded rate of return, capital structure	Oklahoma Industrial Energy Consumers
Indiana Utility Regulatory Commission	Indiana Michigan Power Company	45576	Depreciation rates, service lives, net salvage	Indiana Office of Utility Consumer Counselor

Utility Regulatory Proceedings

Regulatory Agency	Utility Applicant	Docket Number	Issues Addressed	Parties Represented
Public Utility Commission of Texas	El Paso Electric Company	PUC 52195	Depreciation rates, service lives, net salvage	The City of El Paso
Pennsylvania Public Utility Commission	Aqua Pennsylvania	R-2021-3027385	Cost of capital, awarded rate of return, capital structure	Pennsylvania Office of Consumer Advocate
Public Service Commission of the State of Montana	NorthWestern Energy	D2021.02.022	Cost of capital, awarded rate of return, capital structure	Montana Consumer Counsel
Pennsylvania Public Utility Commission	PECO Energy Company	R-2021-3024601	Cost of capital, awarded rate of return, capital structure	Pennsylvania Office of Consumer Advocate
New Mexico Public Regulation Commission	Southwestern Public Service Company	20-00238-UT	Cost of capital and authorized rate of return	The New Mexico Large Customer Group; Occidental Permian
Oklahoma Corporation Commission	Public Service Company of Oklahoma	PUD 202100055	Cost of capital, depreciation rates, net salvage	Oklahoma Industrial Energy Consumers
Pennsylvania Public Utility Commission	Duquesne Light Company	R-2021-3024750	Cost of capital, awarded rate of return, capital structure	Pennsylvania Office of Consumer Advocate
Maryland Public Service Commission	Columbia Gas of Maryland	9664	Cost of capital and authorized rate of return	Maryland Office of People's Counsel
Indiana Utility Regulatory Commission	Southern Indiana Gas Company, d/b/a Vectren Energy Delivery of Indiana, Inc.	45447	Depreciation rates, service lives, net salvage	Indiana Office of Utility Consumer Counselor
Public Utility Commission of Texas	Southwestern Electric Power Company	PUC 51415	Depreciation rates, service lives, net salvage	Cities Advocating Reasonable Deregulation
New Mexico Public Regulatory Commission	Avangrid, Inc., Avangrid Networks, Inc., NM Green Holdings, Inc., PNM, and PNM Resources	20-00222-UT	Ring fencing and capital structure	The Albuquerque Bernalillo County Water Utility Authority
Indiana Utility Regulatory Commission	Indiana Gas Company, d/b/a Vectren Energy Delivery of Indiana, Inc.	45468	Depreciation rates, service lives, net salvage	Indiana Office of Utility Consumer Counselor
Public Utilities Commission of Nevada	Nevada Power Company and Sierra Pacific Power Company, d/b/a NV Energy	20-07023	Construction work in progress	MGM Resorts International, Caesars Enterprise Services, LLC, and the Southern Nevada Water Authority
Massachusetts Department of Public Utilities	Boston Gas Company, d/b/a National Grid	D.P.U. 20-120	Depreciation rates, service lives, net salvage	Massachusetts Office of the Attorney General, Office of Ratepayer Advocacy

Utility Regulatory Proceedings

Regulatory Agency	Utility Applicant	Docket Number	Issues Addressed	Parties Represented
Public Service Commission of the State of Montana	ABACO Energy Services, LLC	D2020.07.082	Cost of capital and authorized rate of return	Montana Consumer Counsel
Maryland Public Service Commission	Washington Gas Light Company	9651	Cost of capital and authorized rate of return	Maryland Office of People's Counsel
Florida Public Service Commission	Utilities, Inc. of Florida	20200139-WS	Cost of capital and authorized rate of return	Florida Office of Public Counsel
New Mexico Public Regulatory Commission	El Paso Electric Company	20-00104-UT	Cost of capital, depreciation rates, net salvage	City of Las Cruces and Doña Ana County
Public Utilities Commission of Nevada	Nevada Power Company	20-06003	Cost of capital, awarded rate of return, capital structure, earnings sharing	MGM Resorts International, Caesars Enterprise Services, LLC, Wynn Las Vegas, LLC, Smart Energy Alliance, and Circus Circus Las Vegas, LLC
Wyoming Public Service Commission	Rocky Mountain Power	20000-578-ER-20	Cost of capital and authorized rate of return	Wyoming Industrial Energy Consumers
Florida Public Service Commission	Peoples Gas System	20200051-GU 20200166-GU	Cost of capital, depreciation rates, net salvage	Florida Office of Public Counsel
Wyoming Public Service Commission	Rocky Mountain Power	20000-539-EA-18	Depreciation rates, service lives, net salvage	Wyoming Industrial Energy Consumers
Public Service Commission of South Carolina	Dominion Energy South Carolina	2020-125-E	Depreciation rates, service lives, net salvage	South Carolina Office of Regulatory Staff
Pennsylvania Public Utility Commission	The City of Bethlehem	2020-3020256	Cost of capital, awarded rate of return, capital structure	Pennsylvania Office of Consumer Advocate
Railroad Commission of Texas	Texas Gas Services Company	GUD 10928	Depreciation rates, service lives, net salvage	Gulf Coast Service Area Steering Committee
Public Utilities Commission of the State of California	Southern California Edison	A.19-08-013	Depreciation rates, service lives, net salvage	The Utility Reform Network
Massachusetts Department of Public Utilities	NSTAR Gas Company	D.P.U. 19-120	Depreciation rates, service lives, net salvage	Massachusetts Office of the Attorney General, Office of Ratepayer Advocacy
Georgia Public Service Commission	Liberty Utilities (Peach State Natural Gas)	42959	Depreciation rates, service lives, net salvage	Public Interest Advocacy Staff

Utility Regulatory Proceedings

Regulatory Agency	Utility Applicant	Docket Number	Issues Addressed	Parties Represented
Florida Public Service Commission	Florida Public Utilities Company	20190155-EI 20190156-EI 20190174-EI	Depreciation rates, service lives, net salvage	Florida Office of Public Counsel
Illinois Commerce Commission	Commonwealth Edison Company	20-0393	Depreciation rates, service lives, net salvage	The Office of the Illinois Attorney General
Public Utility Commission of Texas	Southwestern Public Service Company	PUC 49831	Depreciation rates, service lives, net salvage	Alliance of Xcel Municipalities
Public Service Commission of South Carolina	Blue Granite Water Company	2019-290-WS	Depreciation rates, service lives, net salvage	South Carolina Office of Regulatory Staff
Railroad Commission of Texas	CenterPoint Energy Resources	GUD 10920	Depreciation rates and grouping procedure	Alliance of CenterPoint Municipalities
Pennsylvania Public Utility Commission	Aqua Pennsylvania Wastewater / East Norriton Township	A-2019-3009052	Fair market value estimates for wastewater assets	Pennsylvania Office of Consumer Advocate
New Mexico Public Regulation Commission	Southwestern Public Service Company	19-00170-UT	Cost of capital and authorized rate of return	The New Mexico Large Customer Group; Occidental Permian
Indiana Utility Regulatory Commission	Duke Energy Indiana	45253	Cost of capital, depreciation rates, net salvage	Indiana Office of Utility Consumer Counselor
Maryland Public Service Commission	Columbia Gas of Maryland	9609	Depreciation rates, service lives, net salvage	Maryland Office of People's Counsel
Washington Utilities & Transportation Commission	Avista Corporation	UE-190334	Cost of capital, awarded rate of return, capital structure	Washington Office of Attorney General
Indiana Utility Regulatory Commission	Indiana Michigan Power Company	45235	Cost of capital, depreciation rates, net salvage	Indiana Office of Utility Consumer Counselor
Public Utilities Commission of the State of California	Pacific Gas & Electric Company	18-12-009	Depreciation rates, service lives, net salvage	The Utility Reform Network
Oklahoma Corporation Commission	The Empire District Electric Company	PUD 201800133	Cost of capital, authorized ROE, depreciation rates	Oklahoma Industrial Energy Consumers and Oklahoma Energy Results
Arkansas Public Service Commission	Southwestern Electric Power Company	19-008-U	Cost of capital, depreciation rates, net salvage	Western Arkansas Large Energy Consumers

Utility Regulatory Proceedings

Regulatory Agency	Utility Applicant	Docket Number	Issues Addressed	Parties Represented
Public Utility Commission of Texas	CenterPoint Energy Houston Electric	PUC 49421	Depreciation rates, service lives, net salvage	Texas Coast Utilities Coalition
Massachusetts Department of Public Utilities	Massachusetts Electric Company and Nantucket Electric Company	D.P.U. 18-150	Depreciation rates, service lives, net salvage	Massachusetts Office of the Attorney General, Office of Ratepayer Advocacy
Oklahoma Corporation Commission	Oklahoma Gas & Electric Company	PUD 201800140	Cost of capital, authorized ROE, depreciation rates	Oklahoma Industrial Energy Consumers and Oklahoma Energy Results
Public Service Commission of the State of Montana	Montana-Dakota Utilities Company	D2018.9.60	Depreciation rates, service lives, net salvage	Montana Consumer Counsel and Denbury Onshore
Indiana Utility Regulatory Commission	Northern Indiana Public Service Company	45159	Depreciation rates, grouping procedure, demolition costs	Indiana Office of Utility Consumer Counselor
Public Service Commission of the State of Montana	NorthWestern Energy	D2018.2.12	Depreciation rates, service lives, net salvage	Montana Consumer Counsel
Oklahoma Corporation Commission	Public Service Company of Oklahoma	PUD 201800097	Depreciation rates, service lives, net salvage	Oklahoma Industrial Energy Consumers and Wal-Mart
Nevada Public Utilities Commission	Southwest Gas Corporation	18-05031	Depreciation rates, service lives, net salvage	Nevada Bureau of Consumer Protection
Public Utility Commission of Texas	Texas-New Mexico Power Company	PUC 48401	Depreciation rates, service lives, net salvage	Alliance of Texas-New Mexico Power Municipalities
Oklahoma Corporation Commission	Oklahoma Gas & Electric Company	PUD 201700496	Depreciation rates, service lives, net salvage	Oklahoma Industrial Energy Consumers and Oklahoma Energy Results
Maryland Public Service Commission	Washington Gas Light Company	9481	Depreciation rates, service lives, net salvage	Maryland Office of People's Counsel
Indiana Utility Regulatory Commission	Citizens Energy Group	45039	Depreciation rates, service lives, net salvage	Indiana Office of Utility Consumer Counselor
Public Utility Commission of Texas	Entergy Texas, Inc.	PUC 48371	Depreciation rates, decommissioning costs	Texas Municipal Group
Washington Utilities & Transportation Commission	Avista Corporation	UE-180167	Depreciation rates, service lives, net salvage	Washington Office of Attorney General

Utility Regulatory Proceedings

Regulatory Agency	Utility Applicant	Docket Number	Issues Addressed	Parties Represented
New Mexico Public Regulation Commission	Southwestern Public Service Company	17-00255-UT	Cost of capital and authorized rate of return	HollyFrontier Navajo Refining; Occidental Permian
Public Utility Commission of Texas	Southwestern Public Service Company	PUC 47527	Depreciation rates, plant service lives	Alliance of Xcel Municipalities
Public Service Commission of the State of Montana	Montana-Dakota Utilities Company	D2017.9.79	Depreciation rates, service lives, net salvage	Montana Consumer Counsel
Florida Public Service Commission	Florida City Gas	20170179-GU	Cost of capital, depreciation rates	Florida Office of Public Counsel
Washington Utilities & Transportation Commission	Avista Corporation	UE-170485	Cost of capital and authorized rate of return	Washington Office of Attorney General
Wyoming Public Service Commission	Powder River Energy Corporation	10014-182-CA-17	Credit analysis, cost of capital	Private customer
Oklahoma Corporation Commission	Public Service Co. of Oklahoma	PUD 201700151	Depreciation, terminal salvage, risk analysis	Oklahoma Industrial Energy Consumers
Public Utility Commission of Texas	Oncor Electric Delivery Company	PUC 46957	Depreciation rates, simulated analysis	Alliance of Oncor Cities
Nevada Public Utilities Commission	Nevada Power Company	17-06004	Depreciation rates, service lives, net salvage	Nevada Bureau of Consumer Protection
Public Utility Commission of Texas	El Paso Electric Company	PUC 46831	Depreciation rates, interim retirements	City of El Paso
Idaho Public Utilities Commission	Idaho Power Company	IPC-E-16-24	Accelerated depreciation of North Valmy plant	Micron Technology, Inc.
Idaho Public Utilities Commission	Idaho Power Company	IPC-E-16-23	Depreciation rates, service lives, net salvage	Micron Technology, Inc.
Public Utility Commission of Texas	Southwestern Electric Power Company	PUC 46449	Depreciation rates, decommissioning costs	Cities Advocating Reasonable Deregulation
Massachusetts Department of Public Utilities	Eversource Energy	D.P.U. 17-05	Cost of capital, capital structure, and rate of return	Sunrun Inc.; Energy Freedom Coalition of America

Utility Regulatory Proceedings

Regulatory Agency	Utility Applicant	Docket Number	Issues Addressed	Parties Represented
Railroad Commission of Texas	Atmos Pipeline - Texas	GUD 10580	Depreciation rates, grouping procedure	City of Dallas
Public Utility Commission of Texas	Sharyland Utility Company	PUC 45414	Depreciation rates, simulated analysis	City of Mission
Oklahoma Corporation Commission	Empire District Electric Company	PUD 201600468	Cost of capital, depreciation rates	Oklahoma Industrial Energy Consumers
Railroad Commission of Texas	CenterPoint Energy Texas Gas	GUD 10567	Depreciation rates, simulated plant analysis	Texas Coast Utilities Coalition
Arkansas Public Service Commission	Oklahoma Gas & Electric Company	160-159-GU	Cost of capital, depreciation rates, terminal salvage	Arkansas River Valley Energy Consumers; Wal-Mart
Florida Public Service Commission	Peoples Gas	160-159-GU	Depreciation rates, service lives, net salvage	Florida Office of Public Counsel
Arizona Corporation Commission	Arizona Public Service Company	E-01345A-16-0036	Cost of capital, depreciation rates, terminal salvage	Energy Freedom Coalition of America
Nevada Public Utilities Commission	Sierra Pacific Power Company	16-06008	Depreciation rates, net salvage, theoretical reserve	Northern Nevada Utility Customers
Oklahoma Corporation Commission	Oklahoma Gas & Electric Co.	PUD 201500273	Cost of capital, depreciation rates, terminal salvage	Public Utility Division
Oklahoma Corporation Commission	Public Service Co. of Oklahoma	PUD 201500208	Cost of capital, depreciation rates, terminal salvage	Public Utility Division
Oklahoma Corporation Commission	Oklahoma Natural Gas Company	PUD 201500213	Cost of capital, depreciation rates, net salvage	Public Utility Division

Proxy Group Summary

Company	Ticker	Market Cap. ($ millions)	Market Category	Value Line Safety Rank	Financial Strength
American States Water Co	AWR	2,600	Mid Cap	1	A
American Water Works Co Inc	AWK	22,800	Large Cap	3	B++
California Water Service Gp	CWT	2,600	Mid Cap	2	B++
Essential Utilities, Inc.	WTRG	9,900	Mid Cap	2	A
Middlesex Water Co	MSEX	900	Small Cap	2	B++
SJW Corp	SJW	1,800	Small Cap	3	B+
York Water Co	YORW	560	Small Cap	2	B+

Value Line Investment Survey

DCF - Stock and Index Prices

Ticker	^GSPC	AWR	AWK	CWT	WTRG	MSEX	SJW	YORW
30-day Average	5137	69.95	119.29	46.22	35.98	49.30	54.62	35.13
Standard Deviation	90.1	1.49	2.42	1.42	0.87	1.85	1.27	0.71
03/20/24	5225	71.40	118.09	46.49	36.46	51.42	56.25	35.48
03/21/24	5242	71.49	118.21	46.82	36.54	51.33	56.61	35.90
03/22/24	5234	71.13	117.75	46.22	36.63	50.98	55.84	35.44
03/25/24	5218	70.45	117.14	45.70	36.35	50.47	55.52	35.40
03/26/24	5204	70.16	117.84	45.19	35.59	50.44	55.56	35.31
03/27/24	5248	72.07	121.50	46.67	36.80	52.40	56.64	35.97
03/28/24	5254	72.24	122.21	46.48	37.05	52.50	56.59	36.27
04/01/24	5244	71.66	120.30	46.53	36.77	51.25	55.92	35.80
04/02/24	5206	70.01	119.56	46.02	36.33	49.64	54.81	35.27
04/03/24	5211	69.55	118.93	45.27	36.03	48.55	54.62	34.92
04/04/24	5147	70.30	120.38	45.97	36.50	49.75	55.27	35.10
04/05/24	5204	69.79	118.52	45.76	35.83	48.26	54.45	34.65
04/08/24	5202	70.33	120.02	46.51	36.28	48.93	54.89	35.07
04/09/24	5210	70.83	121.85	47.22	36.71	50.00	55.38	35.41
04/10/24	5161	69.07	118.31	45.58	35.03	47.85	53.54	34.57
04/11/24	5199	68.45	117.82	45.03	34.89	47.96	53.39	34.47
04/12/24	5123	67.78	116.57	44.40	34.36	47.07	52.82	34.04
04/15/24	5062	67.61	115.98	44.39	34.56	47.39	52.77	34.01
04/16/24	5051	66.57	113.82	43.77	33.88	45.84	51.94	33.33
04/17/24	5022	67.15	115.40	44.17	34.51	45.89	52.56	33.80
04/18/24	5011	67.97	117.35	44.90	35.16	46.64	53.09	34.26
04/19/24	4967	69.25	118.52	45.79	35.44	48.00	54.27	35.07
04/22/24	5011	68.97	119.26	45.45	35.90	48.02	54.09	35.42
04/23/24	5071	70.18	119.87	46.23	36.26	48.24	55.08	35.55
04/24/24	5072	70.76	121.36	46.57	36.54	49.08	55.13	35.53
04/25/24	5048	70.31	121.55	48.05	36.57	48.78	54.81	35.37
04/26/24	5100	69.91	120.78	47.93	36.09	49.18	53.50	35.37
04/29/24	5116	70.25	122.28	48.42	36.47	50.44	53.79	35.52
04/30/24	5036	70.84	122.32	49.12	36.58	50.72	54.45	35.51
05/01/24	5018	72.08	125.12	49.83	37.21	52.00	55.02	36.10

All prices are adjusted closing prices reported by Yahoo! Finance, http://finance.yahoo.com

DCF - Dividend Yields

Exhibit DJG-4

Company	Ticker	[1] Annualized Dividend	[2] Stock Price	[3] Dividend Yield
American States Water Co	AWR	1.72	69.95	2.46%
American Water Works Co Inc	AWK	3.06	119.29	2.57%
California Water Service Gp	CWT	1.12	46.22	2.42%
Essential Utilities, Inc.	WTRG	1.23	35.98	3.42%
Middlesex Water Co	MSEX	1.30	49.30	2.64%
SJW Corp	SJW	1.17	54.62	2.14%
York Water Co	YORW	0.84	35.13	2.39%
Average		**$1.49**	**$58.64**	**2.58%**

[1] Yahoo Finance

[2] Average stock price from Exhibit DJG-3

[3] = [1] / [2]

DCF - Terminal Growth Rate Determinants

Terminal Growth Determinants	Rate	
Nominal GDP	3.8%	[1]
Real GDP	1.7%	[2]
VWPA Historical Consumption Growth	0.2%	[3]
VWPA Historical Customer Growth	1.2%	[4]
Average	1.7%	
Long-Term Growth Ceiling	**3.8%**	

[1],[2] CBO, The 2024 Long-Term Budget Outlook, p. 34

[3], [4] Response to OCA-3-8 (CAGR 2014-2023)

DCF - Final Result

Company	Ticker	[1] Dividend Yield	[2] Analyst Growth	[3] Sustainable Growth	[4] DCF Result (Analyst Growth)	[5] DCF Result (Sustainable Growth)
American States Water Co	AWR	2.5%	8.5%	3.8%	11.2%	6.4%
American Water Works Co Inc	AWK	2.6%	8.5%	3.8%	11.3%	6.5%
California Water Service Gp	CWT	2.4%	6.0%	3.8%	8.6%	6.3%
Essential Utilities, Inc.	WTRG	3.4%	8.0%	3.8%	11.7%	7.3%
Middlesex Water Co	MSEX	2.6%	5.0%	3.8%	7.8%	6.5%
SJW Corp	SJW	2.1%	4.5%	3.8%	6.7%	6.0%
York Water Co	YORW	2.4%	4.0%	3.8%	6.5%	6.3%
Average		**2.6%**	**6.4%**	**3.8%**	**9.1%**	**6.5%**

[1] Dividend Yield from Exhibit DJG-4
[2] Forecasted dividend growth rates - Value Line
[3] Sustainable growth rate from Exhibit DJG-5
[4] Annual Compounding DCF = $D_0 (1 + g) / P_0 + g$ (using analyst growth rate)
[5] Annual Compounding DCF = $D_0 (1 + g) / P_0 + g$ (using sustainable growth rate)

CAPM - Risk-Free Rate Estimate

Date	Rate
12/04/23	4.45%
12/01/23	4.44%
11/30/23	4.39%
11/29/23	4.42%
11/28/23	4.40%
11/27/23	4.36%
11/24/23	4.34%
11/22/23	4.47%
11/21/23	4.51%
11/20/23	4.51%
11/17/23	4.47%
11/16/23	4.54%
11/15/23	4.55%
11/14/23	4.50%
11/13/23	4.64%
11/10/23	4.65%
11/09/23	4.61%
11/08/23	4.74%
11/07/23	4.77%
11/06/23	4.71%
11/03/23	4.74%
11/02/23	4.72%
11/01/23	4.72%
10/31/23	4.73%
10/30/23	4.78%
10/27/23	4.82%
10/26/23	4.78%
10/25/23	4.75%
10/24/23	4.79%
10/23/23	4.74%
Average	**4.60%**

*Daily Treasury Yield Curve Rates on 30-year T-bonds,
http://www.treasury.gov/resources-center/data-chart-center/interest-rates/

CAPM - Beta Coefficients

Company	Ticker	Beta
American States Water Co	AWR	0.70
American Water Works Co Inc	AWK	0.95
California Water Service Gp	CWT	0.75
Essential Utilities, Inc.	WTRG	1.00
Middlesex Water Co	MSEX	0.75
SJW Corp	SJW	0.85
York Water Co	YORW	0.80
Average		0.83

Betas from Value Line Investment Survey

CAPM - Implied Equity Risk Premium Estimate

Year	[1] Market Value	[2] Operating Earnings	[3] Dividends	[4] Buybacks	[5] Earnings Yield	[6] Dividend Yield	[7] Buyback Yield	[8] Gross Cash Yield
2013	16,495	956	312	476	5.80%	1.89%	2.88%	4.77%
2014	18,245	1,004	350	553	5.50%	1.92%	3.03%	4.95%
2015	17,900	885	382	572	4.95%	2.14%	3.20%	5.33%
2016	19,268	920	397	536	4.77%	2.06%	2.78%	4.85%
2017	22,821	1,066	420	519	4.67%	1.84%	2.28%	4.12%
2018	21,027	1,282	456	806	6.10%	2.17%	3.84%	6.01%
2019	26,760	1,305	485	729	4.88%	1.81%	2.72%	4.54%
2020	31,659	1,019	480	520	3.22%	1.52%	1.64%	3.16%
2021	40,356	1,739	511	882	4.31%	1.27%	2.18%	3.45%
2022	32,133	1,656	565	923	5.15%	1.76%	2.87%	4.63%
2023	36,870	1,790	588	795	4.85%	1.60%	2.16%	3.75%

Cash Yield	4.50%	[9]
Growth Rate	6.47%	[10]
Risk-free Rate	4.60%	[11]
Current Index Value	5,137	[12]

Year	[13] 1	[14] 2	[15] 3	[16] 4	[17] 5
Expected Dividends	246	262	279	297	317
Expected Terminal Value					6482
Present Value	225	218	212	205	4278
Intrinsic Index Value	5137	[18]			
Required Return on Market	9.7%	[19]			
Implied Equity Risk Premium	**5.1%**	[20]			

[1-4] S&P Quarterly Press Releases, data found at https://us.spindices.com/indices/equity/sp-500 (additional info tab) (all dollar figures are in $ billions)
[1] Market value of S&P 500
[5] = [2] / [1]
[6] = [3] / [1]
[7] = [4] / [1]
[8] = [6] + [7]
[9] = Average of [8]
[10] = Compund annual growth rate of [2] = (end value / beginning value)^ $^{1/10}$-1
[11] Risk-free rate from DJG risk-free rate exhibit
[12] 30-day average of closing index prices from DJG stock price exhibit
[13-16] Expected dividends = [9]*[12]*(1+[10])^{n} ; Present value = expected dividend / (1+[11]+[19])^{n}
[17] Expected terminal value = expected dividend * (1+[11]) / [19] ; Present value = (expected dividend + expected terminal value) / (1+[11]+[19])^{n}
[18] = Sum([13-17]) present values.
[19] = [20] + [11]
[20] Internal rate of return calculation setting [18] equal to [12] and solving for the discount rate

CAPM - Equity Risk Premium Results

IESE Business School Survey	5.5%	[1]
Kroll (Duff & Phelps) Report	5.5%	[2]
Damodaran (average)	4.6%	[3]
Garrett	5.1%	[4]
Average	**5.2%**	

CAPM - Final Results

Company	Ticker	[1] Beta	[2] CAPM Result
American States Water Co	AWR	0.70	8.2%
American Water Works Co Inc	AWK	0.95	9.5%
California Water Service Gp	CWT	0.75	8.5%
Essential Utilities, Inc.	WTRG	1.00	9.8%
Middlesex Water Co	MSEX	0.75	8.5%
SJW Corp	SJW	0.85	9.0%
York Water Co	YORW	0.80	8.8%
Average			**8.9%**
Risk-free Rate	[3]	4.6%	
Equity Risk Premium	[4]	5.2%	

[1] From Exhibit DJG-8

[2] = [3] + [1] * [4]

[3] From Exhibit DJG-7

[4] From Exhibit DJG-10

Cost of Equity Summary

Model	Cost of Equity
CAPM (at Proxy Debt Ratio)	8.9%
Hamada CAPM (at Company-Proposed Debt Ratio)	8.6%
DCF Model (Analyst Growth)	9.1%
DCF Model (Sustainable Growth)	6.5%
Average	**8.3%**
Cost of Equity and Authorized ROE Range	**8.6% - 9.1%**

Proxy Company Debt Ratios

Exhibit DJG-13

Company	Ticker	Debt Ratio	Equity Ratio
American States Water Co	AWR	53%	47%
American Water Works Co Inc	AWK	55%	46%
California Water Service Gp	CWT	43%	58%
Essential Utilities, Inc.	WTRG	54%	46%
Middlesex Water Co	MSEX	46%	54%
SJW Corp	SJW	55%	45%
York Water Co	YORW	45%	55%
Average		50%	50%

Debt ratios from Value Line Investment Survey - 2023

Competitive Industry Debt Ratios

Industry	# Firms	Debt Ratio
Air Transport	21	84%
Hotel/Gaming	69	82%
Hospitals/Healthcare Facilities	34	82%
Retail (Automotive)	30	78%
Brokerage & Investment Banking	30	76%
Computers/Peripherals	42	71%
Bank (Money Center)	7	68%
Cable TV	10	68%
Food Wholesalers	14	67%
Advertising	58	67%
Oil/Gas Distribution	23	66%
Rubber& Tires	3	65%
Transportation (Railroads)	4	65%
Real Estate (Operations & Services)	60	64%
Retail (Grocery and Food)	13	64%
Retail (Special Lines)	78	64%
Recreation	57	62%
Insurance (Life)	27	61%
Trucking	35	61%
Packaging & Container	25	61%
Power	48	60%
Telecom. Services	49	60%
Telecom (Wireless)	16	60%
R.E.I.T.	223	60%
Auto & Truck	31	59%
Utility (General)	15	59%
Household Products	127	58%
Office Equipment & Services	16	58%
Environmental & Waste Services	62	57%
Utility (Water)	16	57%
Retail (Distributors)	69	57%
Transportation	18	57%
Green & Renewable Energy	19	57%
Computer Services	80	56%
Broadcasting	26	56%
Retail (Online)	63	56%
Apparel	39	56%
Aerospace/Defense	77	56%
Paper/Forest Products	7	55%
Beverage (Soft)	31	55%
Farming/Agriculture	39	54%
Reinsurance	1	53%
Chemical (Diversified)	4	52%
Construction Supplies	49	52%
Retail (General)	15	52%
Business & Consumer Services	164	52%
Real Estate (Development)	18	51%
Furn/Home Furnishings	32	51%
Total / Average	**1,994**	**61%**

http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/dbtfund.htm

Hamada Model Results

Unlevering Beta

Proxy Debt Ratio	50%	[1]
Proxy Equity Ratio	50%	[2]
Proxy Debt / Equity Ratio	1.0	[3]
Tax Rate	21%	[4]
Equity Risk Premium	5.2%	[5]
Risk-free Rate	4.6%	[6]
Proxy Group Beta	0.83	[7]
Unlevered Beta	0.46	[8]

Relevered Betas and Cost of Equity Estimates

[9] Debt Ratio	[10] D/E Ratio	[11] Levered Beta	[12] Cost of Equity
0%	0.0	0.46	7.0%
20%	0.3	0.55	7.5%
30%	0.4	0.62	7.8%
40%	0.7	0.71	8.3%
46%	0.9	0.77	8.6%
50%	1.0	0.83	8.9%
60%	1.5	1.01	9.8%

[1] Proxy group average debt ratio

[2] Proxy group average equity ratio

[3] = [1] / [2]

[4] Company assumed tax rate

[5] Equity risk premium from Exhibit DJG-11

[6] Risk-free rate from Exhibit DJG-11

[7] Average proxy beta from Exhibit DJG-11

[8] = [7] / (1 + (1 - [4]) * [3])

[9] Various debt ratios (Garrett proposed highlighted)

[10] = [9] / (1 - [9])

[11] = [8] * (1 + (1 - [4]) * [10])

[12] = [6] + [11] * [5]

Final Rate of Return Recommendation

Capital Component	Proposed Ratio	Cost Rate	Weighted Cost
Long-Term Debt	50.0%	4.6%	2.3%
Common Equity	50.0%	9.1%	4.6%
Total	100.0%		6.85%

Summary Rate and Accrual Adjustment

Plant Function	Plant 12/31/2021	Veolia Position Rate	Veolia Position Annual Accrual	OCA Position Rate	OCA Position Annual Accrual	OCA Adjustment Rate	OCA Adjustment Annual Accrual
Water Plant							
Source of Supply	13,873,035	2.14%	297,279	1.44%	199,469	-0.71%	(97,809)
Pumping Equipment	17,109,183	4.79%	818,842	2.78%	475,250	-2.01%	(343,592)
Treatment Equipment	66,212,049	2.74%	1,815,141	1.69%	1,118,093	-1.05%	(697,048)
Transmission and Distribution	322,504,386	1.88%	6,063,697	1.62%	5,233,181	-0.26%	(830,516)
General Plant	25,168,774	6.05%	1,523,370	5.48%	1,378,174	-0.58%	(145,196)
Total Water Plant	444,867,427	2.36%	10,518,329	1.89%	8,404,168	-0.48%	(2,114,161)
Sewer Plant							
Collection, Treatment and Disposal	5,499,333	4.63%	254,631	4.08%	224,628	-0.55%	(30,004)
General Plant	20,876	10.68%	2,230	10.68%	2,230	0.00%	-
Total Sewer Plant	5,520,209	4.65%	256,861	4.11%	226,857	-0.54%	(30,004)
TOTAL PLANT STUDIED	**$ 450,387,636**	**2.39%**	**$ 10,775,190**	**1.92%**	**$ 8,631,026**	**-0.48%**	**$ (2,144,164)**

Detailed Rate Comparison

Account No.	Description	[1] Plant 12/31/2021	[2] Veolia Position Rate	[2] Veolia Position Annual Accrual	[3] OCA Position Rate	[3] OCA Position Annual Accrual	[4] OCA Adjustment Rate	[4] OCA Adjustment Annual Accrual
	WATER PLANT							
	Source of Supply							
304.20	Source of Supply Structures and Improvements	6,964,369	2.20%	152,974	1.21%	84,588	-0.98%	-68,385
305.20	Collection and Impounding Reservoirs	434,515	1.93%	8,367	1.52%	6,590	-0.41%	-1,777
306.20	Lake, Rivers and Other Intakes	4,912,488	1.95%	95,691	1.51%	74,334	-0.43%	-21,358
307.20	Wells and Springs	1,389,114	2.06%	28,588	1.71%	23,801	-0.34%	-4,787
308.20	Infiltration Galleries and Tunnels	13,358	4.84%	646	4.14%	553	-0.69%	-93
310.20	Power Generation Equipment	159,191	6.92%	11,012	6.03%	9,603	-0.89%	-1,410
	Total Source of Supply Plant	13,873,035	2.14%	297,279	1.44%	199,469	-0.71%	-97,809
	Pumping Equipment							
311.20	Elec. Pumping Equipment	16,226,445	4.74%	768,372	2.66%	432,184	-2.07%	-336,188
311.20	Oil Pumping Equipment	314,156	3.39%	10,652	2.96%	9,313	-0.43%	-1,339
311.40	Pumping Equipment	568,582	7.00%	39,817	5.94%	33,753	-1.07%	-6,064
	Total Pumping Equipment Plant	17,109,183	4.79%	818,842	2.78%	475,250	-2.01%	-343,592
	Treatment Equipment							
304.30	Purification Structures and Improvements	17,846,220	2.66%	474,258	1.93%	344,340	-0.73%	-129,918
320.30	Water Treatment Equipment	40,111,224	2.37%	951,964	1.46%	586,359	-0.91%	-365,605
320.30	Water Treatment Painting	423,964	0.00%	0	0.00%	0	0.00%	0
320.30	Chemical Treatment	7,830,641	4.97%	388,919	2.39%	187,394	-2.57%	-201,525
	Total Treatment Plant	66,212,049	2.74%	1,815,141	1.69%	1,118,093	-1.05%	-697,048
	Transmission and Distribution							

Detailed Rate Comparison

		[1]	[2]		[3]		[4]	
			Veolia Position		OCA Position		OCA Adjustment	
Account No.	Description	Plant 12/31/2021	Rate	Annual Accrual	Rate	Annual Accrual	Rate	Annual Accrual
304.40	Structures and Improvements	1,603,093	2.50%	40,051	1.60%	25,693	-0.90%	-14,358
330.40	Distribution Reservoirs and Standpipes	12,000,255	2.71%	324,892	2.52%	302,056	-0.19%	-22,836
331.40	Transmission and Distribution Mains	215,118,010	1.42%	3,049,861	1.17%	2,517,992	-0.25%	-531,869
333.40	Services	58,107,725	1.78%	1,032,682	1.54%	896,688	-0.23%	-135,994
334.40	Meters and Meter Installations	25,442,524	5.63%	1,431,371	5.18%	1,318,583	-0.44%	-112,788
335.40	Hydrants	10,232,779	1.81%	184,839	1.68%	172,169	-0.12%	-12,670
	Total Transmission and Distribution Plant	322,504,386	1.88%	6,063,697	1.62%	5,233,181	-0.26%	-830,516
	General Plant							
304.50	General Plant Office Buildings	12,198,028	2.91%	354,763	1.72%	209,567	-1.19%	-145,196
340.50	Computer Hardware	647,826	20.00%	129,565	20.00%	129,565	0.00%	0
340.50	Computer Software	731,057	20.00%	146,211	20.00%	146,211	0.00%	0
340.50	Office Furniture and Fixtures	751,103	6.67%	50,074	6.67%	50,074	0.00%	0
340.50	Computer Software Lighthouse	0	12.50%	0	0.00%	0	-12.50%	0
341.50	Transportation Equipment	3,994	18.04%	720	18.04%	720	0.00%	0
342.50	Stores Equipment	7,543	5.56%	419	5.56%	419	0.00%	0
343.50	Shop and Garage	696,824	5.00%	34,841	5.00%	34,841	0.00%	0
344.50	Tools & Work Equip	3,363,034	5.00%	168,152	5.00%	168,152	0.00%	0
344.50	Laboratory Furniture & Equipment	80,898	6.67%	5,393	6.67%	5,393	0.00%	0
345.50	Power Operated Equipment	7,046	10.00%	0	0.00%	0	-10.00%	0
346.50	Communication Equipment	5,617,031	10.00%	561,703	10.00%	561,703	0.00%	0
347.50	Miscellaneous Equipment	1,047,315	6.67%	69,821	6.67%	69,821	0.00%	0
393.00	Tools & Work Equip	0	5.00%	0	5.00%	0	0.00%	0
396.00	Communication Equipment	17,076	10.00%	1,708	10.00%	1,708	0.00%	0
	Total General Plant	25,168,774	6.05%	1,523,370	5.48%	1,378,174	-0.58%	-145,196
	TOTAL WATER PLANT	444,867,427	2.36%	10,518,329	1.89%	8,404,168	-0.48%	-2,114,161

Detailed Rate Comparison

Account No.	Description	[1] Plant 12/31/2021	[2] Veolia Position Rate	[2] Veolia Position Annual Accrual	[3] OCA Position Rate	[3] OCA Position Annual Accrual	[4] OCA Adjustment Rate	[4] OCA Adjustment Annual Accrual
	SEWER PLANT							
	Collection, Treatment and Disposal							
354.40	Structures and Improvements	36,078	3.00%	1,083	2.56%	923	-0.44%	-160
360.20	Pump Station Force Mains	169,734	3.26%	5,537	2.77%	4,699	-0.49%	-838
361.20	Collection Sewers - Gravity	4,266,458	3.25%	138,819	2.76%	117,615	-0.50%	-21,204
371.40	Pumping Equipment	611,014	15.34%	93,753	14.37%	87,800	-0.97%	-5,953
380.40	Treatment and Disposal Equipment	416,049	3.71%	15,439	3.27%	13,590	-0.44%	-1,848
	Total Collection, Treatment and Disposal Plant	5,499,333	4.63%	254,631	4.08%	224,628	-0.55%	-30,004
	General Plant							
393.70	Tools, Shop and Garage Equipment	3,800	26.40%	1,003	26.40%	1,003	0.00%	0
396.70	Communication Equipment	17,076	7.18%	1,227	7.18%	1,227	0.00%	0
	Total General Plant	20,876	10.68%	2,230	10.68%	2,230	0.00%	0
	TOTAL SEWER PLANT	5,520,209	4.65%	256,861	4.11%	226,857	-0.54%	-30,004
	TOTAL PLANT STUDIED	**450,387,636**	**2.39%**	**10,775,190**	**1.92%**	**8,631,026**	**-0.48%**	**-2,144,164**

[1], [2] From Company depreciation study

[3] From Exhibit DJG-5

[4] = [3] - [2]

Depreciation Rate Development

Account No.	Description	[1] Plant 12/31/2021	[2] Iowa Curve Type	[2] Iowa Curve AL	[3] Net Salvage	[4] Depreciable Base	[5] Book Reserve	[6] Future Accruals	[7] Remaining Life	[8] Total Accrual	[9] Total Rate
	WATER PLANT										
	Source of Supply										
304.20	Source of Supply Structures and Improvements	6,964,369	R1	74	0%	6,964,369	1,287,653	5,676,716	67.11	84,588	**1.21%**
305.20	Collection and Impounding Reservoirs	434,515	R3	85	0%	434,515	130,586	303,929	46.12	6,590	**1.52%**
306.20	Lake, Rivers and Other Intakes	4,912,488	R2	60	0%	4,912,488	1,342,975	3,569,513	48.02	74,334	**1.51%**
307.20	Wells and Springs	1,389,114	R2.5	52	0%	1,389,114	510,377	878,737	36.92	23,801	**1.71%**
308.20	Infiltration Galleries and Tunnels	13,358	L3	20	0%	13,358	6,362	6,996	12.64	553	**4.14%**
310.20	Power Generation Equipment	159,191	R2	30	0%	159,191	22,831	136,360	14.20	9,603	**6.03%**
	Total Source of Supply Plant	13,873,035			0%	13,873,035	3,300,785	10,572,251	53.00	199,469	**1.44%**
	Pumping Equipment										
311.20	Elec. Pumping Equipment	16,226,445	R0.5	31	0%	16,226,445	5,741,651	10,484,794	24.26	432,184	**2.66%**
311.20	Oil Pumping Equipment	314,156	R3	30	0%	314,156	208,454	105,702	11.35	9,313	**2.96%**
311.40	Pumping Equipment	568,582	R0.5	26	0%	568,582	81,864	486,718	14.42	33,753	**5.94%**
	Total Pumping Equipment Plant	17,109,183			0%	17,109,183	6,031,969	11,077,214	23.31	475,250	**2.78%**
	Treatment Equipment										
304.30	Purification Structures and Improvements	17,846,220	R1	45	0%	17,846,220	5,508,524	12,337,696	35.83	344,340	**1.93%**
320.30	Water Treatment Equipment	40,111,224	R1	58	0%	40,111,224	11,743,166	28,368,058	48.38	586,359	**1.46%**
320.30	Water Treatment Painting	423,964	SQ	10	0%	423,964	423,964	0	0.00	0	**0.00%**
320.30	Chemical Treatment	7,830,641	R1.5	29	0%	7,830,641	3,915,990	3,914,651	20.89	187,394	**2.39%**
	Total Treatment Plant	66,212,049			0%	66,212,049	21,591,644	44,620,405	39.91	1,118,093	**1.69%**
	Transmission and Distribution										
304.40	Structures and Improvements	1,603,093	R1	65	0%	1,603,093	110,324	1,492,770	58.10	25,693	**1.60%**
330.40	Distribution Reservoirs and Standpipes	12,000,255	R4	46	0%	12,000,255	2,817,748	9,182,507	30.40	302,056	**2.52%**
331.40	Transmission and Distribution Mains	215,118,010	R2.5	88	0%	215,118,010	25,664,311	189,453,698	75.24	2,517,992	**1.17%**
333.40	Services	58,107,725	R3	68	0%	58,107,725	8,251,862	49,855,863	55.60	896,688	**1.54%**
334.40	Meters and Meter Installations	25,442,524	L4	22	0%	25,442,524	6,507,671	18,934,853	14.36	1,318,583	**5.18%**
335.40	Hydrants	10,232,779	R4	65	0%	10,232,779	1,872,254	8,360,525	48.56	172,169	**1.68%**
	Total Transmission and Distribution Plant	322,504,386			0%	322,504,386	45,224,170	277,280,216	52.99	5,233,181	**1.62%**
	General Plant										

Depreciation Rate Development

Account No.	Description	[1] Plant 12/31/2021	[2] Iowa Curve Type	[2] Iowa Curve AL	[3] Net Salvage	[4] Depreciable Base	[5] Book Reserve	[6] Future Accruals	[7] Remaining Life	[8] Total Accrual	[9] Total Rate
304.50	General Plant Office Buildings	12,198,028	R1	54	0%	12,198,028	2,105,270	10,092,758	48.16	209,567	**1.72%**
340.50	Computer Hardware	647,826	SQ	5	0%	647,826	414,795	233,031		129,565	**20.00%**
340.50	Computer Software	731,057	SQ	5	0%	731,057	425,401	305,656		146,211	**20.00%**
340.50	Office Furniture and Fixtures	751,103	SQ	15	0%	751,103	118,355	632,748		50,074	**6.67%**
340.50	Computer Software Lighthouse	0	SQ	8	0%	0	0	0		0	**0.00%**
341.50	Transportation Equipment	3,994	S3	7	0%	3,994	2,003	1,991	2.76	720	**18.04%**
342.50	Stores Equipment	7,543	SQ	18	0%	7,543	744	6,799		419	**5.56%**
343.50	Shop and Garage	696,824	SQ	20	0%	696,824	319,729	377,095		34,841	**5.00%**
344.50	Tools & Work Equip	3,363,034	SQ	20	0%	3,363,034	752,037	2,610,998		168,152	**5.00%**
344.50	Laboratory Furniture & Equipment	80,898	SQ	15	0%	80,898	39,194	41,704		5,393	**6.67%**
345.50	Power Operated Equipment	7,046	L3	10	0%	7,046	7,046	0	1.09	0	**0.00%**
346.50	Communication Equipment	5,617,031	SQ	10	0%	5,617,031	2,596,017	3,021,013		561,703	**10.00%**
347.50	Miscellaneous Equipment	1,047,315	SQ	15	0%	1,047,315	124,025	923,290		69,821	**6.67%**
393.00	Tools & Work Equip	0	SQ	20	0%	0	0	0		0	**5.00%**
396.00	Communication Equipment	17,076	SQ	10	0%	17,076	1,577	15,499		1,708	**10.00%**
	Total General Plant	25,168,774			0%	25,168,774	6,906,191	18,262,583	13.25	1,378,174	**5.48%**
	TOTAL WATER PLANT	444,867,427			0%	444,867,427	83,054,759	361,812,668	43.05	8,404,168	**1.89%**
	SEWER PLANT										
	Collection, Treatment and Disposal										
354.40	Structures and Improvements	36,078	R2	40	0%	36,078	14,455	21,623	23.42	923	**2.56%**
360.20	Pump Station Force Mains	169,734	R2	40	0%	169,734	54,613	115,121	24.50	4,699	**2.77%**
361.20	Collection Sewers - Gravity	4,266,458	R2	40	0%	4,266,458	1,379,014	2,887,445	24.55	117,615	**2.76%**
371.40	Pumping Equipment	611,014	R2	15	0%	611,014	366,929	244,085	2.78	87,800	**14.37%**
380.40	Treatment and Disposal Equipment	416,049	R2	30	0%	416,049	248,616	167,433	12.32	13,590	**3.27%**
	Total Collection, Treatment and Disposal Plant	5,499,333			0%	5,499,333	2,063,626	3,435,707	15.30	224,628	**4.08%**
	General Plant										
393.70	Tools, Shop and Garage Equipment	3,800	SQ	20	0%	3,800	288	3,512	3.50	1,003	**26.40%**
396.70	Communication Equipment	17,076	SQ	10	0%	17,076	1,744	15,332	12.50	1,227	**7.18%**
	Total General Plant	20,876			0%	20,876	2,033	18,843	8.45	2,230	**10.68%**
	TOTAL SEWER PLANT	5,520,209			0%	5,520,209	2,065,659	3,454,550	15.23	226,857	**4.11%**

Depreciation Rate Development

Account No.	Description	[1] Plant 12/31/2021	[2] Iowa Curve Type	[2] Iowa Curve AL	[3] Net Salvage	[4] Depreciable Base	[5] Book Reserve	[6] Future Accruals	[7] Remaining Life	[8] Total Accrual	[9] Total Rate
	TOTAL PLANT STUDIED	**450,387,636**			**0%**	**450,387,636**	**85,120,418**	**365,267,218**	**42.32**	**8,631,026**	**1.92%**

[1] From Company depreciation study
[2] Average life and Iowa curve shape selected through statistical analysis and professional judgment
[3] Net salvage rate selected through statistical analysis and professional judgment
[4] = [1]*(1-[3])
[5] From depreciation study
[6] = [4] - [5]
[7] Composite remaining life based on Iowa cuve in [2]; see remaining life exhibit for detailed calculations
[8] = [6] / [7]; some unadjusted figures hard coded to match company's proposed figures
[9] = [8] / [1]; some unadjusted figures hard coded to match company's proposed figures

Account 304.20 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**Veolia R1-65**	**OCA R1-74**	**Veolia SSD**	**OCA SSD**
0.0	6,523,402	100.00%	100.00%	100.00%	0.0000	0.0000
0.5	6,523,865	100.00%	99.80%	99.83%	0.0000	0.0000
1.5	3,307,632	99.98%	99.40%	99.47%	0.0000	0.0000
2.5	3,288,232	99.86%	98.99%	99.11%	0.0001	0.0001
3.5	3,267,081	99.77%	98.57%	98.75%	0.0001	0.0001
4.5	3,204,630	99.44%	98.14%	98.37%	0.0002	0.0001
5.5	2,780,954	96.08%	97.70%	97.99%	0.0003	0.0004
6.5	2,550,534	95.86%	97.26%	97.61%	0.0002	0.0003
7.5	3,275,194	95.76%	96.80%	97.22%	0.0001	0.0002
8.5	2,757,466	95.69%	96.34%	96.82%	0.0000	0.0001
9.5	2,700,481	95.42%	95.87%	96.41%	0.0000	0.0001
10.5	2,653,529	95.42%	95.39%	96.00%	0.0000	0.0000
11.5	2,350,387	95.14%	94.90%	95.58%	0.0000	0.0000
12.5	1,807,005	94.84%	94.40%	95.15%	0.0000	0.0000
13.5	1,820,168	94.74%	93.90%	94.72%	0.0001	0.0000
14.5	1,725,637	91.34%	93.38%	94.28%	0.0004	0.0009
15.5	1,698,026	90.36%	92.86%	93.84%	0.0006	0.0012
16.5	965,076	90.15%	92.33%	93.39%	0.0005	0.0010
17.5	932,971	87.11%	91.79%	92.93%	0.0022	0.0034
18.5	923,602	86.24%	91.25%	92.46%	0.0025	0.0039
19.5	917,125	86.15%	90.69%	91.99%	0.0021	0.0034
20.5	902,072	85.97%	90.13%	91.52%	0.0017	0.0031
21.5	880,209	85.17%	89.56%	91.03%	0.0019	0.0034
22.5	877,709	84.93%	88.98%	90.55%	0.0016	0.0032
23.5	874,787	84.64%	88.39%	90.05%	0.0014	0.0029
24.5	734,018	84.51%	87.80%	89.55%	0.0011	0.0025
25.5	688,065	84.51%	87.19%	89.04%	0.0007	0.0021
26.5	702,532	83.99%	86.58%	88.53%	0.0007	0.0021
27.5	693,784	83.43%	85.95%	88.00%	0.0006	0.0021
28.5	680,361	82.54%	85.32%	87.48%	0.0008	0.0024
29.5	674,523	81.57%	84.67%	86.94%	0.0010	0.0029
30.5	671,724	81.47%	84.01%	86.40%	0.0006	0.0024
31.5	577,181	81.29%	83.35%	85.84%	0.0004	0.0021
32.5	553,638	81.29%	82.67%	85.29%	0.0002	0.0016
33.5	416,682	81.29%	81.97%	84.72%	0.0000	0.0012
34.5	408,025	81.10%	81.27%	84.14%	0.0000	0.0009
35.5	320,763	80.81%	80.55%	83.56%	0.0000	0.0008
36.5	318,036	80.53%	79.82%	82.97%	0.0001	0.0006
37.5	253,084	79.94%	79.08%	82.36%	0.0001	0.0006
38.5	240,640	79.73%	78.32%	81.75%	0.0002	0.0004
39.5	226,487	78.99%	77.55%	81.13%	0.0002	0.0005
40.5	219,075	78.99%	76.76%	80.50%	0.0005	0.0002
41.5	202,571	77.63%	75.96%	79.86%	0.0003	0.0005
42.5	202,373	77.55%	75.15%	79.21%	0.0006	0.0003
43.5	201,432	77.29%	74.32%	78.54%	0.0009	0.0002
44.5	201,359	77.29%	73.48%	77.87%	0.0015	0.0000
45.5	160,433	74.57%	72.62%	77.19%	0.0004	0.0007

Account 304.20 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**Veolia R1-65**	**OCA R1-74**	**Veolia SSD**	**OCA SSD**
46.5	173,347	74.57%	71.74%	76.49%	0.0008	0.0004
47.5	158,318	74.57%	70.85%	75.78%	0.0014	0.0001
48.5	155,138	74.57%	69.94%	75.07%	0.0021	0.0000
49.5	139,512	73.74%	69.02%	74.34%	0.0022	0.0000
50.5	138,691	73.74%	68.09%	73.60%	0.0032	0.0000
51.5	132,828	73.74%	67.14%	72.84%	0.0044	0.0001
52.5	125,904	73.74%	66.17%	72.08%	0.0057	0.0003
53.5	125,886	73.73%	65.19%	71.30%	0.0073	0.0006
54.5	130,200	73.73%	64.19%	70.52%	0.0091	0.0010
55.5	124,177	73.65%	63.18%	69.72%	0.0110	0.0015
56.5	123,280	73.65%	62.15%	68.90%	0.0132	0.0023
57.5	113,362	73.65%	61.11%	68.08%	0.0157	0.0031
58.5	116,597	73.65%	60.06%	67.25%	0.0185	0.0041
59.5	114,967	72.83%	58.99%	66.40%	0.0192	0.0041
60.5	116,726	72.45%	57.91%	65.54%	0.0211	0.0048
61.5	116,572	72.45%	56.81%	64.67%	0.0244	0.0061
62.5	114,489	72.45%	55.71%	63.79%	0.0280	0.0075
63.5	113,837	72.44%	54.59%	62.89%	0.0319	0.0091
64.5	113,274	72.44%	53.46%	61.99%	0.0360	0.0109
65.5	113,121	72.44%	52.33%	61.07%	0.0405	0.0129
66.5	113,121	72.44%	51.18%	60.15%	0.0452	0.0151
67.5	112,905	72.44%	50.02%	59.21%	0.0503	0.0175
68.5	112,506	72.18%	48.85%	58.27%	0.0544	0.0194
69.5	111,030	71.74%	47.68%	57.31%	0.0579	0.0208
70.5	96,149	62.13%	46.50%	56.35%	0.0244	0.0033
71.5	93,169	62.13%	45.31%	55.37%	0.0283	0.0046
72.5	93,169	62.13%	44.12%	54.39%	0.0324	0.0060
73.5	93,169	62.13%	42.92%	53.39%	0.0369	0.0076
74.5	93,169	62.13%	41.72%	52.39%	0.0417	0.0095
75.5	91,969	61.61%	40.52%	51.39%	0.0445	0.0105
76.5	90,232	61.61%	39.31%	50.37%	0.0497	0.0126
77.5	90,005	61.61%	38.10%	49.35%	0.0552	0.0150
78.5	90,005	61.61%	36.90%	48.32%	0.0611	0.0177
79.5	90,005	61.61%	35.70%	47.29%	0.0672	0.0205
80.5	89,942	61.61%	34.49%	46.25%	0.0735	0.0236
81.5	88,069	61.61%	33.30%	45.21%	0.0802	0.0269
82.5	87,514	61.22%	32.10%	44.16%	0.0848	0.0291
83.5	89,039	62.29%	30.91%	43.11%	0.0984	0.0368
84.5	88,574	62.29%	29.73%	42.05%	0.1060	0.0410
85.5	88,324	62.11%	28.56%	41.00%	0.1126	0.0446
86.5	88,324	62.11%	27.40%	39.94%	0.1205	0.0492
87.5	88,324	62.11%	26.24%	38.88%	0.1286	0.0540
88.5	88,182	62.04%	25.10%	37.82%	0.1364	0.0587
89.5	88,182	62.04%	23.97%	36.76%	0.1449	0.0639
90.5	82,043	57.87%	22.86%	35.70%	0.1226	0.0491
91.5	74,060	52.24%	21.76%	34.65%	0.0929	0.0309
92.5	72,761	51.32%	20.68%	33.59%	0.0939	0.0314

Account 304.20 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**Veolia R1-65**	**OCA R1-74**	**Veolia SSD**	**OCA SSD**
93.5	53,135	50.63%	19.61%	32.54%	0.0962	0.0327
94.5	53,135	50.63%	18.57%	31.50%	0.1028	0.0366
95.5	46,445	44.25%	17.54%	30.46%	0.0713	0.0190
96.5	46,169	43.99%	16.54%	29.42%	0.0754	0.0212
97.5	41,945	39.97%	15.56%	28.39%	0.0596	0.0134
98.5	41,945	39.97%	14.60%	27.37%	0.0644	0.0159
99.5	41,945	39.97%	13.67%	26.36%	0.0692	0.0185
100.5	41,945	39.97%	12.76%	25.36%	0.0740	0.0214
101.5	41,945	39.97%	11.88%	24.36%	0.0789	0.0244
102.5	41,945	39.97%	11.03%	23.38%	0.0838	0.0275
103.5	41,945	39.97%	10.20%	22.41%	0.0886	0.0309
104.5	41,945	39.97%	9.41%	21.45%	0.0934	0.0343
105.5	41,945	39.97%	8.65%	20.50%	0.0981	0.0379
106.5	41,945	39.97%	7.91%	19.56%	0.1028	0.0416
107.5	41,945	39.97%	7.22%	18.65%	0.1073	0.0455
108.5	35,782	34.09%	6.55%	17.74%	0.0759	0.0267
109.5	22,377	21.32%	5.92%	16.85%	0.0237	0.0020
110.5	18,740	17.86%	5.32%	15.99%	0.0157	0.0004
111.5	18,740	17.86%	4.75%	15.13%	0.0172	0.0007
112.5	18,740	17.86%	4.22%	14.30%	0.0186	0.0013
113.5	18,740	17.86%	3.73%	13.49%	0.0200	0.0019
114.5	18,740	17.86%	3.27%	12.69%	0.0213	0.0027
115.5	7,180	6.84%	2.85%	11.92%	0.0016	0.0026
116.5	7,180	6.84%	2.46%	11.17%	0.0019	0.0019
117.5	7,180	6.84%	2.10%	10.44%	0.0022	0.0013
118.5	7,180	6.84%	1.78%	9.73%	0.0026	0.0008
119.5	3,946	3.76%	1.49%	9.05%	0.0005	0.0028
120.5	3,946	3.76%	1.23%	8.39%	0.0006	0.0021
121.5			1.00%	7.76%		
Sum of Squared Differences (SSD)				[8]	3.8347	1.3110
SSD - Truncated OLT Curve				[9]	2.3672	0.8430

[1] Age in years using half-year convention

[2] Dollars exposed to retirement at the beginning of each age interval

[3] Observed life table based on the Company's property records. These numbers form the original survivor curve.

[4] The Company's selected Iowa curve to be fitted to the OLT.

[5] My selected Iowa curve to be fitted to the OLT.

[6] = ([4] - [3])^2. This is the squared difference between each point on the Company's curve and the observed survivor curve.

[7] = ([5] - [3])^2. This is the squared difference between each point on my curve and the observed survivor curve.

[8] = Sum of squared differences. The smallest SSD represents the best mathematical fit.

Account 311.20 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**Veolia R0.5-26**	**OCA R0.5-31**	**Veolia SSD**	**OCA SSD**
0.0	21,317,603	100.00%	100.00%	100.00%	0.0000	0.0000
0.5	21,289,470	99.88%	99.27%	99.39%	0.0000	0.0000
1.5	19,534,941	99.27%	97.79%	98.15%	0.0002	0.0001
2.5	18,449,986	97.27%	96.28%	96.89%	0.0001	0.0000
3.5	18,031,862	96.45%	94.75%	95.61%	0.0003	0.0001
4.5	16,805,412	95.40%	93.18%	94.32%	0.0005	0.0001
5.5	10,149,248	93.60%	91.60%	93.01%	0.0004	0.0000
6.5	9,788,051	91.99%	89.98%	91.67%	0.0004	0.0000
7.5	8,691,993	91.15%	88.34%	90.32%	0.0008	0.0001
8.5	8,417,998	87.93%	86.68%	88.95%	0.0002	0.0001
9.5	8,215,530	86.38%	84.99%	87.57%	0.0002	0.0001
10.5	7,867,500	84.00%	83.27%	86.16%	0.0001	0.0005
11.5	7,222,251	81.17%	81.52%	84.74%	0.0000	0.0013
12.5	6,781,425	78.32%	79.74%	83.30%	0.0002	0.0025
13.5	6,587,545	76.67%	77.92%	81.83%	0.0002	0.0027
14.5	6,339,242	74.19%	76.06%	80.35%	0.0003	0.0038
15.5	5,093,210	71.51%	74.16%	78.83%	0.0007	0.0054
16.5	4,895,146	69.62%	72.22%	77.29%	0.0007	0.0059
17.5	4,710,104	67.63%	70.23%	75.73%	0.0007	0.0066
18.5	4,494,793	66.27%	68.19%	74.13%	0.0004	0.0062
19.5	4,338,153	65.27%	66.11%	72.50%	0.0001	0.0052
20.5	4,035,638	63.07%	63.98%	70.84%	0.0001	0.0060
21.5	3,932,138	62.74%	61.80%	69.15%	0.0001	0.0041
22.5	3,628,590	61.48%	59.57%	67.42%	0.0004	0.0035
23.5	3,240,028	60.75%	57.30%	65.66%	0.0012	0.0024
24.5	2,965,583	60.43%	54.99%	63.87%	0.0030	0.0012
25.5	2,864,982	60.02%	52.64%	62.04%	0.0055	0.0004
26.5	2,812,607	59.89%	50.25%	60.18%	0.0093	0.0000
27.5	2,624,083	59.49%	47.84%	58.29%	0.0136	0.0001
28.5	2,088,068	59.33%	45.40%	56.37%	0.0194	0.0009
29.5	2,042,513	59.17%	42.94%	54.42%	0.0263	0.0023
30.5	1,998,761	58.33%	40.48%	52.45%	0.0319	0.0035
31.5	1,728,380	58.29%	38.01%	50.44%	0.0411	0.0062
32.5	1,539,067	57.88%	35.55%	48.42%	0.0499	0.0089
33.5	1,318,336	56.68%	33.10%	46.39%	0.0556	0.0106
34.5	1,214,158	55.48%	30.67%	44.33%	0.0616	0.0124
35.5	1,109,177	55.18%	28.28%	42.27%	0.0724	0.0167
36.5	996,397	55.12%	25.92%	40.20%	0.0853	0.0223
37.5	606,411	54.20%	23.62%	38.13%	0.0935	0.0258
38.5	577,415	54.19%	21.37%	36.06%	0.1077	0.0329
39.5	414,600	53.54%	19.20%	34.00%	0.1179	0.0382
40.5	331,309	47.78%	17.11%	31.96%	0.0941	0.0250
41.5	149,966	36.88%	15.10%	29.93%	0.0475	0.0048
42.5	142,800	35.11%	13.18%	27.93%	0.0481	0.0052
43.5	132,455	32.57%	11.37%	25.96%	0.0450	0.0044
44.5	121,743	29.94%	9.66%	24.02%	0.0411	0.0035
45.5	116,061	28.54%	8.06%	22.13%	0.0420	0.0041

Account 311.20 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**Veolia R0.5-26**	**OCA R0.5-31**	**Veolia SSD**	**OCA SSD**
46.5	112,785	27.73%	6.56%	20.28%	0.0448	0.0056
47.5	111,716	27.47%	5.18%	18.48%	0.0497	0.0081
48.5	97,390	23.95%	3.89%	16.74%	0.0402	0.0052
49.5	72,527	17.83%	2.69%	15.07%	0.0229	0.0008
50.5	67,946	16.71%	1.56%	13.45%	0.0230	0.0011
51.5	62,876	15.46%	0.50%	11.91%	0.0224	0.0013
52.5	43,152	10.61%	0.00%	10.44%	0.0113	0.0000
53.5	36,289	8.92%	0.00%	9.05%	0.0080	0.0000
54.5	30,635	7.53%	0.00%	7.73%	0.0057	0.0000
55.5	30,572	7.52%	0.00%	6.49%	0.0057	0.0001
56.5	29,882	7.35%	0.00%	5.33%	0.0054	0.0004
57.5	27,086	6.66%	0.00%	4.24%	0.0044	0.0006
58.5	26,668	6.56%	0.00%	3.20%	0.0043	0.0011
59.5	26,614	6.54%	0.00%	2.22%	0.0043	0.0019
60.5	26,497	6.17%	0.00%	1.29%	0.0038	0.0024
61.5	25,966	6.04%	0.00%	0.42%	0.0036	0.0032
62.5	25,966	6.04%	0.00%	0.00%	0.0036	0.0036
63.5	25,910	6.03%	0.00%	0.00%	0.0036	0.0036
64.5	25,902	6.03%	0.00%	0.00%	0.0036	0.0036
65.5	13,749	3.20%	0.00%	0.00%	0.0010	0.0010
66.5	13,749	3.20%	0.00%	0.00%	0.0010	0.0010
67.5	13,749	3.20%	0.00%	0.00%	0.0010	0.0010
68.5	13,681	3.18%	0.00%	0.00%	0.0010	0.0010
69.5	13,325	3.10%	0.00%	0.00%	0.0010	0.0010
70.5	11,125	2.59%	0.00%	0.00%	0.0007	0.0007
71.5	11,125	2.59%	0.00%	0.00%	0.0007	0.0007
72.5	10,946	2.55%	0.00%	0.00%	0.0007	0.0007
73.5	10,946	2.55%	0.00%	0.00%	0.0007	0.0007
74.5	10,808	2.52%	0.00%	0.00%	0.0006	0.0006
75.5	10,808	2.52%	0.00%	0.00%	0.0006	0.0006
76.5	10,808	2.52%	0.00%	0.00%	0.0006	0.0006
77.5	10,808	2.52%	0.00%	0.00%	0.0006	0.0006
78.5	10,808	2.52%	0.00%	0.00%	0.0006	0.0006
79.5	10,808	2.52%	0.00%	0.00%	0.0006	0.0006
80.5	10,808	2.52%	0.00%	0.00%	0.0006	0.0006
81.5	10,808	2.52%	0.00%	0.00%	0.0006	0.0006
82.5	10,808	2.52%	0.00%	0.00%	0.0006	0.0006
83.5	10,808	2.52%	0.00%	0.00%	0.0006	0.0006
84.5	10,808	2.52%	0.00%	0.00%	0.0006	0.0006
85.5	10,808	2.52%	0.00%	0.00%	0.0006	0.0006
86.5	10,808	2.52%	0.00%	0.00%	0.0006	0.0006
87.5	9,804	2.28%	0.00%	0.00%	0.0005	0.0005
88.5	9,676	2.25%	0.00%	0.00%	0.0005	0.0005
89.5	8,652	2.01%	0.00%	0.00%	0.0004	0.0004
90.5	8,624	2.01%	0.00%	0.00%	0.0004	0.0004
91.5	8,624	2.01%	0.00%	0.00%	0.0004	0.0004
92.5	8,624	2.01%	0.00%	0.00%	0.0004	0.0004

Account 311.20 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**Veolia R0.5-26**	**OCA R0.5-31**	**Veolia SSD**	**OCA SSD**
93.5	8,624	2.01%	0.00%	0.00%	0.0004	0.0004
94.5	1,391	0.32%	0.00%	0.00%	0.0000	0.0000
95.5	1,385	0.32%	0.00%	0.00%	0.0000	0.0000
96.5	1,271	0.30%	0.00%	0.00%	0.0000	0.0000
97.5	1,271	0.30%	0.00%	0.00%	0.0000	0.0000
98.5	1,271	0.30%	0.00%	0.00%	0.0000	0.0000
99.5	1,271	0.30%	0.00%	0.00%	0.0000	0.0000
100.5	1,271	0.30%	0.00%	0.00%	0.0000	0.0000
101.5	1,271	0.30%	0.00%	0.00%	0.0000	0.0000
102.5	1,271	0.30%	0.00%	0.00%	0.0000	0.0000
103.5	1,271	0.30%	0.00%	0.00%	0.0000	0.0000
104.5	1,271	0.30%	0.00%	0.00%	0.0000	0.0000
105.5	1,271	0.30%	0.00%	0.00%	0.0000	0.0000
106.5	551	0.13%	0.00%	0.00%	0.0000	0.0000
107.5	551	0.13%	0.00%	0.00%	0.0000	0.0000
108.5	551	0.13%	0.00%	0.00%	0.0000	0.0000
109.5	551	0.13%	0.00%	0.00%	0.0000	0.0000
110.5	551	0.13%	0.00%	0.00%	0.0000	0.0000
111.5	551	0.13%	0.00%	0.00%	0.0000	0.0000
112.5	551	0.13%	0.00%	0.00%	0.0000	0.0000
113.5	551	0.13%	0.00%	0.00%	0.0000	0.0000
114.5	551	0.13%	0.00%	0.00%	0.0000	0.0000
115.5	551	0.13%	0.00%	0.00%	0.0000	0.0000
116.5	551	0.13%	0.00%	0.00%	0.0000	0.0000
117.5	551	0.13%	0.00%	0.00%	0.0000	0.0000
118.5	551	0.13%	0.00%	0.00%	0.0000	0.0000
119.5	551	0.13%	0.00%	0.00%	0.0000	0.0000
120.5	551	0.13%	0.00%	0.00%	0.0000	0.0000
121.5			0.00%	0.00%		
Sum of Squared Differences (SSD)				[8]	1.4090	0.3475
SSD - Truncated OLT Curve				[9]	0.8960	0.2640

[1] Age in years using half-year convention

[2] Dollars exposed to retirement at the beginning of each age interval

[3] Observed life table based on the Company's property records. These numbers form the original survivor curve.

[4] The Company's selected Iowa curve to be fitted to the OLT.

[5] My selected Iowa curve to be fitted to the OLT.

[6] = ([4] - [3])^2. This is the squared difference between each point on the Company's curve and the observed survivor curve.

[7] = ([5] - [3])^2. This is the squared difference between each point on my curve and the observed survivor curve.

[8] = Sum of squared differences. The smallest SSD represents the best mathematical fit.

Account 320.30 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**Veolia R1.5-50**	**OCA R1-58**	**Veolia SSD**	**OCA SSD**
0.0	29,319,757	100.00%	100.00%	100.00%	0.0000	0.0000
0.5	27,638,089	99.96%	99.82%	99.78%	0.0000	0.0000
1.5	26,604,033	99.78%	99.46%	99.33%	0.0000	0.0000
2.5	26,410,735	99.50%	99.08%	98.86%	0.0000	0.0000
3.5	25,411,914	99.22%	98.69%	98.39%	0.0000	0.0001
4.5	25,287,297	98.93%	98.28%	97.90%	0.0000	0.0001
5.5	12,940,955	98.54%	97.86%	97.41%	0.0000	0.0001
6.5	12,529,823	97.14%	97.42%	96.90%	0.0000	0.0000
7.5	12,420,377	96.78%	96.97%	96.38%	0.0000	0.0000
8.5	12,387,083	95.87%	96.50%	95.85%	0.0000	0.0000
9.5	12,144,574	94.47%	96.01%	95.32%	0.0002	0.0001
10.5	16,077,555	93.38%	95.51%	94.77%	0.0005	0.0002
11.5	15,955,683	92.36%	94.99%	94.21%	0.0007	0.0003
12.5	15,484,509	91.40%	94.44%	93.64%	0.0009	0.0005
13.5	15,194,777	90.56%	93.89%	93.06%	0.0011	0.0006
14.5	15,040,908	90.40%	93.31%	92.46%	0.0008	0.0004
15.5	6,499,745	89.63%	92.71%	91.86%	0.0009	0.0005
16.5	1,488,695	88.64%	92.09%	91.25%	0.0012	0.0007
17.5	1,214,486	84.63%	91.45%	90.63%	0.0047	0.0036
18.5	1,164,969	81.06%	90.79%	90.00%	0.0095	0.0080
19.5	7,683,016	75.41%	90.11%	89.36%	0.0216	0.0195
20.5	7,668,171	75.27%	89.40%	88.70%	0.0200	0.0180
21.5	7,626,495	75.23%	88.67%	88.04%	0.0181	0.0164
22.5	7,622,369	75.19%	87.91%	87.37%	0.0162	0.0148
23.5	7,449,105	74.43%	87.13%	86.68%	0.0161	0.0150
24.5	6,984,669	73.66%	86.31%	85.98%	0.0160	0.0152
25.5	6,786,241	73.62%	85.47%	85.27%	0.0140	0.0136
26.5	6,280,432	68.18%	84.60%	84.54%	0.0270	0.0268
27.5	6,077,755	68.18%	83.70%	83.80%	0.0241	0.0244
28.5	2,817,255	68.13%	82.76%	83.05%	0.0214	0.0223
29.5	2,302,209	68.07%	81.79%	82.28%	0.0188	0.0202
30.5	2,000,074	68.00%	80.79%	81.50%	0.0163	0.0182
31.5	1,711,928	67.90%	79.75%	80.70%	0.0140	0.0164
32.5	1,661,967	67.90%	78.67%	79.88%	0.0116	0.0144
33.5	1,589,105	67.89%	77.56%	79.05%	0.0093	0.0124
34.5	1,557,950	67.76%	76.40%	78.20%	0.0075	0.0109
35.5	1,545,243	67.43%	75.21%	77.33%	0.0061	0.0098
36.5	1,533,390	67.43%	73.98%	76.44%	0.0043	0.0081
37.5	1,480,445	67.15%	72.71%	75.54%	0.0031	0.0070
38.5	1,412,253	66.97%	71.40%	74.62%	0.0020	0.0058
39.5	1,310,426	64.35%	70.05%	73.67%	0.0032	0.0087
40.5	1,299,442	64.35%	68.65%	72.71%	0.0019	0.0070
41.5	920,734	64.35%	67.22%	71.73%	0.0008	0.0055
42.5	899,729	63.80%	65.74%	70.73%	0.0004	0.0048
43.5	839,365	63.73%	64.23%	69.72%	0.0000	0.0036
44.5	775,171	63.73%	62.67%	68.68%	0.0001	0.0024
45.5	519,321	63.73%	61.08%	67.62%	0.0007	0.0015

Account 320.30 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**Veolia R1.5-50**	**OCA R1-58**	**Veolia SSD**	**OCA SSD**
46.5	498,122	63.73%	59.44%	66.54%	0.0018	0.0008
47.5	464,597	62.27%	57.78%	65.45%	0.0020	0.0010
48.5	451,388	62.27%	56.07%	64.34%	0.0038	0.0004
49.5	454,443	62.27%	54.34%	63.20%	0.0063	0.0001
50.5	397,681	62.27%	52.58%	62.05%	0.0094	0.0000
51.5	388,963	60.91%	50.78%	60.88%	0.0103	0.0000
52.5	389,170	60.91%	48.97%	59.70%	0.0143	0.0001
53.5	387,336	60.91%	47.13%	58.50%	0.0190	0.0006
54.5	387,336	60.91%	45.28%	57.28%	0.0244	0.0013
55.5	387,336	60.91%	43.42%	56.04%	0.0306	0.0024
56.5	380,822	60.91%	41.55%	54.80%	0.0375	0.0037
57.5	186,860	60.91%	39.67%	53.53%	0.0451	0.0054
58.5	186,703	60.86%	37.80%	52.26%	0.0532	0.0074
59.5	175,388	60.21%	35.94%	50.97%	0.0589	0.0085
60.5	191,642	60.12%	34.08%	49.67%	0.0678	0.0109
61.5	196,595	60.12%	32.24%	48.36%	0.0777	0.0138
62.5	186,483	57.87%	30.43%	47.04%	0.0753	0.0117
63.5	131,734	57.87%	28.64%	45.71%	0.0854	0.0148
64.5	335,856	57.87%	26.89%	44.37%	0.0960	0.0182
65.5	335,856	57.87%	25.17%	43.03%	0.1069	0.0220
66.5	335,032	57.87%	23.50%	41.69%	0.1181	0.0262
67.5	334,130	57.75%	21.87%	40.34%	0.1287	0.0303
68.5	316,680	54.74%	20.29%	38.99%	0.1187	0.0248
69.5	312,845	54.08%	18.77%	37.64%	0.1247	0.0270
70.5	312,794	54.08%	17.30%	36.29%	0.1353	0.0317
71.5	296,674	53.90%	15.89%	34.94%	0.1445	0.0360
72.5	296,674	53.90%	14.54%	33.59%	0.1549	0.0412
73.5	292,821	53.20%	13.25%	32.26%	0.1596	0.0439
74.5	288,096	53.20%	12.03%	30.92%	0.1695	0.0496
75.5	287,443	53.07%	10.87%	29.60%	0.1781	0.0551
76.5	284,090	52.46%	9.78%	28.29%	0.1822	0.0584
77.5	283,937	52.43%	8.75%	26.99%	0.1908	0.0647
78.5	281,482	51.97%	7.78%	25.70%	0.1952	0.0690
79.5	281,482	51.97%	6.88%	24.43%	0.2033	0.0758
80.5	280,339	51.76%	6.05%	23.18%	0.2090	0.0817
81.5	280,339	51.76%	5.28%	21.94%	0.2161	0.0889
82.5	280,339	51.76%	4.57%	20.73%	0.2227	0.0963
83.5	279,539	51.62%	3.92%	19.53%	0.2275	0.1030
84.5	279,539	51.62%	3.34%	18.36%	0.2331	0.1106
85.5	261,039	48.20%	2.82%	17.22%	0.2060	0.0960
86.5	260,683	48.13%	2.35%	16.10%	0.2096	0.1026
87.5	249,609	46.09%	1.95%	15.02%	0.1949	0.0966
88.5	242,775	46.09%	1.59%	13.96%	0.1980	0.1032
89.5	242,775	46.09%	1.29%	12.94%	0.2007	0.1099
90.5	242,594	46.09%	1.04%	11.94%	0.2030	0.1166
91.5	242,527	46.09%	0.82%	10.99%	0.2049	0.1232
92.5	235,202	44.70%	0.64%	10.07%	0.1941	0.1199

Account 320.30 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**Veolia R1.5-50**	**OCA R1-58**	**Veolia SSD**	**OCA SSD**
93.5	30,580	5.81%	0.49%	9.19%	0.0028	0.0011
94.5	30,580	5.81%	0.36%	8.34%	0.0030	0.0006
95.5	30,580	5.81%	0.25%	7.54%	0.0031	0.0003
96.5	30,580	5.81%	0.16%	6.78%	0.0032	0.0001
97.5	30,372	5.77%	0.09%	6.06%	0.0032	0.0000
98.5	30,372	5.77%	0.04%	5.38%	0.0033	0.0000
99.5	30,372	5.77%	0.01%	4.75%	0.0033	0.0001
100.5	30,348	5.77%	0.00%	4.16%	0.0033	0.0003
101.5	30,348	5.77%	0.00%	3.61%	0.0033	0.0005
102.5	14,906	2.83%	0.00%	3.11%	0.0008	0.0000
103.5	14,906	2.83%	0.00%	2.65%	0.0008	0.0000
104.5	14,898	2.83%	0.00%	2.23%	0.0008	0.0000
105.5	4,951	0.94%	0.00%	1.86%	0.0001	0.0001
106.5			0.00%	1.53%		
Sum of Squared Differences (SSD)				[8]	6.0951	2.4667
SSD - Truncated OLT Curve				[9]	6.0640	2.4635

[1] Age in years using half-year convention

[2] Dollars exposed to retirement at the beginning of each age interval

[3] Observed life table based on the Company's property records. These numbers form the original survivor curve.

[4] The Company's selected Iowa curve to be fitted to the OLT.

[5] My selected Iowa curve to be fitted to the OLT.

[6] = ([4] - [3])^2. This is the squared difference between each point on the Company's curve and the observed survivor curve.

[7] = ([5] - [3])^2. This is the squared difference between each point on my curve and the observed survivor curve.

[8] = Sum of squared differences. The smallest SSD represents the best mathematical fit.

Account 320.31 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**Veolia L3-21**	**OCA R1.5-29**	**Veolia SSD**	**OCA SSD**
0.0	15,911,042	100.00%	100.00%	100.00%	0.0000	0.0000
0.5	15,913,623	100.00%	100.00%	99.69%	0.0000	0.0000
1.5	15,628,130	99.90%	100.00%	99.05%	0.0000	0.0001
2.5	15,265,978	99.78%	100.00%	98.36%	0.0000	0.0002
3.5	15,057,605	99.47%	99.97%	97.63%	0.0000	0.0003
4.5	14,852,404	99.09%	99.88%	96.85%	0.0001	0.0005
5.5	11,661,855	98.17%	99.70%	96.02%	0.0002	0.0005
6.5	11,315,297	96.61%	99.37%	95.14%	0.0008	0.0002
7.5	11,071,614	95.96%	98.86%	94.21%	0.0008	0.0003
8.5	10,847,049	95.62%	98.15%	93.22%	0.0006	0.0006
9.5	10,771,321	95.23%	97.17%	92.17%	0.0004	0.0009
10.5	4,805,993	93.57%	95.83%	91.06%	0.0005	0.0006
11.5	4,354,270	91.98%	94.00%	89.88%	0.0004	0.0004
12.5	4,061,393	90.28%	91.50%	88.63%	0.0001	0.0003
13.5	3,897,477	88.05%	88.18%	87.30%	0.0000	0.0001
14.5	3,766,480	85.47%	83.93%	85.90%	0.0002	0.0000
15.5	1,753,077	81.85%	78.76%	84.40%	0.0010	0.0006
16.5	878,983	72.26%	72.82%	82.81%	0.0000	0.0111
17.5	765,693	70.60%	66.36%	81.12%	0.0018	0.0111
18.5	595,212	61.32%	59.67%	79.32%	0.0003	0.0324
19.5	506,349	60.64%	53.06%	77.42%	0.0057	0.0282
20.5	457,346	59.10%	46.77%	75.40%	0.0152	0.0266
21.5	427,961	59.02%	40.99%	73.26%	0.0325	0.0203
22.5	406,488	58.38%	35.79%	71.01%	0.0510	0.0159
23.5	379,227	57.95%	31.19%	68.63%	0.0716	0.0114
24.5	362,755	57.95%	27.15%	66.13%	0.0949	0.0067
25.5	334,588	57.93%	23.59%	63.51%	0.1179	0.0031
26.5	316,860	57.93%	20.45%	60.77%	0.1405	0.0008
27.5	296,946	57.77%	17.65%	57.92%	0.1610	0.0000
28.5	294,257	57.77%	15.14%	54.97%	0.1817	0.0008
29.5	294,257	57.77%	12.88%	51.93%	0.2015	0.0034
30.5	288,182	57.45%	10.86%	48.81%	0.2171	0.0075
31.5	246,428	56.44%	9.04%	45.64%	0.2247	0.0117
32.5	221,824	54.35%	7.43%	42.42%	0.2202	0.0142
33.5	174,975	44.97%	6.01%	39.19%	0.1518	0.0033
34.5	126,020	41.30%	4.78%	35.97%	0.1334	0.0028
35.5	41,823	21.38%	3.73%	32.78%	0.0312	0.0130
36.5	117,898	19.29%	2.85%	29.66%	0.0270	0.0107
37.5	116,161	19.01%	2.12%	26.62%	0.0285	0.0058
38.5	116,877	18.99%	1.53%	23.70%	0.0305	0.0022
39.5	107,931	17.54%	1.07%	20.91%	0.0271	0.0011
40.5	103,137	16.34%	0.72%	18.28%	0.0244	0.0004
41.5	92,795	14.70%	0.46%	15.82%	0.0203	0.0001
42.5	88,785	14.07%	0.28%	13.54%	0.0190	0.0000
43.5	7,376	1.17%	0.16%	11.44%	0.0001	0.0106
44.5	6,793	1.08%	0.08%	9.54%	0.0001	0.0072
45.5	6,793	1.08%	0.04%	7.83%	0.0001	0.0046

Account 320.31 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**Veolia L3-21**	**OCA R1.5-29**	**Veolia SSD**	**OCA SSD**
46.5	6,793	1.08%	0.01%	6.32%	0.0001	0.0027
47.5	3,520	0.56%	0.00%	4.99%	0.0000	0.0020
48.5	2,032	0.32%	0.00%	3.85%	0.0000	0.0012
49.5	2,032	0.32%	0.00%	2.89%	0.0000	0.0007
50.5	2,132	0.32%	0.00%	2.11%	0.0000	0.0003
51.5	1,402	0.21%	0.00%	1.50%	0.0000	0.0002
52.5	589	0.09%	0.00%	1.03%	0.0000	0.0001
53.5	589	0.09%	0.00%	0.69%	0.0000	0.0000
54.5	589	0.09%	0.00%	0.43%	0.0000	0.0000
55.5	589	0.09%	0.00%	0.23%	0.0000	0.0000
56.5	589	0.09%	0.00%	0.09%	0.0000	0.0000
57.5	470	0.07%	0.00%	0.02%	0.0000	0.0000
58.5	470	0.07%	0.00%	0.00%	0.0000	0.0000
59.5	470	0.07%	0.00%	0.00%	0.0000	0.0000
60.5	447	0.07%	0.00%	0.00%	0.0000	0.0000
61.5	157	0.02%	0.00%	0.00%	0.0000	0.0000
62.5	157	0.02%	0.00%	0.00%	0.0000	0.0000
63.5	157	0.02%	0.00%	0.00%	0.0000	0.0000
64.5	100	0.02%	0.00%	0.00%	0.0000	0.0000
65.5	100	0.02%	0.00%	0.00%	0.0000	0.0000
66.5	100	0.02%	0.00%	0.00%	0.0000	0.0000
67.5	100	0.02%	0.00%	0.00%	0.0000	0.0000
68.5	100	0.02%	0.00%	0.00%	0.0000	0.0000
69.5	100	0.02%	0.00%	0.00%	0.0000	0.0000
70.5	100	0.02%	0.00%	0.00%	0.0000	0.0000
71.5	100	0.02%	0.00%	0.00%	0.0000	0.0000
72.5	100	0.02%	0.00%	0.00%	0.0000	0.0000
73.5	100	0.02%	0.00%	0.00%	0.0000	0.0000
74.5	100	0.02%	0.00%	0.00%	0.0000	0.0000
75.5	100	0.02%	0.00%	0.00%	0.0000	0.0000
76.5			0.00%	0.00%		
Sum of Squared Differences (SSD)				[8]	2.2365	0.2799
SSD - Truncated OLT Curve				[9]	2.2360	0.2504

[1] Age in years using half-year convention

[2] Dollars exposed to retirement at the beginning of each age interval

[3] Observed life table based on the Company's property records. These numbers form the original survivor curve.

[4] The Company's selected Iowa curve to be fitted to the OLT.

[5] My selected Iowa curve to be fitted to the OLT.

[6] = ([4] - [3])^2. This is the squared difference between each point on the Company's curve and the observed survivor curve.

[7] = ([5] - [3])^2. This is the squared difference between each point on my curve and the observed survivor curve.

[8] = Sum of squared differences. The smallest SSD represents the best mathematical fit.

Account 331.40 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**Veolia R3-80**	**OCA R2.5-88**	**Veolia SSD**	**OCA SSD**
0.0	213,643,665	100.00%	100.00%	100.00%	0.0000	0.0000
0.5	204,721,337	100.00%	99.99%	99.97%	0.0000	0.0000
1.5	194,763,117	99.98%	99.97%	99.90%	0.0000	0.0000
2.5	167,465,044	99.95%	99.95%	99.84%	0.0000	0.0000
3.5	153,346,169	99.92%	99.92%	99.77%	0.0000	0.0000
4.5	136,941,436	99.89%	99.89%	99.69%	0.0000	0.0000
5.5	127,895,698	99.85%	99.86%	99.61%	0.0000	0.0000
6.5	120,465,877	99.77%	99.83%	99.53%	0.0000	0.0000
7.5	113,237,614	99.75%	99.79%	99.45%	0.0000	0.0000
8.5	110,248,789	99.62%	99.75%	99.36%	0.0000	0.0000
9.5	104,800,045	99.59%	99.71%	99.27%	0.0000	0.0000
10.5	98,889,376	99.55%	99.66%	99.17%	0.0000	0.0000
11.5	92,410,974	99.43%	99.60%	99.07%	0.0000	0.0000
12.5	87,719,629	99.41%	99.54%	98.96%	0.0000	0.0000
13.5	81,909,429	99.40%	99.48%	98.85%	0.0000	0.0000
14.5	76,680,299	99.38%	99.41%	98.73%	0.0000	0.0000
15.5	70,989,950	99.37%	99.34%	98.61%	0.0000	0.0001
16.5	67,128,717	99.13%	99.26%	98.48%	0.0000	0.0000
17.5	63,974,811	98.86%	99.17%	98.35%	0.0000	0.0000
18.5	59,414,336	98.50%	99.08%	98.21%	0.0000	0.0000
19.5	56,193,694	97.02%	98.97%	98.06%	0.0004	0.0001
20.5	51,990,451	95.83%	98.86%	97.91%	0.0009	0.0004
21.5	49,001,886	94.88%	98.75%	97.75%	0.0015	0.0008
22.5	45,714,625	94.56%	98.62%	97.59%	0.0016	0.0009
23.5	42,461,872	94.33%	98.49%	97.42%	0.0017	0.0010
24.5	40,612,725	94.24%	98.34%	97.24%	0.0017	0.0009
25.5	39,061,761	94.24%	98.19%	97.05%	0.0016	0.0008
26.5	37,098,628	94.15%	98.02%	96.85%	0.0015	0.0007
27.5	34,710,826	94.07%	97.84%	96.65%	0.0014	0.0007
28.5	32,935,548	93.85%	97.65%	96.43%	0.0014	0.0007
29.5	31,916,852	93.72%	97.45%	96.21%	0.0014	0.0006
30.5	29,624,793	93.62%	97.24%	95.98%	0.0013	0.0006
31.5	27,335,652	93.55%	97.01%	95.74%	0.0012	0.0005
32.5	25,044,610	93.53%	96.77%	95.49%	0.0011	0.0004
33.5	22,885,992	93.50%	96.52%	95.23%	0.0009	0.0003
34.5	19,899,139	93.46%	96.25%	94.96%	0.0008	0.0002
35.5	19,003,846	93.43%	95.96%	94.68%	0.0006	0.0002
36.5	15,262,836	93.37%	95.66%	94.38%	0.0005	0.0001
37.5	14,387,640	93.25%	95.34%	94.08%	0.0004	0.0001
38.5	14,009,750	93.20%	95.00%	93.76%	0.0003	0.0000
39.5	13,322,561	92.74%	94.65%	93.43%	0.0004	0.0000
40.5	12,907,784	92.67%	94.28%	93.09%	0.0003	0.0000
41.5	12,291,314	92.52%	93.88%	92.74%	0.0002	0.0000
42.5	11,869,017	92.50%	93.47%	92.37%	0.0001	0.0000
43.5	10,636,110	92.25%	93.03%	91.99%	0.0001	0.0000
44.5	10,028,694	92.16%	92.58%	91.60%	0.0000	0.0000
45.5	9,671,683	92.02%	92.10%	91.19%	0.0000	0.0001

Account 331.40 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**Veolia R3-80**	**OCA R2.5-88**	**Veolia SSD**	**OCA SSD**
46.5	8,786,008	91.71%	91.60%	90.76%	0.0000	0.0001
47.5	8,323,560	91.61%	91.07%	90.32%	0.0000	0.0002
48.5	7,557,418	91.53%	90.52%	89.87%	0.0001	0.0003
49.5	7,152,266	91.43%	89.94%	89.40%	0.0002	0.0004
50.5	6,773,275	91.11%	89.34%	88.91%	0.0003	0.0005
51.5	5,076,869	90.92%	88.71%	88.40%	0.0005	0.0006
52.5	4,696,592	90.41%	88.04%	87.88%	0.0006	0.0006
53.5	4,502,183	90.02%	87.36%	87.34%	0.0007	0.0007
54.5	4,156,794	87.67%	86.63%	86.78%	0.0001	0.0001
55.5	3,864,005	86.61%	85.88%	86.21%	0.0001	0.0000
56.5	3,651,942	85.93%	85.09%	85.61%	0.0001	0.0000
57.5	3,090,713	85.16%	84.27%	84.99%	0.0001	0.0000
58.5	2,814,441	84.16%	83.42%	84.36%	0.0001	0.0000
59.5	2,821,656	83.88%	82.52%	83.70%	0.0002	0.0000
60.5	2,599,661	83.06%	81.59%	83.02%	0.0002	0.0000
61.5	2,304,668	83.01%	80.63%	82.32%	0.0006	0.0000
62.5	2,064,253	82.73%	79.62%	81.60%	0.0010	0.0001
63.5	1,956,096	82.64%	78.57%	80.85%	0.0017	0.0003
64.5	1,773,124	82.59%	77.47%	80.08%	0.0026	0.0006
65.5	1,653,153	82.50%	76.34%	79.29%	0.0038	0.0010
66.5	1,632,448	82.36%	75.16%	78.47%	0.0052	0.0015
67.5	1,563,716	82.34%	73.93%	77.63%	0.0071	0.0022
68.5	1,516,678	82.17%	72.66%	76.76%	0.0090	0.0029
69.5	1,292,455	74.11%	71.34%	75.87%	0.0008	0.0003
70.5	1,247,588	73.82%	69.98%	74.95%	0.0015	0.0001
71.5	1,153,970	73.61%	68.56%	74.00%	0.0025	0.0000
72.5	1,145,544	73.46%	67.10%	73.02%	0.0040	0.0000
73.5	1,074,415	72.93%	65.60%	72.02%	0.0054	0.0001
74.5	1,044,053	72.76%	64.05%	70.99%	0.0076	0.0003
75.5	1,020,001	72.51%	62.45%	69.93%	0.0101	0.0007
76.5	1,014,019	72.35%	60.81%	68.85%	0.0133	0.0012
77.5	1,020,381	71.90%	59.12%	67.73%	0.0163	0.0017
78.5	1,029,673	71.75%	57.40%	66.59%	0.0206	0.0027
79.5	1,015,574	71.71%	55.63%	65.41%	0.0258	0.0040
80.5	1,004,853	71.58%	53.84%	64.21%	0.0315	0.0054
81.5	733,220	71.43%	52.01%	62.99%	0.0377	0.0071
82.5	702,393	71.33%	50.15%	61.73%	0.0449	0.0092
83.5	677,699	70.42%	48.27%	60.45%	0.0491	0.0099
84.5	654,028	69.98%	46.36%	59.15%	0.0558	0.0117
85.5	648,451	69.78%	44.45%	57.81%	0.0642	0.0143
86.5	625,809	68.07%	42.52%	56.46%	0.0653	0.0135
87.5	644,849	68.00%	40.58%	55.08%	0.0752	0.0167
88.5	640,598	67.96%	38.65%	53.68%	0.0859	0.0204
89.5	599,308	67.59%	36.73%	52.26%	0.0952	0.0235
90.5	590,192	67.54%	34.82%	50.83%	0.1071	0.0279
91.5	578,964	67.41%	32.92%	49.37%	0.1189	0.0325
92.5	494,857	67.26%	31.05%	47.91%	0.1311	0.0374

Account 331.40 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**Veolia R3-80**	**OCA R2.5-88**	**Veolia SSD**	**OCA SSD**
93.5	473,091	66.92%	29.21%	46.43%	0.1422	0.0420
94.5	431,735	66.65%	27.41%	44.94%	0.1540	0.0471
95.5	421,326	66.11%	25.65%	43.45%	0.1637	0.0513
96.5	358,363	65.33%	23.93%	41.96%	0.1714	0.0546
97.5	340,595	65.32%	22.27%	40.46%	0.1854	0.0618
98.5	331,957	63.86%	20.66%	38.96%	0.1867	0.0620
99.5	329,905	63.81%	19.11%	37.47%	0.1998	0.0694
100.5	326,131	63.39%	17.62%	35.99%	0.2095	0.0751
101.5	316,963	63.19%	16.19%	34.52%	0.2209	0.0822
102.5	313,643	62.89%	14.83%	33.06%	0.2309	0.0890
103.5	308,386	61.86%	13.55%	31.61%	0.2334	0.0915
104.5	304,630	61.23%	12.33%	30.19%	0.2391	0.0964
105.5	302,465	61.04%	11.17%	28.79%	0.2487	0.1040
106.5	298,139	60.70%	10.09%	27.41%	0.2561	0.1108
107.5	273,052	60.49%	9.08%	26.06%	0.2643	0.1186
108.5	269,762	59.99%	8.14%	24.73%	0.2689	0.1243
109.5	249,432	59.93%	7.26%	23.44%	0.2774	0.1331
110.5	239,279	57.59%	6.44%	22.19%	0.2616	0.1253
111.5	233,929	57.22%	5.69%	20.96%	0.2655	0.1315
112.5	183,810	56.56%	5.00%	19.77%	0.2659	0.1353
113.5	117,985	52.42%	4.36%	18.62%	0.2310	0.1142
114.5	113,834	50.58%	3.78%	17.51%	0.2190	0.1093
115.5	104,723	46.53%	3.26%	16.44%	0.1873	0.0905
116.5	95,680	42.51%	2.78%	15.41%	0.1579	0.0734
117.5	90,935	40.40%	2.35%	14.42%	0.1448	0.0675
118.5	84,149	37.39%	1.96%	13.47%	0.1255	0.0572
119.5	82,291	36.56%	1.63%	12.56%	0.1220	0.0576
120.5	39,799	17.68%	1.33%	11.69%	0.0267	0.0036
121.5	18,962	8.43%	1.06%	10.86%	0.0054	0.0006
122.5	12,851	5.71%	0.84%	10.07%	0.0024	0.0019
123.5	9,302	4.13%	0.65%	9.32%	0.0012	0.0027
124.5	8,772	3.90%	0.49%	8.61%	0.0012	0.0022
125.5	7,591	3.37%	0.36%	7.93%	0.0009	0.0021
126.5	6,816	3.03%	0.25%	7.29%	0.0008	0.0018
127.5	5,854	2.60%	0.17%	6.69%	0.0006	0.0017
128.5	5,854	2.60%	0.11%	6.12%	0.0006	0.0012
129.5	5,854	2.60%	0.06%	5.59%	0.0006	0.0009
130.5	5,854	2.60%	0.03%	5.09%	0.0007	0.0006
131.5	5,854	2.60%	0.02%	4.62%	0.0007	0.0004
132.5	5,854	2.60%	0.01%	4.19%	0.0007	0.0003
133.5	5,854	2.60%	0.00%	3.78%	0.0007	0.0001
134.5	5,854	2.60%	0.00%	3.40%	0.0007	0.0001
135.5	4,514	2.01%	0.00%	3.05%	0.0004	0.0001
136.5			0.00%	2.73%		
Sum of Squared Differences (SSD)				[8]	6.8044	2.6590

Account 331.40 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**Veolia R3-80**	**OCA R2.5-88**	**Veolia SSD**	**OCA SSD**
SSD - Truncated OLT Curve				[9]	0.0575	0.0227

[1] Age in years using half-year convention

[2] Dollars exposed to retirement at the beginning of each age interval

[3] Observed life table based on the Company's property records. These numbers form the original survivor curve.

[4] The Company's selected Iowa curve to be fitted to the OLT.

[5] My selected Iowa curve to be fitted to the OLT.

[6] = ([4] - [3])^2. This is the squared difference between each point on the Company's curve and the observed survivor curve.

[7] = ([5] - [3])^2. This is the squared difference between each point on my curve and the observed survivor curve.

[8] = Sum of squared differences. The smallest SSD represents the best mathematical fit.

Account 304.50 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**Veolia R1.5-45**	**OCA R1-54**	**Veolia SSD**	**OCA SSD**
0.0	12,772,424	100.00%	100.00%	100.00%	0.0000	0.0000
0.5	12,508,239	100.00%	99.80%	99.76%	0.0000	0.0000
1.5	12,367,012	99.92%	99.40%	99.27%	0.0000	0.0000
2.5	12,278,840	99.90%	98.98%	98.77%	0.0001	0.0001
3.5	12,104,729	99.63%	98.53%	98.26%	0.0001	0.0002
4.5	11,715,235	99.39%	98.07%	97.74%	0.0002	0.0003
5.5	2,792,037	98.76%	97.60%	97.20%	0.0001	0.0002
6.5	2,743,923	98.69%	97.10%	96.65%	0.0003	0.0004
7.5	2,710,127	98.54%	96.58%	96.09%	0.0004	0.0006
8.5	2,680,209	98.31%	96.04%	95.52%	0.0005	0.0008
9.5	2,627,926	98.11%	95.48%	94.93%	0.0007	0.0010
10.5	2,592,109	97.87%	94.90%	94.33%	0.0009	0.0013
11.5	2,556,034	97.79%	94.29%	93.72%	0.0012	0.0017
12.5	2,536,801	97.18%	93.66%	93.10%	0.0012	0.0017
13.5	2,502,224	96.75%	93.01%	92.46%	0.0014	0.0018
14.5	2,382,316	93.22%	92.33%	91.82%	0.0001	0.0002
15.5	2,395,395	92.83%	91.63%	91.16%	0.0001	0.0003
16.5	2,334,739	90.43%	90.90%	90.49%	0.0000	0.0000
17.5	2,336,696	90.06%	90.15%	89.81%	0.0000	0.0000
18.5	948,826	89.76%	89.36%	89.12%	0.0000	0.0000
19.5	844,882	84.99%	88.54%	88.41%	0.0013	0.0012
20.5	744,740	84.39%	87.70%	87.69%	0.0011	0.0011
21.5	729,166	82.83%	86.81%	86.96%	0.0016	0.0017
22.5	634,087	81.45%	85.90%	86.21%	0.0020	0.0023
23.5	619,671	81.26%	84.94%	85.45%	0.0014	0.0018
24.5	510,755	81.03%	83.95%	84.68%	0.0009	0.0013
25.5	487,715	80.86%	82.92%	83.88%	0.0004	0.0009
26.5	483,343	80.80%	81.84%	83.08%	0.0001	0.0005
27.5	482,879	80.72%	80.73%	82.25%	0.0000	0.0002
28.5	408,472	76.48%	79.57%	81.41%	0.0010	0.0024
29.5	407,567	76.48%	78.36%	80.55%	0.0004	0.0017
30.5	389,964	75.66%	77.11%	79.66%	0.0002	0.0016
31.5	350,843	75.51%	75.81%	78.76%	0.0000	0.0011
32.5	350,304	75.48%	74.47%	77.84%	0.0001	0.0006
33.5	331,115	73.69%	73.07%	76.90%	0.0000	0.0010
34.5	311,730	72.23%	71.62%	75.94%	0.0000	0.0014
35.5	308,510	72.23%	70.12%	74.96%	0.0004	0.0007
36.5	119,630	72.23%	68.57%	73.95%	0.0013	0.0003
37.5	115,898	72.07%	66.97%	72.93%	0.0026	0.0001
38.5	86,271	68.42%	65.32%	71.88%	0.0010	0.0012
39.5	84,315	67.96%	63.63%	70.81%	0.0019	0.0008
40.5	82,271	67.47%	61.88%	69.72%	0.0031	0.0005
41.5	82,084	67.47%	60.08%	68.60%	0.0055	0.0001
42.5	80,954	67.47%	58.24%	67.46%	0.0085	0.0000
43.5	80,420	66.60%	56.36%	66.30%	0.0105	0.0000
44.5	79,302	66.29%	54.44%	65.12%	0.0141	0.0001
45.5	78,886	66.29%	52.48%	63.92%	0.0191	0.0006

Account 304.50 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**Veolia R1.5-45**	**OCA R1-54**	**Veolia SSD**	**OCA SSD**
46.5	74,914	66.24%	50.48%	62.69%	0.0248	0.0013
47.5	49,875	66.24%	48.46%	61.45%	0.0316	0.0023
48.5	48,744	66.24%	46.42%	60.18%	0.0393	0.0037
49.5	32,208	65.90%	44.35%	58.90%	0.0464	0.0049
50.5	18,272	65.90%	42.28%	57.60%	0.0558	0.0069
51.5	18,272	65.90%	40.20%	56.27%	0.0661	0.0093
52.5	17,029	65.90%	38.11%	54.93%	0.0772	0.0120
53.5	12,186	65.90%	36.04%	53.58%	0.0892	0.0152
54.5	12,029	65.05%	33.98%	52.21%	0.0965	0.0165
55.5	12,029	65.05%	31.94%	50.82%	0.1096	0.0202
56.5	1,224	65.05%	29.93%	49.43%	0.1233	0.0244
57.5	1,224	65.05%	27.96%	48.02%	0.1376	0.0290
58.5	2,607	65.05%	26.03%	46.60%	0.1523	0.0341
59.5	2,607	65.05%	24.15%	45.17%	0.1673	0.0395
60.5	1,474	65.05%	22.32%	43.73%	0.1826	0.0455
61.5	1,474	65.05%	20.55%	42.29%	0.1980	0.0518
62.5	2,209	65.05%	18.85%	40.84%	0.2134	0.0586
63.5	2,209	65.05%	17.22%	39.39%	0.2288	0.0659
64.5	2,209	65.05%	15.66%	37.94%	0.2439	0.0735
65.5	2,209	65.05%	14.18%	36.49%	0.2588	0.0816
66.5	3,022	43.40%	12.77%	35.04%	0.0938	0.0070
67.5	3,022	43.40%	11.44%	33.59%	0.1021	0.0096
68.5	3,022	43.40%	10.20%	32.16%	0.1102	0.0126
69.5	3,022	43.40%	9.03%	30.73%	0.1181	0.0161
70.5	3,022	43.40%	7.94%	29.31%	0.1257	0.0199
71.5	3,022	43.40%	6.93%	27.90%	0.1330	0.0240
72.5	3,022	43.40%	6.00%	26.51%	0.1398	0.0285
73.5	2,931	42.09%	5.16%	25.13%	0.1364	0.0287
74.5	2,931	42.09%	4.38%	23.78%	0.1422	0.0335
75.5	1,383	42.09%	3.69%	22.44%	0.1475	0.0386
76.5	1,383	42.09%	3.07%	21.13%	0.1523	0.0439
77.5	1,383	42.09%	2.53%	19.84%	0.1565	0.0495
78.5	1,383	42.09%	2.05%	18.58%	0.1603	0.0553
79.5	1,383	42.09%	1.65%	17.35%	0.1635	0.0612
80.5	1,383	42.09%	1.31%	16.14%	0.1663	0.0673
81.5	1,383	42.09%	1.03%	14.98%	0.1686	0.0735
82.5	1,383	42.09%	0.79%	13.85%	0.1705	0.0798
83.5	1,383	42.09%	0.60%	12.75%	0.1721	0.0861
84.5	1,383	42.09%	0.44%	11.69%	0.1735	0.0924
85.5	1,383	42.09%	0.30%	10.68%	0.1746	0.0987
86.5	1,383	42.09%	0.19%	9.71%	0.1755	0.1049
87.5	1,383	42.09%	0.11%	8.78%	0.1763	0.1110
88.5	1,383	42.09%	0.05%	7.89%	0.1768	0.1169
89.5	1,383	42.09%	0.01%	7.06%	0.1771	0.1227
90.5	1,383	42.09%	0.00%	6.27%	0.1772	0.1283
91.5	1,383	42.09%	0.00%	5.53%	0.1772	0.1337
92.5	1,383	42.09%	0.00%	4.84%	0.1772	0.1388

Account 304.50 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**Veolia R1.5-45**	**OCA R1-54**	**Veolia SSD**	**OCA SSD**
93.5	1,383	42.09%	0.00%	4.20%	0.1772	0.1436
94.5	1,383	42.09%	0.00%	3.61%	0.1772	0.1481
95.5			0.00%	3.07%		
Sum of Squared Differences (SSD)				[8]	7.1270	2.7060
SSD - Truncated OLT Curve				[9]	2.6283	0.6319

[1] Age in years using half-year convention

[2] Dollars exposed to retirement at the beginning of each age interval

[3] Observed life table based on the Company's property records. These numbers form the original survivor curve.

[4] The Company's selected Iowa curve to be fitted to the OLT.

[5] My selected Iowa curve to be fitted to the OLT.

[6] = ([4] - [3])^2. This is the squared difference between each point on the Company's curve and the observed survivor curve.

[7] = ([5] - [3])^2. This is the squared difference between each point on my curve and the observed survivor curve.

[8] = Sum of squared differences. The smallest SSD represents the best mathematical fit.

Observed Life Table

Scenario: Veolia Pennsylvania @ 2021
Account: 304.2 Power &Pumping Strc
Placement Band: 1894 - 2021 **Observation Band:** 1955 - 2021

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
0	6,523,402.46	0.00	0.00000	1.00000	100.00
0.5	6,523,865.30	1,501.00	0.00023	0.99977	100.00
1.5	3,307,631.85	3,830.00	0.00116	0.99884	99.98
2.5	3,288,231.99	3,135.00	0.00095	0.99905	99.86
3.5	3,267,081.38	10,692.36	0.00327	0.99673	99.77
4.5	3,204,630.04	108,142.57	0.03375	0.96625	99.44
5.5	2,780,954.18	6,454.00	0.00232	0.99768	96.08
6.5	2,550,534.22	2,685.98	0.00105	0.99895	95.86
7.5	3,275,194.30	2,263.81	0.00069	0.99931	95.76
8.5	2,757,465.53	8,061.37	0.00292	0.99708	95.69
9.5	2,700,481.02	0.00	0.00000	1.00000	95.42
10.5	2,653,528.74	7,740.00	0.00292	0.99708	95.42
11.5	2,350,387.45	7,318.10	0.00311	0.99689	95.14
12.5	1,807,004.98	1,867.00	0.00103	0.99897	94.84
13.5	1,820,167.98	65,425.00	0.03594	0.96406	94.74
14.5	1,725,637.15	18,405.45	0.01067	0.98933	91.34
15.5	1,698,026.29	4,000.00	0.00236	0.99764	90.36
16.5	965,076.30	32,518.81	0.03370	0.96630	90.15
17.5	932,970.97	9,321.00	0.00999	0.99001	87.11
18.5	923,601.75	1,000.00	0.00108	0.99892	86.24
19.5	917,124.82	1,896.00	0.00207	0.99793	86.15
20.5	902,072.35	8,409.32	0.00932	0.99068	85.97
21.5	880,209.28	2,500.00	0.00284	0.99716	85.17
22.5	877,709.28	2,969.00	0.00338	0.99662	84.93
23.5	874,786.52	1,334.68	0.00153	0.99847	84.64
24.5	734,018.25	50.32	0.00007	0.99993	84.51
25.5	688,065.21	4,212.73	0.00612	0.99388	84.51
26.5	702,531.53	4,675.00	0.00665	0.99335	83.99
27.5	693,783.89	7,393.33	0.01066	0.98934	83.43
28.5	680,360.76	7,966.04	0.01171	0.98829	82.54
29.5	674,522.82	840.00	0.00125	0.99875	81.57
30.5	671,723.82	1,525.00	0.00227	0.99773	81.47
31.5	577,180.64	0.00	0.00000	1.00000	81.29
32.5	553,638.03	0.00	0.00000	1.00000	81.29
33.5	416,682.46	965.25	0.00232	0.99768	81.29
34.5	408,025.21	1,434.25	0.00352	0.99648	81.10
35.5	320,762.89	1,139.96	0.00355	0.99645	80.81
36.5	318,035.93	2,304.76	0.00725	0.99275	80.53
37.5	253,084.17	668.98	0.00264	0.99736	79.94
38.5	240,640.19	2,241.29	0.00931	0.99069	79.73
39.5	226,487.44	0.00	0.00000	1.00000	78.99
40.5	219,074.98	3,775.93	0.01724	0.98276	78.99
41.5	202,571.05	198.39	0.00098	0.99902	77.63
42.5	202,372.66	669.79	0.00331	0.99669	77.55
43.5	201,431.89	0.00	0.00000	1.00000	77.29
44.5	201,358.89	7,091.00	0.03522	0.96478	77.29
45.5	160,433.07	0.00	0.00000	1.00000	74.57
46.5	173,346.82	0.00	0.00000	1.00000	74.57
47.5	158,317.67	0.00	0.00000	1.00000	74.57
48.5	155,138.48	1,720.00	0.01109	0.98891	74.57
49.5	139,512.05	0.00	0.00000	1.00000	73.74
50.5	138,691.05	0.00	0.00000	1.00000	73.74
51.5	132,828.05	0.00	0.00000	1.00000	73.74
52.5	125,904.30	18.78	0.00015	0.99985	73.74

Observed Life Table

Scenario: Veolia Pennsylvania @ 2021
Account: 304.2 Power &Pumping Strc
Placement Band: 1894 - 2021 **Observation Band:** 1955 - 2021

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
53.5	125,885.52	0.00	0.00000	1.00000	73.73
54.5	130,199.72	150.00	0.00115	0.99885	73.73
55.5	124,177.40	0.00	0.00000	1.00000	73.65
56.5	123,279.93	0.00	0.00000	1.00000	73.65
57.5	113,362.45	0.00	0.00000	1.00000	73.65
58.5	116,597.01	1,300.00	0.01115	0.98885	73.65
59.5	114,966.81	600.00	0.00522	0.99478	72.83
60.5	116,725.77	0.00	0.00000	1.00000	72.45
61.5	116,571.58	0.00	0.00000	1.00000	72.45
62.5	114,488.69	20.00	0.00017	0.99983	72.45
63.5	113,836.58	0.00	0.00000	1.00000	72.44
64.5	113,274.32	0.00	0.00000	1.00000	72.44
65.5	113,120.63	0.00	0.00000	1.00000	72.44
66.5	113,120.63	0.00	0.00000	1.00000	72.44
67.5	112,905.03	399.00	0.00353	0.99647	72.44
68.5	112,506.03	685.00	0.00609	0.99391	72.18
69.5	111,030.14	14,880.80	0.13402	0.86598	71.74
70.5	96,149.34	0.00	0.00000	1.00000	62.13
71.5	93,169.26	0.00	0.00000	1.00000	62.13
72.5	93,169.26	0.00	0.00000	1.00000	62.13
73.5	93,169.26	0.00	0.00000	1.00000	62.13
74.5	93,169.26	773.00	0.00830	0.99170	62.13
75.5	91,968.89	0.00	0.00000	1.00000	61.61
76.5	90,231.64	0.00	0.00000	1.00000	61.61
77.5	90,004.51	0.00	0.00000	1.00000	61.61
78.5	90,004.51	0.00	0.00000	1.00000	61.61
79.5	90,004.51	0.00	0.00000	1.00000	61.61
80.5	89,941.51	0.00	0.00000	1.00000	61.61
81.5	88,069.48	555.00	0.00630	0.99370	61.61
82.5	87,514.48	-1,525.00	-0.01743	1.01743	61.22
83.5	89,039.48	0.00	0.00000	1.00000	62.29
84.5	88,574.48	250.00	0.00282	0.99718	62.29
85.5	88,324.48	0.00	0.00000	1.00000	62.11
86.5	88,324.48	0.00	0.00000	1.00000	62.11
87.5	88,324.48	100.00	0.00113	0.99887	62.11
88.5	88,181.81	0.00	0.00000	1.00000	62.04
89.5	88,181.81	5,929.56	0.06724	0.93276	62.04
90.5	82,042.85	7,982.36	0.09730	0.90270	57.87
91.5	74,060.49	1,299.78	0.01755	0.98245	52.24
92.5	72,760.71	985.10	0.01354	0.98646	51.32
93.5	53,135.44	0.00	0.00000	1.00000	50.63
94.5	53,135.44	6,690.03	0.12591	0.87409	50.63
95.5	46,445.41	275.97	0.00594	0.99406	44.25
96.5	46,169.44	4,224.05	0.09149	0.90851	43.99
97.5	41,945.39	0.00	0.00000	1.00000	39.97
98.5	41,945.39	0.00	0.00000	1.00000	39.97
99.5	41,945.39	0.00	0.00000	1.00000	39.97
100.5	41,945.39	0.00	0.00000	1.00000	39.97
101.5	41,945.39	0.00	0.00000	1.00000	39.97
102.5	41,945.39	0.00	0.00000	1.00000	39.97
103.5	41,945.39	0.00	0.00000	1.00000	39.97
104.5	41,945.39	0.00	0.00000	1.00000	39.97
105.5	41,945.39	0.00	0.00000	1.00000	39.97
106.5	41,945.39	0.00	0.00000	1.00000	39.97

Observed Life Table

Scenario: Veolia Pennsylvania @ 2021
Account: 304.2 Power &Pumping Strc
Placement Band: 1894 - 2021 **Observation Band:** 1955 - 2021

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
107.5	41,945.39	6,163.06	0.14693	0.85307	39.97
108.5	35,782.33	13,405.57	0.37464	0.62536	34.09
109.5	22,376.76	3,636.94	0.16253	0.83747	21.32
110.5	18,739.82	0.00	0.00000	1.00000	17.86
111.5	18,739.82	0.00	0.00000	1.00000	17.86
112.5	18,739.82	0.00	0.00000	1.00000	17.86
113.5	18,739.82	0.00	0.00000	1.00000	17.86
114.5	18,739.82	11,559.50	0.61684	0.38316	17.86
115.5	7,180.32	0.00	0.00000	1.00000	6.84
116.5	7,180.32	0.00	0.00000	1.00000	6.84
117.5	7,180.32	0.00	0.00000	1.00000	6.84
118.5	7,180.32	3,234.56	0.45048	0.54952	6.84
119.5	3,945.76	0.00	0.00000	1.00000	3.76
120.5	3,945.76	3,945.76	1.00000	0.00000	3.76
121.5	0.00	0.00	0.00000	1.00000	0.00

Observed Life Table

Scenario: Veolia Pennsylvania @ 2021
Account: 311.2 Elec. Pumping Equip
Placement Band: 1894 - 2021 **Observation Band:** 1955 - 2021

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
0	21,317,603.14	24,999.18	0.00117	0.99883	100.00
0.5	21,289,470.46	129,799.30	0.00610	0.99390	99.88
1.5	19,534,940.64	395,376.04	0.02024	0.97976	99.27
2.5	18,449,985.99	154,646.61	0.00838	0.99162	97.27
3.5	18,031,861.70	196,243.36	0.01088	0.98912	96.45
4.5	16,805,412.01	317,553.30	0.01890	0.98110	95.40
5.5	10,149,247.80	174,311.82	0.01717	0.98283	93.60
6.5	9,788,051.27	89,095.18	0.00910	0.99090	91.99
7.5	8,691,992.87	307,192.73	0.03534	0.96466	91.15
8.5	8,417,998.45	148,327.57	0.01762	0.98238	87.93
9.5	8,215,530.03	226,726.25	0.02760	0.97240	86.38
10.5	7,867,500.28	265,201.66	0.03371	0.96629	84.00
11.5	7,222,251.12	253,124.42	0.03505	0.96495	81.17
12.5	6,781,424.53	142,879.02	0.02107	0.97893	78.32
13.5	6,587,545.04	213,698.76	0.03244	0.96756	76.67
14.5	6,339,242.32	228,837.76	0.03610	0.96390	74.19
15.5	5,093,210.31	134,402.15	0.02639	0.97361	71.51
16.5	4,895,145.86	139,963.63	0.02859	0.97141	69.62
17.5	4,710,103.85	94,658.21	0.02010	0.97990	67.63
18.5	4,494,793.05	68,002.84	0.01513	0.98487	66.27
19.5	4,338,152.89	146,163.95	0.03369	0.96631	65.27
20.5	4,035,638.44	20,932.16	0.00519	0.99481	63.07
21.5	3,932,137.56	79,276.21	0.02016	0.97984	62.74
22.5	3,628,590.12	42,921.90	0.01183	0.98817	61.48
23.5	3,240,028.07	16,977.63	0.00524	0.99476	60.75
24.5	2,965,583.45	20,292.73	0.00684	0.99316	60.43
25.5	2,864,981.80	6,251.59	0.00218	0.99782	60.02
26.5	2,812,607.05	18,775.70	0.00668	0.99332	59.89
27.5	2,624,082.69	7,061.85	0.00269	0.99731	59.49
28.5	2,088,067.99	5,733.48	0.00275	0.99725	59.33
29.5	2,042,512.51	28,746.00	0.01407	0.98593	59.17
30.5	1,998,761.15	1,533.23	0.00077	0.99923	58.33
31.5	1,728,379.99	12,125.45	0.00702	0.99298	58.29
32.5	1,539,066.55	31,800.39	0.02066	0.97934	57.88
33.5	1,318,336.16	28,119.22	0.02133	0.97867	56.68
34.5	1,214,157.94	6,428.53	0.00529	0.99471	55.48
35.5	1,109,177.32	1,245.20	0.00112	0.99888	55.18
36.5	996,396.98	16,559.21	0.01662	0.98338	55.12
37.5	606,411.18	190.07	0.00031	0.99969	54.20
38.5	577,415.11	6,858.94	0.01188	0.98812	54.19
39.5	414,599.80	44,650.80	0.10770	0.89230	53.54
40.5	331,309.00	75,590.34	0.22816	0.77184	47.78
41.5	149,966.48	7,166.87	0.04779	0.95221	36.88
42.5	142,799.61	10,344.19	0.07244	0.92756	35.11
43.5	132,455.42	10,712.57	0.08088	0.91912	32.57
44.5	121,742.85	5,682.00	0.04667	0.95333	29.94
45.5	116,060.85	3,276.00	0.02823	0.97177	28.54
46.5	112,784.85	1,069.15	0.00948	0.99052	27.73
47.5	111,715.70	14,325.56	0.12823	0.87177	27.47
48.5	97,390.14	24,862.90	0.25529	0.74471	23.95
49.5	72,527.24	4,581.06	0.06316	0.93684	17.83
50.5	67,946.18	5,070.49	0.07463	0.92537	16.71
51.5	62,875.69	19,723.63	0.31369	0.68631	15.46
52.5	43,152.06	6,863.27	0.15905	0.84095	10.61

Observed Life Table

Scenario: Veolia Pennsylvania @ 2021
Account: 311.2 Elec. Pumping Equip
Placement Band: 1894 - 2021 **Observation Band:** 1955 - 2021

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
53.5	36,288.79	5,654.26	0.15581	0.84419	8.92
54.5	30,634.53	63.00	0.00206	0.99794	7.53
55.5	30,571.53	689.20	0.02254	0.97746	7.52
56.5	29,882.33	2,796.21	0.09357	0.90643	7.35
57.5	27,086.12	418.54	0.01545	0.98455	6.66
58.5	26,667.58	54.00	0.00202	0.99798	6.56
59.5	26,613.58	1,535.26	0.05769	0.94231	6.54
60.5	26,497.00	531.22	0.02005	0.97995	6.17
61.5	25,965.78	0.00	0.00000	1.00000	6.04
62.5	25,965.78	56.00	0.00216	0.99784	6.04
63.5	25,909.78	8.20	0.00032	0.99968	6.03
64.5	25,901.58	12,152.80	0.46919	0.53081	6.03
65.5	13,748.78	0.00	0.00000	1.00000	3.20
66.5	13,748.78	0.00	0.00000	1.00000	3.20
67.5	13,748.78	67.68	0.00492	0.99508	3.20
68.5	13,681.10	356.23	0.02604	0.97396	3.18
69.5	13,324.87	2,200.36	0.16513	0.83487	3.10
70.5	11,124.51	0.00	0.00000	1.00000	2.59
71.5	11,124.51	178.16	0.01602	0.98398	2.59
72.5	10,946.35	0.00	0.00000	1.00000	2.55
73.5	10,946.35	138.00	0.01261	0.98739	2.55
74.5	10,808.35	0.00	0.00000	1.00000	2.52
75.5	10,808.35	0.00	0.00000	1.00000	2.52
76.5	10,808.35	0.00	0.00000	1.00000	2.52
77.5	10,808.35	0.00	0.00000	1.00000	2.52
78.5	10,808.35	0.11	0.00001	0.99999	2.52
79.5	10,808.24	0.00	0.00000	1.00000	2.52
80.5	10,808.24	0.00	0.00000	1.00000	2.52
81.5	10,808.24	0.00	0.00000	1.00000	2.52
82.5	10,808.24	0.00	0.00000	1.00000	2.52
83.5	10,808.24	0.36	0.00003	0.99997	2.52
84.5	10,807.88	0.00	0.00000	1.00000	2.52
85.5	10,807.88	0.00	0.00000	1.00000	2.52
86.5	10,807.88	1,003.84	0.09288	0.90712	2.52
87.5	9,804.04	128.30	0.01309	0.98691	2.28
88.5	9,675.74	1,024.23	0.10586	0.89414	2.25
89.5	8,651.51	27.57	0.00319	0.99681	2.01
90.5	8,623.94	0.18	0.00002	0.99998	2.01
91.5	8,623.76	0.00	0.00000	1.00000	2.01
92.5	8,623.76	0.00	0.00000	1.00000	2.01
93.5	8,623.76	7,232.40	0.83866	0.16134	2.01
94.5	1,391.36	6.70	0.00482	0.99518	0.32
95.5	1,384.66	113.25	0.08179	0.91821	0.32
96.5	1,271.41	0.00	0.00000	1.00000	0.30
97.5	1,271.41	0.00	0.00000	1.00000	0.30
98.5	1,271.41	0.00	0.00000	1.00000	0.30
99.5	1,271.41	0.00	0.00000	1.00000	0.30
100.5	1,271.41	0.00	0.00000	1.00000	0.30
101.5	1,271.41	0.00	0.00000	1.00000	0.30
102.5	1,271.41	0.00	0.00000	1.00000	0.30
103.5	1,271.41	0.00	0.00000	1.00000	0.30
104.5	1,271.41	0.00	0.00000	1.00000	0.30
105.5	1,271.41	720.00	0.56630	0.43370	0.30
106.5	551.41	0.00	0.00000	1.00000	0.13

Observed Life Table

Scenario: Veolia Pennsylvania @ 2021
Account: 311.2 Elec. Pumping Equip
Placement Band: 1894 - 2021 **Observation Band:** 1955 - 2021

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
107.5	551.41	0.00	0.00000	1.00000	0.13
108.5	551.41	0.00	0.00000	1.00000	0.13
109.5	551.41	0.00	0.00000	1.00000	0.13
110.5	551.41	0.00	0.00000	1.00000	0.13
111.5	551.41	0.00	0.00000	1.00000	0.13
112.5	551.41	0.00	0.00000	1.00000	0.13
113.5	551.41	0.00	0.00000	1.00000	0.13
114.5	551.41	0.00	0.00000	1.00000	0.13
115.5	551.41	0.00	0.00000	1.00000	0.13
116.5	551.41	0.00	0.00000	1.00000	0.13
117.5	551.41	0.00	0.00000	1.00000	0.13
118.5	551.41	0.00	0.00000	1.00000	0.13
119.5	551.41	0.00	0.00000	1.00000	0.13
120.5	551.41	551.41	1.00000	0.00000	0.13
121.5	0.00	0.00	0.00000	1.00000	0.00

Observed Life Table

Scenario: Veolia Pennsylvania @ 2021
Account: 320.3 Water Treatment Equ
Placement Band: 1905 - 2021 **Observation Band:** 1970 - 2021

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
0	29,319,757.15	12,766.00	0.00044	0.99956	100.00
0.5	27,638,088.72	48,716.28	0.00176	0.99824	99.96
1.5	26,604,033.13	75,763.08	0.00285	0.99715	99.78
2.5	26,410,734.90	72,525.00	0.00275	0.99725	99.50
3.5	25,411,913.80	76,103.83	0.00299	0.99701	99.22
4.5	25,287,297.27	99,129.63	0.00392	0.99608	98.93
5.5	12,940,955.16	183,813.18	0.01420	0.98580	98.54
6.5	12,529,822.52	46,358.36	0.00370	0.99630	97.14
7.5	12,420,376.90	116,433.63	0.00937	0.99063	96.78
8.5	12,387,082.60	181,528.57	0.01465	0.98535	95.87
9.5	12,144,573.82	140,170.15	0.01154	0.98846	94.47
10.5	16,077,555.20	174,524.39	0.01086	0.98914	93.38
11.5	15,955,683.23	165,889.40	0.01040	0.98960	92.36
12.5	15,484,508.55	143,201.68	0.00925	0.99075	91.40
13.5	15,194,776.78	27,250.25	0.00179	0.99821	90.56
14.5	15,040,907.90	127,451.10	0.00847	0.99153	90.40
15.5	6,499,744.66	71,658.28	0.01102	0.98898	89.63
16.5	1,488,694.52	67,427.93	0.04529	0.95471	88.64
17.5	1,214,485.80	51,135.00	0.04210	0.95790	84.63
18.5	1,164,968.63	81,209.00	0.06971	0.93029	81.06
19.5	7,683,015.55	14,844.87	0.00193	0.99807	75.41
20.5	7,668,170.68	4,000.00	0.00052	0.99948	75.27
21.5	7,626,494.58	3,827.82	0.00050	0.99950	75.23
22.5	7,622,369.21	76,655.66	0.01006	0.98994	75.19
23.5	7,449,104.57	77,119.00	0.01035	0.98965	74.43
24.5	6,984,669.21	4,364.00	0.00062	0.99938	73.66
25.5	6,786,241.21	501,146.00	0.07385	0.92615	73.62
26.5	6,280,432.21	0.00	0.00000	1.00000	68.18
27.5	6,077,755.21	4,072.34	0.00067	0.99933	68.18
28.5	2,817,254.87	2,800.00	0.00099	0.99901	68.13
29.5	2,302,208.87	2,283.39	0.00099	0.99901	68.07
30.5	2,000,074.48	2,970.00	0.00148	0.99852	68.00
31.5	1,711,927.91	0.00	0.00000	1.00000	67.90
32.5	1,661,966.91	219.74	0.00013	0.99987	67.90
33.5	1,589,105.17	3,000.00	0.00189	0.99811	67.89
34.5	1,557,950.17	7,761.03	0.00498	0.99502	67.76
35.5	1,545,242.95	0.00	0.00000	1.00000	67.43
36.5	1,533,390.40	6,225.01	0.00406	0.99594	67.43
37.5	1,480,445.39	4,041.51	0.00273	0.99727	67.15
38.5	1,412,253.12	55,259.10	0.03913	0.96087	66.97
39.5	1,310,425.66	0.00	0.00000	1.00000	64.35
40.5	1,299,442.32	0.00	0.00000	1.00000	64.35
41.5	920,733.98	7,808.00	0.00848	0.99152	64.35
42.5	899,728.98	972.72	0.00108	0.99892	63.80
43.5	839,365.26	20.12	0.00002	0.99998	63.73
44.5	775,171.14	0.00	0.00000	1.00000	63.73
45.5	519,321.05	0.00	0.00000	1.00000	63.73
46.5	498,122.05	11,400.00	0.02289	0.97711	63.73
47.5	464,597.02	0.00	0.00000	1.00000	62.27
48.5	451,387.71	0.00	0.00000	1.00000	62.27
49.5	454,443.48	0.00	0.00000	1.00000	62.27
50.5	397,680.50	8,717.58	0.02192	0.97808	62.27
51.5	388,962.92	0.00	0.00000	1.00000	60.91
52.5	389,170.22	0.00	0.00000	1.00000	60.91

Observed Life Table

Scenario: Veolia Pennsylvania @ 2021
Account: 320.3 Water Treatment Equ
Placement Band: 1905 - 2021 **Observation Band:** 1970 - 2021

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
53.5	387,336.22	0.00	0.00000	1.00000	60.91
54.5	387,336.22	0.00	0.00000	1.00000	60.91
55.5	387,336.22	0.00	0.00000	1.00000	60.91
56.5	380,821.86	0.00	0.00000	1.00000	60.91
57.5	186,860.31	157.00	0.00084	0.99916	60.91
58.5	186,703.31	2,000.00	0.01071	0.98929	60.86
59.5	175,388.07	250.00	0.00143	0.99857	60.21
60.5	191,642.19	0.00	0.00000	1.00000	60.12
61.5	196,595.02	7,356.75	0.03742	0.96258	60.12
62.5	186,483.06	0.00	0.00000	1.00000	57.87
63.5	131,734.32	0.00	0.00000	1.00000	57.87
64.5	335,856.01	0.00	0.00000	1.00000	57.87
65.5	335,856.01	0.00	0.00000	1.00000	57.87
66.5	335,031.99	695.48	0.00208	0.99792	57.87
67.5	334,130.04	17,412.05	0.05211	0.94789	57.75
68.5	316,680.38	3,835.01	0.01211	0.98789	54.74
69.5	312,845.37	0.00	0.00000	1.00000	54.08
70.5	312,794.41	1,050.00	0.00336	0.99664	54.08
71.5	296,674.18	0.00	0.00000	1.00000	53.90
72.5	296,674.18	3,853.25	0.01299	0.98701	53.90
73.5	292,820.93	0.00	0.00000	1.00000	53.20
74.5	288,095.88	653.00	0.00227	0.99773	53.20
75.5	287,442.88	3,352.75	0.01166	0.98834	53.07
76.5	284,090.13	153.11	0.00054	0.99946	52.46
77.5	283,937.02	2,454.84	0.00865	0.99135	52.43
78.5	281,482.18	0.00	0.00000	1.00000	51.97
79.5	281,482.18	1,143.35	0.00406	0.99594	51.97
80.5	280,338.83	0.00	0.00000	1.00000	51.76
81.5	280,338.83	0.00	0.00000	1.00000	51.76
82.5	280,338.83	800.00	0.00285	0.99715	51.76
83.5	279,538.83	0.00	0.00000	1.00000	51.62
84.5	279,538.83	18,500.29	0.06618	0.93382	51.62
85.5	261,038.54	355.64	0.00136	0.99864	48.20
86.5	260,682.90	11,072.00	0.04247	0.95753	48.13
87.5	249,609.21	0.00	0.00000	1.00000	46.09
88.5	242,775.21	0.00	0.00000	1.00000	46.09
89.5	242,775.21	0.00	0.00000	1.00000	46.09
90.5	242,593.97	0.00	0.00000	1.00000	46.09
91.5	242,527.33	7,324.97	0.03020	0.96980	46.09
92.5	235,202.36	204,622.81	0.86999	0.13001	44.70
93.5	30,579.55	0.00	0.00000	1.00000	5.81
94.5	30,579.55	0.00	0.00000	1.00000	5.81
95.5	30,579.55	0.00	0.00000	1.00000	5.81
96.5	30,579.55	207.30	0.00678	0.99322	5.81
97.5	30,372.25	0.00	0.00000	1.00000	5.77
98.5	30,372.25	0.00	0.00000	1.00000	5.77
99.5	30,372.25	24.00	0.00079	0.99921	5.77
100.5	30,348.25	0.00	0.00000	1.00000	5.77
101.5	30,348.25	15,442.09	0.50883	0.49117	5.77
102.5	14,906.16	0.00	0.00000	1.00000	2.83
103.5	14,906.16	8.00	0.00054	0.99946	2.83
104.5	14,898.16	9,947.61	0.66771	0.33229	2.83
105.5	4,950.55	4,950.55	1.00000	0.00000	0.94
106.5	0.00	0.00	0.00000	1.00000	0.00

Observed Life Table

Scenario: Veolia Pennsylvania @ 2021
Account: 320.3 Chemical treatment
Placement Band: 1927 - 2021 **Observation Band:** 1968 - 2021

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
0	15,911,041.72	0.00	0.00000	1.00000	100.00
0.5	15,913,623.03	15,277.21	0.00096	0.99904	100.00
1.5	15,628,130.40	19,195.08	0.00123	0.99877	99.90
2.5	15,265,977.73	47,347.37	0.00310	0.99690	99.78
3.5	15,057,605.34	58,070.51	0.00386	0.99614	99.47
4.5	14,852,403.79	137,288.97	0.00924	0.99076	99.09
5.5	11,661,854.99	185,888.75	0.01594	0.98406	98.17
6.5	11,315,297.20	75,415.55	0.00666	0.99334	96.61
7.5	11,071,614.28	39,217.29	0.00354	0.99646	95.96
8.5	10,847,048.92	45,187.18	0.00417	0.99583	95.62
9.5	10,771,321.00	186,801.47	0.01734	0.98266	95.23
10.5	4,805,993.07	81,989.53	0.01706	0.98294	93.57
11.5	4,354,269.55	80,606.19	0.01851	0.98149	91.98
12.5	4,061,392.95	100,244.69	0.02468	0.97532	90.28
13.5	3,897,477.30	114,182.80	0.02930	0.97070	88.05
14.5	3,766,480.43	159,570.68	0.04237	0.95763	85.47
15.5	1,753,077.44	205,299.98	0.11711	0.88289	81.85
16.5	878,982.79	20,186.10	0.02297	0.97703	72.26
17.5	765,693.22	100,663.78	0.13147	0.86853	70.60
18.5	595,212.01	6,570.60	0.01104	0.98896	61.32
19.5	506,349.43	12,854.50	0.02539	0.97461	60.64
20.5	457,345.67	673.00	0.00147	0.99853	59.10
21.5	427,960.71	4,610.00	0.01077	0.98923	59.02
22.5	406,487.74	3,000.00	0.00738	0.99262	58.38
23.5	379,226.66	0.87	0.00000	1.00000	57.95
24.5	362,755.37	144.37	0.00040	0.99960	57.95
25.5	334,588.00	0.00	0.00000	1.00000	57.93
26.5	316,860.00	843.67	0.00266	0.99734	57.93
27.5	296,946.33	0.00	0.00000	1.00000	57.77
28.5	294,257.33	0.00	0.00000	1.00000	57.77
29.5	294,257.33	1,614.45	0.00549	0.99451	57.77
30.5	288,181.88	5,101.87	0.01770	0.98230	57.45
31.5	246,428.10	9,127.50	0.03704	0.96296	56.44
32.5	221,823.90	38,258.90	0.17247	0.82753	54.35
33.5	174,974.85	14,278.29	0.08160	0.91840	44.97
34.5	126,019.59	60,785.64	0.48235	0.51765	41.30
35.5	41,822.95	4,084.00	0.09765	0.90235	21.38
36.5	117,898.03	1,736.66	0.01473	0.98527	19.29
37.5	116,161.37	100.00	0.00086	0.99914	19.01
38.5	116,877.23	8,945.86	0.07654	0.92346	18.99
39.5	107,931.37	7,361.17	0.06820	0.93180	17.54
40.5	103,136.55	10,341.80	0.10027	0.89973	16.34
41.5	92,794.75	4,009.29	0.04321	0.95679	14.70
42.5	88,785.46	81,409.16	0.91692	0.08308	14.07
43.5	7,376.30	583.00	0.07904	0.92096	1.17
44.5	6,793.30	0.00	0.00000	1.00000	1.08
45.5	6,793.30	0.00	0.00000	1.00000	1.08
46.5	6,793.30	3,273.15	0.48182	0.51818	1.08
47.5	3,520.15	1,487.95	0.42270	0.57730	0.56
48.5	2,032.20	0.00	0.00000	1.00000	0.32
49.5	2,032.20	0.00	0.00000	1.00000	0.32
50.5	2,132.20	729.96	0.34235	0.65765	0.32
51.5	1,402.24	812.89	0.57971	0.42029	0.21
52.5	589.35	0.00	0.00000	1.00000	0.09

Observed Life Table

Scenario: Veolia Pennsylvania @ 2021
Account: 320.3 Chemical treatment
Placement Band: 1927 - 2021 **Observation Band:** 1968 - 2021

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
53.5	589.35	0.00	0.00000	1.00000	0.09
54.5	589.35	0.00	0.00000	1.00000	0.09
55.5	589.35	0.00	0.00000	1.00000	0.09
56.5	589.35	119.48	0.20273	0.79727	0.09
57.5	469.87	0.00	0.00000	1.00000	0.07
58.5	469.87	0.00	0.00000	1.00000	0.07
59.5	469.87	23.27	0.04952	0.95048	0.07
60.5	446.60	289.60	0.64845	0.35155	0.07
61.5	157.00	0.00	0.00000	1.00000	0.02
62.5	157.00	0.00	0.00000	1.00000	0.02
63.5	157.00	57.00	0.36306	0.63694	0.02
64.5	100.00	0.00	0.00000	1.00000	0.02
65.5	100.00	0.00	0.00000	1.00000	0.02
66.5	100.00	0.00	0.00000	1.00000	0.02
67.5	100.00	0.00	0.00000	1.00000	0.02
68.5	100.00	0.00	0.00000	1.00000	0.02
69.5	100.00	0.00	0.00000	1.00000	0.02
70.5	100.00	0.00	0.00000	1.00000	0.02
71.5	100.00	0.00	0.00000	1.00000	0.02
72.5	100.00	0.00	0.00000	1.00000	0.02
73.5	100.00	0.00	0.00000	1.00000	0.02
74.5	100.00	0.00	0.00000	1.00000	0.02
75.5	100.00	100.00	1.00000	0.00000	0.02
76.5	0.00	0.00	0.00000	1.00000	0.00

Observed Life Table

Scenario: Veolia Pennsylvania @ 2021
Account: 331.4 T & D Mains
Placement Band: 1880 - 2021 **Observation Band:** 1968 - 2021

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
0	213,643,664.53	8,746.93	0.00004	0.99996	100.00
0.5	204,721,337.04	32,018.00	0.00016	0.99984	100.00
1.5	194,763,117.37	54,217.58	0.00028	0.99972	99.98
2.5	167,465,043.98	53,072.80	0.00032	0.99968	99.95
3.5	153,346,169.06	41,614.21	0.00027	0.99973	99.92
4.5	136,941,436.49	61,265.99	0.00045	0.99955	99.89
5.5	127,895,698.30	95,719.55	0.00075	0.99925	99.85
6.5	120,465,877.11	34,239.38	0.00028	0.99972	99.77
7.5	113,237,613.72	146,084.12	0.00129	0.99871	99.75
8.5	110,248,789.05	28,919.70	0.00026	0.99974	99.62
9.5	104,800,045.36	46,117.09	0.00044	0.99956	99.59
10.5	98,889,375.57	119,948.63	0.00121	0.99879	99.55
11.5	92,410,973.97	18,258.51	0.00020	0.99980	99.43
12.5	87,719,628.87	2,658.08	0.00003	0.99997	99.41
13.5	81,909,428.70	19,013.12	0.00023	0.99977	99.40
14.5	76,680,299.03	8,971.27	0.00012	0.99988	99.38
15.5	70,989,949.54	170,569.64	0.00240	0.99760	99.37
16.5	67,128,716.90	182,993.65	0.00273	0.99727	99.13
17.5	63,974,810.60	235,168.35	0.00368	0.99632	98.86
18.5	59,414,335.93	887,059.14	0.01493	0.98507	98.50
19.5	56,193,693.87	690,874.66	0.01229	0.98771	97.02
20.5	51,990,450.51	516,488.84	0.00993	0.99007	95.83
21.5	49,001,886.01	166,963.93	0.00341	0.99659	94.88
22.5	45,714,624.62	110,245.29	0.00241	0.99759	94.56
23.5	42,461,872.01	38,254.43	0.00090	0.99910	94.33
24.5	40,612,724.71	2,557.68	0.00006	0.99994	94.24
25.5	39,061,761.29	35,137.32	0.00090	0.99910	94.24
26.5	37,098,627.93	32,900.67	0.00089	0.99911	94.15
27.5	34,710,825.97	81,351.88	0.00234	0.99766	94.07
28.5	32,935,547.91	45,102.16	0.00137	0.99863	93.85
29.5	31,916,852.13	32,365.71	0.00101	0.99899	93.72
30.5	29,624,793.07	22,523.02	0.00076	0.99924	93.62
31.5	27,335,651.59	8,237.08	0.00030	0.99970	93.55
32.5	25,044,610.24	7,648.03	0.00031	0.99969	93.53
33.5	22,885,991.52	9,155.43	0.00040	0.99960	93.50
34.5	19,899,138.87	6,013.40	0.00030	0.99970	93.46
35.5	19,003,845.85	13,517.12	0.00071	0.99929	93.43
36.5	15,262,835.72	19,577.10	0.00128	0.99872	93.37
37.5	14,387,639.58	7,782.01	0.00054	0.99946	93.25
38.5	14,009,750.02	68,227.85	0.00487	0.99513	93.20
39.5	13,322,560.64	10,385.63	0.00078	0.99922	92.74
40.5	12,907,784.22	20,606.80	0.00160	0.99840	92.67
41.5	12,291,314.44	3,375.83	0.00027	0.99973	92.52
42.5	11,869,016.62	31,426.25	0.00265	0.99735	92.50
43.5	10,636,109.56	11,075.45	0.00104	0.99896	92.25
44.5	10,028,693.87	14,864.04	0.00148	0.99852	92.16
45.5	9,671,683.29	32,254.36	0.00333	0.99667	92.02
46.5	8,786,008.43	10,402.59	0.00118	0.99882	91.71
47.5	8,323,560.27	6,738.16	0.00081	0.99919	91.61
48.5	7,557,418.17	8,279.61	0.00110	0.99890	91.53
49.5	7,152,265.62	24,899.07	0.00348	0.99652	91.43
50.5	6,773,275.36	14,563.10	0.00215	0.99785	91.11
51.5	5,076,868.60	28,413.93	0.00560	0.99440	90.92
52.5	4,696,591.95	20,000.47	0.00426	0.99574	90.41

Observed Life Table

Scenario: Veolia Pennsylvania @ 2021
Account: 331.4 T & D Mains
Placement Band: 1880 - 2021 **Observation Band:** 1968 - 2021

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
53.5	4,502,182.85	117,660.34	0.02613	0.97387	90.02
54.5	4,156,793.96	50,056.27	0.01204	0.98796	87.67
55.5	3,864,004.69	30,655.17	0.00793	0.99207	86.61
56.5	3,651,942.34	32,533.23	0.00891	0.99109	85.93
57.5	3,090,713.32	36,230.35	0.01172	0.98828	85.16
58.5	2,814,440.96	9,522.78	0.00338	0.99662	84.16
59.5	2,821,656.18	27,549.00	0.00976	0.99024	83.88
60.5	2,599,660.60	1,462.41	0.00056	0.99944	83.06
61.5	2,304,667.75	7,817.55	0.00339	0.99661	83.01
62.5	2,064,253.33	2,228.36	0.00108	0.99892	82.73
63.5	1,956,096.40	1,251.33	0.00064	0.99936	82.64
64.5	1,773,124.14	1,901.73	0.00107	0.99893	82.59
65.5	1,653,153.00	2,843.72	0.00172	0.99828	82.50
66.5	1,632,447.55	486.83	0.00030	0.99970	82.36
67.5	1,563,715.83	3,181.78	0.00203	0.99797	82.34
68.5	1,516,678.47	148,672.39	0.09802	0.90198	82.17
69.5	1,292,455.28	5,203.36	0.00403	0.99597	74.11
70.5	1,247,588.16	3,529.36	0.00283	0.99717	73.82
71.5	1,153,970.05	2,329.26	0.00202	0.99798	73.61
72.5	1,145,543.73	8,233.42	0.00719	0.99281	73.46
73.5	1,074,415.12	2,439.72	0.00227	0.99773	72.93
74.5	1,044,053.39	3,636.45	0.00348	0.99652	72.76
75.5	1,020,001.32	2,235.30	0.00219	0.99781	72.51
76.5	1,014,018.85	6,353.33	0.00627	0.99373	72.35
77.5	1,020,381.33	2,068.77	0.00203	0.99797	71.90
78.5	1,029,673.40	641.06	0.00062	0.99938	71.75
79.5	1,015,574.31	1,806.82	0.00178	0.99822	71.71
80.5	1,004,853.15	2,062.82	0.00205	0.99795	71.58
81.5	733,220.20	1,089.94	0.00149	0.99851	71.43
82.5	702,393.01	8,933.48	0.01272	0.98728	71.33
83.5	677,699.12	4,215.22	0.00622	0.99378	70.42
84.5	654,028.33	1,899.18	0.00290	0.99710	69.98
85.5	648,451.27	15,864.53	0.02447	0.97553	69.78
86.5	625,809.13	642.00	0.00103	0.99897	68.07
87.5	644,849.33	403.99	0.00063	0.99937	68.00
88.5	640,598.45	3,491.04	0.00545	0.99455	67.96
89.5	599,307.88	422.00	0.00070	0.99930	67.59
90.5	590,191.75	1,109.62	0.00188	0.99812	67.54
91.5	578,963.84	1,327.08	0.00229	0.99771	67.41
92.5	494,856.50	2,472.56	0.00500	0.99500	67.26
93.5	473,090.97	1,969.70	0.00416	0.99584	66.92
94.5	431,735.46	3,507.67	0.00812	0.99188	66.65
95.5	421,325.96	4,912.00	0.01166	0.98834	66.11
96.5	358,363.00	102.32	0.00029	0.99971	65.33
97.5	340,594.77	7,590.00	0.02228	0.97772	65.32
98.5	331,957.17	248.84	0.00075	0.99925	63.86
99.5	329,904.73	2,162.63	0.00656	0.99344	63.81
100.5	326,131.20	1,059.18	0.00325	0.99675	63.39
101.5	316,963.34	1,497.00	0.00472	0.99528	63.19
102.5	313,642.69	5,157.64	0.01644	0.98356	62.89
103.5	308,385.85	3,142.00	0.01019	0.98981	61.86
104.5	304,630.01	926.00	0.00304	0.99696	61.23
105.5	302,464.59	1,679.00	0.00555	0.99445	61.04
106.5	298,138.86	1,032.69	0.00346	0.99654	60.70

Observed Life Table

Scenario: Veolia Pennsylvania @ 2021
Account: 331.4 T & D Mains
Placement Band: 1880 - 2021 **Observation Band:** 1968 - 2021

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
107.5	273,051.76	2,271.52	0.00832	0.99168	60.49
108.5	269,762.26	252.58	0.00094	0.99906	59.99
109.5	249,431.69	9,744.43	0.03907	0.96093	59.93
110.5	239,279.46	1,523.10	0.00637	0.99363	57.59
111.5	233,928.61	2,717.76	0.01162	0.98838	57.22
112.5	183,809.89	13,437.87	0.07311	0.92689	56.56
113.5	117,985.14	4,150.95	0.03518	0.96482	52.42
114.5	113,834.19	9,110.95	0.08004	0.91996	50.58
115.5	104,723.24	9,042.78	0.08635	0.91365	46.53
116.5	95,680.46	4,745.80	0.04960	0.95040	42.51
117.5	90,934.66	6,785.75	0.07462	0.92538	40.40
118.5	84,148.91	1,857.96	0.02208	0.97792	37.39
119.5	82,290.95	42,492.45	0.51637	0.48363	36.56
120.5	39,798.50	20,836.66	0.52355	0.47645	17.68
121.5	18,961.84	6,111.00	0.32228	0.67772	8.43
122.5	12,850.84	3,548.96	0.27617	0.72383	5.71
123.5	9,301.88	529.72	0.05695	0.94305	4.13
124.5	8,772.16	1,181.00	0.13463	0.86537	3.90
125.5	7,591.16	775.00	0.10209	0.89791	3.37
126.5	6,816.16	962.00	0.14114	0.85886	3.03
127.5	5,854.16	0.00	0.00000	1.00000	2.60
128.5	5,854.16	0.00	0.00000	1.00000	2.60
129.5	5,854.16	0.00	0.00000	1.00000	2.60
130.5	5,854.16	0.00	0.00000	1.00000	2.60
131.5	5,854.16	0.00	0.00000	1.00000	2.60
132.5	5,854.16	0.00	0.00000	1.00000	2.60
133.5	5,854.16	0.00	0.00000	1.00000	2.60
134.5	5,854.16	1,340.40	0.22897	0.77103	2.60
135.5	4,513.76	4,513.76	1.00000	0.00000	2.01
136.5	0.00	0.00	0.00000	1.00000	0.00

Observed Life Table

Scenario: Veolia Pennsylvania @ 2021
Account: 304.5 Office Building
Placement Band: 1905 - 2021 **Observation Band:** 1972 - 2021

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
0	12,772,424.41	0.00	0.00000	1.00000	100.00
0.5	12,508,239.28	10,564.57	0.00084	0.99916	100.00
1.5	12,367,012.29	2,033.00	0.00016	0.99984	99.92
2.5	12,278,840.00	33,767.44	0.00275	0.99725	99.90
3.5	12,104,728.85	28,804.28	0.00238	0.99762	99.63
4.5	11,715,234.69	74,380.39	0.00635	0.99365	99.39
5.5	2,792,037.27	2,051.95	0.00073	0.99927	98.76
6.5	2,743,922.93	4,050.11	0.00148	0.99852	98.69
7.5	2,710,126.64	6,326.21	0.00233	0.99767	98.54
8.5	2,680,208.74	5,489.63	0.00205	0.99795	98.31
9.5	2,627,925.94	6,314.20	0.00240	0.99760	98.11
10.5	2,592,108.71	2,118.97	0.00082	0.99918	97.87
11.5	2,556,033.75	15,914.76	0.00623	0.99377	97.79
12.5	2,536,801.18	11,432.84	0.00451	0.99549	97.18
13.5	2,502,223.58	91,133.94	0.03642	0.96358	96.75
14.5	2,382,315.93	10,148.00	0.00426	0.99574	93.22
15.5	2,395,395.27	61,900.00	0.02584	0.97416	92.83
16.5	2,334,739.41	9,446.61	0.00405	0.99595	90.43
17.5	2,336,696.32	7,892.89	0.00338	0.99662	90.06
18.5	948,826.44	50,400.46	0.05312	0.94688	89.76
19.5	844,882.26	6,000.00	0.00710	0.99290	84.99
20.5	744,740.36	13,692.58	0.01839	0.98161	84.39
21.5	729,165.78	12,207.00	0.01674	0.98326	82.83
22.5	634,087.19	1,481.00	0.00234	0.99766	81.45
23.5	619,671.44	1,697.00	0.00274	0.99726	81.26
24.5	510,755.46	1,100.00	0.00215	0.99785	81.03
25.5	487,715.46	336.00	0.00069	0.99931	80.86
26.5	483,343.46	479.00	0.00099	0.99901	80.80
27.5	482,879.46	25,375.79	0.05255	0.94745	80.72
28.5	408,471.67	0.00	0.00000	1.00000	76.48
29.5	407,566.67	4,376.68	0.01074	0.98926	76.48
30.5	389,963.99	750.00	0.00192	0.99808	75.66
31.5	350,842.99	144.00	0.00041	0.99959	75.51
32.5	350,304.48	8,320.60	0.02375	0.97625	75.48
33.5	331,114.88	6,555.25	0.01980	0.98020	73.69
34.5	311,729.87	0.00	0.00000	1.00000	72.23
35.5	308,509.70	0.00	0.00000	1.00000	72.23
36.5	119,630.39	264.00	0.00221	0.99779	72.23
37.5	115,897.86	5,875.00	0.05069	0.94931	72.07
38.5	86,270.86	580.61	0.00673	0.99327	68.42
39.5	84,315.25	610.53	0.00724	0.99276	67.96
40.5	82,271.39	0.00	0.00000	1.00000	67.47
41.5	82,083.79	0.00	0.00000	1.00000	67.47
42.5	80,954.34	1,045.00	0.01291	0.98709	67.47
43.5	80,419.61	368.00	0.00458	0.99542	66.60
44.5	79,301.61	0.00	0.00000	1.00000	66.29
45.5	78,886.38	65.00	0.00082	0.99918	66.29
46.5	74,913.96	0.00	0.00000	1.00000	66.24
47.5	49,875.17	0.00	0.00000	1.00000	66.24
48.5	48,744.03	250.00	0.00513	0.99487	66.24
49.5	32,208.42	0.00	0.00000	1.00000	65.90
50.5	18,271.50	0.00	0.00000	1.00000	65.90
51.5	18,271.50	0.00	0.00000	1.00000	65.90
52.5	17,028.84	0.00	0.00000	1.00000	65.90

Observed Life Table

Scenario: Veolia Pennsylvania @ 2021
Account: 304.5 Office Building
Placement Band: 1905 - 2021 **Observation Band:** 1972 - 2021

Age at Beginning of Interval	Exposures at Beginning of Interval	Retirements During Interval	Retirement Ratio	Survivor Ratio	Percent Surv at Beginning of Interval
53.5	12,185.84	157.00	0.01288	0.98712	65.90
54.5	12,028.84	0.00	0.00000	1.00000	65.05
55.5	12,028.84	0.00	0.00000	1.00000	65.05
56.5	1,224.14	0.00	0.00000	1.00000	65.05
57.5	1,224.14	0.00	0.00000	1.00000	65.05
58.5	2,606.68	0.00	0.00000	1.00000	65.05
59.5	2,606.68	0.00	0.00000	1.00000	65.05
60.5	1,474.00	0.00	0.00000	1.00000	65.05
61.5	1,474.00	0.00	0.00000	1.00000	65.05
62.5	2,209.00	0.00	0.00000	1.00000	65.05
63.5	2,209.00	0.00	0.00000	1.00000	65.05
64.5	2,209.00	0.00	0.00000	1.00000	65.05
65.5	2,209.00	735.00	0.33273	0.66727	65.05
66.5	3,022.00	0.00	0.00000	1.00000	43.40
67.5	3,022.00	0.00	0.00000	1.00000	43.40
68.5	3,022.00	0.00	0.00000	1.00000	43.40
69.5	3,022.00	0.00	0.00000	1.00000	43.40
70.5	3,022.00	0.00	0.00000	1.00000	43.40
71.5	3,022.00	0.00	0.00000	1.00000	43.40
72.5	3,022.00	91.46	0.03026	0.96974	43.40
73.5	2,930.54	0.00	0.00000	1.00000	42.09
74.5	2,930.54	0.00	0.00000	1.00000	42.09
75.5	1,382.54	0.00	0.00000	1.00000	42.09
76.5	1,382.54	0.00	0.00000	1.00000	42.09
77.5	1,382.54	0.00	0.00000	1.00000	42.09
78.5	1,382.54	0.00	0.00000	1.00000	42.09
79.5	1,382.54	0.00	0.00000	1.00000	42.09
80.5	1,382.54	0.00	0.00000	1.00000	42.09
81.5	1,382.54	0.00	0.00000	1.00000	42.09
82.5	1,382.54	0.00	0.00000	1.00000	42.09
83.5	1,382.54	0.00	0.00000	1.00000	42.09
84.5	1,382.54	0.00	0.00000	1.00000	42.09
85.5	1,382.54	0.00	0.00000	1.00000	42.09
86.5	1,382.54	0.00	0.00000	1.00000	42.09
87.5	1,382.54	0.00	0.00000	1.00000	42.09
88.5	1,382.54	0.00	0.00000	1.00000	42.09
89.5	1,382.54	0.00	0.00000	1.00000	42.09
90.5	1,382.54	0.00	0.00000	1.00000	42.09
91.5	1,382.54	0.00	0.00000	1.00000	42.09
92.5	1,382.54	0.00	0.00000	1.00000	42.09
93.5	1,382.54	0.00	0.00000	1.00000	42.09
94.5	1,382.54	1,382.54	1.00000	0.00000	42.09
95.5	0.00	0.00	0.00000	1.00000	0.00

Veolia Water Pennsylvania
Water Division
304.20 Source of Supply Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2021
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *74* ***Survivor Curve:*** *R1*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1928	18,640.17	74.00	251.89	18.53	4,666.29
1931	209.40	74.00	2.83	19.75	55.90
1933	42.67	74.00	0.58	20.59	11.87
1937	465.00	74.00	6.28	22.32	140.24
1940	1,872.03	74.00	25.30	23.66	598.46
1941	63.00	74.00	0.85	24.11	20.53
1944	227.13	74.00	3.07	25.50	78.27
1945	1,737.25	74.00	23.48	25.98	609.80
1946	427.37	74.00	5.78	26.45	152.77
1950	2,980.08	74.00	40.27	28.41	1,143.90
1952	790.89	74.00	10.69	29.41	314.32
1954	215.60	74.00	2.91	30.43	88.67
1956	153.69	74.00	2.08	31.47	65.37
1957	562.26	74.00	7.60	32.00	243.16
1958	632.11	74.00	8.54	32.54	277.92
1959	2,082.89	74.00	28.15	33.07	930.93
1960	154.19	74.00	2.08	33.62	70.04
1961	1,591.08	74.00	21.50	34.16	734.52
1962	330.20	74.00	4.46	34.72	154.90
1964	9,917.48	74.00	134.02	35.83	4,802.04
1965	897.47	74.00	12.13	36.40	441.43
1966	5,872.32	74.00	79.35	36.97	2,933.58
1967	7,245.30	74.00	97.91	37.54	3,675.69
1969	6,923.75	74.00	93.56	38.71	3,621.51
1970	5,863.00	74.00	79.23	39.29	3,113.24
1971	821.00	74.00	11.09	39.89	442.54
1972	13,906.43	74.00	187.92	40.49	7,608.18

Veolia Water Pennsylvania
Water Division
304.20 Source of Supply Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2021
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *74* ***Survivor Curve:*** *R1*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1973	11,539.20	74.00	155.93	41.09	6,406.77
1974	15,029.15	74.00	203.09	41.69	8,467.85
1975	2,184.81	74.00	29.52	42.30	1,248.99
1976	48,715.62	74.00	658.31	42.92	28,254.22
1977	73.00	74.00	0.99	43.54	42.95
1978	270.98	74.00	3.66	44.16	161.71
1980	12,728.00	74.00	172.00	45.42	7,811.63
1981	7,412.46	74.00	100.17	46.05	4,612.74
1982	11,911.46	74.00	160.96	46.69	7,515.25
1983	11,775.00	74.00	159.12	47.33	7,531.13
1984	62,647.00	74.00	846.57	47.97	40,613.40
1985	1,587.00	74.00	21.45	48.62	1,042.75
1986	85,828.07	74.00	1,159.82	49.27	57,149.11
1987	7,692.00	74.00	103.94	49.93	5,189.71
1988	141,455.59	74.00	1,911.53	50.59	96,697.11
1989	23,542.61	74.00	318.14	51.25	16,303.34
1990	99,708.21	74.00	1,347.38	51.91	69,940.75
1991	1,959.00	74.00	26.47	52.58	1,391.80
1993	4,122.00	74.00	55.70	53.91	3,003.06
1994	10,160.00	74.00	137.29	54.59	7,494.58
1995	9,166.00	74.00	123.86	55.26	6,844.95
1996	45,516.00	74.00	615.07	55.94	34,407.39
1997	138,453.63	74.00	1,870.96	56.62	105,934.11
2000	13,342.51	74.00	180.30	58.67	10,578.52
2001	13,156.47	74.00	177.79	59.36	10,553.22
2002	5,476.93	74.00	74.01	60.05	4,444.33
2005	730,870.94	74.00	9,876.46	62.13	613,642.21

Veolia Water Pennsylvania
Water Division
304.20 Source of Supply Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2021
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *74* ***Survivor Curve:*** *R1*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2006	9,205.41	74.00	124.40	62.83	7,815.78
2007	30,977.86	74.00	418.61	63.53	26,594.72
2009	536,064.37	74.00	7,243.99	64.94	470,430.10
2010	301,514.29	74.00	4,074.45	65.65	267,482.11
2011	47,179.41	74.00	637.55	66.36	42,308.32
2012	50,660.39	74.00	684.59	67.07	45,918.35
2013	509,305.75	74.00	6,882.39	67.79	466,568.57
2014	9,090.40	74.00	122.84	68.51	8,415.96
2015	223,611.96	74.00	3,021.73	69.23	209,202.73
2016	315,533.29	74.00	4,263.89	69.96	298,295.81
2017	55,870.64	74.00	755.00	70.69	53,368.05
2018	18,685.40	74.00	252.50	71.42	18,032.92
2019	23,424.76	74.00	316.55	72.15	22,839.45
2020	3,217,406.10	74.00	43,477.69	72.89	3,169,060.66
2021	14,891.69	74.00	201.24	73.63	14,816.82
Total	6,964,369.12	74.00	94,111.44	67.11	6,315,429.99

Composite Average Remaining Life ... 67.11 Years

Veolia Water Pennsylvania
Water Division
304.50 General Plant Office Buildings
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2021
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *54* ***Survivor Curve:*** *R1*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1961	1,132.68	54.00	20.98	16.80	352.44
1965	82.35	54.00	1.52	18.64	28.42
1968	5,000.00	54.00	92.59	20.08	1,858.87
1971	13,581.00	54.00	251.49	21.57	5,425.12
1975	1,071.53	54.00	19.84	23.66	469.42
1976	280.61	54.00	5.20	24.19	125.72
1981	536.00	54.00	9.93	26.98	267.77
1982	1,375.00	54.00	25.46	27.55	701.58
1983	23,752.00	54.00	439.84	28.14	12,375.24
1984	3,232.00	54.00	59.85	28.72	1,719.14
1985	188,970.77	54.00	3,499.38	29.32	102,592.40
1986	3,220.17	54.00	59.63	29.92	1,784.06
1987	2,779.13	54.00	51.46	30.52	1,570.92
1990	36,460.00	54.00	675.17	32.38	21,860.59
1991	17,652.00	54.00	326.88	33.01	10,789.19
1993	49,032.00	54.00	907.98	34.28	31,123.84
1995	4,036.00	54.00	74.74	35.57	2,658.47
1996	22,358.00	54.00	414.03	36.22	14,997.12
1997	88,011.96	54.00	1,629.82	36.88	60,106.16
1998	4,906.43	54.00	90.86	37.54	3,410.69
1999	82,871.59	54.00	1,534.63	38.20	58,627.92
2000	1,738.00	54.00	32.18	38.87	1,251.06
2001	88,532.56	54.00	1,639.46	39.54	64,829.03
2002	37,410.72	54.00	692.78	40.22	27,861.79
2003	1,376,773.84	54.00	25,495.27	40.90	1,042,633.09
2004	5,682.09	54.00	105.22	41.58	4,374.65
2006	6,480.82	54.00	120.01	42.94	5,153.85

Veolia Water Pennsylvania
Water Division
304.50 General Plant Office Buildings
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2021
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***54*** ***Survivor Curve:*** ***R1***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2007	31,842.43	54.00	589.66	43.63	25,728.79
2008	24,221.43	54.00	448.54	44.32	19,881.25
2009	4,067.81	54.00	75.33	45.02	3,391.24
2010	38,203.72	54.00	707.46	45.72	32,343.15
2011	12,247.16	54.00	226.79	46.42	10,527.37
2012	48,728.44	54.00	902.36	47.12	42,520.69
2013	18,459.02	54.00	341.83	47.83	16,349.44
2014	29,746.18	54.00	550.84	48.54	26,738.58
2015	46,144.74	54.00	854.51	49.26	42,090.22
2016	8,849,822.56	54.00	163,882.12	49.98	8,190,050.00
2017	360,689.88	54.00	6,679.30	50.70	338,627.46
2018	145,343.71	54.00	2,691.49	51.42	138,409.52
2019	97,620.29	54.00	1,807.74	52.15	94,282.81
2020	143,651.42	54.00	2,660.15	52.89	140,696.18
2021	280,280.13	54.00	5,190.26	53.63	278,352.51
Total	12,198,028.17	54.00	225,884.61	48.16	10,878,937.74

Composite Average Remaining Life ... 48.16 Years

Veolia Water Pennsylvania
Water Division
311.20 Electric Pumping Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2021
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***31*** ***Survivor Curve:*** ***R0.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1980	105,752.18	31.00	3,411.18	8.73	29,785.33
1981	38,640.00	31.00	1,246.39	9.15	11,399.97
1982	155,956.37	31.00	5,030.59	9.57	48,122.80
1983	29,490.00	31.00	951.24	9.99	9,504.24
1984	373,426.59	31.00	12,045.40	10.42	125,545.13
1985	111,535.14	31.00	3,597.72	10.86	39,071.67
1986	99,025.34	31.00	3,194.20	11.30	36,107.33
1987	76,059.00	31.00	2,453.39	11.75	28,839.08
1988	198,829.47	31.00	6,413.52	12.21	78,324.64
1989	172,672.99	31.00	5,569.81	12.68	70,609.29
1990	268,847.93	31.00	8,672.07	13.15	114,029.97
1991	15,081.54	31.00	486.48	13.63	6,630.06
1992	44,337.00	31.00	1,430.15	14.12	20,187.48
1993	532,401.00	31.00	17,173.34	14.61	250,901.55
1994	172,306.00	31.00	5,557.97	15.11	83,990.61
1995	51,665.00	31.00	1,666.53	15.62	26,033.42
1996	117,563.00	31.00	3,792.16	16.14	61,198.33
1997	257,466.99	31.00	8,304.96	16.66	138,378.44
1998	346,187.38	31.00	11,166.76	17.19	191,993.20
1999	224,271.23	31.00	7,234.18	17.73	128,271.79
2000	83,880.72	31.00	2,705.69	18.28	49,450.95
2001	156,350.50	31.00	5,043.30	18.83	94,955.41
2002	88,637.32	31.00	2,859.12	19.39	55,425.50
2003	120,099.70	31.00	3,873.98	19.95	77,281.25
2004	45,173.38	31.00	1,457.13	20.52	29,897.26
2005	66,406.30	31.00	2,142.03	21.09	45,179.12
2006	1,017,194.25	31.00	32,811.02	21.67	711,020.67

Veolia Water Pennsylvania
Water Division
311.20 Electric Pumping Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2021
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***31*** ***Survivor Curve:*** ***R0.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2007	34,603.96	31.00	1,116.20	22.25	24,838.50
2008	82,001.47	31.00	2,645.07	22.84	60,410.86
2009	184,651.17	31.00	5,956.18	23.43	139,547.14
2010	338,502.66	31.00	10,918.88	24.02	262,287.19
2011	114,703.50	31.00	3,699.92	24.62	91,078.76
2012	58,729.69	31.00	1,894.41	25.21	47,764.75
2013	10,302.19	31.00	332.31	25.81	8,577.95
2014	106,090.33	31.00	3,422.09	26.41	90,391.99
2015	190,136.71	31.00	6,133.13	27.02	165,702.80
2016	6,339,582.29	31.00	204,492.10	27.62	5,648,764.03
2017	1,092,335.20	31.00	35,234.80	28.23	994,731.75
2018	300,924.85	31.00	9,706.75	28.84	279,967.40
2019	699,474.27	31.00	22,562.52	29.46	664,599.87
2020	1,654,985.41	31.00	53,383.87	30.07	1,605,360.49
2021	50,164.95	31.00	1,618.14	30.69	49,662.17
Total	16,226,444.97	31.00	523,406.70	24.26	12,695,820.11

Composite Average Remaining Life ... 24.26 Years

Veolia Water Pennsylvania
Water Division
320.30 Water Treatment Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2021
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***58*** ***Survivor Curve:*** ***R1***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1930	66.64	58.00	1.15	7.93	9.11
1931	181.24	58.00	3.12	8.25	25.79
1933	6,834.00	58.00	117.83	8.92	1,050.74
1934	1.69	58.00	0.03	9.25	0.27
1947	4,725.05	58.00	81.46	14.03	1,143.26
1950	15,070.23	58.00	259.83	15.25	3,962.03
1951	50.96	58.00	0.88	15.66	13.76
1953	37.61	58.00	0.65	16.51	10.70
1954	206.47	58.00	3.56	16.94	60.30
1955	824.02	58.00	14.21	17.37	246.85
1957	0.31	58.00	0.01	18.26	0.10
1958	54,748.74	58.00	943.92	18.71	17,665.33
1959	2,755.21	58.00	47.50	19.17	910.72
1960	6,224.72	58.00	107.32	19.64	2,107.27
1962	9,315.24	58.00	160.60	20.58	3,304.94
1964	227,545.69	58.00	3,923.12	21.54	84,523.63
1965	6,514.36	58.00	112.31	22.04	2,475.07
1968	1,834.00	58.00	31.62	23.55	744.60
1971	56,762.98	58.00	978.65	25.11	24,577.07
1972	1,039.98	58.00	17.93	25.65	459.86
1973	17,255.61	58.00	297.50	26.19	7,790.44
1974	32,297.00	58.00	556.83	26.73	14,885.43
1975	21,199.00	58.00	365.49	27.28	9,972.26
1976	255,850.09	58.00	4,411.12	27.84	122,816.03
1977	64,174.00	58.00	1,106.43	28.41	31,428.43
1978	59,391.00	58.00	1,023.96	28.98	29,669.88
1979	13,197.00	58.00	227.53	29.55	6,723.84

Veolia Water Pennsylvania
Water Division
320.30 Water Treatment Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2021
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***58*** ***Survivor Curve:*** ***R1***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1980	378,763.98	58.00	6,530.28	30.13	196,768.81
1981	52,998.00	58.00	913.74	30.72	28,069.74
1982	46,635.00	58.00	804.04	31.31	25,176.70
1983	64,332.00	58.00	1,109.15	31.91	35,394.81
1984	46,720.00	58.00	805.50	32.51	26,190.68
1985	18,889.55	58.00	325.68	33.12	10,787.93
1986	12,933.00	58.00	222.98	33.74	7,523.27
1987	28,155.00	58.00	485.42	34.36	16,679.06
1988	72,642.00	58.00	1,252.42	34.98	43,815.14
1989	49,961.00	58.00	861.38	35.61	30,677.74
1990	285,176.57	58.00	4,916.74	36.25	178,229.84
1991	299,851.00	58.00	5,169.74	36.89	190,701.13
1992	512,246.00	58.00	8,831.65	37.53	331,471.66
1993	3,256,428.00	58.00	56,144.17	38.18	2,143,618.29
1994	202,677.00	58.00	3,494.36	38.83	135,695.98
1995	4,663.00	58.00	80.39	39.49	3,174.65
1996	194,064.00	58.00	3,345.86	40.15	134,330.95
1997	387,316.36	58.00	6,677.73	40.81	272,531.12
1998	96,608.98	58.00	1,665.64	41.48	69,086.91
1999	5,995.32	58.00	103.37	42.15	4,356.66
2000	37,676.10	58.00	649.57	42.82	27,815.70
2002	156,554.40	58.00	2,699.16	44.18	119,236.31
2004	210,204.51	58.00	3,624.14	45.54	165,047.41
2005	4,959,363.47	58.00	85,504.52	46.23	3,952,668.67
2006	8,361,277.21	58.00	144,157.02	46.92	6,763,281.41
2007	40,007.72	58.00	689.77	47.61	32,838.80
2008	142,012.10	58.00	2,448.43	48.30	118,265.92

Veolia Water Pennsylvania
Water Division
320.30 Water Treatment Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2021
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***58*** ***Survivor Curve:*** ***R1***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2009	491,116.18	58.00	8,467.35	49.00	414,893.59
2010	92,538.11	58.00	1,595.45	49.70	79,293.95
2011	1,521,746.84	58.00	26,236.48	50.40	1,322,415.92
2012	50,296.68	58.00	867.17	51.11	44,321.31
2013	96,916.97	58.00	1,670.95	51.82	86,588.17
2014	100,561.37	58.00	1,733.78	52.53	91,081.61
2015	269,728.19	58.00	4,650.39	53.25	247,636.06
2016	12,633,502.12	58.00	217,814.56	53.97	11,755,691.79
2017	71,378.59	58.00	1,230.64	54.69	67,309.44
2018	984,854.42	58.00	16,979.90	55.42	941,074.73
2019	128,035.59	58.00	2,207.47	56.15	123,959.67
2020	1,223,383.29	58.00	21,092.39	56.89	1,199,936.65
2021	1,664,911.58	58.00	28,704.79	57.63	1,654,247.27
Total	40,111,224.04	58.00	691,558.74	48.38	33,458,463.15

Composite Average Remaining Life ... 48.38 Years

Veolia Water Pennsylvania
Water Division
320.31 Chemical Treatment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2021
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***29*** ***Survivor Curve:*** ***R1.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1986	23,411.00	29.00	807.26	6.65	5,365.29
1987	34,676.97	29.00	1,195.73	7.01	8,386.03
1988	8,590.15	29.00	296.20	7.40	2,190.64
1989	15,476.70	29.00	533.67	7.79	4,159.53
1990	36,651.91	29.00	1,263.83	8.21	10,375.75
1991	4,461.00	29.00	153.82	8.64	1,329.53
1993	2,689.00	29.00	92.72	9.56	886.76
1994	19,070.00	29.00	657.57	10.05	6,609.04
1995	17,798.00	29.00	613.71	10.56	6,478.62
1996	28,023.00	29.00	966.29	11.08	10,706.08
1997	16,470.42	29.00	567.93	11.62	6,599.88
1998	24,261.08	29.00	836.57	12.18	10,188.61
1999	16,862.97	29.00	581.47	12.75	7,415.90
2000	28,711.96	29.00	990.04	13.35	13,213.28
2001	36,149.26	29.00	1,246.49	13.95	17,392.83
2002	82,291.98	29.00	2,837.58	14.58	41,363.64
2003	68,250.56	29.00	2,353.41	15.21	35,806.36
2004	92,062.56	29.00	3,174.49	15.87	50,370.86
2005	648,860.67	29.00	22,373.94	16.53	369,909.17
2006	1,910,270.71	29.00	65,869.74	17.21	1,133,770.39
2007	104,249.00	29.00	3,594.70	17.90	64,357.66
2008	87,846.55	29.00	3,029.11	18.61	56,359.99
2009	27,485.98	29.00	947.77	19.32	18,311.66
2010	334,754.71	29.00	11,542.97	20.05	231,379.10
2011	189,050.15	29.00	6,518.81	20.78	135,459.46
2012	57,107.30	29.00	1,969.17	21.52	42,382.54
2013	7,860.44	29.00	271.04	22.28	6,037.66

Veolia Water Pennsylvania
Water Division
320.31 Chemical Treatment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2021
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***29*** ***Survivor Curve:*** ***R1.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2014	148,026.53	29.00	5,104.23	23.04	117,581.80
2015	118,260.31	29.00	4,077.84	23.81	97,074.10
2016	3,022,152.94	29.00	104,209.54	24.58	2,561,704.86
2017	132,478.02	29.00	4,568.09	25.37	115,879.52
2018	113,200.56	29.00	3,903.37	26.16	102,115.90
2019	332,779.90	29.00	11,474.88	26.96	309,386.54
2020	36,544.16	29.00	1,260.11	27.77	34,995.60
2021	3,804.29	29.00	131.18	28.59	3,750.27
Total	7,830,640.74	29.00	270,015.27	20.89	5,639,294.82

Composite Average Remaining Life ... 20.89 Years

Veolia Water Pennsylvania
Water Division
331.40 Transmission and Distribution Mains
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2021
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***88*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1908	52,386.88	88.00	595.30	12.22	7,276.15
1909	47,400.96	88.00	538.65	12.48	6,724.69
1910	3,827.75	88.00	43.50	12.75	554.62
1911	407.80	88.00	4.63	13.02	60.34
1912	20,077.99	88.00	228.16	13.29	3,032.05
1913	1,017.98	88.00	11.57	13.57	156.97
1914	24,054.41	88.00	273.35	13.86	3,787.55
1915	2,646.73	88.00	30.08	14.15	425.55
1916	1,239.42	88.00	14.08	14.45	203.50
1917	613.84	88.00	6.98	14.75	102.92
1918	99.20	88.00	1.13	15.07	16.99
1919	1,823.65	88.00	20.72	15.39	318.83
1920	8,108.68	88.00	92.14	15.71	1,447.93
1921	1,610.90	88.00	18.31	16.05	293.81
1922	1,803.60	88.00	20.50	16.40	336.03
1923	1,047.60	88.00	11.90	16.75	199.39
1924	17,665.91	88.00	200.75	17.11	3,435.08
1925	58,050.96	88.00	659.67	17.48	11,532.80
1926	6,901.83	88.00	78.43	17.86	1,401.01
1927	39,385.81	88.00	447.57	18.25	8,169.80
1928	19,292.97	88.00	219.24	18.65	4,089.59
1929	82,780.26	88.00	940.68	19.06	17,932.29
1930	10,118.29	88.00	114.98	19.48	2,240.06
1931	8,694.13	88.00	98.80	19.91	1,967.13
1932	37,799.53	88.00	429.54	20.35	8,740.87
1933	3,846.89	88.00	43.71	20.80	909.16
1934	5,579.32	88.00	63.40	21.26	1,347.86

Veolia Water Pennsylvania
Water Division
331.40 Transmission and Distribution Mains
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2021
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***88*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1935	6,777.61	88.00	77.02	21.73	1,673.45
1936	5,551.88	88.00	63.09	22.21	1,401.00
1937	20,021.57	88.00	227.52	22.69	5,163.46
1938	15,760.41	88.00	179.10	23.19	4,153.71
1939	30,053.25	88.00	341.51	23.70	8,093.96
1940	269,570.13	88.00	3,063.29	24.22	74,184.65
1941	11,120.34	88.00	126.37	24.75	3,127.33
1942	13,884.55	88.00	157.78	25.28	3,989.39
1943	1,817.88	88.00	20.66	25.83	533.60
1944	8,957.00	88.00	101.78	26.39	2,685.63
1945	5,315.17	88.00	60.40	26.95	1,627.73
1946	21,169.62	88.00	240.56	27.52	6,620.81
1947	30,210.27	88.00	343.30	28.10	9,647.82
1948	65,502.35	88.00	744.34	28.69	21,357.51
1949	14,673.75	88.00	166.75	29.30	4,885.08
1950	90,266.84	88.00	1,025.76	29.90	30,673.83
1951	39,819.76	88.00	452.50	30.52	13,809.65
1952	76,904.77	88.00	873.92	31.14	27,215.37
1953	44,076.21	88.00	500.87	31.77	15,913.78
1954	123,417.49	88.00	1,402.47	32.41	45,455.25
1955	37,808.81	88.00	429.65	33.06	14,202.58
1956	118,280.21	88.00	1,344.09	33.71	45,314.80
1957	182,198.32	88.00	2,070.43	34.38	71,171.26
1958	106,210.24	88.00	1,206.93	35.04	42,294.56
1959	234,156.31	88.00	2,660.86	35.72	95,040.10
1960	298,719.51	88.00	3,394.54	36.40	123,558.45
1961	194,850.99	88.00	2,214.21	37.09	82,119.09

Veolia Water Pennsylvania
Water Division
331.40 Transmission and Distribution Mains
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2021
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***88*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1962	174,851.55	88.00	1,986.95	37.78	75,070.35
1963	295,111.75	88.00	3,353.54	38.49	129,065.83
1964	540,653.02	88.00	6,143.78	39.19	240,801.85
1965	181,824.98	88.00	2,066.19	39.91	82,458.60
1966	264,221.17	88.00	3,002.51	40.63	121,987.87
1967	229,115.53	88.00	2,603.58	41.35	107,670.33
1968	203,536.36	88.00	2,312.91	42.09	97,342.50
1969	354,856.45	88.00	4,032.46	42.82	172,686.90
1970	1,683,876.08	88.00	19,134.94	43.57	833,663.85
1971	354,705.03	88.00	4,030.73	44.32	178,644.79
1972	396,976.14	88.00	4,511.09	45.08	203,341.54
1973	761,481.59	88.00	8,653.19	45.84	396,633.58
1974	462,368.72	88.00	5,254.18	46.60	244,859.71
1975	856,137.40	88.00	9,728.82	47.37	460,895.58
1976	349,679.00	88.00	3,973.62	48.15	191,333.49
1977	598,488.60	88.00	6,801.00	48.93	332,792.04
1978	1,223,769.08	88.00	13,906.45	49.72	691,473.02
1979	489,100.80	88.00	5,557.96	50.52	280,765.54
1980	616,190.02	88.00	7,002.15	51.31	359,306.38
1981	445,785.92	88.00	5,065.74	52.12	264,008.22
1982	640,161.65	88.00	7,274.56	52.92	384,998.04
1983	472,235.89	88.00	5,366.31	53.74	288,365.46
1984	870,289.64	88.00	9,889.64	54.55	539,513.10
1985	3,736,770.66	88.00	42,463.26	55.38	2,351,522.93
1986	930,221.57	88.00	10,570.69	56.20	594,123.72
1987	2,981,859.11	88.00	33,884.73	57.04	1,932,660.85
1988	2,157,692.20	88.00	24,519.20	57.87	1,418,983.36

Veolia Water Pennsylvania
Water Division
331.40 Transmission and Distribution Mains
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2021
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***88*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1989	2,294,895.92	88.00	26,078.33	58.71	1,531,129.58
1990	2,273,230.87	88.00	25,832.14	59.56	1,538,495.69
1991	2,286,065.28	88.00	25,977.99	60.41	1,569,236.43
1992	994,305.47	88.00	11,298.91	61.26	692,166.71
1993	1,726,662.83	88.00	19,621.15	62.12	1,218,858.80
1994	2,632,088.71	88.00	29,910.07	62.98	1,883,781.78
1995	1,958,733.69	88.00	22,258.31	63.85	1,421,134.95
1996	1,595,839.94	88.00	18,134.53	64.72	1,173,614.23
1997	1,818,936.66	88.00	20,669.71	65.59	1,355,740.72
1998	3,168,363.32	88.00	36,004.09	66.47	2,393,119.90
1999	3,133,487.19	88.00	35,607.77	67.35	2,398,147.90
2000	2,498,608.55	88.00	28,393.25	68.24	1,937,435.08
2001	3,552,712.87	88.00	40,371.69	69.12	2,790,666.17
2002	2,564,610.36	88.00	29,143.27	70.02	2,040,504.64
2003	4,380,992.86	88.00	49,783.96	70.91	3,530,263.70
2004	3,121,714.23	88.00	35,473.99	71.81	2,547,398.12
2005	3,835,907.37	88.00	43,589.81	72.71	3,169,509.32
2006	5,810,302.75	88.00	66,026.10	73.62	4,860,653.91
2007	5,319,468.21	88.00	60,448.44	74.53	4,505,031.42
2008	6,010,267.41	88.00	68,298.42	75.44	5,152,312.70
2009	4,847,293.06	88.00	55,082.82	76.35	4,205,712.22
2010	6,511,316.14	88.00	73,992.15	77.27	5,717,345.93
2011	5,999,808.08	88.00	68,179.56	78.19	5,330,925.23
2012	5,527,627.51	88.00	62,813.88	79.11	4,969,333.26
2013	3,086,005.73	88.00	35,068.21	80.04	2,806,759.55
2014	7,718,994.55	88.00	87,715.75	80.96	7,101,889.39
2015	7,536,151.08	88.00	85,637.99	81.90	7,013,450.15

Veolia Water Pennsylvania
Water Division
331.40 Transmission and Distribution Mains
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2021
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***88*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2016	9,223,604.78	88.00	104,813.58	82.83	8,681,634.82
2017	16,754,768.15	88.00	190,394.89	83.76	15,948,316.11
2018	14,706,677.04	88.00	167,121.15	84.70	14,155,458.89
2019	27,501,707.03	88.00	312,519.06	85.64	26,764,549.20
2020	10,426,028.96	88.00	118,477.48	86.58	10,258,136.00
2021	9,503,494.71	88.00	107,994.14	87.53	9,452,374.92
Total	215,118,009.75	88.00	2,444,520.23	75.24	183,932,673.64

Composite Average Remaining Life ... 75.24 Years

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	Docket Nos. R-2024-3045192
v.	:	R-2024-3045193
Veolia Water Pennsylvania, Inc.	:	

VERIFICATION

I, David J. Garrett, hereby state that the facts above set forth in my Direct Testimony, OCA Statement 3, are true and correct (or are true and correct to the best of my knowledge, information, and belief) and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: May 17, 2024 Signature: _____

David J. Garrett

Consultant Address: Resolve Utility Consulting PLLC
101 Park Avenue Suite 1125
Oklahoma City, OK 73102

OCA St. 4

BEFORE
THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	)	Docket Nos. R-2024-3045192 (Water)
v.	)	R-2024-3045193 (Wastewater)
Veolia Water Company Pennsylvania, Inc.	)	
	)	

`

DIRECT TESTIMONY

OF

JEROME D. MIERZWA

ON BEHALF OF
THE PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

MAY 17, 2024

EXETER
ASSOCIATES, INC.
10480 Little Patuxent Parkway, Suite 300
Columbia, Maryland 21044

I. INTRODUCTION

Q. WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS ADDRESS?

A. My name is Jerome D. Mierzwa. I am a Principal and Vice President of Exeter Associates, Inc. ("Exeter"). My business address is 10480 Little Patuxent Parkway, Suite 300, Columbia, Maryland 21044. Exeter specializes in providing public utility-related consulting services.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A. I graduated from Canisius College in Buffalo, New York in 1981 with a Bachelor of Science Degree in Marketing.[1] In 1985, I received a Master's Degree in Business Administration with a concentration in finance, also from Canisius College. In July 1986, I joined National Fuel Gas Distribution Corporation ("NFGD") as a Management Trainee in the Research and Statistical Services ("RSS") Department. I was promoted to Supervisor RSS in January 1987. While employed with NFGD, I conducted various financial and statistical analyses related to the company's market research activity and state regulatory affairs. In April 1987, as part of a corporate reorganization, I was transferred to National Fuel Gas Supply Corporation's ("NFG Supply's") rate department where my responsibilities included cost-of-service and rate design analysis, expense and revenue requirement forecasting, and activities related to federal regulation. I was also responsible for preparing NFG Supply's Federal Energy Regulatory Commission ("FERC") Purchased Gas Adjustment ("PGA") filings and developing interstate pipeline and spot market supply gas price projections. These

[1] Effective August 1, 2023, Canisius College became Canisius University.

forecasts were utilized for internal planning purposes as well as in NFGD's Pennsylvania Section 1307(f) purchased gas cost proceedings.

In April 1990, I accepted a position as a Utility Analyst with Exeter. In December 1992, I was promoted to Senior Regulatory Analyst. Effective April 1996, I became a Principal of Exeter. Since joining Exeter, I have specialized in evaluating the gas purchasing practices and policies of natural gas utilities, utility class cost-of-service and rate design analyses, sales and rate forecasting, performance-based incentive regulation, revenue requirement analysis, the unbundling of utility services, and the evaluation of customer choice natural gas transportation programs.

Q. HAVE YOU PREVIOUSLY TESTIFIED ON UTILITY RATES IN REGULATORY PROCEEDINGS?

A. Yes. I have provided testimony on more than 450 occasions in proceedings before the FERC, utility regulatory commissions in Arkansas, Connecticut, Delaware, Georgia, Illinois, Indiana, Louisiana, Maine, Massachusetts, Montana, Nevada, New Hampshire, New Jersey, Ohio, Rhode Island, South Carolina, Texas, and Virginia, as well as before the Pennsylvania Public Utility Commission ("PaPUC" or "the Commission").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. On February 16, 2024, Veolia Water Pennsylvania, Inc. ("Veolia" or "the Company") filed an application requesting to increase its rates for water services by $15,495,000, or 26%, and its rates for wastewater service by $568,000, or 35%. Exeter was retained by the Pennsylvania Office of Consumer Advocate ("OCA") to review the reasonableness of the requested increases, as well as the water and wastewater class cost-of-service ("CCOS") studies and rate design proposals included in the Company's application. My testimony addresses the Company's CCOS studies and rate design

proposals. My colleague, Mr. Lafayette K. Morgan (OCA Statement 2), addresses the reasonableness of the Company's requested revenue requirement increases.

Q. PLEASE SUMMARIZE YOUR CONCLUSIONS AND RECOMMENDATIONS.

A. I have reached the following conclusions and recommendations:

- Veolia presents separate water CCOS studies for its Main Division and its Mahoning service territory. My review generally found both CCOS studies to be reasonable.

- Veolia provides water service in five service territories, and the rates for service in each service territory currently differ. In this proceeding, Veolia is proposing to move toward consolidating the rates of its five water service territories. I generally agree with Veolia's proposal to move toward the consolidation of rates in its five water service territories; however, several of the Company's rate design consolidation proposals need to be moderated to avoid rate shock and provide for gradualism. My recommended modifications to Veolia's rate consolidation proposals are discussed in greater detail in this testimony and include:

    - For the Bethel service territory, increasing the 5/8-inch Residential monthly customer charge to 75% rather than 100% of the customer charge of the Main Division;

    - For the Kensington service territory, adopting the current usage charge for usage in excess of the free allowance for all usage;

    - For the Overbrook service territory, adopting a usage charge that results in a 2.0 times the system average increase for the average Residential customer; and

    - For the Mahoning service territory, adopting a Residential usage charge of $7.55 per 1,000 gallons that is proportionately scaled back to reflect the revenue requirement authorized by the Commission in this proceeding.

- I recommend that Public Fire charges be increased to recover 25% of the cost of service, subject to a maximum increase of 2.0 times the system average increase authorized by the Commission in this proceeding;

- The water monthly customer charges adopted in this proceeding should be based on the direct costs associated with the addition or subtraction of a customer. For a 5/8-inch meter, eliminating those costs which do not vary directly with the adoption or subtraction of a customer charge from the Company's calculation would reduce the $19.80 charge calculated by Veolia to $17.96. This direct cost customer charge should be further reduced to reflect the ultimate revenue requirement authorized by the Commission in this proceeding;

- The rates for water service proposed by Veolia in this proceeding should be adjusted as follows:

    - First, the cost of service identified for each customer class included in the CCOS studies presented by Veolia in this proceeding should be proportionately adjusted to reflect the revenue requirement authorized by the Commission in this proceeding.

    - The rates for Public Fire service should then be adjusted to reflect my recommendation to fully recover 25% of the cost of service, limited to a maximum increase of 2.0 times the system average increase.

    - Next, consolidated monthly customer charges should then be determined based on Veolia's direct customer costs as I have calculated, proportionately adjusted to reflect the revenue requirement authorized by the Commission in this proceeding. These customer charges would apply to each service territory with the exception of the Bethel service territory. Monthly customer charges for the Bethel service territory should be increased to reflect movement of 75% toward the customer charges adopted for the other four service territories.

    - With respect to volumetric usage rates, the usage charges I have proposed for the Overbrook and Mahoning service territories should be proportionately adjusted to reflect the revenue requirement authorized by the Commission in this proceeding. The current usage charge for the Kensington service territory for usage in excess of the minimum allowance should be applied to all usage by Kensington customers and not be adjusted to reflect any difference between the revenue requirement increase requested by Veolia and the revenue requirement increase authorized by the Commission in this proceeding. However, if this recommendation results in an increase for the average Kensington Residential customer that is greater than 2.0 times the system average

increase, the current usage allowance should be reduced rather than eliminated to maintain a 2.0 times the system average increase.

- The wastewater CCOS study presented by Veolia for the Mahoning wastewater operations appears to be generally reasonable; and
- Veolia's wastewater rate design proposals for the Mahoning service territory are generally reasonable; however, in its next base rate proceeding, Veolia should propose a rate design that adopts volumetric usage charges for Residential customers.

Q. HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?

A. Including this introductory section, my testimony is divided into three sections. In the following section, I address Veolia's water CCOS studies and rate design proposals. In the final section of my testimony I address Veolia's wastewater rate design proposals.

II. WATER COST ALLOCATION AND RATE DESIGN

Q. PLEASE IDENTIFY THE SERVICE TERRITORIES IN WHICH VEOLIA CURRENTLY PROVIDES WATER SERVICE.

A. As a result of various acquisitions and corporate consolidations, Veolia currently provides water service to five different service territories which are identified in the Company's tariff as follows:

- Customers residing in all territories served by Veolia Water Pennsylvania, Inc. except for portions of the Township of Bethel and portions of the Township of Concord, Delaware County, Pennsylvania, formerly served by Veolia Water Bethel, Inc. (**Main Division**);
- Customers in portions of the Township of Bethel and portions of the Township of Concord, Delaware County, Pennsylvania, previously served by Veolia Water Bethel, Inc. **(Bethel)**;
- Customers residing in portions of Hamilton and Letterkenny Township, Franklin County, Pennsylvania **(Kensington)**;

- Customers in Overbrook, Dallas Township Luzerne Conty, Pennsylvania previously served by Overbrook Water Company **(Overbrook)**; and
- Customers residing in the Township of Mahoning, Montour County previously served by SUEZ Water Pennsylvania, Inc. **(Mahoning)**[2].

Q. ARE THE SAME TARIFF RATES CURRENTLY APPLICABLE TO THE CUSTOMERS IN EACH WATER SERVICE TERRITORY?

A. No. Different rates are currently applicable to the customers in each service territory. However, based on the results of the water CCOS studies filed by Veolia in this proceeding, the Company is proposing to move toward the consolidation of the rates of the customers in the Bethel, Kensington, Overbrook, and Mahoning service territories with the rates of the Main Division.

Q. PLEASE DESCRIBE THE WATER CCOS STUDIES PRESENTED BY VEOLIA IN THIS PROCEEDING?

A. Veolia has presented two water CCOS studies in this proceeding. One CCOS study was prepared for customers in the Mahoning service territory (Mahoning CCOS study), and the other CCOS study was prepared for customers in the Main Division and Kensington, Overbrook, and Bethel service territories ("Main Division CCOS study").

Q. WHAT IS THE OBJECTIVE OF A COST OF SERVICE STUDY?

A. Generally, a CCOS study is conducted to assist a utility or Commission in determining the level of costs properly recoverable from each of the various classes of customers to which the utility provides service. Allocation of recoverable costs to each class of service is generally based on cost causation principles.

[2] SUEZ Water Pennsylvania, Inc. was acquired by Veolia Water Pennsylvania, Inc. in 2021.

Q. WHAT ARE THE PRIMARY CCOS STUDY METHODOLOGIES UTILIZED FOR WATER UTILITIES?

A. The two most commonly used and widely recognized methods of allocating costs to customer classes for water utilities are the base-extra capacity method and the commodity-demand method. Both methods are set forth in the American Water Works Association's ("AWWA") Manual, M1, *Principles of Water Rates, Fees, and Charges* ("AWWA M1 Manual").

Q. WHAT METHODOLOGY HAS THE COMPANY UTILIZED FOR ITS WATER CCOS STUDIES?

A. Veolia has utilized the base-extra capacity method in preparing its water CCOS studies. Under the base-extra capacity method, investment and costs are first classified into four primary functional cost categories: base or average capacity, extra capacity, customer, and fire protection. Once investment and costs are classified to these functional categories, they are allocated to the various customer classes. The CCOS studies presented by Veolia are sponsored by witness Constance E. Heppenstall from Gannett Fleming Valuation and Rate Consultants, LLC.

Q. PLEASE DESCRIBE IN GREATER DETAIL THE FOUR PRIMARY FUNCTIONAL COST CATEGORIES AND HOW THEY ARE GENERALLY ALLOCATED TO THE VARIOUS CUSTOMER CLASSES UNDER THE BASE-EXTRA CAPACITY METHOD.

A. **Base Costs** are costs that tend to vary with the quantity of water used, plus costs associated with supplying, treating, pumping, and distributing water to customers under average load conditions. Base costs are allocated to customer classes on the basis of average daily usage.

Extra Capacity Costs are costs associated with meeting usage requirements in excess of average usage. This includes operating and capital costs for additional plant and system capacity beyond that required for average usage. Extra capacity costs in the Company's CCOS studies have been subdivided into costs necessary to meet maximum day extra demand and maximum hour extra demand. Extra capacity costs are allocated to customer class on the basis of each class's maximum day and maximum hour usage in excess of average usage.

Customer Costs are costs associated with serving customers regardless of their usage or demand characteristics. Customer costs include the operating costs related to meters and services, meter reading costs, and billing and collection costs. Customer costs are allocated on the basis of the capital cost of meters and services and the number of customer bills.

Fire Protection Costs are costs associated with providing the facilities to meet the potential peak demand of fire protection service. The extra capacity costs assigned to fire protection are typically allocated to Fire Protection on the basis of the total relative demands of hydrants and fire service lines. In accordance with Section 1328 of the Public Utility Code, public fire costs exceeding 25% of the public fire cost of service were recategorized as customer costs in the Company's CCOS studies, and reallocated to other customer classifications.

Q. PLEASE IDENTIFY THE CUSTOMER CLASSES VEOLIA INCLUDED IN ITS WATER CCOS STUDIES.

A. Both CCOS studies filed by Veolia include the Residential, Commercial, Private Fire Service and Public Fire Service customer classes. The Main Division CCOS study also includes the Industrial, Large Industrial, and Public Authority customer classes.

Q. PLEASE IDENTIFY THE CUSTOMER CLASSES CURRENTLY SERVED BY VEOLIA IN EACH OF ITS FIVE WATER SERVICE TERRITORIES.

A. The customer classes currently served by Veolia in each of its water service territories are as follows:

Main Division: Veolia currently provides retail service to the Residential, Commercial, Industrial, and Large Industrial, Public Authority classes, and Private Fire and Public Fire protection service;

Bethel: Veolia currently provides retail service to the Residential, Commercial, Sales for Resale, and Public Authority customer classes, and Private Fire and Public Fire protection service;

Kensington: Veolia currently provides retail service to the Residential class and, Private Fire and Public Fire protection service;

Overbrook: Veolia currently provides retail service to the Residential and Commercial customer classes, and Private Fire and Public Fire protection service; and

Mahoning: Veolia currently provides retail service to the Residential and Commercial customer classes, and Private Fire and Public Fire protection service.

Q. DID YOUR REVIEW GENERALLY FIND VEOLIA'S WATER CCOS STUDIES TO BE REASONABLE?

A. Yes, my review generally found Veolia's water CCOS studies to be reasonable.

Q. PLEASE DESCRIBE THE CURRENT RATE DESIGN FOR RETAIL WATER SERVICE IN EACH OF THE COMPANY'S FIVE SERVICE TERRITORIES.

A. Currently, the rates for retail service in each of the Company's five service territories differ. In the Main Division, Residential, Commercial, Industrial, Public Authority and Large Industrial customer are assessed a monthly customer service charge which varies based on meter size, and a volumetric consumption charge. Monthly customer service

charges are the same for each customer class in the Main Division. With respect to consumption charges, each customer class except the Large Industrial class pays the same rate for monthly consumption for consumption that is less than 25,000 gallons per month. Commercial, Industrial, and Public Authority customers pay a lower rate for monthly consumption in excess of 25,000 gallons per month. The consumption charge for usage in excess of 25,000 gallons is currently the same for the Commercial and Public Authority classes, but is different for the Industrial class. The Large Industrial class pays the same consumption charge for all usage, and that rate is currently lower than the rate charged to the Commercial, Industrial, and Public Authority classes for usage in excess of 25,000 gallons per month.

In the Bethel service territory, Residential, Commercial, and Sales for Resale customers are assessed a monthly customer service charge which varies by meter size, and a consumption charge. Monthly customer charges are the same for each customer class in the Bethel service territory. Residential and Commercial customers in the Bethel service territory are subject to the same declining block usage charges, while Sales for Resale customers are assessed the same rate for all consumption. The consumption charge assessed to Sales for Resale customers is lower than all of the consumption charges assessed to Residential and Commercial customers in the Bethel service territory.

In the Kensington service territory, Residential and Commercial customers are currently assessed a monthly customer service charge which does not vary by meter size. Residential and Commercial customers are currently assessed the same consumption charges for all usage.

In the Overbrook service territory, all customers are assessed monthly service charges which vary based on the number and type of facilities and appliances that utilize water. Overbrook customers are currently not assessed consumption charges.

Finally, in the Mahoning service territory, Residential and Commercial customers are assessed the same monthly customer charges which vary by meter size. Residential and Commercial customers are currently assessed the same consumption charge for all usage. The current monthly customer service charges and consumption charges for each service territory are summarized in Exhibit No. GRH-2, Schedule 11, pages 1 and 2.

Q. PLEASE DESCRIBE VEOLIA'S WATER RATE DESIGN PROPOSALS IN THIS PROCEEDING.

A. As described in the direct testimony of Company witness Greogry R. Herbert in VWPA Statement No. 2, Veolia's water rate design proposals include: (1) increasing public fire service charges that are below 25% of the cost of service to a rate that moves toward 25% of the cost of service; (2) adopting rates for Mahoning, Overbrook and Kensington that are the same as the rates proposed for the Main Division; (3) moving the Bethel monthly customer charges to be the same as the monthly customer charges proposed for the Main Division; (4) changing the Bethel volumetric rate structure by customer class to be the same as the Main Division volumetric rate structure; (5) proposing Bethel volumetric rates which move toward consolidation with the Main Division; (6) increasing rates by customer classification in a manner that moves the revenues recovered from each classification toward the indicated cost of service; and (7) increasing customer charges to be more in line with customer costs. Like Ms. Heppenstall, Mr. Herbert is also from Gannett Fleming Valuation and Rate Consultants, LLC.

Q. PLEASE SUMMARIZE THE CUSTOMER CLASS REVENUE ALLOCATIONS THAT RESULT UNDER VEOLIA'S RATE DESIGN PROPOSALS.

A. Table 1 summarizes the Veolia's proposed revenue allocations for each customer that result under its rate design proposals.

Table 1.

Veolia Water Pennsylvania, Inc.
Water Operations
Summary of Present and Company Proposed Revenues and Cost of Service Study Comparison

Main Division Cost of Service Study

Class	Present	Proposed	Increase	Cost of Service	Over/(Under) Cost of Service
Residential	$35,257,068	$43,990,956	24.8%	$42,159,024	$1,831,932
Commercial	15,759,765	19,427,277	23.3%	19,292,375	134,902
Industrial	1,006,656	1,253,921	24.6%	1,255,367	(1,446)
Large Industrial	398,177	561,287	41.0%	870,422	(309,135)
Public Authority	1,716,898	2,219,467	29.3%	2,210,512	8,955
Sales for Resale	721,446	1,301,990	80.5%	2,053,820	(751,830)
Private Fire	1,852,501	2,727,873	47.3%	3,108,623	(380,750)
Public Fire	1,085,138	1,193,325	10.0%	1,488,954	(295,629)
Subtotal	*$57,797,649*	*$72,676,096*	*25.7%*	*$72,439,097*	*$237,000*

Mahoning Cost of Service Study

Class	Present	Proposed	Increase	Cost of Service	Over/(Under) Cost of Service
Residential	$405,710	$770,427	89.9%	$828,028	($57,601)
Commercial	178,989	424,611	137.2%	582,026	(157,415)
Private Fire	2,441	3,594	47.2%	8,825	(5,231)
Public Fire	46,804	51,484	10.0%	68,238	(16,754)
Subtotal	*$633,944*	*$1,250,116*	*97.2%*	*$1,487,117*	*($237,000)*
TOTAL	**$58,431,593**	**$73,926,212**	**26.5%**	**$73,926,214**	**$0**

Q. WHAT ARE SOME OF THE PRINCIPLES OF A SOUND RATE DESIGN?

A. A sound rate design should:

- Utilize class cost-of-service study results as a guide;
- Provide stability and predictability of the rates themselves, with a minimum of expected changes that are seriously adverse to rate payers or the utility

(gradualism);

- Yield the total revenue requirement; and
- Provide for simplicity, certainty, convenience of payment, understandability, public acceptability, and feasibility of application, and reflect fairness in the apportionment of the total cost of service among the various customer classes.[3]

Q. DO YOU GENERALLY AGREE WITH VEOLIA'S RATE DESIGN PROPOSAL TO CONSOLIDATE THE RATES OF ITS FIVE SERVICE TERRITORIES?

A. Yes, I do. However, as subsequently explained later in my testimony, several of Veolia's rate design consolidation proposals need to be moderated to avoid rate shock and provide for gradualism.

Q. BEFORE ADDRESSING VEOLIA'S RATE CONSOLIDATION PROPOSALS, DO YOU AGREE WITH THE INCREASE PROPOSED BY THE COMPANY FOR PUBLIC FIRE SERVICE?

A. No. As previously indicated, under Section 1328 of the Public Utility Code, the rates for Public Fire service are limited to 25% of the cost of service. The Public Fire cost of service identified in Table 1 reflects this 25% limit. As shown on Table 1, Veolia is proposing a 10% increase in rates for Public Fire for both the Main Division and Mahoning service territory, but is requesting an overall increase in rates of 26.5%. With the proposed 10% increase, Public Fire will be under recovering the cost of service by $312,382 ($295,629 Main Division plus $16,754 Mahoning). It is unreasonable to limit the Public Fire increase to 10% when Public Fire is under recovering the cost of service. Therefore, I recommend that Public Fire rates be increased to fully recover 25% of the cost of service, limited to a maximum increase of 2.0 times the system average increase

[3] Principles of Public Utility Rates, Second Edition, James C. Bonbright, Albert L. Danielsen, David R. Kamerschen; Public Utility Reports, Inc. 1988, pages 383-384.

authorized by the Commission in this proceeding. Under the Main Division CCOS study, this would result in a Public Fire revenue increase of 37% under Veolia's proposed revenue requirement, and would increase Public Fire revenues to 25% of the cost of service. Under the Mahoning CCOS study, this would result in an increase of 46%, which would reflect an increase of 1.7 times the system average increase under Veolia's proposed revenue requirement. I recommend that the additional Public Fire revenues reduce the first block consumption rate of the Residential, Commercial, Industrial, and Public Authority customer classes.

Q. WOULD YOUR RECOMMENDED INCREASES IN PUBLIC FIRE REVENUES BE CONSISTENT WITH THE CONCEPT OF GRADUALISM?

A. Yes. While there is no hard and fast rule as to the concept of gradualism, an increase of 1.5 to 2.0 times the system average increase is generally considered consistent with the concept of gradualism. Under my recommendation, under the Main Division CCOS study, the Public Fire increase would be 1.40 times the system average increase of 26.5%, and under the Mahoning CCOS study the Public Fire increase would be 1.7 times the system average increase of 26.5%.

Q. MR. HERBERT CLAIMS THAT HIS RATE DESIGN PROPOSAL INCREASES CUSTOMER CHARGES TO BE MORE IN LINE WITH CUSTOMER COSTS. PLEASE IDENTIFY VEOLIA'S CURRENT MONTHLY CUSTOMER CHARGES AND MR. HERBERT'S PROPOSAL TO INCREASE THOSE CHARGES.

A. As shown on Exhibit No. GRH-2, Schedule 6, and Exhibit No. GRH-2, Schedule 11, the current monthly charge for a customer with a 5/8-inch meter in the Main Division is $14.50. The monthly charge is higher for larger sized meters. Customers in the Main

Division served by a 5/8-inch meter represent over 85% of all Veolia water customers. Veolia is proposing to consolidate the monthly customers charges for all five of its service territories. The proposed charge for a customer with a 5/8-inch meter is $19.80. The proposed charges increase proportionately based on meter size.

Q. SHOULD VEOLIA'S PROPOSED INCREASES IN THE CUSTOMER CHARGES BE APPROVED?

A. No. Customer charges should be based on the direct costs associated with the addition or subtraction of a customer. Veolia's proposed 5/8-inch monthly customer charge of $19.80 is based on the results of the Company's Main Division CCOS study and are developed on Exhibit No. CEH-1, Schedule H. Although the Company claims that this customer analysis is based only on direct costs, the costs reflected in Veolia's customer charge calculation includes costs that are not direct customer costs.

Q. WHAT COSTS ARE INCLUDED IN VEOLIA'S CUSTOMER CHARGE CALCULATION THAT ARE NOT DIRECT CUSTOMER COSTS?

A. Veolia's customer charge analysis includes the costs associated with bad debt expense, office land and buildings, and office equipment and furniture. These costs do not vary directly with the addition or subtraction of a customer and, therefore, should be excluded from the customer charge calculation. In addition, Veolia is proposing to establish a Residential customer assistance program in this proceeding. The estimated cost of the program is $1,000,000, and Veolia has included 100% of the costs of the program in its customer charge calculation. This is unreasonable. Customer assistance program costs do not vary directly with the addition or subtraction of a customer and, therefore, should not be included in the calculation of customer charges.

Q. HAVE YOU REVISED VEOLIA CUSTOMER CHARGE CALCULATION TO ADDRESS YOUR CONCERNS RELATED TO THE INCLUSION OF BAD DEBT EXPENSE, OFFICE LAND AND BUILDINGS, OFFICE EQUIPMENT AND FURNITURE, AND THE PROPOSED CUSTOMER ASSISTANCE PROGRAM IN THAT CALCULATION?

A. Yes. Schedule JDM-1 presents a revised customer charge calculation that addresses my concerns. As shown on Schedule JDM-1, addressing these concerns reduces the customer charge for a customer with a 5/8-inch meter from $19.80 to $17.96.

Q. WHAT IS YOUR RECOMMENDATION WITH RESPECT TO THE WATER CUSTOMER CHARGES THAT SHOULD BE ADOPTED IN THIS PROCEEDING?

A. My calculated direct customer cost of service for a 5/8-inch meter is based on the Company's requested revenue requirement. Under the revenue requirement authorized by the Commission in this proceeding, a direct cost based charge would certainly be further reduced. Therefore, I recommend that my calculated charge for a 5/8-inch meter be proportionately reduced to reflect the revenue requirement authorized by the Commission in this proceeding. That is, for example if Veolia's authorized revenue requirement is 90% of its requested revenue requirement, my calculated charge of $17.96 should be multiplied by 90%, which would result in a customer charge of $16.16. Customer charges for all other meter sizes should be determined by adjusting the 5/8-inch meter charge to reflect the current present rate differential. For example, the current monthly charge for a 1-inch meter is $30.05, or 2.072 times the current 5/8-inch meter charge of $14.50. Therefore, the charge approved for a 1-inch meter would be determined by multiplying the approved 5/8-inch meter charge by 2.072. Any

reduction in revenue due to the reduction in customer charges should be addressed through proportionate increases in the proposed volumetric usage charges.

Q. EARLIER IN YOUR TESTIMONY YOU INDICATED THAT SEVERAL OF VEOLIA'S RATE DESIGN CONSOLIDATION PROPOSALS REQUIRE MODIFICATION TO AVOID RATE SHOCK AND PROVIDE FOR GRADUALISM. PLEASE IDENTIFY THE SERVICE TERRITORIES FOR WHICH MODIFICATIONS WOULD BE APPROPRIATE.

A. Rate Design modifications would be appropriate for the Bethel, Kensington, Overbrook, and Mahoning service areas to avoid rate shock and provide for gradualism.

Q. PLEASE EXPLAIN WHY A MODIFICATION TO VEOLIA'S RATE DESIGN PROPOSAL FOR THE BETHEL SERVICE TERRITORY WOULD BE APPROPRIATE.

A. As shown on Exhibit No. GRH-2, Schedule 10.6, under Veolia's current rate design proposal, the average Residential customer served by a 5/8-inch meter using 3,500 gallons per month would experience a rate increase of 63% per month or 2.4 times the system average increase. This significant increase is largely attributable to the proposed increase in the 5/8-inch customer charge from $6.31 to $19.80. To provide for gradualism, I recommend the Bethel Residential 5/8-inch monthly customer charge be increased to 75% rather than 100% of the customer charge of the Main Division. Based on Veolia's requested revenue requirement, the average Bethel Residential increase would be 49% or 1.9 times the system average increase under my recommendation.

Q. PLEASE EXPLAIN WHY A MODIFICATION TO VEOLIA'S RATE DESIGN PROPOSAL FOR THE KENSINGTON SERVICE TERRITORY WOULD BE APPROPRIATE.

A. As shown on Exhibit No. GRH-2, Schedule 10.9, under Veolia's current rate design proposal, the average Residential customer served by a 5/8-inch meter using 3,500 gallons per month would experience a rate increase of 102% per month, or 3.8 times the system average increase. This significant increase is largely attributable to elimination of the free usage allowance of 1,667 gallons per month. To provide for gradualism, I recommend that the current usage charge for usage in excess of the free allowance be maintained and applied to all usage. Based on Veolia's requested revenue requirement, the average Kensington Residential increase would be 54% or 2.0 times the system average increase under my recommendation. Should this recommendation result in an increase which is greater than 2.0 times Veolia's actual system average authorized increase, I recommend that the current usage allowance be reduced rather than eliminated to maintain a 2.0 increase.

Q. PLEASE EXPLAIN WHY A MODIFICATION TO VEOLIA'S RATE DESIGN PROPOSAL FOR THE OVERBROOK SERVICE TERRITORY WOULD BE APPROPRIATE.

A. As shown on Exhibit No. GRH-2, Schedule 10.8, under Veolia's current rate design proposal, the average Residential customer served by a 5/8-inch meter using 3,500 gallons per month would experience a rate increase of 123% per month, or 4.6 times the system average increase. This significant increase is due to the adoption of volumetric usage charges for Overbrook customers. Overbrook customers are not currently assessed volumetric charges. To provide for gradualism, I recommend that a volumetric usage charge be adopted for Overbrook Residential customers that results

in an increase of 2.0 times the system average increase. Based on Veolia's requested revenue requirement, this would result in a volumetric usage charge of $6.25 per 1,000 gallons.

Q. PLEASE EXPLAIN WHY A MODIFICATION TO VEOLIA'S RATE DESIGN PROPOSAL FOR THE MAHONING SERVICE TERRITORY WOULD BE APPROPRIATE.

A. As shown on Exhibit No. GRH-2, Schedule 10.10, under Veolia's current rate design proposal, the average Residential customer served by a 5/8-inch meter using 3,500 gallons per month would experience a rate increase of 101.12% per month, or 3.8 times the system average increase. This significant increase is largely attributable to elimination of the current free usage allowance of 2,000 gallons per month. To provide for gradualism, I recommend that a volumetric usage charge of $7.00 per 1,000 gallons be adopted for Mahoning Residential customers. Based on Veolia's requested revenue requirement, the average Mahoning increase would be 53%, or 2.0 times the system average increase under my recommendation.

Q. PLEASE SUMMARIZE HOW THE RATES PROPOSED BY VEOLIA IN THIS PROCEEDING SHOULD BE ADJUSTED TO REFLECT THE REVENUE REQUIREMENT AUTHORIZED BY THE COMMISSION IN THE PROCEEDING.

A. First, the cost of service identified for each customer class included in the CCOS studies presented by Veolia in this proceeding should be proportionately adjusted to reflect the revenue requirement authorized by the Commission in this proceeding. The rates for Public Fire service should then be adjusted to reflect my recommendation to fully recover 25% of the cost of service, limited to a maximum increase of 2.0 times the system average increase.

Next, consolidated monthly customer charges should then be determined based on Veolia's direct customer costs as I have calculated, adjusted as I have recommended to reflect the revenue requirement authorized by the Commission in this proceeding. These customer charges would apply to each service territory with the exception of Bethel service territory. As previously discussed, monthly customer charges for the Bethel service territory should be increased to reflect movement of 75% toward the customer charges adopted for the other four service territories.

With respect to volumetric usage rates, the usage charges I have proposed for the Overbrook and Mahoning service territories should be proportionately adjusted to reflect the revenue requirement authorized by the Commission in this proceeding. The current usage charge for the Kensington service territory for usage in excess of the minimum allowance would be applied to all usage by Kensington customer and would not be adjusted to reflect any difference between the revenue requirement increase requested by Veolia and the revenue requirement increase authorized by the Commission in this proceeding. However, if this recommendation results in an increase for the average Kensington Residential customer that is greater than 2.0 time the system average increase, as previously discussed and recommended, the current usage allowance should be reduced rather than eliminated to maintain a 2.0 times the system average increase.

Q. HAVE YOU REVISED THE COMPANY'S PRESENT AND PROPOSED REVENUE COMPARISON PREVIOUSLY PRESENTED IN TABLE 1 TO REFLECT YOUR PROPOSED RATE DESIGN RECOMMENDATIONS?

A. Table 2, presented below, revises Table 1 to reflect my proposed rate design recommendations at the revenue increase requested by the Company in this proceeding. As previously noted, my proposed rate design recommendations are contingent upon

the revenue increase actually authorized by the Commission in this proceeding. The actual increase authorized in this proceeding is currently unknown and, therefore, the revenue allocations presented in Table 2 will need to be proportionately adjusted to reflect the actual increase authorized by the Commission in this proceeding.

Table 2.
Veolia Water Pennsylvania, Inc.
Water Operations
Summary of Present and OCA Proposed Revenues and
Cost of Service Study Comparison

Main Division Cost of Service Study					
Class	**Present**	**Proposed**	**Increase**	**Cost of Service**	**Over/(Under) Cost of Service**
Residential	$35,257,068	$43,504,134	23.4%	$42,159,024	$1,345,110
Commercial	15,759,765	19,688,306	24.9%	19,292,375	395,931
Industrial	1,006,656	1,283,697	27.5%	1,255,367	28,330
Large Industrial	398,177	583,768	46.6%	870,422	(286,654)
Public Authority	1,716,898	2,271,806	32.3%	2,210,512	60,794
Sales for Resale	721,446	1,342,671	86.1%	2,053,820	(711,149)
Private Fire	1,852,501	2,727,873	47.3%	3,108,623	(380,750)
Public Fire	1,085,138	1,488,954	37.2%	1,488,954	0
Subtotal	*$57,797,649*	*$72,890,710*	*26.1%*	*$72,439,097*	*$451,614*
Mahoning Cost of Service Study					
Class	**Present**	**Proposed**	**Increase**	**Cost of Service**	**Over/(Under) Cost of Service**
Residential	$405,710	$541,320	33.4%	$828,028	($286,708)
Commercial	178,989	422,351	136.0%	582,026	(159,675)
Private Fire	2,441	3,594	47.2%	8,825	(5,231)
Public Fire	46,804	68,238	45.8%	68,238	0
Subtotal	*$633,944*	*$1,035,502*	*63.3%*	*$1,487,117*	*($451,614)*
TOTAL	**$58,431,593**	**$73,926,212**	**26.5%**	**$73,926,214**	**$0**

III. WASTEWATER COST OF SERVICE AND RATE DESIGN STUDIES

Q. PLEASE IDENTIFY THE WASTEWATER CCOS STUDIES PREPARED BY VEOLIA IN THIS PROCEEDING?

A. Witness Ms. Heppenstall prepared a wastewater CCOS study for Veolia's Mahoning Wastewater Operation (Exhibit No. CEH-3). This CCOS study includes two customer

classes, a Residential class and a Non-Residential class. Ms. Heppenstall also presents a cost study for Veolia's Columbia County Wastewater Operations (Exhibit No. CEH-4). Veolia's Columbia County Wastewater Operations only serves Non-Residential customers. As such, the wastewater cost study for Columbia County is not a class CCOS study but only provides a comparison of the cost of service under present and proposed rates. Therefore, since my testimony addresses cost allocation and rate design, I do not further address the Columbia County study in this testimony.

Q. PLEASE DESCRIBE THE COST ALLOCATION METHOD USED TO PERFORM THE CCOS STUDY FOR VEOLIA'S MAHONING WASTEWATER OPERATIONS?

A. Ms. Heppenstall used the functional cost allocation methodology described in "Financing and Charges for Wastewater Systems," Manual of Practice No. 27, published by the Water Environment Federation ("Manual of Practice No. 27). This method allocates the cost of providing wastewater service to customer classifications in proportion to each classification's use of the service provider's facilities and services. Costs are assigned to cost components using predominant operational purposes as cost-causative factors. The functional cost allocation method is generally accepted as a sound method for allocating the cost of wastewater service.

Q. DID YOUR REVIEW GENERALLY FIND VEOLIA'S MAHONING WASTEWATER OPERATIONS CCOS STUDY TO BE REASONABLE?

A. Yes, my review generally found Veolia's Mahoning wastewater CCOS study to be generally reasonable.

Q. PLEASE DESCRIBE THE CURRENT RATE DESIGN FOR WASTEWATER SERVICE IN THE MAHONING SERVICE TERRITORY.

A. Residential customers in the Mahoning service territory are currently assessed a monthly flat rate charge which does not vary based on meter size. Residential customers are not currently assessed a volumetric usage charge for wastewater service. Non-Residential customers are assessed a monthly customer charge and volumetric usage charges. Non-Residential monthly customer charges vary based on meter size with larger meters assessed higher charges. Different usage charges are assessed to Non-Residential customers for usage below and in excess of 435,000 gallons per month.

Q. PLEASE DESCRIBE VEOLIA'S RATE DESIGN PROPOSALS FOR WASTEWATER SERVICE IN THE MAHONING SERVICE TERRITORY.

A. For the Residential class, Veolia is proposing to maintain the currently monthly flat rate structure. For Non-Residential customers, Veolia is proposing to increase customer charges and to consolidate those charges. Veolia is also proposing to eliminate the current two block rate structure for the Non-Residential class, and maintain special rates for four Non-Residential customers.

Q. WHAT IS THE AVERAGE RATE INCREASE VEOLIA IS PROPOSING FOR THE RESIDENTIAL AND NON-RESIDENTIAL CLASSES?

A. As shown in Table 3, Veolia is proposing an average increase of 38.0% for the Residential class, and an increase of 17.3% for the Non-Residential class. The overall system average increase is 28.9%.

Table 3.
Veolia Water Pennsylvania, Inc.
Wastewater Operations
Summary of Present and Company Proposed Revenues

Class	Present	Proposed	Increase	Percent
Residential	$889,534	$1,227,771	$338,238	38.0%
Non-Residential	$699,679	$820,536	$720,856	17.3%
Total	**$1,589,420**	**$2,048,514**	**$459,094**	**28.9%**

Q. DO YOU AGREE WITH VEOLIA'S RATE DESIGN PROPOSALS FOR MAHONING WASTEWATER SERVICE IN THIS PROCEEDING.

A. Yes, I do. However, in its next base rate proceeding, Veolia should propose a rate design that adopts volumetric usage charges for Residential customers. This would better match cost causation and cost recovery for Residential customers.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does at this time. However, I reserve the right to supplement my testimony upon receipt of any currently outstanding discovery.

OCA St. 4

BEFORE
THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	)	Docket Nos. R-2024-3045192 (Water)
v.	)	R-2024-3045193 (Wastewater)
Veolia Water Company Pennsylvania, Inc.	)	
	)	

SCHEDULE ACCOMPANYING THE

DIRECT TESTIMONY

OF

JEROME D. MIERZWA

ON BEHALF OF
THE PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

MAY 17, 2024

EXETER
ASSOCIATES, INC.
10480 Little Patuxent Parkway, Suite 300
Columbia, Maryland 21044

VEOLIA WATER PENNSYLVANIA INC.
VEOLIA AND BETHEL WATER OPERATIONS

ANALYSIS OF DIRECT CUSTOMER COSTS

Description	Meters	Services	Billing & Collecting
Operation and Maintenance Expenses			
T&D Labor - Operation			
Employee Salaries - Supervision	$ 7,413		
Employee Salaries - Meters	108,721		
T&D Labor - Maintenance			
Employee Salaries - Supervision		$ 31,302	
Employee Salaries - Structures and Improvments		134,174	
Employee Salaries - Services		46,215	
Total Customer Accounting Expenses			$ 1,661,575
Management Fees - Customer Related			303,873
Management Fees - Employee Related	1,718	4,697	47,655
Transportation Expense	2,767	6,079	-
Worker's Compensation	1,028	2,259	-
Advertising Expense	-	-	-
Subtotal	121,646	224,727	2,013,103
Depreciation Expense			
Meters	1,606,360		
Services		1,043,115	
Office Buildings			-
Office Furniture & Equipment			-
Computer Software - CIS			-
Subtotal	1,606,360	1,043,115	-
Taxes Other Than Income			
Payroll Taxes	5,714	15,624	158,527
Assessments	-	-	-
Subtotal	5,714	15,624	158,527
Rate Base			
Meters	19,963,388		
Services		45,327,178	
Office Land/Buildings			-
Office Furniture and Equipment			-
Computer Software - CIS			-
Materials and Supplies	35,406	77,791	-
Deferred Taxes	(1,315,895)	(2,985,315)	-
Subtotal	18,682,899	42,419,655	-
Return and Income Taxes	1,870,205	4,246,314	-
Total Direct Customer Costs	3,603,926	5,529,781	2,171,630

VEOLIA WATER PENNSYLVANIA INC.
CALCULATION OF CUSTOMER COST PER MONTH FOR A 5/8-INCH METER
BASED ON DIRECT COSTS

Cost Function	Direct Cost of Service	Total Units		Cost Per 5/8-inch Meter	Cost Per 5/8-inch Meter Monthly Bill
(1)	(2)	(3)		(4)	(5)
Meters	3,603,926	76,444	5/8-inch Equivalents	$ 47.14	$ 3.93
Services	5,529,781	71,359	3/4-inch Equivalents	$ 77.49	$ 6.46
Billing, Collecting and Meter Reading	2,171,630	67,044	Customers	$ 32.39	$ 2.70
Subtotal Customer Costs	$11,305,337				$ 13.09
Unrecovered Public Fire	4,466,862	76,444	5/8-inch Equivalents	$ 58.43	$ 4.87
Total Customer Costs and Public Fire	$15,772,199				$ 17.96

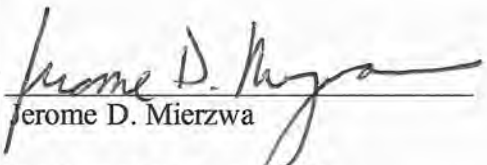
BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:		
v	:	Docket Nos.	R-2024-3045192
Veolia Water Pennsylvania, Inc.	:		R-2024-3045193
	:		

VERIFICATION

I, Jerome D. Mierzwa, hereby state that the facts above set forth in my Direct Testimony, OCA Statement 4, are true and correct (or are true and correct to the best of my knowledge, information, and belief) and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: May 17, 2024

Signature: 
Jerome D. Mierzwa

Consultant Address: Exeter Associates, Inc. 10480
Little Patuxent Parkway, Suite 300
Columbia, MD 21044-3575

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	Docket No.: R-2024-3045192 (Water)
v.	:	R-2024-3045193 (Wastewater)
	:	
Veolia Water Pennsylvania, INC	:	

DIRECT TESTIMONY

OF

Nicholas A. DeMarco

On behalf of the

PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

Date Served: May 17, 2024

Table of Contents

Introduction

Q. Please state your name and business address.

A. My name is Nicholas Anthony DeMarco. My business address is 555 Walnut Street, Forum Place, 5th Floor, Harrisburg, Pennsylvania 17101. I am currently employed as a Regulatory Analyst by the Pennsylvania Office of Consumer Advocate (OCA).

Q. On whose behalf are you testifying in this proceeding?

A. I am testifying on behalf of the OCA.

Q. What is the purpose of your testimony?

A. The purpose of my testimony in this case is to provide recommendations as to how Veolia Water PA Inc. (Veolia or Company) can improve its proposed Low-Income Program or Customer Assistance Program (CAP) which includes a bill discount program, a line repair program, and Arrearage Management Program (AMP), and the way in which Veolia plans to recover cost associated with the plan. I will also comment on the need to expand outreach to enroll more eligible customers.

Q. Have you previously provided testimony before the Pennsylvania Public Utility Commission?

A. Yes, I have testified as a policy witness in two other cases before the Pennsylvania Public Utility Commission. The cases can be found attached to my CV at NAD-1

Q. Please describe your educational background and qualifications to provide testimony in this case.

A. I have a Master's Degree in Political Science from Lehigh University and a Bachelor of Arts in Political Science, with a concentration in Constitutional Law from Bloomsburg

University of Pennsylvania. I also attended Michigan State University's Institute of Public Utilities online rate school program. I have attached my CV as NAD-1

Q. Have you prepared Exhibits to accompany your testimony?

A. Yes. Please find the attached Exhibits NAD-1-7 and attached company exhibits as NAD-8.

Veolia's Service Territory

Q. Please describe Veolia's Service Territory

A. VWPA provides water and wastewater service to about 66,000 customers located in its franchise territories in the Commonwealth of Pennsylvania, in a portion of Berks, Columbia, Cumberland, Dauphin, Luzerne, Montour, Perry, Schuylkill, Wyoming, and York Counties.[1]

Q. How many water customers does Veolia serve?

A. Veolia serves 66,602 water only customers.[2]

Q. How many wastewater customers does Veolia serve?

A. Veolia serves 268 wastewater only customers.[3]

Q. How many customers does Veolia provide both water and wastewater services to?

A. Veolia furnishes water and wastewater combined service to 1228 customers.[4]

Q. How many customers in Veolia's service territory are potentially low-income?

A. According to witness Jordan, 32% of the households in the counties served by Veolia are at or below 200% of the Federal Poverty Level (FPL).[5] If the same percentage is applied

[1] VWPA Statement No. 4, p. 7, ln. 20-22, p. 8, ln. 1-3
[2] Response OCA-5-5 Attachment
[3] Response OCA-5-5 Attachment
[4] Response OCA-5-5 Attachment
[5] Veolia St. No. 7 pg. 10-11 ln. 5-14

to VWPA's total number of water customers, there could be approximately 21,000[6] customers at or below 200% of the FPL. While the 32% may not be evenly distributed throughout the Company's Service Territory, the number shows that there is a high potential for customers who will need a Customer Assistance Program.

Q. How many customers has Veolia verified as Low-Income?

A. According to the Company, 662 known residential customers are at 0%-200% of the Federal Poverty Level since 2019 based on payment arrangement plans.[7]

Q. Are you aware of a measure of income sufficiency in Pennsylvania that addresses whether households have sufficient income to meet a survival budget?

A. Yes. While the federal poverty level (FPL) is a well-known measure to many people it is not a realistic measure to judge whether a household can afford basic life necessities. Increasingly, an emphasis has been placed on measuring a household's self-sufficiency or survival budget. One such measure of it this has been calculated by the United Way using their ALICE index. ALICE stands for Asset Limited, Income, and Employed.[8]

Q. Why is ALICE data relevant?

A. The ALICE data is relevant because it shows the likely number of Veolia customers who are living on a survival budget. Below at table 1 is a breakdown by county in the counties where Veolia provides service. Table 1 provides the number of customers and the percentage of customers below the ALICE threshold.

The household survival budget is meant to measure the minimum amount that a

[6] 0.32*66,602= 21,312
[7] Response to OCA-5-1 revised
[8] More information can be found https://unitedforalice.org/overview.

household can earn and afford life's necessities with little to know government assistance.

Table 1 - ALICE Statistics of the Counties Served by Veolia

County	Percent of Total Population in Poverty[9]	Percent of Total Population at the ALICE Threshold	Number of Veolia Customers[10]	Potential Number of Customers at the ALICE Threshold[11]
Berks	13%	28%	2,452	686
Columbia	16%	28%	5,867	1,642
Cumberland	7%	26%	13,518	3,531
Dauphin	11%	25%	30,687	7,671
Franklin	9%	25%	73	18
Luzerne	14%	27%	369	99
Montour	10%	30%	1,243	372
Perry	9%	29%	1,287	373
Schuylkill	12%	28%	118	33
Wyoming	10%	27%	104	28
York	9%	29%	2,424	702
Total				15,155

Q. What does this data show?

A. It shows the likelihood that nearly 15,155 customers receiving water and/or wastewater service from Veolia live at or below the ALICE threshold for survival and self-sufficiency. This is critically important for judging whether the rate impact of the rate increase sought in this case is just and reasonable. Households who are living at or below the ALICE threshold already have difficulty paying for their essential utility service before the proposed increase. This should be considered by the Commission in its analysis of whether the rates proposed are just and reasonable. Additionally, looking at the ALICE data also serves as a check on reasonableness of the breadth and depth of the

[9] https://www.unitedforalice.org/county-reports/pennsylvania (also used for Percent of Total Population at ALICE Threshold)
[10] Response OCA-5-24 Attachment
[11] Percentage of ALICE Population*Number of Veolia Customers

Company's low-income assistance program, which is outlined more fully below, and whether it should be expanded to meet the ongoing need of Veolia's economically vulnerable customers, which can be seen in the Company's residential disconnection rates.

Q. What is Veolia's residential customer disconnection rates?

A. Using data provided from the Company's response to OCA-5-29 Attachment Corrected, the data shows that the disconnection rate of non low-income residential customers is roughly 2.5%[12] and the while the disconnection rate of low-income customers is drastically higher at roughly 45%[13]. From May of 2021 to February of 2024 Veolia's average monthly disconnection rate was 48.8 customers a month, and the average arrears at the time of disconnection for residential customers was $362.01. When only low-income customers are accounted for in the same timeframe their average monthly disconnection rate was 8.7 disconnections a month and the average arrears at the time of disconnection for low-income residential customers was $646.06.

Q. What does this tell you as it is related to the ALICE data?

A. This shows that up to 50 customers a month are having difficulty paying their bills to the point that their water and/or wastewater service was terminated. This is before the requested rate increase is granted.

[12] NAD-4
[13] NAD-4

Veolia's Proposal

Q. Please summarize the Company's proposed Low-Income Plan.

A. In the settlement which saw Veolia North America purchase SUEZ Water Pennsylvania Inc and SUEZ Water Bethel Inc[14]. Veolia agreed to establish a Low-Income Advisory Committee ("LIAC") and utilize input from the committee to develop improvements to its low-income program for this, its next base rate case. Veolia also committed to provide shareholder contributions of $300,000 to the support the changes. The Company also agreed to increase its annual grant assistance program from $150 to $300 for water and $150 for wastewater.[15]

Q. Please summarize the Company's Customer Assistance Plan (CAP) proposal.

A. The Company developed its proposal by modeling it from other Commission-regulated investor-owned water utilities in the Commonwealth and input from the LIAC.[16] The CAP program consists of three parts: bill discount program, a line repair program, and an arrearage management program.[17]

Q. Please summarize the proposed Bill Discount portion of the CAP.

A. Customers enrolled will be charged their applicable tariff rate, but then will be provided a bill credit on their bill equal to the following tiered discount structure shown below in Table 2[18]

[14] *Joint Application of Veolia Environment S.A., Veolia North America, Inc., SUEZ S.A., SUEZ Water Pennsylvania Inc. and SUEZ Water Bethel Inc. for all approvals pursuant to Sections 1102(a)(3), (4), and 1103 of the Pennsylvania Public Utility Code, and as otherwise required under the Pennsylvania Public Utility Code for the change in control of SUEZ Water Pennsylvania Inc. and SUEZ Water Bethel Inc*., Docket Nos. A-2021-3026515, A-2021-3026522, and A2021-3026523 (Order entered Dec. 2, 2021).
[15] VWPA St. No. 7 pg. 3-4 ln. 10-4
[16] VWPA St. No. 7 pg. 3 ln. 13-16 & pg. 4 ln. 6-12
[17] VWPA St. No. 7 pg. 4 ln. 6-12
[18] VWPA St. No. 7 pg. 8

Table 2 – Veolia's Proposed Bill Discount Program

Poverty Level	Service Charge	Volumetric Discount
0-100%	$0 fixed charge	$0/gallon first 2,000 gallons
101-150%	$0 fixed charge	$0/gallon first 1,000 gallons
151-200%	$0 fixed charge	No Discount

Additionally, customers under 150% of FPL will receive: conservation education, conservation kits, and installation of the kits by a plumber for those over the age of 65 or with a disability.[19]

Q. Please summarize the proposed Arrearage Management Program ("AMP").

A. As proposed, Veolia customers at or below 200% of poverty who are unable to pay their past due bills will be eligible for a flexible payment arrangement created by the Company. This will be addressed in more detail later in my testimony[20]. A customer enrolled in the AMP will earn $25 per month of the outstanding balance each time the customer pays their current monthly bill by the due date. The bills will be due 20 days after the bill is mailed and the Company will allow a 5-day grace period for timely payments,[21].

Q. Please summarize the proposed line-repair program.

A. In its proposal, the Company plans to hire contractors to provide plumbing repairs of up to $1500 (for each occurrence) to eligible low-income customers at or below 150% of poverty. To be eligible a customer must be in threat of termination or have been terminated. Leaks must occur in an exposed internal line and/or consist of minor

[19] VWPA St. No. 7 pg. 7-8 ln. 13-12
[20] VWPA St. No. 7 pg. 8 ln. 14-20

plumbing repairs such as faucets and toilets. The Company proposes a budget of $100,000 per year [22][23].

Q. What current information and requirements are needed from the customer to sign-up for their current Grant Program, Veolia Cares Program.

A. A customer will qualify under the following conditions: (1) have established water service with Veolia (2) are experiencing a financial crisis such as a job loss or illness (3) have made a good faith payment of at least $20 withing the 90 days of applying.

The documents that a customer needs to provide at sign-up are: (1) Proof of Identification (2) Signed application (3) Most recent Veolia water bill.

Q. How often will customers need to recertify their eligibility for CAP participation?

A. Customers who participate in the program will need to recertify their eligibility every two years.

Q. Will the Company's CAP proposal apply to both water and wastewater services?

A. No. The Company states that it will not be applying its CAP proposal to its wastewater customers. The Company asserts that it needs to implement the water program successfully, allowing the Company to learn and make adjustments before expanding it to wastewater services. However, the Company will continue to provide its existing $150 hardship fund grants to wastewater services.[24]

Q. What costs does the Company claim will be associated with the CAP proposal?

A. The Company claims CAP costs will include:

- CAP bill discounts

[22] Response to OCA-5-19 attachment pg.1
[23] VWPA St. No. 7 pg. 9 ln. 1-9
[24] VWPA St. No. 7 pg. 6 ln. 1-7

- CAP arrearage forgiveness benefits ($25 credit per timely payment)
- Service line repair program ($100,000 yearly budget)
- CAP administration by a third party, unknown as of the time of this writing[25]
- One-time General and Administrative costs for program establishment.

Q. Did the Company attempt to quantify program enrollment?

A. Yes. The Company relied on statistics estimating poverty levels for Pennsylvania counties provided by Commission staff.[26] Using the standard of 200% of FPL and the Commission-provided data, Veolia estimates that 32% of the households in the counties in which Veolia provides some levels of service are at or below 200% of FPL. The Company states that eligibility does not equate to enrollment. The Company estimates using this data and its experience with its existing payment plan that 3% of the eligible customers will enroll in the program.[27] In discovery the Company estimated that of its roughly 65,000 customers[28] 2.5% or about 1,625 customers would participate. The Company estimated that 0.8% would participate at each 151-200%%, 101-150%, and 0-100 %FPL.[29] While it cannot be guaranteed that there is an even distribution of low-income customers across the FPL and the Veolia service territory for the ease of comparison of proposals the OCA will accept this premise.

Q. Did the Company attempt to quantify the program cost?

A. Based on their 3% eligible estimated customer participation from estimates gather from Veolia's other customer programs as outlined in Witness Jordan's testimony, the AMP,

[25] Response to OCA-5-22
[26] Response OCA-5-24 attachment 1
Source: 2017-2021 American Community Survey 5-Year Estimates - United States Census Bureau
[27] VWPA St. No. 7 pg. 10 ln. 5-19
[28] As of time of writing the Company has a total of 69,800 customers and 268 wastewater only customers (VWPA St. No. 1 pg. 8 ln. 16-17 & Response to OCA-5-5_Attachment).
[29] Response to OCA-5-19_Attachment

and the line repair program, the Company proposes a target budget of $1,000,000.[30] This was further refined in discovery, where the Company estimated the following breakdown: (1) the total cost of the bill discount portion of the program will be $614,445; (2) the arrearage management program is estimated to cost $100,000 (3) the line repair program are estimated to cost $100,000 ; and, (3) the administrative costs are estimated to be $200,000 despite not having chosen an administrator for the program yet.[31] For an estimated total cost of $1,014,445 for the CAP program.[32]

Q. How does the Company plan to recover the cost of the CAP program?

A. The Company proposes a ratemaking treatment that will track the difference between the overall cost of the program and the proposed target amount as a regulatory asset or liability. The difference would be addressed in the next rate case filing. The numbers and experience gained would then be used to inform the estimated adjustment needed for future rate cases. A $300,000 commitment from the shareholders would be included to support the low-income program and would be included in the reconciliation as a direct offset of the overall program costs.[33]

Q. Will the Company engage in outreach to promote the awareness of CAP availability?

A. Yes. The Company states that it will continue to participate in community level events and work with local agencies. It will also work with the customer service team to bring awareness of the assistance programs to customers. The Company believes that customers will be able to be enrolled in the programs when the customers reach out to the

[30] VWPA St. No. 7 pg. 11 ln. 1-7
[31] OCA-5-22
[32] Response to OCA-5-19 Attachment
[33] VWPA St. No. 6 pg. 7 ln. 9-18

Company for assistance with payment arrangements and terminations. This seems to mean that the Company will inform customers of the CAP program when they approach the Company when they have a difficult time paying their bill. The Company will also update its website.[34]

Impressions and Recommendations

Q. What is your overall impression of Veolia's proposal?

A. While the steps taken by Veolia to design and implement its CAP program are certainly a step in the right direction, there are several adjustments that, if made, would increase the likelihood of increasing enrollment and more accurately targeting affordability for its low-income customers. Thus, I will be recommending adjustments to the proposed bill discount program, such as expanding the number of discount tiers to better represent Veolia's customer base and recommending adjustments to the charges and discounts of the program. For the AMP, I will be recommending Veolia and the PUC take the existing CAP Policy Statement into account when adopting Veolia's AMP. Regarding the cost recovery mechanism that Veolia proposed, I will be recommending a more incremental approach. Lastly, I will be recommending that Veolia increase its low-income outreach efforts.

Bill Discount Program

Q. What level of discount does Veolia purpose?

A. As stated above, Veolia proposes a three-tiered discount system targeting households with income from 0-200% of the federal poverty level. At each level, enrolled customers would receive a bill credit of $19.80 which is the proposed residential customer charge in

[34] VWPA St. No. 7 pg. 11 ln. 9-17

this proceeding. In addition, customers at 0-150% of poverty would receive a bill credit equal to the cost of their first 2000 gallons (0%-100% FPL) or their first 1000 gallons (101%-150%). Customers with income from 151%-200% would not receive a volumetric discount or credit.

Q. Does Veolia's proposed plan yield affordable bills?

A. Veolia's proposed plan would reduce water bill burdens for households and, in that sense, would help promote affordability. This is a positive thing. However, even with the discounts/credits proposed by Veolia, households would still be paying bills that are outside of recognized guidelines for affordability. The EPA suggests that a household water bill should be no more than 2%-2.5% of a household's bill to income ratio[35]. Using a 2%-2.5% of Bill to Income ratio (BTI) affordability metric, the proposed tiered discount plan does not yield affordable results.

[35] Guidance: Coordinating CSO Long-term Planning with Water Quality Standards Reviews." pp. 31-32 (July 2001),
available at https://www3.epa.gov/npdes/pubs/wqs_guide_final.pdf.)

Table 3 - Bill to Income Ratios by Federal Poverty Level without the proposed bill discount rates and with the proposed bill discount rates[36]:

Income Range	Proposed BTI without Discount	Above [37]Affordability	Proposed BTI with Discount	Above Affordability[38]
0-50%	14.1%	7x	8.2%	4.1x
51-100%	7.5%	3.75x	4.4%	2.2x
101-150%	4.5%	2.25x	3.1%	1.5x
151-200%	3.2%	1.6x	2.6%	1.1x

Customers with income at or below 50% of FPL have an average BTI ratio of 14.1%, before Veolia's proposed discount is applied. Meaning that Veolia bills to these customers are more than seven times higher than that which would be affordable. At the other end of the spectrum, even customers with income at 151% to 200% FPL would have an average BTI ratio outside the accepted metric as their bills would have an average BTI of 3.2%, meaning that these low-income customers are billed more than 1.5 times higher than that which would be considered affordable before the discount is applied.

Even after the Company's proposed discount is applied only customers between 101% to 150% and 151% to 200% of the FPL will see average affordable BTI ratio. Those

[36] NAD-2
[37] Proposed rates without discount/2
[38] Proposed rates with discount/2

customers at or below 100% of the FPL will still on average see a bill 2 to 4 times higher than the recommended BTI ratio.

It is important to note that these rates are only for customers' water bills. As there will be no discount applied to customers' wastewater bills under the proposal.

Q. How does Veolia support its specific proposed Low-Income discount?

A. When asked for the justification for choosing to apply discounts at 1,000 gallons and 2,000 gallons, Veolia simply referred to Ms. Jordan's direct testimony.[39] That testimony, however, provides no justification for the usage selected. At that point of her testimony, all Ms. Jordan says is that Veolia's discount program "is similar to those offered by Aqua Pennsylvania, Inc. and Pennsylvania American Water Company."[40] PAWC and Aqua's programs do not offer the support for Veolia's chosen usage levels nor the program structure necessary to assist Veolia's customers.

Q. What do other PA regulated water and wastewater utility discount programs look like?

A. As can be seen from the tables below, while Veolia's proposal is similar to Aqua's current proposal, it is not similar to PAWC's current or proposed program.

Table 4 - PAWC Water CAP discount[41]

	Tier 1: 0-50%	Tier 2: 51-100%	Tier 3:
Discount on fixed water charges	80% discount	65% discount	40% discount
Discount on Volumetric Charges	80% discount	50% discount	25% discount

[39] Veolia St. 7, at page 7, lines 18 – 19, as cited in Response to OCA-8-20.
[40] Id.
[41] https://amwater.com/paaw/customer-service-billing/Customer-Assistance-Programs/h2o-help-to-others-program

Table 5 - PAWC recommended in latest rate case[42]

	Tier 1: 0-50 % FPL	Tier 2: 51-100% FPL	Tier 3: 101-150% FPL	Tier 4: 151-200% FPL
Discount on fixed water charges	90%	75%	60%	30%
Discount on Volumetric Charges	80%	65%	40%	20%

Table 6 - Aqua Water CAP discount[43]

	0-100% of FPL	101-150% of FPL	151-200% of FPL
Fixed Base Facility Customer charge	100% discount	100% discount	100% discount
Consumption Charge (first 2,000 gallons)	100% discount	50% discount	0% discount

Tables 4 and 5 show that neither PAWC's current water bill discount program nor its proposed program that was accepted by the PAWC in its rate case are similar to Veolia's proposed plan. While the Aqua bill discount program bears a closer resemblance to the plan proposed by Veolia, Company witness Jordan did acknowledge an important caveat offered by Aqua PA in explaining its low-income proposal back in 2021. Aqua PA's witness Black explained at that time: "Aqua PA customer data is currently housed in its customer information system. Because Aqua PA will be converting to SAP in 2023 and development of system requirements is in the early stages, programmatic changes to the existing system are not recommended. The components of the proposed CAP, including

[42] PAWC's proposed discounts for Tier 1 through Tier 3 can be found at PAWC St. 10, at 23. PAWC's proposed discounts for Tier 4 can be found at PAWC St. 10, page 24.
[43] https://www.aquawater.com/customers/customer-assistance-programs/customer-assistance-program.php

the discount and arrearage forgiveness benefits, were designed considering current functionality."[44]

Thus, the reasonableness of the discounts proposed by Veolia simply cannot be established by Aqua PA's lack of "current functionality" in 2021 and Aqua PA's intention to convert its SAP in less than two years from the date it was proposing a low-income discount.

Q. Do you think that Veolia's proposal is sufficient to meet the needs of its low income customers?

A. No. While I acknowledge that it will reduce the bills for those enrolled, as shown above, there does not appear to be an analytical basis for Veolia's decision to provide the rate discounts that it proposes to provide and doing so will not produce bills that are sufficient to reaching affordability under accepted metrics.

Q. Do you have any recommendations for an alternate rate structure?

A. Yes. I recommend an alternative rate discount structure set forth in Table 8 below. I recommend a lower discount on the fixed customer charge while recommending a higher discount on the volumetric charge. I recommend the lower discount on the fixed customer charge because in order to implement a $0 customer charge, as proposed by Veolia, would result in customers receiving a $0 bill to the extent their monthly usage was at or below the discounted volumetric usage. Through my alternative structure, unlike Veolia's proposal, all low-income customers will pay something toward their monthly Veolia service. Despite the higher fixed customer charge, however, my recommended alternative

[44] Aqua PA St. 10R, at 8, Docket Nos. R-2021-3027385, R-2021-3027386 (served December 2, 2021).

low-income discount will better achieve affordability for low-income customers.

Table 7 - Veolia's proposed Low-Income Discount[45]

Poverty Level	Service Charge Discount	Volumetric Discount	Monthly bill based on 3,500 gallons
0-100%	$0 fixed charge	$0 First 2,000 gallons	$17.55
101-150%	$0 fixed charge	$0 First 1,000 gallons	$29.25
151-200%	$0 fixed charge	No Discount	$60.75

Table 8 - proposed Alternative Low-Income Discount[46]

Income % of FPL	Fixed Charge Discount	Fixed Charge[47]	Volumetric Charge Discount	Monthly bill based on 3,500 gallons
0-50	40%	$11.88	$0 for first 6,000 gallons	$11.88
51-100	40%	$11.88	$0 for first 5,500 gallons	$11.88
101-150	40%	$11.88	$0 for first 4,000 gallons	$11.88
151-200	40%	$11.88	$0 for first 2,500 gallons	$23.58

Q. What is the basis for this alternative proposal?

A. First, I compared data provided by the Company which shows the mean and median household water usage of residential customers between march of 2023 and February of 2024[48] and compared it to the same metrics but only low-income residential customers[49] in the same time period. The data showed that on average low-income usage rates were nearly twice that of the overall residential population[50]. While the data could be skewed due to a few low-income customers with higher usage for a number of reasons, without

[45] NAD-2
[46] NAD-3
[47] The fixed charge is calculated using Veolia's proposed customer charge. This could be lower if OCA witness Mirzwa's recommendation is adopted by the Commission.
[48] OCA-5-26 attachments A&B
[49] OCA-5-26 attachments C/D
[50] See work papers

further analysis by the Company, I found it best to recommend that total gallons offered at the volumetric discount rate be increased at all FPL levels. To help offset this additional cost while still making bills affordable to low-income customers, I recommend a 40% discount to the customer charge be applied across all FPL levels.

Q. What is the impact on affordability of your proposed alternative low-income discount?

A. The impact of my recommended alternative discount would be to substantially improve the affordability of Veolia water bills to its low-income customers. The impacts of my recommended alternative low-income discount on BTI Ratios are set forth in Table 9 when compared to the discounts proposed by Veolia in Table 3. Additionally, every low-income customer would pay something towards their Veolia water bill.

Table 9 - Bill to Income Ratio by Federal Poverty Level of Alternative Plan[51]

Income Range % FPL	Proposed BTI with Veolia Discount	Proposed BTI with OCA Discount Rate
0-50	8.2%	3.5%
51-100	4.4%	2.3%
101-150	3.1%	2.1%
151-200	2.6%	2.1%

Q. Have you compared the cost of your recommended alternative rate discount structure to the coat of Veolia's proposed discount structure?

A. Yes. Veolia estimates that the cost of its proposed low-income discount would be $614,445[52]. The cost of adopting my recommended low-income discount structure is

[51] NAD-3
[52] Response to OCA-5-19, Attachment 1

estimated at rate of 3,000 gallons of monthly usage to be $895,928[53]. This leaves only a $281,483 or a $23,457 a month difference between the original Veolia proposal and my proposal. Using the same Veolia estimated customer ratio of 65,000 customers and 1625 customers who will participate in the program will cost residential ratepayers an additional $0.36 a month. This of course assumes that there is an equal distribution of low-income customers across the FPL. This proposal will improve overall affordability for low-income customers. With the addition of the $300,000 shareholder contribution, the small additional cost is easily off-set to residential ratepayers.

Q. What is your recommendation?

A. I recommend that Veolia adopt the alternative low-income discount structure that I set forth above.

Arrearage Management Program

Q. Please describe Veolia's proposed Arrearage Management Program.

A. In its AMP, Veolia proposes to provide a $25 credit toward pre-existing arrears for every complete and timely payment that a low-income program participant makes. In addition to paying their bill for current service, an AMP program participant would be required to enter into a flexible payment arrangement for their pre-existing arrears (Veolia St. No. 7 pg. 8 ln. 14-20). In response to discovery, it is unclear whether Veolia is requiring customers to enter into a traditional payment arrangement whereby these payment arrangements would require low-income customers enrolled in CAP to make the payments above and beyond their current bill.[54] Based on those responses, CAP participants could be made to enroll in a payment arrangement requiring them to pay $25

[53] Exhibit NAD-3
[54] Response to OCA 5-23 and OCA 8-13.

-$75 per month depending on their balances. As I interpret their responses, Veolia would then provide the additional $25 per month in forgiveness credit.

Q. Do you have any comments?

A. I interpret The Company's proposal to require that a copayment or payment arrangement be made toward preprogram arrears as a condition to earning arrearage credits. If this is the case, it is not a reasonable AMP program design. As documented above, under Veolia's proposed low-income discounts, low-income bills will result in BTI Ratios ranging from more than 8% of income (0 – 50% FPL) to nearly 3% of income (150 – 200% FPL) Table 9. As discussed earlier, BTI or Bill to Income Ratio is a way of measuring the economic burden a bill places on a household. Adding an arrearage copayment on top of these discounted bills (as proposed by Veolia) will add additional charges that strain affordability and drive the BTI Ratio even further away from the targeted affordable range that is between 2-2.5%. This is true even with my proposed modifications for Veolia's BDP as shown in Table 10 below.

Table 10 - Bill to Income Ratios at Veolia Proposed Rates with Proposed Discount and AMP Copayment, and at Veolia Proposed Rates with Alternative Discount and AMP[55]

Income FPL %	Veolia Proposed Rates / With Veolia Discount + Arrearage Copayment	Veolia Proposed Rates / with OCA Discount + Arrearage Copayment
0 – 50%	11.6%	6.9%
51 – 100%	6.2%	4.1%
101 – 150%	4.7%	3.7%
151 – 200%	4.5%	4.0%

Table 10 shows the BTI Ratio of the alternative discount I recommend above, plus Veolia's proposed arrearage copayment. With Veolia's proposed arrearage copayment, and the discount structure and level I recommend, BTI ratios would be increased at the highest income range (151 – 200% FPL) relative to the Company's proposed rates without a discount. In the remaining three income ranges, low-income BTI ratios would range from nearly two times the affordable level to nearly 3.5 times the affordable level. Table 11 above shows a comparison of the proposed the low-income discount, and with the OCA recommended AMP and their respective BTI ratios'. As one can see, the AMP as proposed by Veolia leaves rates unaffordable to all. The AMP suggested by the OCA brings rates closer in line with affordability at each customer level.

Q. Has the Commission previously issued a Policy Statement with respect to arrearage copayments and universal service programs?

A. Yes. While the PUC's "CAP Policy Statement" is directly applicable only to Pennsylvania's energy utilities, the policy articulated by the Commission regarding

[55] NAD-3

arrearage forgiveness copayments is instructive here as the principles articulated in that policy statement are equally applicable to water and wastewater as they would be to energy programs. In its comprehensive investigation of affordability programs, the Commission decided: "each utility CAP payment plan should be designed to ensure a household's total CAP bill – including any add-ons such as [Pre-Program Arrears] co-payments or CAP Plus charges – will not exceed the Commission's energy burden threshold."[56]

Although Veolia is a water company, the Commission's policy decision regarding pre-program arrearage copayments is persuasive here because the unaffordability of low-income bills is what contributed to the low-income customers having arrearages in to begin with and it makes little sense to implement a discount program that would continue to exacerbate unaffordability. To implement a program where, even after applying a proposed discount, low-income bills will increase, further contributes to the problem of inability-to-pay rather than contributing to a solution for inability-to-pay.

Q. What do you recommend?

A I recommend that upon enrollment in Veolia's BDP a customer's total arrears are frozen at the current level and are not billed to the customer. Meaning that if a customer has an arrearage of $300 at the time of entry into the program, a customer's arrears are frozen at that level. Then for each full payment a customer would receive $25 dollars in forgiveness without an additional co-payment. This would mean that customer with an arrearage of $300 could possibly earn enough credits to eliminate their total arrearage in 1 year.

[56] *2019 Amendments to Policy Statement on Customer Assistance Programs, 52 Pa. Code §§ 69.261-267*, Docket No. M-2019-3012599, Order at 31 (Nov. 5, 2019)(*Final CAP Policy Statement Order*).

Q. Do you have an additional recommendation to change Veolia's AMP?

A. Yes. Veolia's proposal to provide arrearage credits only after low-income customers have made payments that are both complete and on-time is also contrary to established Pennsylvania PUC policy that should provide persuasive guidance when developing a water discount program.[57] The goal of a low-income program should be to ensure that low-income customers continue to make payments even if they have insufficient funds to make complete payments. If low-income customers make partial payments when they have insufficient funds to make complete payments, they should receive arrearage forgiveness when they make future payment sufficient to get caught up. For example, if a customer's payment is $30 for a month, but they only pay $20, but the next month they pay $40, that customer should receive two months of arrearage credits in the second month because over that period they made two, in full payments.

Veolia's proposal to provide arrearage credits only when payments are both complete and on-time leads to unreasonable results. First, Veolia's proposal will deny arrearage forgiveness to program participants even if they have paid nearly their entire bill. Consider the following example. Customer A receives a Month 1 bill of $50 and makes a payment of $40. Accordingly, Customer A has not made a "full payment" in Month 1. Customer A receives a Month 2 bill of $50 and makes a payment of $50. Customer A thus has again not made a "full payment" since Customer A's Month 2 payment did not include both the make-up amount and the current charge. Under Veolia's proposal, even though Customer A in this scenario has paid $90 of the $100 they have been billed,

[57] Veolia St. 7, at 8

Customer A will nonetheless receive $0 in arrearage forgiveness credits.[58] The better approach is to credit arrearage forgiveness for each in full payment regardless of whether it is timely.

Q. Does Veolia present estimates on the number of full and on-time payments that the arrearage forgiveness credit will generate?

A. Yes. Veolia estimates that the annual cost of its arrearage forgiveness program will be $100,000.[59] At Veolia's proposed arrearage forgiveness credit of $25 per month, Veolia estimates it will provide 4,000 months of arrearage forgiveness ($100,000 / $25 = 4,000). This implies that Veolia expects only 333 low-income customers will earn arrearage forgiveness in a given year (4,000 credits per year / 12 months per customer = 333 customers per year). Veolia estimates that it will have 1,625 low-income program participants.[60] Given that Veolia reports that roughly 80% of its low-income customers currently have arrears,[61] it would be reasonable to expect that nearly 1,300 of its program participants would have an arrearage balance (1,625 x 0.79 = 1,284). Veolia is projecting that, under its proposed program structure, only a small fraction of its low-income customers in arrears will actually be able to earn arrearage forgiveness credits.

Q. Does the Commission have a policy on whether to limit arrearage credits only to when payments are both full and timely?

A. Yes. The Commission has previously addressed this situation. According to the Commission:

[58] OCA-8-13, OCA-8-14, OCA-8-15
[59] Response to OCA-5-19.
[60] Response to OCA-5-19.
[61] Veolia Response to OCA-5-7 - Veolia reported that 21% of its low-income customers had no arrearage balance, indicating that 79% of low-income customers did have arrears.

> PPA forgiveness acts to both reduce customer PPA debt over time and reward consistent payment habits. CAP customers may be more likely to be consistent with monthly payments – even if they fall behind – if there is a continuing opportunity to reduce PPA debt. We find that granting PPA forgiveness with each on-time and in-full monthly payment, regardless of in-program arrears is appropriate and reasonable. Offering retroactive PPA forgiveness can also provide a strong incentive for customers to catch up on missed payments.[62]

The Commission then adopted the policy that "[Electric Distribution Companies] and [Natural Gas Distribution Companies] should allow [Pre-Program Arrearage] forgiveness for each on-time and in-full monthly payment, regardless of in-program arrears, and retroactive PPA forgiveness for any months missed once the customer pays the CAP balance in full."[63] In my view, this policy is persuasive as applied to water customers as well.

Q. Do you have a recommendation?

A. I recommend that the same policy articulated by the Pennsylvania PUC should apply to Veolia's proposed arrearage forgiveness program in this proceeding. Specifically, Veolia should provide forgiveness when customers make up their missed payments. That is, they should provide forgiveness for each in-full payment even if that payment is not timely.

Q. Do you have any additional comments regarding Veolia's proposed AMP?

A. Yes. Veolia proposes to provide an arrearage credit of $25 per month if the low-income customer meets the Company's proposed prerequisites for earning such credits.[64] The proposed credit is the same irrespective of the size of arrearage that is subject to

[62] Final Order, supra, at 54.
[63] Id., at 54 – 55.
[64] Veolia St. 7 pg. 8

forgiveness.[65] It is the same no matter the income of the participating low-income customer. Without the copayment requirement, Veolia thus proposes to offer $300 in arrearage forgiveness per year to a customer. This proposal leaves a substantial low-income specific arrearage balance outstanding each year, due to the number of customers with high arrears, even though the plan will be addressing a majority of the low-income population.

[65] OCA-8-12

Table 12 – Low-Income Customer Arrears < $100 - < $400[66]

Arrears	Number of Customers	Total dollars in arrears
< $100	141	$6,899.28
< $200	57	$8,231.00
< $300	22	$5,369.86
< $400	7	$2,343.93

According to Veolia, it had 276 low-income accounts in arrears in the most recent month for which data was available.[67] Of those 276 low-income customers more than half of those customers in arrears had an arrearage balance of less than $100. Veolia's response OCA 5-7 shows that 141 customers have an arrearage balance of less than $100. This means that if Veolia's plan is adopted as is, 80% of its low-income accounts with arrears will have the balances reduced to $0 (if all credits are earned) in 12 months and 88% of the low-income accounts would have their arrears forgiven in 24 months. Under Veolia's approach, one customer would need to earn complete forgiveness over only 8.5 years; another would need to wait 9.5 years, while yet another would need to wait nearly 12 years.[68]

Q. Has the Commission articulated a policy regarding the period over which arrears should be forgiven?

A. Yes. Section 69.265(6)(ix) of the CAP Policy Statement for Pennsylvania's energy utilities recommends that CAPs provide PPA forgiveness over "a 2- to 3-year period

[66] Partial Response to OCA-5-7
[67] Response to OCA-5-7

[68] Response to OCA-5-7

contingent upon receipt of regular monthly payments by the CAP participant." As with other instances where I cite the CAP Policy Statement, I do not cite it as binding, but as evidence of what the PUC has previously determined to be reasonable and the same logic can be applied.

Q. What is your recommendation?

A. I do not recommend a change in Veolia's proposed arrearage forgiveness credit of $25 per month. This would reduce the arrears for a significant percentage of the customers with arrears. However, there is a group of customers who would not receive full forgiveness for a significant period and, thus, I recommend a change in Veolia's treatment of accounts with larger low-income arrearages. Rather than making Veolia's low-income customers with large pre-program wait years for complete forgiveness Veolia should adopt a program under which at the end of 36 in-full payments, the remainder of any outstanding preprogram arrears would be forgiven. Given the distribution of low-income arrears in the most recent month for which data is available in response to OCA-5-7, this would affect 12% of the customers, but would affect 55% of the outstanding arrears'

Q. Does the AMP address wastewater arrears?

A. No.

Q. Why does Veolia say that the AMP does not or will not cover wastewater services?

A. While the Company will continue to provide grants to wastewater customers, the Company states that its experience is limited and that they would like to successfully

implement their water program to learn and make corrections before including wastewater.[69]

Q. Do you have any comments?

A. Yes. I understand the reasons why Veolia has not proposed a CAP for wastewater customers given its desire to ensure that its water CAP is implemented effectively. However, I recommend that Veolia propose a bill discount program and AMP for their wastewater customers in their next rate case. In the meantime, to mitigate the impact of the proposed increase for Veolia's low-income wastewater customers, the Company should increase its emergency sewer grant to $300 to be equal to its equivalent water grant.

Low-Income Cost Recovery

Q. Has Veolia proposed to spread the cost recovery of the CAP program across all rate classes?

A. No. While I disagree with this decision, I am not recommending that cost recovery for the CAP program extend to all rate classes in this proceeding.

Q. What does Veolia propose regarding cost recovery for arrearage forgiveness?

A. Veolia seeks total cost recovery of $1.0 million for the complete suite of programs offered through its CAP.[70] Of that $1.0 million, Veolia projects that it will spend $100,000 on arrears forgiveness and $614,445 for its bill discount credits.[71] Veolia proposes to collect 100% of both the bill discount credits and the arrearage forgiveness credits it estimates that it will provide.

[69] Veolia St. No. 7 pg. 6 ln. 1-7
[70] Veolia St. No. 7 pg. 10-11 ln. 4-7 & Veolia St. No. 6 pg. 7 ln. 9-18
[71] Response to OCA-5-19.

Q. Do you have any recommendations to modify Veolia's request for cost recovery?

A. I recommend that the Commission limit Veolia's cost recovery to the incremental cost of implementing its low-income programs using two different tests and after contribution by Veolia of its $300,000 contribution promised in the merger with Suez. After this contribution, cost recovery should be limited to the incremental costs of the program. Cost recovery should be limited to the net costs of the program.

Q. Does Veolia limit its required cost recovery to the net incremental costs of its low-income programs?

A. No. The costs of Veolia's bill discounts and arrearage forgiveness programs are not "new" costs to the Company. A substantial portion of those costs would be incurred by Veolia even in the absence of the low-income programs and are, therefore, already included in the utility's revenue requirement. One of the primary ways in which the costs are already included in revenue requirement is through Veolia's calculation of its uncollectible expenses. Veolia explained its "allowance for doubtful accounts and write-offs" in relevant part as follows:

> The Allowance for Doubtful Accounts is an account used to estimate the amount of customer accounts receivable that are doubtful to be collected from customers. The account is a "contra asset" as it reduces the Accounts Receivable to its net realizable value. Providing an Allowance presents a more realistic picture of how much Accounts Receivable is expected to turn to cash. The Allowance for Doubtful Accounts is an estimate of the amount of probable credit losses in existing Accounts Receivable and is primarily based on the aging of Accounts Receivable. Account balances are written-off when it is probable the receivable will not be recovered.[72]

[72] Response to OCA-8-11, Attachment 1.

According to Veolia, its general reserve is calculated based on the historical rolling 5-year average of uncollectible Accounts Receivable broken out by the age of the amounts outstanding (i.e., 0-30 days, 31-60 days, 61-90 days, 91-120 days, and greater than 120 days) per the Accounts Receivable aging report. Once the general reserve calculation is performed, the initial reserve balance is compared to the historical 5-year write-off average. The greater of the calculated initial reserve and the historical 5-year write-off average will be included in the month's reserve balance.[73]

To the extent that low-income bills are already included in this calculation of the allowance for doubtful accounts, in other words, those lost revenues are already included in Veolia's revenue requirement. Similarly, to the extent that low-income arrears are already included in this calculation, those lost revenues have already been included in Veolia's revenue requirement. For these dollars, neither the low-income discount nor the low-income arrearage forgiveness creates "new" costs. The low-income programs simply recognize those costs differently. Rather than being viewed as part of the calculation of the "general reserve," or of the "5-year rolling write-off average," they are now considered to be part of the bill discount credits and/or arrearage forgiveness credits. Unless they are removed from the calculation of the general reserve and from the 5-year rolling average write-off average, to collect 100% of the bill discount and arrearage forgiveness credits would be to include them in both places, constituting a double recovery.

Q. What adjustments do you recommend?

A. Table 11 attached as exhibit NAD-7 documents the difference in collectability between Veolia's residential accounts as a whole and Veolia's low-income accounts in particular.

[73] Response to OCA-8-11.

The Table demonstrates that residential performance is four times higher than low-income performance. Given Veolia's reported gross write-off ratio of 0.64% as reported by the PUC,[74] I estimate a low-income gross write-off ratio of 2.56%. Reducing the combined cost of bill discounts and arrearage forgiveness by this percentage results in a reduction of the CAP cost recovery of $18,290.

Q. Do you have further adjustments that you recommend to the Veolia CAP cost recovery?

A. Yes. Of the $1.0 million in CAP cost recovery that it requests, Veolia includes $200,000 in estimated administrative costs.[75] It provides no detail on that estimate and includes no support for that dollar figure. The estimated $200,000 in administrative costs would represent an administrative cost rate of 28% ($200,000 / $714,445 of bill discount and arrearage forgiveness credits). An administrative cost of 28% of the total bill credits is unreasonable. Moreover, the Company already engages in many of the activities which would be needed to implement the bill discount and arrearage forgiveness programs. For example, Veolia already has its processes in place through which it determines a customer's income for purposes of calculating a payment arrangement.[76]

A 28% administrative cost for its low-income program is unreasonably high. In 2022, for example, the last year for which the PUC's Bureau of Consumer Services (BCS) has published data, the highest administrative cost for one of Pennsylvania's electric utility was 6.5% (Penn Power), while the highest administrative cost for one of Pennsylvania's

[74] 2022 Collections Data for the Major Electric, Gas, and Water Companies (updated February 2024), available at https://www.puc.pa.gov/media/2804/2022_master_residential_collections_data-rev022224.pdf
[75] OCA-5-19.
[76] OCA-5-23.

natural gas utilities was 8.8% (NFG).[77] Similarly, the administrative costs reported by the Commonwealth of Pennsylvania in its distribution of federal Low-Income Home Energy Assistance Program (LIHEAP) funds is 10%.[78]

Using the higher administrative allowance of LIHEAP, rather than the more efficient administrative costs of the state's utilities, would permit a 10% administrative cost for Veolia's low-income program. I recommend an allowed administrative cost of $71,445 for Veolia's bill discount and arrearage forgiveness program. Including an additional administrative cost of 10% for Veolia's "line repair" program ($100,000) would yield a final downward adjustment in total administrative costs of $118,445 ($200,000 – [$71,445 + $10,000] = $118,445).

Outreach and Participation

Q. Will the Company engage in outreach activities to increase awareness of CAP availability?

A. Yes. Witness Jordan states that the Company will continue to participate in community events and work with local agencies. That the Company will also work with its customer service team to provide awareness to the customers the Company serves.[79]

[77] Pennsylvania PUC, Bureau of Consumer Services (September 2023), Universal Service Programs and Collections Performance: 2022 Report, at 68, 69, available at https://www.puc.pa.gov/filing-resources/reports/universal-service-programs-and-collections-performance-reports/.

[78] Commonwealth of Pennsylvania Low-Income Home Energy Assistance Program, Fiscal Year 2024, Final State Plan, at 1, available at https://www.dhs.pa.gov/Services/Assistance/Documents/Heating%20Assistance_LIHEAP/FY2024-LIHEAP-Final-State-Plan.pdf

[79] Veolia St. No. 7 pg. 11 ln. 9-17

Q. Did Veolia provide examples of these materials?

A. Yes. In response to OCA-5-18 attachments 1-3, Veolia provides copies of the outreach and educational materials for their low-income program.

Q. Do you have any comments regarding these documents?

A. Yes. The OCA believes that it is reasonable for these materials to be offered in English and Spanish, along with the three other most spoken languages in Veolia's service territory. At the bottom of each document, there should be a notation in various languages on how a customer can reach out to the Company to receive these documents in their preferred language.

Q. How many customers do Veolia estimate will participate in its low-income program?

A. Using its prior experience with its payment plan, Veolia estimates that 1%-3% of qualified customers will participate in the program.[80] To calculate the cost of the program, Veolia used 1,625 estimated participants.[81]

Q. How many customers could be estimated to participate in Veolia's low-income program?

A. A study cited by Veolia estimates that 32% of households in the counties served by Veolia are at or below 200% of FPL.[82] Using the estimates of this study and the customer data provided by Veolia[83], it can be estimated that 19,000[84] low-income customers could be eligible for the program.

[80] Veolia St. No. 7 pg. 10-11 ln. 14-19
[81] Response to OCA-5-19 Attachment 1
[82] VWPA St. No. 7 pg. 10 ln. 5-19
[83] Response to OCA-5-5 Attachment 1
[84] 66,602 (number of water customers) *0.30 = 19,980

Q. Do you have any comments?

A. Yes. While Company witness Jordan is correct in stating that eligibility does not necessarily mean enrollment[85], these numbers indicate that there is the potential for many more customers to enroll in the program. Veolia stated that they are using their experience with their payment plan program to predict estimated program participation. However, just because only a small percentage of customers have signed up for Veolia's payment plan program, does not mean that (1) participation will stay that low and (2) that their CAP program will not necessarily mirror the participation.

As Veolia and all other utilities increase their rates, customers who may have not had an issue paying for their utilities in the past may find it continuously more difficult to in the future. While it is important to ensure that the low-income customers of a utility can receive just and reasonable rates, it is also important to ensure that customers who fall outside of the FPL ranges receive just and reasonable rates. Customers such as the ALICE customers discussed by OCA witness DeAngelo often do not qualify for many of these programs due to their gross income but due to conditions outside of their control find themselves on survival budgets struggling to get by. These customers can find themselves teetering on the edge of the Federal Poverty Line. If they ever fall over the edge and into poverty the sooner that they can sign-up for these programs the better it is for ratepayers, the Company, and the now impoverished customer. This is because they will be able to pay an affordable rate and not go into debt. A debt the Company has to carry and a debt the rate payers will need to pay for.

Secondly, this program, specifically the bill discount program, is designed to ease the

[85] Veolia St. No. 7 pg. 10-11 ln. 5-14

burden of a customer's monthly bill. This type of program is more likely to be attractive to more customers and can prevent them from accumulating an arrearage in the future.

Q. Do you have any recommendations?

A. Veolia should continue to increase its outreach in the community. Once the CAP program is established, Veolia should host quarterly events within its service territories to educate customers on what the CAP program is and how they can sign-up. Specifically, Veolia should aim to host these events where their customers eat, shop, play, and pray. I suggest that Veolia PA reach out to community centers, various areas or buildings of worship, libraries, and other areas that local community-based organizations (CBO) suggest. Secondly, Veolia should increase its communication and cooperation efforts with community-based organizations in their service territories. Third, Veolia should increase the number of languages that their low-income information and other handouts are offered in. The Company should also place a notation at the bottom of their educational materials in various languages of their service territory about how to contact the Company to receive any document in the customer's preferred language. Finally, when the Company is not hosting in-person events, the Company should reach out to CBOs, doctors' offices, schools, local government, and county government offices to keep paper handouts on hand.

Conclusion

Q. Please summarize your recommendations.

A. To increase the affordability and fairness of Veolia's proposed CAP program I make the following recommendations:

(1) The bill discount should be restructured into four (4) separate FPL level 0%-50%,

51%-100%, 101%-150%, and 151% to 200% to better accommodate the low-income customers in the Veolia service territory. The rate structure should also be changed to a 40% discounted customer charge and increased volumetric discount so it meets affordability guidelines and fairness, in that all customers are paying towards the service they are all receiving.

(2) The AMP should be restructured as recommended so that it meets affordability and Commission policy standards. Allowing customers to earn a $25 credit towards their frozen arrearages with each payment they make. There should be no co-payment associated with the AMP.

(3) The proposed mechanism by which Veolia plans to recover costs associated with its low-income must be adjusted to recover the fair and just amount. The Company should also provide a cost breakdown to justify the total cost of administration of the program or adopt the recommended administrative budget cost of $118,445.

(4) Finally, the Company must boost its outreach efforts to inform more of the customers who can potentially benefit from this program. Both the Company's own data and the ALICE data suggest that there are many more customers who could be eligible to benefit from this program. Veolia should aim to target as many of these customers as possible.

Q. Does this conclude your testimony?

A. Yes, but I reserve the right to supplement my testimony.

Exhibit
NAD-1

Qualifications of

Nicholas A. DeMarco

Education:

Lehigh University
Master's in Political Science, 2021

Bloomsburg University of Pennsylvania
B.A. Political Science with concentration in Constitutional Law, 2016
B.A. Eastern European Languages and Cultures, Russian, 2016

Relevant Positions:

Pennsylvania Office of Consumer Advocate, January 2023 to Present
Regulatory Analyst

Role Description:

I am currently employed by the Pennsylvania Office of Attorney General, Office of Consumer Advocate (OCA) as a Regulatory Analyst. In this position, my responsibilities include reviewing utility company filings with the Pennsylvania Public Utility Commission (Commission) and analyzing the financial, economic, rate of return, and policy issues that are relevant to the filings. Additionally, I am tasked with preparing recommendations for the OCA's involvement in utility filings with the PA PUC, writing testimony and presenting oral testimony on behalf of the OCA. As part of my role, I also assist in the policy matters regarding low-income issues and PJM.

Submitted Testimony:

- PAWC's proposed acquisition of the Brentwood Borough wastewater system, at Docket No. A-2021-3024058

- Pennsylvania Public Utility Commission, Office of Consumer Advocate, v. Community Utilities of Pennsylvania, Inc.
  Docket Nos. R-2023-3042804 (water), R-2023-3042805 (wastewater), C-2023-3044737 (water), C-2023-3044738 (wastewater)

Relevant Training:

Institute of Public Utilities at Michigan State University
IPU Accounting and Ratemaking Course 2023

Exhibit
NAD- 2

NAD-2

Estimated Total Cost of VWPA's Proposed Customer Assistance Program

		FPL Discount Levels		
		150-200	100-150	0-100
Number of Customers	65,000			
Assumed uptake rate	2.50%	0.80%	0.80%	0.80%
Estimated number of CAP particpants	1625	520	520	520
Customer Charge		$ 19.80	$ 19.80	$ 19.80
Volume Credit			$ 11.71	$ 23.42
		$ 19.80	$ 31.51	$ 43.22
Monthly discount		10,725	17,068	23,411
bill discount estimation	$ 614,445.00	12	12	12
arreage forgiveness	$ 100,000.00			
cost for repair program	$ 100,000.00			
estimated adm cost	$ 200,000.00			
total cost estimated	$ 1,014,445.00			

Veolia Customer Spread

water	66,602
combine	268
sewer only	1,128
Bethel water only	2,793
Total customer count	69,800

Veolia Proposed Bill Discount Program

Poverty Level	Service Charge Discount	Volumetric Discount
0-100	no charge	$0 first 2000 gallons
101-150	no charge	$0 First 1000 gallons
151-200	no charge	No discount

BTI by FPL

Income Range	No Discount	Discount
0-50%	14.10%	8.20%
51-100%	7.50%	4.40%
101-150%	4.50%	3.10%
151-200%	3.20%	2.60%

FPL Discount Levels assuming 3,500 gallons of use

Poverty Level	Service Charge Discount	Volumetric Discount	Montly Bill
0-100	no charge	$0 first 2000 gallons	$17.55
101-150	no charge	$0 First 1000 gallons	$29.25
151-200	no charge	No discount	$60.75

Veolia customer charge: existing	$14.50	
Veolia volumetric charge: existing	$0.9050	per 100 gallons
Veolia customer charge: proposed	$19.80	
Veolia volumetric charge: proposed	$1.170	per 100 gallons
Veolia LI customer charge (all incomes)	$0.00	
Veolia usage discounted (000 gallons) (Tier 1)	2.00	$0 on first 2,000 gallons
Veolia usage discounted (000 gallons) (Tier 2)	1.00	$0 on fist 1,000 gallons
Veolia usage discounted (000 gallons) (Tier 3)	-	No usage discount

Exhibit
NAD-3

NAD-3

OCA Proposal

FPL	Fixed Charge Discount	Volumetric Charge Discount	BTI
0-50	40%	$0 for first 6,000 gallons	3.50%
51-100	40%	$0 for first 5,500 gallons	2.30%
101-150	40%	$0 for first 4,000 gallons	2.10%
151-200	40%	$0 for first 2,500 gallons	2.10%

Veolia customer charge: existing	$14.50		
Veolia volumetric charge: existing	$0.9050	per 100 gallons	
Veolia customer charge: proposed	$19.80		
Veolia volumetric charge: proposed	$1.170	per 100 gallons	
Veolia LI customer charge (all incomes)	$0.00		
Veolia usage discounted (000 gallons) (Tier 1)	2.00	$0 on first 2,000 gallons	
Veolia usage discounted (000 gallons) (Tier 2)	1.00	$0 on fist 1,000 gallons	
Veolia usage discounted (000 gallons) (Tier 3)	-	No usage discount	
OCA LI customer charge (all incomes	$11.88	40%	
OCA usage discounted (000 gallons) (Tier 1A)	6.00	$0 on first 6,000 gallons	Tier 1A = 0 - 50% FPL
OCA usage discounted (000 gallons) (Tier 1B)	5.50	$0 on first 5,500 gallons	Tier 1B = 51 - 100% FPL
OCA usage discounted (000 gallons) (Tier 2)	4.00	$0 on fist 4,000 gallons	Tier 2 = 100 - 150% FPL
OCA usage discounted (000 gallons) (Tier 3)	2.50	$0 on first 2,500 gallons	Tier 3 = 150 - 200% FPL

Most recent twelve months		Existing Median LI Use (000 gals) * Multiplier	Existing CC + Volumetric Bill	Proposed + Volumetri	Increase	Veolia Discount (T1) CC + Volumetric Bill	Veolia Discount (T2) CC + Volumetric Bill	Veolia Discount (T3) CC + Volumetric Bill	OCA Discount (T1A) CC + Volumetric Bill	OCA Discount (Tier 1B) CC + Volumetric Bill	OCA Discount (T2) CC + Volumetric Bill	OCA Discount (T3) CC + Volumetric Bill	
	Mar-23	6.615	$74.37	$97.20		$54.00	$65.70	$77.40	$19.08	$24.93	$42.48	$60.03	
	Apr-23	7.02	$78.03	$101.93		$58.73	$70.43	$82.13	$23.81	$29.66	$47.21	$64.76	
	May-23	7.02	$78.03	$101.93		$58.73	$70.43	$82.13	$23.81	$29.66	$47.21	$64.76	
	Jun-23	7.56	$82.92	$108.25		$65.05	$76.75	$88.45	$30.13	$35.98	$53.53	$71.08	
	Jul-23	7.695	$84.14	$109.83		$66.63	$78.33	$90.03	$31.71	$37.56	$55.11	$72.66	
	Aug-23	7.425	$81.70	$106.67		$63.47	$75.17	$86.87	$28.55	$34.40	$51.95	$69.50	
	Sep-23	7.425	$81.70	$106.67		$63.47	$75.17	$86.87	$28.55	$34.40	$51.95	$69.50	
	Oct-23	6.615	$74.37	$97.20		$54.00	$65.70	$77.40	$19.08	$24.93	$42.48	$60.03	
	Nov-23	7.155	$79.25	$103.51		$60.31	$72.01	$83.71	$25.39	$31.24	$48.79	$66.34	
	Dec-23	7.155	$79.25	$103.51		$60.31	$72.01	$83.71	$25.39	$31.24	$48.79	$66.34	
	Jan-24	7.56	$82.92	$108.25		$65.05	$76.75	$88.45	$30.13	$35.98	$53.53	$71.08	
	Feb-24	7.02	$78.03	$101.93		$58.73	$70.43	$82.13	$23.81	$29.66	$47.21	$64.76	
Avg monthly use / total annual bill		7.19	$954.70	$1,246.90	1.31	$728.50	$868.90	$1,009.30	$309.46	$379.66	$590.26	$800.86	
Multiplier		1.4			Veolia discount + AF copay	$1,028.50	$1,288.90	$1,759.30	$609.46	$679.66	$1,010.26	$1,550.86	OCA Discount + AF Copayment

* based on data from OCA 5-26 attachment C/D

	Monthly	Annual
Arrearage co-payment (0-50% FPL)	$25.00	$300.00
Arrearage copayment (50 - 100% FPL)	$25.00	$300.00
Arrearage copayment (100 - 150% FPL)	$35.00	$420.00
Arrearage copayment (150 - 200% FPL)	$62.50	$750.00

Number of Customers	65,000
Assumed uptake rate	2.50%
Estimated number of CAP particpants	1625

FPL Discount Levels assuming 3,500 gallons of use

	0-50	51-100	101-150	151-200	NO Discount
Uptake per FPL	0.63%	0.63%	0.63%	0.63%	
Customer per FPL	406.25	406.25	406.25	406.25	1625
Customer charge	$11.88	$11.88	$11.88	$11.88	$19.80
Volumetric Credit	$0.00	$0.00	$0.00	$11.70	$40.95
Monthly Rate Per Customer	$11.88	$11.88	$11.88	$23.58	$60.75
Yearly Rate Per Customer	$142.56	$142.56	$142.56	$282.96	$729.00
Yearly Rate Per Class	$57,915.00	$57,915.00	$57,915.00	$114,952.50	$1,184,625.00

Rates that could have been collected	$1,184,625.00	
Totals Discount Rates Collected	$288,697.50	
Cost of Discounted Rates	**$895,927.50**	$895,927.50

Veolia Orginal Cost	$614,445
Difference in Cost	$281,482.50
Montly difference	$23,456.88
Customer cost	$0.36

Income FPL %	Veolia Proposed Rates / With Veolia Discount + Arrearage Copayment	Veolia Proposed Rates / with Alternative Discount + Arrearage Copayment
0 – 50%	11.60%	6.90%
51 – 100%	6.20%	4.10%
101 – 150%	4.70%	3.70%
151 – 200%	4.50%	4.00%

Exhibit
NAD- 4

NAD-4

Data taken from Corrected Response to OCA-5-29 Attachment

Residential

	Month	The total number of non-payment disconnections for residential customers Dissconnections	The average arrears at the time of disconnection for residential customers Average Arrears
2021	May	60	$ 988.05
	June	33	$ 718.87
	July	48	$ 425.55
	August	57	$ 557.15
	September	29	$ 536.94
	October	55	$ 455.66
	November	42	$ 459.67
	December	21	$ 231.43
2022	January	33	$ 376.01
	February	19	$ 341.46
	March	25	$ 370.85
	April	37	$ 317.04
	May	49	$ 233.10
	June	57	$ 282.18
	July	47	$ 240.68
	August	73	$ 308.34
	September	62	$ 272.37
	October	55	$ 199.13
	November	80	$ 240.02
	December	25	$ 243.02
2023	January	44	$ 251.07
	February	19	$ 252.71
	march	36	$ 471.21
	April	65	$ 291.99
	May	67	$ 223.79
	June	91	$ 309.22
	July	67	$ 305.87
	August	85	$ 297.36
	September	67	$ 322.75
	October	70	$ 365.51
	November	70	$ 241.06
	December	16	$ 518.71
2024	January	29	$ 280.64
	February	26	$ 378.79
Total		1659	$ 12,308.20
Average		48.79411765	$ 362.01

Low-Income

	Month	The total number of non-payment disconnections for residential customers Dissconnections	The average arrears at the time of disconnection for low-income residential customers Average Arrears	
2021	may	9	$ 868.32	
	June	9	$ 678.55	
	July	7	$ 498.01	
	August	6	$ 1,287.35	
	September	9	$ 690.52	
	October	11	$ 800.51	
	November	11	$ 812.27	
	December	8.857142857	$ 805.08	data not provided average of previous months used
2022	January	8	$ 532.43	
	February	6	$ 801.40	
	March	7	$ 622.98	
	April	10	$ 687.74	
	May	5	$ 650.69	
	June	8	$ 565.45	
	July	6	$ 466.52	
	August	17	$ 754.59	
	September	16	$ 323.89	
	October	8	$ 341.92	
	November	12	$ 488.06	
	December	5	$ 440.76	
2023	January	8	$ 571.78	
	February	3	$ 427.41	
	March	10	$ 1,014.53	
	April	9	$ 460.62	
	May	10	$ 251.34	
	June	14	$ 870.92	
	July	12	$ 679.66	
	August	10	$ 1,014.53	
	September	13	$ 806.78	
	October	10	$ 951.89	
	November	6	$ 138.70	
	December	2	$ 767.85	
2024	January	6	$ 559.48	
	February	4	$ 333.68	
		295.8571429	$ 21,966.21	
		8.701680672	$ 646.06	

Customers	66005		662
Rate	2.5%		45%

Exhibit
NAD-5

Information from Response to OCA 5-26 attachments

NAD-5

Usage at 1,000s gallons

	Month	Mean	Median		Month	Mean	Median
2021	March	3.2	2.7	2021	March	6.8	5.2
	April	3.4	2.9		April	7.1	5.3
	May	3.7	3.1		May	6.9	5.6
	June	3.6	3		June	7.3	5.6
	July	3.8	3.1		July	7.4	5.6
	August	4	3.2		August	8.5	5.6
	September	3.7	2.9		September	7.4	5.3
	October	3.6	2.9		October	7.5	5.6
	November	3.4	2.8		November	6.7	5.3
	December	3.3	2.8		December	6.9	5.6
2022	January	3.6	3.1	2022	January	7.4	5.3
	February	3.3	2.7		February	6.2	4.9
	March	3.3	2.7		March	5.3	4.9
	April	3.3	2.7		April	5.5	4.9
	May	3.4	2.9		May	5.9	5.1
	June	3.6	2.9		June	6.8	5.5
	July	3.7	3		July	6.8	5.2
	August	3.9	3		August	6.7	5.5
	September	3.9	3		September	6.8	5.3
	October	3.6	2.9		October	6.4	5.1
	November	3.3	2.7		November	5.9	4.8
	December	3.3	2.7		December	5.6	4.9
2023	January	3.5	3	2023	January	5.95	5.21
	February	3.2	2.6		February	5.2	4.81
	march	3.2	2.7		march	6	4.9
	April	3.4	2.8		April	6.2	5.2
	May	3.3	2.7		May	6.4	5.2
	June	3.9	3.1		June	6.8	5.5
	July	3.9	3		July	6.8	5.2
	August	3.6	2.8		August	6.7	5.5
	September	3.7	2.9		September	6.8	5.3
	October	3.6	2.8		October	6.4	5.1
	November	3.3	2.7		November	6.1	5.3
	December	3.6	3		December	6.3	5.3
2024	January	3.4	2.9	2024	January	6.4	5.6
	February	3.4	2.8		February	6.2	5.2
		3.525	2.875			6.556944	5.261667

Exhibit
NAD-6

NAD-6

Note all cost a gross cost not including the $300,000	
Bill discount program cost:	$ 895,927.50
AMP Cost	$ 100,000.00
estimated low-income gross write off of 2.56%:	$ (18,290.00)
Total admin cost	$ 118,445.00
Total	$ 1,096,082.50

Exhibit
NAD-7

NAD-7

Table 11. Residential and Low-Income Bills by Month (most recent 12 months available)
Compared to Bills with $0 Balance and On-Time Payments (Residential and Low-Income)
(source data referenced in footnotes)

	Residential Customers					Low-Income Customers				
Month	Res Bills[1]	Having $0 Balance[2]	Pct $0 Balance	# Pyt Made by Due Date	Pct Pyts Made by Due Date[3]	LI Bills[4]	LI Having $0 Balance	Pct LI with $0 Balance	LI Pyts Made by Due Date	Pct LI Pyts Made by Due Date
23-Mar	59,394	43,607	73%	47,673	xxx	587	72	12.30%	74	---
23-Apr	59,303	41,161	69%	44,125	74%	592	60	10.10%	60	10.20%
23-May	59,052	44,448	75%	49,831	84%	590	66	11.20%	65	11.00%
23-Jun	58,861	40,372	69%	40,855	69%	581	63	10.80%	60	10.20%
23-Jul	59,032	44,058	75%	46,852	80%	598	59	9.90%	52	9.00%
23-Aug	59,232	45,122	76%	46,667	79%	604	53	8.80%	47	7.90%
23-Sep	58,819	44,549	76%	45,935	78%	570	47	8.20%	43	7.10%
23-Oct	58,931	46,097	78%	49,012	83%	552	59	10.70%	59	10.40%
23-Nov	59,028	46,037	78%	46,289	79%	563	58	10.30%	57	10.30%
23-Dec	58,736	42,999	73%	42,940	73%	597	40	6.70%	41	7.30%
24-Jan	58,662	45,974	78%	47,418	81%	567	61	10.80%	59	9.90%
24-Feb	58,736	42,779	73%	43,312	74%	573	72	12.60%	72	12.70%
Avg	58,982	43,934	74%	45,909	78%	581	59	10.20%	57	9.90%

[1] OCA-5-30.
[2] OCA-8-16 (same source for residential and low-income accounts having $0 balance and for residential and low-income payments made by the due date.
[3] Percentage of payments made by due date calculated by dividing number of payments made by the due date by the number of bills in the immediately preceding month.
[4] OCA-5-9.

Exhibit
NAD-8

Pa. P.U.C. v. Veolia Water Pennsylvania, Inc.
Docket Nos. R-2024-3045192 (Water) R-2024-3045193 (Wastewater)
Interrogatories of the Office of Consumer Advocate
Set 5 to Veolia

OCA-5-5 Please provide the number of customers, disaggregated by zip-code, served by Veolia with:

a. Water-only service

b. Wastewater-only service

c. Combined water/wastewater service

Answer: Please see OCA-5-5 Attachment.

Answer provided by:	Larry Finnicum
Title:	Vice President and General Manager
Address:	6310 Allentown Blvd Suite 104 Harrisburg, PA 17112
Date:	March 11, 2024

PA Water Only

Zip Code	Customer Count
17011	2
17018	501
17019	24
17020	10
17025	1
17027	176
17034	913
17036	2626
17042	1
17050	3385
17053	1406
17055	11588
17057	2472
17070	1
17078	1
17101	1
17103	634
17104	37
17106	1
17109	4564
17110	6526
17111	11028
17112	6306
17113	1886
17201	75
17319	1848
17370	727
17815	5834
17821	36
17856	2
17985	2
18241	157
18612	2702
18618	92
18636	94
18644	28
18708	915
Grand Total	**66602**

PA Sewer Only

Zip Code	Customer Count
17815	2
17821	266
Grand Total	**268**

PA Water / Sewer Combined

Zip Code	Customer Count
17815	10
17821	1217
17822	1
Grand Total	**1228**

Bethel Water Only

Row Labels	Count of Account ID
19060	665
19061	1279
19106	1
19317	762
19342	75
19601	8
19804	3
Grand Total	**2793**

Pa. P.U.C. v. Veolia Water Pennsylvania, Inc.
Docket Nos. R-2024-3045192 (Water) R-2024-3045193 (Wastewater)
Interrogatories of the Office of Consumer Advocate
Set 5 to Veolia

OCA-5-7 Provide the same information requested in Question 6 except limited to low-income customers. For purposes of this and all other questions in this Set, a "low-income" customer is one in which the company knows the income to be at or below 200 percent of Federal Poverty Level.

Answer: Please refer to OCA-5-7 Attachment.xlsx. Please also refer to the response provided to OCA-5-1 regarding the Company's limited low-income data.

Answer provided by:	Judith McCoy Jordan
Title:	Director of Programs
Address:	6310 Allentown Blvd. Harrisburg, PA 17112
Date:	3/13/24

Arrears	# of residential customers	Total $$ in arrears	Low Income (200% and Less of FPIG)	Low Income $$ in arrears
<$100	3606	$ 158,444.76	141	$ 6,899.28
<$200	473	$ 63,569.03	57	$ 8,231.00
<$300	95	$ 22,865.75	22	$ 5,369.86
<$400	47	$ 16,456.05	7	$ 2,343.93
<$500	29	$ 12,818.63	8	$ 3,554.16
<$600	21	$ 11,435.53	7	$ 3,888.82
<$700	26	$ 17,014.45	13	$ 8,514.42
<$800	17	$ 12,641.90	4	$ 3,072.61
<$900	12	$ 10,164.97	3	$ 2,551.07
<$1000	5	$ 4,800.81	1	$ 980.82
<$1100	9	$ 9,654.40	2	$ 2,120.05
<$1200	5	$ 5,694.10	3	$ 3,357.09
<$1300	6	$ 7,624.76	2	$ 2,556.40
<$1400	5	$ 6,721.64	1	$ 1,353.31
<$1500	2	$ 2,848.39	0	$ -
<$1800	2	$ 3,446.90	0	$ -
<$1900	4	$ 7,329.43	1	$ 1,804.80
<$2000	1	$ 1,962.89	0	$ -
<$2100	1	$ 2,035.77	1	$ 2,035.77
<$2200	2	$ 4,298.62	0	$ -
<$2500	1	$ 2,435.54	1	$ 2,435.54
<$2600	1	$ 2,555.35	0	$ -
<$2700	2	$ 5,260.75	0	$ -
<$2800	3	$ 8,247.24	1	$ 2,783.38
<$2900	1	$ 2,840.38	0	$ -
<$3400	1	$ 3,381.03	0	$ -
<$3500	1	$ 3,403.20	1	$ 3,403.20
<$4600	1	$ 4,539.55	0	$ -
<$6300	1	$ 6,245.77	0	$ -
	4380	**$ 420,737.59**	**276**	**$ 67,255.51**

Pa. P.U.C. v. Veolia Water Pennsylvania, Inc.
Docket Nos. R-2024-3045192 (Water) R-2024-3045193 (Wastewater)
Interrogatories of the Office of Consumer Advocate
Set 5 to Veolia

OCA-5-9 Please provide the same information requested in Question 8 except limited to low-income customers.

Answer: The Company is working to fully complete the response to this request and will be provided it as soon as possible.

Answer provided by:	Judith McCoy Jordan
Title:	Director of Programs
Address:	6310 Allentown Blvd. Harrisburg, PA 17112
Date:	3/13/24

Pa. P.U.C. v. Veolia Water Pennsylvania, Inc.
Docket Nos. R-2024-3045192 (Water) R-2024-3045193 (Wastewater)
Interrogatories of the Office of Consumer Advocate
Set 5 to Veolia

OCA-5-19 Has the Company calculated and or estimated the total cost of the future low-income program including wastewater service? If so please provide the results.

Answer: Please see OCA-5-19 Attachment. The estimate is based upon the program whereby the FPL Discount Level for the customer charge is equivalent to the proposed customer charge. The volume credit for 100-150 and 0-100 is equivalent to the proposed volumetric charge at the respective proposed discounts. Please also note the assumed uptake rate was divided evenly between the various discount levels for purposes of this estimation.

Answer provided by:	James Cagle
Title:	Vice President – Rates & Regulatory Affairs
Address:	461 From Road, Paramus, NJ 07652
Date:	03-12-2024

Estimated Total Cost of VWPA's Proposed Customer Assistance Program

		FPL Discount Levels		
		150-200	100-150	0-100
Number of customers	65,000			
Assumed uptake rate	2.5%	0.8%	0.8%	0.8%
Estimated number of participants in CAP	1,625	542	542	542
Customer Charge		$19.80	$19.80	$19.80
Volume Credit			$ 11.71	$ 23.42
		20	32	43
Monthly Discount		10,725	17,068	23,411
		X12	X12	X12
Bill Discount Estimation	$614,445	128,700	204,815	280,930
Arrearage Forgiveness	100,000			
Costs for repair program	100,000			
Estimated Administrative Costs	200,000			
Total Cost Estimated	1,014,445			

Pa. P.U.C. v. Veolia Water Pennsylvania, Inc.
Docket Nos. R-2024-3045192 (Water) R-2024-3045193 (Wastewater)
Interrogatories of the Office of Consumer Advocate
Set 5 to Veolia

OCA-5-22 When the Pennsylvania low-income program is implemented, will the program be hosted on a Pennsylvania titled website?

Answer: The administrator of the proposed Customer Assistance Program ("CAP") has not yet been determined. When the proposed CAP is ultimately implemented Veolia Water Pennsylvania, Inc. ("VWPA") intends for it to be accessible via the company website.

Answer provided by:	Judith McCoy Jordan
Title:	Director of Programs
Address:	6310 Allentown Blvd. Harrisburg, PA 17112
Date:	3/12/24

Pa. P.U.C. v. Veolia Water Pennsylvania, Inc.
Docket Nos. R-2024-3045192 (Water) R-2024-3045193 (Wastewater)
Interrogatories of the Office of Consumer Advocate
Set 5 to Veolia

OCA-5-24 Please provide in live excel format the calculations and data the Company used to calculate the estimated participation.

Answer: Please see OCA-5-24 Attachment.xls.

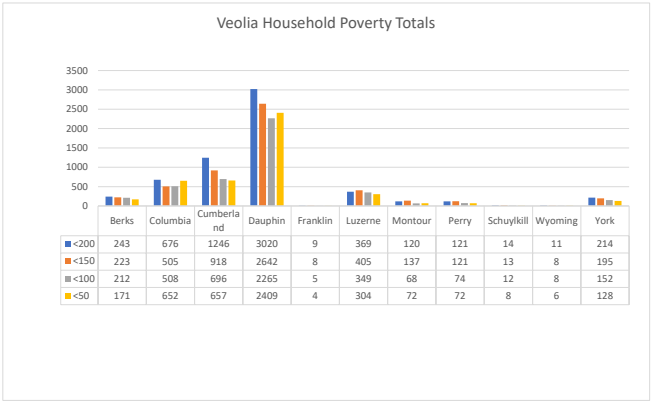
Answer provided by:	Judith McCoy Jordan
Title:	Director of Programs
Address:	6310 Allentown Blvd. Harrisburg, PA 17112
Date:	3/12/24

Poverty Levels for Pennsylvania Counites (Low Income - < 200 and Higher Income 200 >): 2017-2021.
Poverty Levels Shown for Households, Families and Individuals.
Source: 2017-2021 American Community Survey 5-Year Estimates - United States Census Bureau

	Poverty Level of Households (a)					Poverty Level of Families (b)							
		< 200		200 >			< 200		200 >				
County	Total N	N *	% *	N *	% *	Total N	N	%	N	%	<150	<100	<50
Berks	160065	55449	34.64%	104616	65.36%	106948	22022	20.59%	84926	79.41%	24.72%	15.61%	6.96%
Columbia	25717	10261	39.90%	15456	60.10%	15711	3928	25.00%	11783	75.00%	28.37%	19.77%	11.11%
Cumberland	102532	26678	26.02%	75854	73.98%	65166	9116	13.99%	56050	86.01%	16.80%	10.01%	4.86%
Dauphin	115703	38971	33.68%	76732	66.32%	70948	14687	20.70%	56261	79.30%	23.84%	15.23%	7.85%
Franklin	61854	22305	36.06%	39549	63.94%	42775	8589	20.08%	34186	79.92%	24.36%	12.89%	6.11%
Luzerne	131556	52163	39.65%	79393	60.35%	81344	20791	25.56%	60553	74.44%	29.40%	18.15%	8.46%
Montour	7476	2389	31.96%	5087	68.04%	4766	868	18.21%	3898	81.79%	22.28%	11.24%	5.77%
Perry	17823	5360	30.07%	12463	69.93%	12536	2288	18.25%	10248	81.75%	20.70%	11.28%	5.56%
Schuylkill	56763	22611	39.83%	34152	60.17%	36687	9068	24.72%	27619	75.28%	28.16%	17.07%	6.72%
Wyoming	10600	3435	32.41%	7165	67.59%	6970	1361	19.53%	5609	80.47%	21.74%	13.67%	5.80%
York	176428	50212	28.46%	126216	71.54%	121186	21652	17.87%	99534	82.13%	19.62%	11.56%	5.29%

	Veolia customer	Poverty Level of Households			
County	count	<200	<150	<100	<50
Berks	2452	243	223	212	171
Columbia	5867	676	505	508	652
Cumberland	13518	1246	918	696	657
Dauphin	30687	3020	2642	2265	2409
Franklin	73	9	8	5	4
Luzerne	3597	369	405	349	304
Montour	1243	120	137	68	72
Perry	1287	121	121	74	72
Schuylkill	118	14	13	12	8
Wyoming	104	11	8	8	6
York	2424	214	195	152	128
	61370	**6043**	**5176**	**4349**	**4483**
		9.8%	8.4%	7.1%	7.3%

	Poverty Level of Individuals (c)							
		< 200		200 >				
County	Total N	N	%	N	%	<150	<100	<50
Adams	99662	21013	21.08%	78649	78.92%	24.72%	15.61%	6.96%
Allegheny	1214621	301446	24.82%	913175	75.18%	28.37%	19.77%	11.11%
Armstrong	65296	20146	30.85%	45150	69.15%	16.80%	10.01%	4.86%
Beaver	165585	43394	26.21%	122191	73.79%	23.84%	15.23%	7.85%
Bedford	47081	14367	30.52%	32714	69.48%	24.36%	12.89%	6.11%
Berks	414193	113433	27.39%	300760	72.61%	29.40%	18.15%	8.46%
Blair	120244	38610	32.11%	81634	67.89%	22.28%	11.24%	5.77%
Bradford	59503	19858	33.37%	39645	66.63%	20.70%	11.28%	5.56%
Bucks	634873	91064	14.34%	543809	85.66%	28.16%	17.07%	6.72%
Butler	187410	37553	20.04%	149857	79.96%	21.74%	13.67%	5.80%
Cambria	127785	40472	31.67%	87313	68.33%	19.62%	11.56%	5.29%
Cameron	4561	1961	42.99%	2600	57.01%			
Carbon	63568	18751	29.50%	44817	70.50%			
Centre	140304	43513	31.01%	96791	68.99%			
Chester	518825	75959	14.64%	442866	85.36%			
Clarion	36359	12637	34.76%	23722	65.24%			
Clearfield	74757	26089	34.90%	48668	65.10%			
Clinton	36235	12347	34.07%	23888	65.93%			
Columbia	60912	20127	33.04%	40785	66.96%			
Crawford	80833	28528	35.29%	52305	64.71%			
Cumberland	243950	49203	20.17%	194747	79.83%			
Dauphin	279554	76336	27.31%	203218	72.69%			
Delaware	553285	124889	22.57%	428396	77.43%			
Elk	30634	7986	26.07%	22648	73.93%			
Erie	258780	89232	34.48%	169548	65.52%			
Fayette	124503	43599	35.02%	80904	64.98%			
Forest	4289	1536	35.81%	2753	64.19%			
Franklin	153466	42447	27.66%	111019	72.34%			
Fulton	14478	4250	29.35%	10228	70.65%			
Greene	32746	9477	28.94%	23269	71.06%			
Huntingdon	38963	12376	31.76%	26587	68.24%			
Indiana	78184	25809	33.01%	52375	66.99%			
Jefferson	43655	16023	36.70%	27632	63.30%			
Juniata	23339	6923	29.66%	16416	70.34%			
Lackawanna	207975	62743	30.17%	145232	69.83%			
Lancaster	538672	128629	23.88%	410043	76.12%			
Lawrence	84136	27267	32.41%	56869	67.59%			
Lebanon	138899	39494	28.43%	99405	71.57%			
Lehigh	363394	103725	28.54%	259669	71.46%			
Luzerne	313228	102424	32.70%	210804	67.30%			
Lycoming	107625	34067	31.65%	73558	68.35%			
McKean	37803	13441	35.56%	24362	64.44%			
Mercer	104210	32916	31.59%	71294	68.41%			
Mifflin	45425	16038	35.31%	29387	64.69%			
Monroe	165844	43426	26.18%	122418	73.82%			
Montgomery	829578	123861	14.93%	705717	85.07%			
Montour	17346	4306	24.82%	13040	75.18%			
Northampton	300063	66410	22.13%	233653	77.87%			
Northumberland	88023	29868	33.93%	58155	66.07%			
Perry	45259	10820	23.91%	34439	76.09%			
Philadelphia	1554202	661680	42.57%	892522	57.43%			
Pike	57946	14098	24.33%	43848	75.67%			
Potter	16227	5620	34.63%	10607	65.37%			
Schuylkill	135952	43713	32.15%	92239	67.85%			
Snyder	37434	10659	28.47%	26775	71.53%			
Somerset	69162	20757	30.01%	48405	69.99%			
Sullivan	5730	1931	33.70%	3799	66.30%			
Susquehanna	38415	11782	30.67%	26633	69.33%			
Tioga	40613	13966	34.39%	26647	65.61%			
Union	34501	9527	27.61%	24974	72.39%			
Venango	49672	16609	33.44%	33063	66.56%			
Warren	38151	11754	30.81%	26397	69.19%			
Washington	203921	46751	22.93%	157170	77.07%			
Wayne	47474	13749	28.96%	33725	71.04%			
Westmoreland	347950	83059	23.87%	264891	76.13%			
Wyoming	25520	6702	26.26%	18818	73.74%			
York	445469	102777	23.07%	342692	76.93%			
Total (for 67 c	12568252	3405923	27.10%	9162329	72.90%			



Notes:
* Imputed figures.
(a) Poverty levels for "Households" are imputed from four tables of the American Community Survey 2017-2021 data release:
Table C17002. Ratio of Income to Poverty Level in the Past 12 Months (Universe - Population) - 5 Year Estimates.
Table B17026. Ratio of Income to Poverty Level in the Past 12 Months of Families by Family Type (Universe - Families) - 5 Year Estimates.
Table B11001. Household Type (Including Living Alone) (Universe - Households) - 5 Year Estimates.
Table B11002. Household Type by Relatives and Nonrelatives for Population in Households (Universe - Population) - 5 Year Estimates.
(b) Poverty levels for "Families" is from following American Community Survey 2017-2021 data release table:
Table B17026. Ratio of Income to Poverty Level in the Past 12 Months of Families by Family Type (Universe - Families) - 5 Year Estimates.
(c) Poverty levels for "Individuals" is from following American Community Survey 2017-2021 data release table:
Table C17002. Ratio of Income to Poverty Level in the Past 12 Months (Universe - Population) - 5 Year Estimates.

Clarification note for Table B11002: Household Type is designated as "Family" or "Non-Family". Within both Family & Non-family household types, there are designations for "Relatives" & "Non-Relatives". A "Non-Relative" in a "Family" household is anyone living in the household but not related to the household head by birth, marriage, or adoption (i.e. step-children or foster children).

Compiled by
Mollie Van Loon
CSIS Project
Penn State Univ.
########

Pa. P.U.C. v. Veolia Water Pennsylvania, Inc.
Docket Nos. R-2024-3045192 (Water) R-2024-3045193 (Wastewater)
Interrogatories of the Office of Consumer Advocate
Set 5 to Veolia

OCA-5-26 Please provide by month for the most recent 36 months available:

a. The mean residential water usage (in gallons);
b. The median residential water usage (in gallons);
c. The mean low-income water usage (in gallons); and
d. The median low-income water usage (in gallons)

Answer: Please see response to OCA-5-1. The requested data can be found in OCA-5-26 a Attachement.xlsx, OCA-5-26 b Attachement.xlsx, and OCA-5-26 c&d Attachement.xlsx

Answer provided by:	Judith McCoy Jordan
Title:	Director of Programs
Address:	6310 Allentown Blvd Suite 104 Harrisburg, PA 17112
Date:	3/12/24

Mean Residential Water Usage for the most recent 36 months available:

2024	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean Residential Water Usage (000's Gallons)	3.4	3.4										

2023	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean Residential Water Usage (000's Gallons)	3.5	3.2	3.2	3.4	3.3	3.9	3.9	3.6	3.7	3.6	3.3	3.6

2022	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean Residential Water Usage (000's Gallons)	3.6	3.3	3.3	3.3	3.4	3.6	3.7	3.9	3.9	3.6	3.3	3.3

2021	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean Residential Water Usage (000's Gallons)			3.2	3.4	3.7	3.6	3.8	4.0	3.7	3.6	3.4	3.3

ut	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
Median Consumption MGL	3.1	3	2.7	2.9	3.1	3	3.1	3.2	2.9	2.9	2.8	2.8

Month/Year	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Median Consumption MGL	3.1	2.7	2.7	2.7	2.9	2.9	2.9	3	3	2.9	2.7	2.7

Month/Year	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23
Median Consumption MGL	3	2.6	2.7	2.8	2.7	3.1	3	2.8	2.9	2.8	2.7	3

Month/Year	Jan-24	Feb-24
Median Consumption MGL	2.9	2.8

(000's Gallons)

2024	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean Low-Income Residential Water Usage	6.4	6.2										
Median Low-Incom Residential Water Usage	5.6	5.2										

2023	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean Low-Income Residential Water Usage	5.95	5.20	6.0	6.2	6.4	7.0	7.2	7.0	6.6	5.9	6.1	6.3
Median Low-Incom Residential Water Usage	5.21	4.81	4.9	5.2	5.2	5.6	5.7	5.5	5.5	4.9	5.3	5.3

2022	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean Low-Income Residential Water Usage	7.4	6.2	5.3	5.5	5.9	6.8	6.8	6.7	6.8	6.4	5.9	5.6
Median Low-Incom Residential Water Usage	5.3	4.9	4.9	4.9	5.1	5.5	5.2	5.5	5.3	5.1	4.8	4.9

2021	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Mean Low-Income Residential Water Usage			6.8	7.1	6.9	7.3	7.4	8.5	7.4	7.5	6.7	6.9
Median Low-Incom Residential Water Usage			5.2	5.3	5.6	5.6	5.6	5.6	5.3	5.6	5.3	5.6

Pa. P.U.C. v. Veolia Water Pennsylvania, Inc.
Docket Nos. R-2024-3045192 (Water) R-2024-3045193 (Wastewater)
Interrogatories of the Office of Consumer Advocate
Set 5 to Veolia

OCA-5-30 By month for the recent 24 months, please provide a distribution of residential account by their usage in 1,000 gallon ranges as follows:

a. 0 gallons

b. 1-1000 gallons

c. 1001 – 2000 gallons;

d. 2001 – 3000 gallons;

e. 3001 – 4000 gallons;

f. 4001 – 5000 gallons;

g. 5001 – 6000 gallons

h. 6001 gallons or more..

Answer: Please see OCA-5-30 Attachments 1 through 4

Answer provided by: Larry Finnicum
Title: Vice President and General Manager
Address: 6310 Allentown Blvd Suite 104 Harrisburg PA 17112
Date: March 13, 2024

Pennsylvania Public Utility Commission
v.
Veolia Water Pennsylvania, Inc.
Docket No. R-2024-3045192 (Water)
R-2024-3045193 (Wastewater)

Interrogatories of the Office of Consumer Advocate
Set 8

Water Operations

OCA-8-11 Please provide a complete copy of any and all internal Company policies regarding the percentage of bill, or dollar amount, that will be reserved for write-offs or uncollectibles based on:

a. The size of arrears in dollars;

b. The age of arrears in months.

Answer: Please refer to Data Request OCA-8-11 Attachment.pdf for a copy of the company policy on Allowance for Doubtful Accounts and Write-Offs.

A summary of the policy for Pennsylvania and Bethel is described below:

Pennsylvania – the reserve consists of two parts:

1. General Reserve - The general reserve is calculated based on the historical rolling 5-year average of uncollectible Accounts Receivable broken out by the age of the amounts outstanding (i.e. 0-30 days, 31-60 days, 61-90 days, 91-120 days and greater than 120 days) per the Accounts Receivable aging report. Once the general reserve calculation is performed, the initial reserve balance is compared to the historical 5-year write-off average. The greater of the calculated initial reserve and the historical 5-year write-off average will be included in the month's reserve balance.

2. Special Reserve – A reserve may be increased for specific one-off items, such as bankruptcies, lawsuits and back billing initiatives.

Bethel, Pennsylvania:

100% of the Accounts Receivable balance that is outstanding for more than 90 days will be reserved.

Answer provided by:	Anupa Jacob
Title:	Vice President, Controller & Chief Accounting Officer
Address:	461 From Rd, Paramus, NJ 07652
Date:	3/26/2024

Allowance for Doubtful Accounts and Write-Offs

Accounting Policy

EFFECTIVE DATE: 12/31/2019

Submitted by: Tatyana Kaplan, Director of Utility Accounting
Approved by: Anupa Jacob, Controller & Chief Accounting Officer

POLICY NUMBER: 0902

Department: Accounting
Process Owner: Tatyana Kaplan, Director of Utility Accounting

1. Purpose

To establish and document the procedure to calculate and record the Allowance for Doubtful Accounts (the "Allowance") and Write offs and to ensure that the Allowance and Write Offs are recorded in accordance with U.S. Generally Accepted Accounting Principles ("GAAP").

2. Scope

This policy applies to all Veolia Utility Parent, Inc. entities, subsidiaries, and affiliates of VUPI.

3. Background

The Allowance for Doubtful Accounts is an account used to estimate the amount of customer accounts receivable that are doubtful to be collected from customers. The account is a "contra asset" as it reduces the Accounts Receivable to its net realizable value. Providing an Allowance presents a more realistic picture of how much Accounts Receivable is expected to turn to cash. The Allowance for Doubtful Accounts is an estimate of the amount of probable credit losses in existing Accounts Receivable, and is primarily based on the aging of Accounts Receivable. The entry to record an allowance is a debit to Bad Debt Expense-Write off and a credit to Allowance for Doubtful Accounts. Account balances are written-off when it is probable the receivable will not be recovered. This write off usually occurs a significant amount of time after the account receivable and the revenue are recorded. The entry to write off the uncollectible account will consist of a debit to Bad Debt Expense and a credit to Accounts Receivable in order to remove the amount that will not be collected, and if there was a reserve, the Accounts Receivable Allowance entry is reversed.

4. Procedure

VUPI's regulated business has thousands of customer accounts for each regulated legal entity. The Allowance is calculated based on the historical rolling 5-year average of uncollectible Accounts Receivable broken out by the age of the amounts outstanding (i.e. 0-30 days, 31-60 days, 61-90 days, 91-120 days and greater than 120 days) per the Accounts Receivable aging report. The analysis is updated on a monthly basis. Once the general reserve calculation is performed, the initial reserve balance is compared to the historical 5-year write-off average. The greater of the calculated initial reserve and the historical 5-year write-off average will be included in the month's reserve balance. For Business Units with annual revenue less than $10 million, 100% of the Accounts Receivable balance that is outstanding for more than 90 days will be reserved for. In addition, a reserve may be increased for specific one-off items, such as bankruptcies, lawsuits and back billing initiatives. Corporate Accounting posts a

journal entry in the General Ledger in PeopleSoft to adjust the Allowance for Doubtful Accounts and is recorded as a Bad Debt Expense – Provision. Write-offs are coded as a direct debit to Bad Debt Expense – Write-off and a credit to Customer Accounts Receivable. The procedure of writing off a customer Account Receivable within the CC&B billing system falls under the responsibility of the Customer Service department and is approved in accordance with the approval authority in the Delegation of Authority schedule.

5. Write-offs

The Invoices should be written off when all collection procedures have been conducted without results and management deems the account uncollectible. In order for any invoices to be written off, a written request must be submitted to the Accounts Receivable Manager in accordance with the Delegation of Authority schedule. The request should include the justification for the write-off, collection efforts made supported by account detail for approval and posting.

6. Contact

Any questions concerning this policy should be directed to Tatyana Kaplan, Director of Utility Accounting, at tatyana.kaplan@veolia.com.

7. Version History

Revision No.	Summary of Changes	Issue Date	Effective Date
1	Initial issuance	May 21, 2020	Dec 31, 2019
2	• Updated the legal names of SUEZ Utility Holdings Inc. to Veolia Utility Parent, Inc. • Updated Tatyana Kaplan's title from Manager of Manager of Technical Accounting & Financial Reporting to Director of Utility Accounting • Updated Approved by from Mohammed (Rally) Zerhouni to Anupa Jacob	June 9, 2023	June 9, 2023

Pennsylvania Public Utility Commission
v.
Veolia Water Pennsylvania, Inc.
Docket No. R-2024-3045192 (Water)
R-2024-3045193 (Wastewater)

Interrogatories of the Office of Consumer Advocate
Set 8

Water Operations

OCA-8-12 Please identify what portion of an arrearage balance would be subject to a payment arrangement for a customer with an arrearage balance of:

a. $100;

b. $200;

c. $400

d. $750;

e. $1,000.

Answer: 100%.

Answer provided by:	Judith Jordan
Title:	Director of Programs
Address:	6310 Allentown Blvd. Harrisburg, PA 17112
Date:	3/22/24

Pennsylvania Public Utility Commission
v.
Veolia Water Pennsylvania, Inc.
Docket No. R-2024-3045192 (Water)
R-2024-3045193 (Wastewater)

Interrogatories of the Office of Consumer Advocate
Set 8

Water Operations

OCA-8-13 Please identify the amount of arrearage forgiveness that would be earned by a low-income program participant in the following scenario. Identify the month in which the forgiveness would be earned.

Month	Bill for Current Service	Customer Payment
1	$50	$20
2	$50	$40
3	$50	$50

Answer: Please refer to VWPA Statement No. 7, Direct Testimony of Judith Jordan, at page 8 beginning at line 14. The statement should be further clarified with the addition in bold:

"Customers at or below 200% of the FPL who are unable to pay their past due bills are eligible for flexible payment arrangements that allow an opportunity for forgiveness of $25 per month of the outstanding balance each time the customer pays their current monthly bill **in full** by the due date."

Answer provided by: Judith McCoy Jordan
Title: Director of Programs
Address: 6310 Allentown Blvd. Harrisburg, PA 17112
Date: 3/20/2024

Pa. P.U.C. v. Veolia Water Pennsylvania, Inc.
Docket Nos. R-2024-3045192 (Water) R-2024-3045193 (Wastewater)
Interrogatories of the Office of Consumer Advocate
Set 5 to Veolia

REVISED

OCA-5-1 Please provide the Company's total known number of recorded customers from 200% of poverty to 0% of poverty broken down into increments of 50% of FPL.

Answer: The Company does not collect income or number of household member data from customers except in instances where bill payment assistance has been requested. Additionally, the Company does not currently have a Customer Assistance Program ("CAP") for which income data is collected or Federal Poverty Levels computed. As stated in VWPA Statement No. 7, Direct Testimony of Judith McCoy Jordan, currently less than one percent of all residential customers are on a payment plan. The Company has, however, identified approximately 662 known residential customers at 0 to 200% of the Federal Poverty Level since 2019 based on payment arrangement plans. The Company has used this limited dataset, which varies based on number of active accounts, to estimate known poverty levels of our customers.

Answer provided by: Judith McCoy Jordan
Title: Director of Programs
Address: 6310 Allentown Blvd. Harrisburg, PA 17112
Date: 3/13/2024

Pa. P.U.C. v. Veolia Water Pennsylvania, Inc.
Docket Nos. R-2024-3045192 (Water) R-2024-3045193 (Wastewater)
Interrogatories of the Office of Consumer Advocate
Set 5 to Veolia

REVISED

OCA-5-29 By month for the most recent 36 months available, in Excel format:

a. The total number of nonpayment disconnections for residential customers;

b. The total number of nonpayment disconnections for low-income customers;

c. The average arrears at the time of disconnection for residential customers;

d. The average arrears at the time of disconnection for low-income customers.

Answer: Due to COVID-19 customer protections, Veolia did not disconnect customers for nonpayment for the full 36 months requested. Accordingly, data has been provided for the months that disconnections resumed beginning in May of 2021. Please refer to the attached documents that provide a response to Data Request OCA-5-29 Attachment.xlsx. Regarding low-income customer data, please also refer to the written response to OCA-5-1.

Answer provided by: Judith McCoy Jordan
Title: Director of Programs
Address: 6310 Allentown Blvd. Harrisburg, PA 17112
Date: 3/18/2024

Residential customers	a. The total number of nonpayment disconnections for residential customers	c. The average arrears at the time of disconnection for residential customers
Month	**Disconnections**	**Average Arrears**
2021		
May	60	$ 988.05
Jun	33	$ 718.87
Jul	48	$ 425.55
Aug	57	$ 557.15
Sep	29	$ 536.94
Oct	55	$ 455.66
Nov	42	$ 459.67
Dec	21	$ 231.43
2022		
Jan	33	$ 376.01
Feb	19	$ 341.46
Mar	25	$ 370.85
Apr	37	$ 317.04
May	49	$ 233.10
Jun	57	$ 282.18
Jul	47	$ 240.68
Aug	73	$ 308.34
Sep	62	$ 272.37
Oct	55	$ 199.13
Nov	80	$ 240.02
Dec	25	$ 243.02
2023		
Jan	44	$ 251.07
Feb	19	$ 252.71
Mar	36	$ 471.21
Apr	65	$ 291.99
May	67	$ 223.79
Jun	91	$ 309.22
Jul	67	$ 305.87
Aug	85	$ 297.36
Sep	67	$ 322.75
Oct	70	$ 365.51
Nov	70	$ 241.06
Dec	16	$ 518.71
2024		
Jan	29	$ 280.64
Feb	24	$ 378.79

Low IncomeCustomers	b. The total number of nonpayment disconnections for low-income customers	d. The average arrears at the time of disconnection for low-income customers
Month	**Disconnections**	**Average Arrears**
2021		
May	9	$ 868.32
Jun	9	$ 678.55
Jul	7	$ 498.01
Aug	6	$ 1,287.35
Sep	9	$ 690.52
Oct	11	$ 800.51
Nov	11	$ 812.27
Dec		
2022		
Jan	8	$ 523.43
Feb	6	$ 801.40
Mar	7	$ 622.98
Apr	10	$ 687.74
May	5	$ 650.69
Jun	8	$ 565.45
Jul	6	$ 466.52
Aug	17	$ 754.59
Sep	16	$ 323.89
Oct	8	$ 341.92
Nov	12	$ 488.06
Dec	5	$ 440.76
2023		
Jan	8	$ 571.78
Feb	3	$ 427.41
Mar	10	$ 1,082.45
Apr	9	$ 460.62
May	10	$ 251.34
Jun	14	$ 870.92
Jul	12	$ 679.66
Aug	10	$ 1,014.53
Sep	13	$ 806.78
Oct	10	$ 951.89
Nov	6	$ 138.70
Dec	2	$ 767.85
2024		
Jan	6	$ 559.48
Feb	4	$ 333.68

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:		
v.	:	Docket Nos.	R-2024-3045192
Veolia Water Pennsylvania, Inc.	:		R-2024-3045193

VERIFICATION

I, Nicholas A. DeMarco, hereby state that the facts above set forth in my Direct Testimony, OCA Statement 6, are true and correct (or are true and correct to the best of my knowledge, information, and belief) and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: May 17, 2024

Signature: /s/ Nicholas A. DeMarco
Nicholas A. DeMarco

Address: Office of Consumer Advocate
555 Walnut Street
5th Floor, Forum Place
Harrisburg, PA 17101-1923

OCA St. 2R

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION	:	
V.	:	R-2024-3045192 (Water) R-2024-3045193 (Wastewater)
VEOLIA WATER PENNSYLVANIA, INC.	:	

REBUTTAL TESTIMONY
OF
LAFAYETTE K. MORGAN, JR.

ON BEHALF OF THE
OFFICE OF CONSUMER ADVOCATE

JUNE 7, 2024

EXETER
ASSOCIATES, INC.
10480 Little Patuxent Parkway, Suite 300
Columbia, Maryland 21044

TABLE OF CONTENTS

I. Introduction

Q. **PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A. My name is Lafayette K. Morgan, Jr. My business address is 10480 Little Patuxent Parkway, Suite 300, Columbia, Maryland, 21044. I am a Public Utilities Consultant working with Exeter Associates, Inc. ("Exeter"). Exeter is a consulting firm specializing in issues pertaining to public utilities.

Q. **HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS PROCEEDING?**

A. Yes. I provided Direct Testimony on May 17, 2024, in OCA Statement 2.

Q. **HAVE YOU REVIEWED THE DIRECT TESTIMONY SUBMITTED BY THE BUREAU OF INVESTIGATIONS AND ENFORCEMENT (I&E)?**

A. Yes.

Q. **WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY**?

A. After reviewing the Direct Testimony of I&E witness Esyan Sakaya, it became evident that the manner in which I presented the inclusion of the Mahoning Acquisition Adjustment is inconsistent with the OCA's position on how the Mahoning Plant in Service and Acquisition Adjustment should be presented in rate base. It is necessary for me to revise my presentation of the Mahoning Plant in Service and Acquisition Adjustment and address the differences that exist between Mr. Sakaya and me with respect to Veolia's Mahoning Plant in Service claim. Therefore, the purpose of my rebuttal testimony is to revise my presentation of the Mahoning Plant in Service and respond to Mr. Sakaya's adjustment to remove the Mahoning Acquisition Adjustment. Given that my revised presentation of the Plant in Service affects the Company's depreciation expense, I am correcting the adjustment to depreciation expense that I reflected in the revenue requirement calculation.

II. Discussion of Rebuttal Issues

Q. **PLEASE SUMMARIZE HOW YOU PRESENTED THE MAHONING PLANT IN SERVICE AND ACQUISITION ADJUSTMENT IN YOUR REVENUE REQUIREMENT DETERMINATION.**

A. In Veolia's rate base claim, it presented two separate line items for its total Plant in Service claim. For the Water FPFTY rate base, Veolia claimed $8,168,467 for the Original Cost of Utility Plant in Service and $1,104,896 for the Acquisition Adjustment. For the Wastewater FPFTY rate base, Veolia claimed $7,157,751 for the Original Cost of Utility Plant in Service and $1,377,307 for the Acquisition Adjustment. Given that OCA witness Morgan DeAngelo determined that the Company's Acquisition Adjustment claim should be accepted as part of the $9.5 million ratemaking rate base (OCA St. 1 at 21-22), I relied on the Company's presentation in its Water and Wastewater rate base (i.e., separate line items for the two categories). In that regard, my rate base presentation was consistent with Veolia.

Q. **WHAT WAS MR. SAKAYA'S RECOMMENDATION WITH RESPECT TO THE MAHONING ACQUISITION ADJUSTMENT?**

A. Mr. Sakaya recommends that the Acquisition Adjustments claimed for the Mahoning Water and Wastewater acquisitions be denied.[1] For Water, he recommends a rate base reduction of $1,104,893, and for Wastewater, he recommends a rate base reduction of $1,377,307.[2] He also recommends a decrease of $122,766 in the amortization expense for Water and a decrease of $153,034 in the Wastewater amortization expense.[3] These decreases eliminate the Acquisition Adjustments in rate base (for Water and Wastewater) and the amortization expense related to the Water and Wastewater Acquisition Adjustments.

[1] Direct Testimony of I&E witness Esyan Sakaya at 7:4.
[2] *Id.* at 8:21-9:3.
[3] *Id.* at 9:13-17.

Q. **DID MR. SAKAYA'S TESTIMONY CAUSE THE OCA TO CHANGE ITS POSITION ON THE INCLUSION OF THE RECOVERY OF THE ACQUISITION ADJUSTMENT?**

A. No. I disagree with Mr. Sakaya's adjustment. The OCA position remains that Veolia is entitled to recovery of the amount Veolia identified as an Acquisition Adjustment. However, that amount is embedded in the ratemaking Plant in Service approved by the Commission. In the Commission's order in Docket Nos. A-2018-3003517 and A-2018-3003519, the Commission approved a rate base addition of $9,500,000, which was inclusive of the Acquisition Adjustment.[4]

Q. **IF THE OCA HAS NOT CHANGED ITS POSITION, WHAT REVISION ARE YOU MAKING TO RATE BASE RELATIVE TO THE ACQUISITION ADJUSTMENT?**

A. Based on my understanding, and on the advice of counsel, the Commission's Order in Docket Nos. A-2018-3003517 and A-2018-3003519, which approved a ratemaking rate base of $9,500,000, essentially resulted in a revaluation of Veolia's Plant in Service. When the rate base was revalued, the Section 1329 ratemaking rate base amount of $4,734,800 for Water and $4,765,200 for Wastewater should have been spread (or allocated) to the existing components of Plant in Service. Therefore, there should be no Acquisition Adjustment because the Plant in Service values should have been increased to absorb the Acquisition Adjustment.

The revision I have made includes a series of adjustments. First, I made an adjustment which removes the Acquisition Adjustment from rate base and concurrently increases the Plant in Service amount by the same value. This revision is shown on Schedule LKM-W-20R for Water and Schedule LKM-WW-13R for Wastewater. On the operating expense side, I have also adjusted operating expenses to eliminate the amortization expense related to the Acquisition Adjustment and concurrently increase

[4] Docket Nos. A-2018-3003517 and A-2018-3003519 Order at 4, Paragraph 6.

depreciation expense to recognize the revalued Plant in Service amounts. This revision is also shown on Schedule LKM-W-20R for Water and Schedule LKM-WW-13R for Wastewater.

Q. **WHAT OTHER REVISION ARE YOU MAKING TO DEPRECIATION EXPENSE?**

A. In addition to the revision to the depreciation expense which incorporates the Acquisition Adjustment, I am revising the adjustment to reflect the OCA recommended change in depreciation rates.

In my direct testimony, I inadvertently reflected the change in depreciation expense resulting from the change in depreciation rates to only Water Operations. Instead, I should have separately adjusted Water and Wastewater operations to reflect the effect of the change in depreciation rates on their respective operations. In this testimony, I am revising the depreciation expense adjustment to correct the error. The revised amounts are presented on Schedule LKM-W-16R for Water and Schedule LKM-WW-14R for Wastewater.

III. <u>Conclusion</u>

Q. **DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

A. A. Yes, it does. However, I reserve the right to modify if necessary. To the extent that I did not address an issue in my Rebuttal Testimony that should not be taken to mean that I agree with other parties' positions in this case.

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION	:	
V.	:	R-2024-3045192 (Water)
	:	R-2024-3045193 (Wastewater)
VEOLIA WATER PENNSYLVANIA, INC.	:	

SCHEDULES ACCOMPANYING THE
REBUTTAL TESTIMONY
OF
LAFAYETTE K. MORGAN, JR

VEOLIA WATER PENNSYLVANIA INC.

Combined Water Operations

Summary of Operating Income
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Company Amounts at Present Rates [1/]	OCA Adjustments	Amounts After OCA Adjustments	Pro Forma Change in Revenues	Amounts After Change in Revenues
	(1)	(2)	(3)	(4)	(5)	(6)
	Operating Revenues					
1	Operating Revenues	$ 58,763,695	$ -	$ 58,763,695	$ -	$ 58,763,695
2	Revenue Increase	-	-	-	4,493,955	4,493,955
3	Total Operating Revenues	$ 58,763,695	$ -	$ 58,763,695	$ 4,493,955	$ 63,257,650
4						
5	Operating Expenses					
6	O&M Expenses	$ 25,332,688	$ (2,851,012)	$ 22,481,676	$ 46,692	$ 22,528,368
7	Depreciation	11,591,125	(2,152,064)	9,439,061	-	9,439,061
8	Amortization of Acquisition Adjustment	230,340	(172,596)	57,744	-	57,744
9	Taxes Other Than Income Taxes	1,268,711	-	1,268,711	-	1,268,711
10	Total Operating Expenses	$ 38,422,863	$ (5,175,672)	$ 33,247,192	$ 46,692	$ 33,293,884
11						
12	Operating Income Before Income Taxes	$ 20,340,831	$ 5,175,672	$ 25,516,503	$ 4,447,263	$ 29,963,766
13						
14	Federal & State Income Taxes	$ 3,148,686	$ 1,238,095	$ 4,386,781	$ 1,214,641	$ 5,601,422
15						
16	Net Operating Income	$ 17,192,146	$ 3,937,577	$ 21,129,722	$ 3,232,622	$ 24,362,344
17						
18	Rate Base	$ 356,215,489		$ 355,654,693		$ 355,654,693
19						
20	Return On Rate Base	4.83%		5.94%		6.85%

Notes:
[1/] Exhibit No. GRH-2, Schedule -1, Page 2, .

VEOLIA WATER PENNSYLVANIA INC.

Veolia Water, Bethel Water, Kensington Water & Overbrook Water

Summary of Operating Income
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Company Amounts at Present Rates [1/]	OCA Adjustments	Amounts After OCA Adjustments	Pro Forma Change in Revenues	Amounts After Change in Revenues
	(1)	(2)	(3)	(4)	(5)	(6)
	Operating Revenues					
1	Operating Revenues	$ 58,122,857	$ -	$ 58,122,857	$ -	$ 58,122,857
2	Revenue Increase	-	-	-	-	-
3	Total Operating Revenues	$ 58,122,857	$ -	$ 58,122,857	$ -	$ 58,122,857
4						
5	Operating Expenses					
6	O&M Expenses	$ 24,822,808	$ -	$ 24,822,808	$ -	$ 24,822,808
7	Depreciation	11,373,158	-	11,373,158	-	11,373,158
8	Amortization of Acquisition Adjustment	107,574	-	107,574	-	107,574
9	Taxes Other Than Income Taxes	1,261,241	-	1,261,241	-	1,261,241
10	Total Operating Expenses	$ 37,564,781	$ -	$ 37,564,781	$ -	$ 37,564,781
11						
12	Operating Income Before Income Taxes	$ 20,558,076	$ -	$ 20,558,076	$ -	$ 20,558,076
13						
14	Federal & State Income Taxes	$ 3,251,883	$ -	$ 3,251,883	$ -	$ 3,251,883
15						
16	Net Operating Income	$ 17,306,192	$ -	$ 17,306,192	$ -	$ 17,306,192
17						
18	Rate Base	$ 349,877,351		$ 349,877,351		$ 349,877,351
19						
20	Return On Rate Base	4.95%		4.95%		4.95%

Notes:
[1/] Exhibit No. GRH-2, Schedule -1, Page 2, Column 8.

VEOLIA WATER PENNSYLVANIA INC.

Mahoning Township

Summary of Operating Income
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Company Amounts at Present Rates [1/]	OCA Adjustments	Amounts After OCA Adjustments	Pro Forma Change in Revenues	Amounts After Change in Revenues
	(1)	(2)	(3)	(4)	(5)	(6)
	Operating Revenues					
1	Operating Revenues	$ 640,838	$ -	$ 640,838	$ -	$ 640,838
2	Revenue Increase	-	-	-	-	-
3	Total Operating Revenues	$ 640,838	$ -	$ 640,838	$ -	$ 640,838
4						
5	Operating Expenses					
6	O&M Expenses	$ 509,880 -	$ -	$ 509,880	$ -	$ 509,880
7	Depreciation	217,967	-	217,967	-	217,967
8	Amortization of Acquisition Adjustment	122,766	-	122,766	-	122,766
9	Taxes Other Than Income Taxes	7,469	-	7,469	-	7,469
10	Total Operating Expenses	$ 858,082	$ -	$ 858,082	$ -	$ 858,082
11						
12	Operating Income Before Income Taxes	$ (217,244)	$ -	$ (217,244)	$ -	$ (217,244)
13						
14	Federal & State Income Taxes	$ (103,198)	$ -	$ (103,198)	$ -	$ (103,198)
15						
16	Net Operating Income	$ (114,047)	$ -	$ (114,047)	$ -	$ (114,047)
17						
18	Rate Base	$ 6,338,138		$ 6,338,138		$ 6,338,138
19						
20	Return On Rate Base	-1.80%		-1.80%		-1.80%

Notes:
[1/] Exhibit No. GRH-2, Schedule -1, Page 2, Column 8.

VEOLIA WATER PENNSYLVANIA INC.

Combined Water Operations

Summary of Revenue Increase at OCA Rate of Return
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description		Amount	Source
1	Adjusted Rate Base		$ 355,654,693	Schedule LKM-2-W, Page 2
2	Required Rate of Return		6.850%	
3				
4	Net Operating Income Required		$ 24,362,346	
5	Net Operating Income at Present Rates		21,129,722	Schedule LKM-1-W, Page 1
6				
7	Income Deficiency/(Surplus)		$ 3,232,624	
8	Revenue Multiplier		1.390188	
9				
10	Required Change in Company Revenue		$ 4,493,955	
11				
12	Proposed Revenue Change		$ 4,493,955	
13	Less: Uncollectibles	0.5390% [1/]	24,222	
14	Revenues After Uncollectibles		4,469,733	
15	PUC / OCA & SBA Assessment	0.5000% [1/]	22,470	
16	Income Before State Taxes		$ 4,447,263	
17	State Income Tax Effect Tax Rate	7.99%		
18	Less: State Income Tax		355,336	
19				
20	Income Before Federal Taxes		$ 4,091,927	
21	Federal Income Tax	21.00%	859,305	
22				
23	Net Income Surplus/(Deficiency)		$ 3,232,622	

24	**Calculation Gross-up Factor**	
25	Gross Revenues	1.000000
26	Uncollectibles	0.005390 [1/]
27	PUC / OCA & SBA Assessment	0.005000 [1/]
28	State Taxable Income	0.989610
29	State Income Tax Effect	0.079070
30	Federal Taxable Income	0.910540
31	Federal Tax Effect	0.191213
32	Net Income Factor	0.719327
33	Gross-Up Factor	1.390188

Notes:
[1/] Exhibit No. GRH-2 (Excel Version), GRCF Tab.

VEOLIA WATER PENNSYLVANIA INC.

Combined Water Operations

Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 568,463,834	$ 603,462	$ 569,067,296
2	Acquisition Adjustment	1,104,896	(1,104,896)	-
3	Accumulated Depreciation	(100,498,294)	-	(100,498,294)
4	Net Plant in Service	$ 469,070,435	$ (501,434)	$ 468,569,001
5	Additions			
6	Working Capital	$ 800,305	$ (59,362)	$ 740,943
7	Materials & Supplies	1,656,030	-	1,656,030
8	Total Rate Base Additions	$ 2,456,335	$ (59,362)	$ 2,396,973
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	(91,198,127)	-	(91,198,127)
12	Regulatory Liability - New Fed Rate	(8,435,964)	-	(8,435,964)
13	Regulatory Liability - 2018 Portion	(832,495)	-	(832,495)
14	Accumulated Deferred Income Taxes	(14,844,697)	-	(14,844,697)
15	Total Rate Base Deductions	$ (115,311,282)	$ -	$ (115,311,282)
16				
17	Total Rate Base	$ 356,215,489	$ (560,796)	$ 355,654,693

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Veolia Water, Bethel Water, Kensington Water & Overbrook Water

Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 560,295,367	$ -	$ 560,295,367
2	Acquisition Adjustment	-		
3	Accumulated Depreciation	(97,603,902)	-	(97,603,902)
4	Net Plant in Service	$ 462,691,464	$ -	$ 462,691,464
5	Additions			
6	Working Capital	$ 795,082	$ -	$ 795,082
7	Materials & Supplies	1,656,030	-	1,656,030
8	Total Rate Base Additions	$ 2,451,112	$ -	$ 2,451,112
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	(91,198,127)	-	(91,198,127)
12	Regulatory Liability - New Fed Rate	(8,435,964)	-	(8,435,964)
13	Regulatory Liability - 2018 Portion	(832,495)	-	(832,495)
14	Accumulated Deferred Income Taxes	(14,798,641)	-	(14,798,641)
15	Total Rate Base Deductions	$ (115,265,226)	$ -	$ (115,265,226)
16				
17	Total Rate Base	$ 349,877,351	$ -	$ 349,877,351

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.
Mahoning Township
Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 8,168,467	$ -	$ 8,168,467
2	Acquisition Adjustment	1,104,896	-	1,104,896
3	Accumulated Depreciation	(2,894,392)	-	(2,894,392)
4	Net Plant in Service	$ 6,378,971	$ -	$ 6,378,971
5	Additions			
6	Working Capital	$ 5,223	$ -	$ 5,223
7	Materials & Supplies	-	-	-
8	Total Rate Base Additions	$ 5,223	$ -	$ 5,223
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	-	-	-
12	Regulatory Liability - New Fed Rate	-	-	-
13	Regulatory Liability - 2018 Portion	-	-	-
14	Accumulated Deferred Income Taxes	(46,056)	-	(46,056)
15	Total Rate Base Deductions	$ (46,056)	$ -	$ (46,056)
16				
17	Total Rate Base	$ 6,338,138	$ -	$ 6,338,138

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.
Veolia Water, Kensington Water & Overbrook Water
Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 551,578,019	$ -	$ 551,578,019
2	Acquisition Adjustment	-		
3	Accumulated Depreciation	(96,999,406)	-	(96,999,406)
4	Net Plant in Service	$ 454,578,614	$ -	$ 454,578,614
5	Additions			
6	Working Capital	$ 749,697	$ -	$ 749,697
7	Materials & Supplies	1,656,030	-	1,656,030
8	Total Rate Base Additions	$ 2,405,727	$ -	$ 2,405,727
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	(84,960,608)	-	(84,960,608)
12	Regulatory Liability - New Fed Rate	(8,301,533)	-	(8,301,533)
13	Regulatory Liability - 2018 Portion	(756,507)	-	(756,507)
14	Accumulated Deferred Income Taxes	(14,747,777)	-	(14,747,777)
15	Total Rate Base Deductions	$ (108,766,425)	$ -	$ (108,766,425)
16				
17	Total Rate Base	$ 348,217,916	$ -	$ 348,217,916

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.
Bethel Water
Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 8,717,347	$ -	$ 8,717,347
2	Acquisition Adjustment	-		
3	Accumulated Depreciation	(604,497)	-	(604,497)
4	Net Plant in Service	$ 8,112,850	$ -	$ 8,112,850
5	Additions			
6	Working Capital	$ 45,385	$ -	$ 45,385
7	Materials & Supplies	-	-	-
8	Total Rate Base Additions	$ 45,385	$ -	$ 45,385
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	(6,237,519)	-	(6,237,519)
12	Regulatory Liability - New Fed Rate	(134,430)	-	(134,430)
13	Regulatory Liability - 2018 Portion	(75,988)	-	(75,988)
14	Accumulated Deferred Income Taxes	(50,864)	-	(50,864)
15	Total Rate Base Deductions	$ (6,498,801)	$ -	$ (6,498,801)
16				
17	Total Rate Base	$ 1,659,435	$ -	$ 1,659,435

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Combined Water Operations

Summary of Rate Base Adjustments
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Source	Amount
1	Rate Base per Company Filing	Schedule LKM-2, Page 1	$ 356,215,489
2			
3			
4	OCA Adjustments:		
5	Remove Kensington & Overbrook Acquisition Adjustments		$ (448,470)
6	Adjustment to Remove Plant Held for Future Use		(52,964)
7	Cash Working Capital		(59,362)
8	Remove Mahoning Acquisition Adjustments		(1,104,896)
9	Include Revalued Mahoning Plant		1,104,896
10			-
8			-
9			
10	Total Ratemaking Adjustments		$ (560,796)
11			
12	Adjusted Rate Base per OCA		$ 355,654,693

VEOLIA WATER PENNSYLVANIA INC.

Combined Water Operations

Summary of Adjustments to Income Before Income Taxes
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount	Source
1	Operating Income per Company	$ 17,192,146	Schedule LKM-W-1
2			
3	OCA Adjustments:		
4	Payroll Expense	$ 597,355	
5	Reverse VWPA's Chemical Expense Inflation	267,860	
6	Reverse VWPA's Purchased Power Adjustment	540,587	
7	Transportation Expense for Increase in Vehicle Leases	32,905	
8	Normalize Rate Case Expense	68,751	
9	Remove Inflation Escalation	345,550	
10	Amortize Acquisition Transaction Costs	42,730	
11	Normalize Lab Testing Fees	16,093	
12	Adjustment to Normalize Outside Contractors Expense	55,016	
13	Depreciation Expense to Reflect OCA's Depr. Rates	1,536,739	
14	Remove Kensington & Overbrook Acq. Adj. Amort.	36,220	
15	Customer Assistance Plan Expense	148,223	
16	Remove Mahoning Acq. Adj. Amort.	89,236	
17	Include Mahoning Revalued Plant Depr. Expense	(15,180)	
18	Interest Synchronization	175,491	
19		-	
20	Total OCA Adjustments	3,937,577	
21			
22	Operating Income per OCA	$ 21,129,722	

VEOLIA WATER PENNSYLVANIA INC.

Combined Water Operations

Summary of Adjustments to Income Before Income Taxes
For the Fully Projected Test Year Ending October 30, 2025

Line No.		Operating Revenues	O&M Expenses	Depreciation & Amortization	Amortization of Acquisition Adjustment	Taxes Other Than Income	State & Federal Income Taxes	Operating Income Before Income Taxes
1	Amount per Company	$ 58,763,695	$ 25,332,688	$ 11,591,125	$ 230,340	$ 1,268,711	$ 3,148,686	$ 17,192,146
2								
3	OCA Adjustments:							
4	Payroll Expense	$ -	$ (821,808)	$ -	$ -	$ -	$ 224,453	$ 597,355
5	Reverse VWPA's Chemical Expense Inflation	-	(368,507)	-	-	-	100,647	267,860
6	Reverse VWPA's Purchased Power Adjustment	-	(743,710)	-	-	-	203,123	540,587
7	Transportation Expense for Increase in Vehicle Leases	-	(45,269)	-	-	-	12,364	32,905
8	Normalize Rate Case Expense	-	(94,584)	-	-	-	25,833	68,751
9	Remove Inflation Escalation	-	(475,389)	-	-	-	129,839	345,550
10	Amortize Acquisition Transaction Costs	-	-	(58,785)	-	-	16,055	42,730
11	Normalize Lab Testing Fees	-	(22,140)	-	-	-	6,047	16,093
12	Adjustment to Normalize Outside Contractors Expense	-	(75,688)	-	-	-	20,672	55,016
13	Depreciation Expense to Reflect OCA's Depr. Rates	-		(2,114,161)	-	-	577,422	1,536,739
14	Remove Kensington & Overbrook Acq. Adj. Amort.	-	-	-	(49,830)	-	13,610	36,220
15	Customer Assistance Plan Expense	-	(203,917)	-	-	-	55,694	148,223
16	Remove Mahoning Acq. Adj. Amort.	-	-	-	(122,766)	-	33,530	89,236
17	Include Mahoning Revalued Plant Depr. Expense	-	-	20,883	-	-	(5,703)	(15,180)
18	Interest Synchronization	-	-	-	-	-	(175,491)	175,491
19								
20	Total OCA Adjustments	$ -	$ (2,851,012)	$ (2,152,064)	$ (172,596)	$ -	$ 1,238,095	$ 3,937,577
21								
22	Total Adjusted Income Before Income Taxes	$ 58,763,695	$ 22,481,676	$ 9,439,061	$ 57,744	$ 1,268,711	$ 4,386,781	$ 21,129,722

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Cash Working Capital
Summary of Adjustments to Income Before Income Taxes

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	OCA Adjustments	Expense Claim FPFTY After OCA Adjustments Proposed Rates 10/31/2025	FPFTY After OCA Adjustments Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 469,501	$ 7,418,529	$ (821,808)	$ 6,596,722	$ 417,491
Employee Group Health & Life	34.5	10.1	24.4	106,752	1,596,912		1,596,912	106,752
Employee Pension Benefits	34.5	29.3	5.2	9,008	632,288		632,288	9,008
Other Employee Benefits	34.5	276.0	(241.5)	(294,362)	444,895		444,895	(294,362)
Purchased Water	34.5	26.6	7.9	39,787	1,838,244		1,838,244	39,787
Purchased Power	34.5	57.1	(22.6)	(178,732)	2,886,605	(743,710)	2,142,895	(132,683)
Fuel for Power Production	34.5	38.8	(4.3)	(25)	2,093		2,093	(25)
Chemicals	34.5	27.9	6.6	24,313	1,344,558	(368,507)	976,051	17,649
Materials and Supplies	34.5	29.1	5.4	6,028	407,435		407,435	6,028
Management and Service Fees	34.5	14.7	19.8	250,149	4,611,336		4,611,336	250,149
Lab Testing Fees	34.5	26.2	8.3	4,828	212,334	(22,140)	190,194	4,325
Outside Contractors	34.5	30.9	3.6	16,879	1,711,389	(75,688)	1,635,701	16,133
Outside Professional Services	34.5	45.0	(10.5)	(2,548)	88,583		88,583	(2,548)
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-		-	-
Rental of Equipment	34.5	7.9	26.6	9,102	124,900		124,900	9,102
Transportation Expense	34.5	38.1	(3.6)	(7,381)	748,343	(45,269)	703,074	(6,934)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	-	-		-	-
Worker Compensation	34.5	(130.5)	165.0	21,743	48,098		48,098	21,743
Regulatory Commission Expense	34.5	(101.5)	136.0	132,315	448,734	(94,584)	354,150	131,957
Office Expense and Utilities	34.5	8.9	25.6	60,435	861,668		861,668	60,435
Postage and Air Freight Expense	34.5	40.3	(5.8)	(6,100)	383,875		383,875	(6,100)
Other O&M	34.5	30.3	4.2	1,889	164,161	(475,389)	(311,228)	(3,581)
Real Estate Tax	34.5	(26.9)	61.4	57,703	343,022		343,022	57,703
Payroll	34.5	18.5	16.0	40,251	918,219		918,219	40,251
Federal Income Taxes	34.5	37.0	(2.5)	(10,447)	4,316,438		4,316,438	(29,565)
State Income Taxes	34.5	28.8	5.8	9,760	1,791,883		1,791,883	28,228
Total				$ 760,848				$ 740,943
CWC per Company								800,305
Adjustment								$ (59,362)

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Remove Acquisition Adjustments
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
	Rate Base	
1	Kensington Acquisition Adjustment	$ 202,500 [1/]
2	Overbrook Acquisition Adjustment	245,970 [1/]
3		
4	Adjustment to Plant in Service	$ (448,470)
5		
6	Operating Expenses	
7	Amortization of Kensington Acquisition Adjustment	$ 22,500 [2/]
8	Amortization of Overbrook Acquisition Adjustment	27,330 [2/]
	Adjustment to Amortization Expense	$ (49,830)

Notes:
[1/] Exhibit No. GRH-1, Schedule 1.1.
[1/] Exhibit No. GRH-3, Schedule 34.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Remove Plant Held for Future Use
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	Kensington Acquisition Adjustment	$ 52,964 [1/]
2		
3	Adjustment to Plant in Service	$ (52,964)

Notes:
[1/] Exhibit No. GRH-1, Schedule 1.1.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Payroll Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	Adjustment to Payroll Expense	$ 821,808 [1/]
2	Adjustment to Operating Expense	$ (821,808)

Notes:
[1/] Calculated from data provided in Workpaper GRH-3.1.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Reverse VWPA's Chemical Expense Adjustment
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	FTY Chemical Expense Inflation Escalation	$ 339,344 [1/]
2		
3	FPFTY Chemical Expense Inflation Escalation	29,163 [1/]
4		
5	Adjustment to Operating Expense	$ (368,507)

Notes:
[1/] Exhibit No. GRH-3, Schedule 10.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Reverse VWPA's Purchased Power Adjustment
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	FTY Purchased Power Inflation Escalation	$ 343,730 [1/]
2		
3	FPFTY Purchased Power Inflation Escalation	399,980 [1/]
4		
5	Adjustment to Operating Expense	$ (743,710)

Notes:
[1/] Exhibit No. GRH-3, Schedule 8.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Transportation Expense for Increase in Vehicle Leases
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description		Amount [1/]
1	FPFTY Vehicle Leases	$	591,887
2	Other Transportation Expenses		
3	Car Allowance		-
4	Fuel		254,005
5	Maintenance & Repair		110,391
6	Insurance		32,274
7	Other		59,339
8			
9	Total Transportation Costs	$	1,047,896
10	Less Cap and Billed Out		(344,889)
11			
12	FPFTY Total Transportation Expense per OCA	$	703,007
13	FPFTY Total Transportation Expense per Company		748,276
14			
15	Adjustment to Operating Expenses	$	(45,269)

Notes:
[1/] Exhibit No. GRH-3, Schedule 18.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Normalize Rate Case Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	Total Rate Case Expenses	$ 709,379 [1/]
2	Normalization Period (Years)	5
3		
4	Normalized Rate Case Expense per OCA	$ 141,876
5	Normalized Rate Case Expense per Company	236,460 [1/]
6		
7	Adjustment to Operating Expense	$ (94,584)

Notes:
[1/] Exhibit No. GRH-3, Schedule 21.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Remove Inflation Escalation
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount	
1	Group Health and Life Insurance	$ 34,399	1/
2	Pension	13,620	2/
3	Post-Retirement Benefits Other than Pensions (“PBOP”)	(18,760)	3/
4	401K (Other Benefits)	2	4/
5	Purchased Water	6,467	5/
6	Fuel for Power Production	93	6/
7	Chemicals Expense	368,507	7/
8	Materials & Supplies	17,590	8/
9	Rental of Equipment	5,530	9/
10	Office Expense	28,934	10/
11	Other O&M Expense	19,007	11/
	Total Inflation Adjustments	$ 475,389	
	Adjustment to Operating Expenses.	$ (475,389)	

Notes:

1/ Exhibit No. GRH-3, Schedule 3.
2/ Exhibit No. GRH-3, Schedule 4.
3/ Exhibit No. GRH-3, Schedule 5.
4/ Exhibit No. GRH-3, Schedule 6.
5/ Exhibit No. GRH-3, Schedule 7.
6/ Exhibit No. GRH-3, Schedule 9.
7/ Exhibit No. GRH-3, Schedule 10.
8/ Exhibit No. GRH-3, Schedule 11.
9/ Exhibit No. GRH-3, Schedule 17.
10/ Exhibit No. GRH-3, Schedule 25.
11/ Exhibit No. GRH-3, Schedule 27.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Amortize Acquisition Transaction Costs
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
	Acquisition Transaction Costs	
1	Kensington	$ 28,240 [1/]
2	Mahoning	543,227 [1/]
3	Overbrook	16,381 [1/]
4	Total	$ 587,848
5	Amortization Period	10
6	Transaction Costs Amortization Costs per OCA	$ 58,785
7	Transaction Costs Amortization Costs per Company	117,570
	Adjustment to Amortization Expense	$ (58,785)

Notes:
[1/] Exhibit No. GRH-3, Schedule 30.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Normalize Lab Testing Fees
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	3-Year Average Lab Testing Fees	$ 190,194 [1/]
2		
3	FPFTY Lab Testing Fees Per Company	212,334 [1/]
4		
5	Adjustment to Operating Expense	$ (22,140)

Notes:
[1/] Exhibit No. GRH-3, Schedule 13.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Normalize Outside Contractors Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	2-Year Average Outside Contractors Expense	$ 1,635,701 [1/]
2		
3	FPFTY Outside Contractors Expense Per Company	1,711,389 [1/]
4		
5	Adjustment to Operating Expense	$ (75,688)

Notes:
[1/] Exhibit No. GRH-3, Schedule 14.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Depreciation Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	Reflect OCA witness Garrett Recommendation	$ 2,114,161 [1/]
2	Adjustment to Depreciation Expense	$ (2,114,161)

Notes:
[1/] Exhibit DJG-17,Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Customer Assistance Plan Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	CAP Expenditures Recommended by OCA witness DeMarco	$ 1,096,083 [1/]
2	Veolia Shareholders Funding Commitment	300,000
3	Net Amount to be Recovered from Customers	796,083
4	Customer Assistance Plan Expense Included in the Cost of Service	1,000,000 [2/]
5	Adjustment to Operating Expense	$ (203,917)

Notes:
[1/] Per OCA Witness DeMarco.
[2/] Exhibit No. GRH-3, Schedule -29.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Interest Synchronization Adjustment
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description		Amount	
1	Company Rate Base	$	355,654,693	1/
2	Weighted Cost of Debt		2.30%	2/
3				
4	Adjusted Interest Deduction	$	8,180,058	
5	Interest Deduction Per Company		7,537,520	3/
6				
7	Adjustment to Synchronize Interest Expense	$	642,538	
8	Effective State Income Tax Rate		7.99%	
9				
10	Adjustment to State Income Taxes	$	(51,339)	
11				
12	Federal Income Tax Base	$	591,199	
13	Federal Income Tax Rate		21.00%	
14				
15	Adjustment to Federal Income Taxes	$	(124,152)	

Notes:

1/ Schedule LKM-W-2, Page 1.

2/ Schedule LKM-W-19.

3/ Exhibit No. GRH-3, Schedule 35, Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Calculation of Overall Rate of Return
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Capitalization Ratio	Cost Rate	Weighted Cost
1	Long-Term Debt	50.00%	4.60%	2.30%
2	Short-Term Debt	0.00%	0.00%	0.00%
3	Total Debt	50.00%	4.60%	2.30%
4	Preferred Stock	0.00%	0.00%	0.00%
5	Common Equity	50.00%	9.10%	4.55%
6				
7	Total	100.00%		6.85%

Notes:
Per OCA Witness Garrett.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Reflect Revalued Mahoning Plant in Service
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
	Rate Base	
1	Remove Mahoning Acquisition Adjustment	$ (1,104,896) [1/]
2	Reflect Revalued Plant in Service	$ 1,104,896
3	Net Adjustment to Rate Base	$ -
	Operating Income Adjustments	
4	Remove Amortization of Mahoning Acquisition Adjustment	$ (122,766) [2/]
5	Reflect Revalued Plant in Service	$ 1,104,896 [1/]
	OCA Composite Water Depreciation Rate	1.89% [3/]
6	Net Adjustment to Depreciation Expense	$ 20,883

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.
[2/] Exhibit No. GRH-3, Schedule -34, Page 1.
[2/] Exhibit DJG-17,Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Combined Wastewater Operations

Summary of Operating Income
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Company Amounts at Present Rates [1/]	OCA Adjustments	Amounts After OCA Adjustments	Pro Forma Change in Revenues	Amounts After Change in Revenues
	(1)	(2)	(3)	(4)	(5)	(6)
	Operating Revenues					
1	Operating Revenues	$ 1,636,049	$ -	$ 1,636,049	$ -	$ 1,636,049
2	Revenue Increase	-	-	-	300,791	300,791
3	Total Operating Revenues	$ 1,636,049	$ -	$ 1,636,049	$ 300,791	$ 1,936,840
4						
5	Operating Expenses					
6	O&M Expenses	$ 1,155,148 -	$ (48,487)	$ 1,106,661	$ 1,510	$ 1,108,171
7	Depreciation	326,830	26,604	353,434	-	353,434
8	Amortization of Acquisition Adjustment	153,034	(153,034)	-	-	-
9	Taxes Other Than Income Taxes	52	-	52	-	52
10	Total Operating Expenses	$ 1,635,064	$ (174,917)	$ 1,460,147	$ 1,510	$ 1,461,657
11						
12	Operating Income Before Income Taxes	$ 985	$ 174,917	$ 175,902	$ 299,281	$ 475,183
13						
14	Federal & State Income Taxes	$ (43,948)	$ 45,128	$ 1,180	$ 81,740	$ 82,920
15						
16	Net Operating Income	$ 44,933	$ 129,789	$ 174,722	$ 217,541	$ 392,263
17						
18	Rate Base	$ 5,726,940		$ 5,726,469		$ 5,726,469
19						
20	Return On Rate Base	0.78%		3.05%		6.85%

Notes:
[1/] Exhibit No. GRH-4, Schedule -1, Page 1, .

VEOLIA WATER PENNSYLVANIA INC.

Mahoning Township Wastewater

Summary of Operating Income
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Company Amounts at Present Rates [1/]	OCA Adjustments	Amounts After OCA Adjustments	Pro Forma Change in Revenues	Amounts After Change in Revenues
	(1)	(2)	(3)	(4)	(5)	(6)
	Operating Revenues					
1	Operating Revenues	$ 1,589,420	$ -	$ 1,589,420	$ -	$ 1,589,420
2	Revenue Increase	-	-	-	-	-
3	Total Operating Revenues	$ 1,589,420	$ -	$ 1,589,420	$ -	$ 1,589,420
4						
5	Operating Expenses					
6	O&M Expenses	$ 1,056,124	$ -	$ 1,056,124	$ -	$ 1,056,124
7	Depreciation	309,939	-	309,939	-	309,939
8	Amortization of Acquisition Adjustment	153,034	-	153,034	-	153,034
9	Taxes Other Than Income Taxes	4	-	4	-	4
10	Total Operating Expenses	$ 1,519,101	$ -	$ 1,519,101	$ -	$ 1,519,101
11						
12	Operating Income Before Income Taxes	$ 70,319	$ -	$ 70,319	$ -	$ 70,319
13						
14	Federal & State Income Taxes	$ (19,353)	$ -	$ (19,353)	$ -	$ (19,353)
15						
16	Net Operating Income	$ 89,672	$ -	$ 89,672	$ -	$ 89,672
17						
18	Rate Base	$ 5,289,456		$ 5,289,456		$ 5,289,456
19						
20	Return On Rate Base	1.70%		1.70%		1.70%

Notes:
[1/] Exhibit No. GRH-4, Schedule -1, Page 2, Column 8.

VEOLIA WATER PENNSYLVANIA INC.

Columbia County Wastewater

Summary of Operating Income
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Company Amounts at Present Rates [1/]	OCA Adjustments	Amounts After OCA Adjustments	Pro Forma Change in Revenues	Amounts After Change in Revenues
	(1)	(2)	(3)	(4)	(5)	(6)
	Operating Revenues					
1	Operating Revenues	$ 46,629	$ -	$ 46,629	$ -	$ 46,629
2	Revenue Increase	-	-	-	-	-
3	Total Operating Revenues	$ 46,629	$ -	$ 46,629	$ -	$ 46,629
4						
5	Operating Expenses					
6	O&M Expenses	$ 99,024 -	$ -	$ 99,024	$ -	$ 99,024
7	Depreciation	16,891	-	16,891	-	16,891
8	Amortization of Acquisition Adjustment	-	-	-	-	-
9	Taxes Other Than Income Taxes	48	-	48	-	48
10	Total Operating Expenses	$ 115,963	$ -	$ 115,963	$ -	$ 115,963
11						
12	Operating Income Before Income Taxes	$ (69,334)	$ -	$ (69,334)	$ -	$ (69,334)
13						
14	Federal & State Income Taxes	$ (24,595)	$ -	$ (24,595)	$ -	$ (24,595)
15						
16	Net Operating Income	$ (44,739)	$ -	$ (44,739)	$ -	$ (44,739)
17						
18	Rate Base	$ 437,484		$ 437,484		$ 437,484
19						
20	Return On Rate Base	-10.23%		-10.23%		-10.23%

Notes:
[1/] Exhibit No. GRH-4, Schedule -1, Page 3, Column 8.

VEOLIA WATER PENNSYLVANIA INC.

Combined Wastewater Operations

Summary of Revenue Increase at OCA Rate of Return
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description		Amount	Source
1	Adjusted Rate Base		$ 5,726,469	Schedule LKM-2-WW, Page 2
2	Required Rate of Return		6.850%	
3				
4	Net Operating Income Required		$ 392,263	
5	Net Operating Income at Present Rates		174,722	Schedule LKM-1-WW, Page 1
6				
7	Income Deficiency/(Surplus)		$ 217,541	
8	Revenue Multiplier		1.382688	
9				
10	Required Change in Company Revenue		$ 300,791	
11				
12	Proposed Revenue Change		$ 300,791	
13	Less: Uncollectibles	0.0020% 1/	6	
14	Revenues After Uncollectibles		300,785	
15	PUC / OCA & SBA Assessment	0.5000% 1/	1,504	
16	Income Before State Taxes		$ 299,281	
17	State Income Tax Effect Tax Rate	7.99%		
18	Less: State Income Tax		23,913	
19				
20	Income Before Federal Taxes		$ 275,368	
21	Federal Income Tax	21.00%	57,827	
22				
23	Net Income Surplus/(Deficiency)		$ 217,541	

24	**Calculation Gross-up Factor**	
25	Gross Revenues	1.000000
26	Uncollectibles	0.000020 1/
27	PUC / OCA & SBA Assessment	0.005000 1/
28	State Taxable Income	0.994980
29	State Income Tax Effect	0.079500
30	Federal Taxable Income	0.915480
31	Federal Tax Effect	0.192251
32	Net Income Factor	0.723229
33	Gross-Up Factor	1.382688

Notes:
1/ Exhibit No. GRH-4 (Excel Version), GRCF Tab.

VEOLIA WATER PENNSYLVANIA INC.

Combined Wastewater

Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 7,594,754	$ 1,377,307	$ 8,972,061
2	Acquisition Adjustment	1,377,307	(1,377,307)	-
3	Accumulated Depreciation	(3,263,851)	-	(3,263,851)
4	Net Plant in Service	$ 5,708,210	$ -	$ 5,708,210
5	Additions			
6	Working Capital	$ 18,730	$ (471)	$ 18,259
7	Materials & Supplies	-	-	-
8	Total Rate Base Additions	$ 18,730	$ (471)	$ 18,259
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	-	-	-
12	Regulatory Liability - New Fed Rate	-	-	-
13	Regulatory Liability - 2018 Portion	-	-	-
14	Accumulated Deferred Income Taxes	-	-	-
15	Total Rate Base Deductions	$ -	$ -	$ -
16				
17	Total Rate Base	$ 5,726,940	$ (471)	$ 5,726,469

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Columbia County Wastewater

Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 437,003	$ -	$ 437,003
2	Acquisition Adjustment	-		
3	Accumulated Depreciation	(2,957)	-	(2,957)
4	Net Plant in Service	$ 434,046	$ -	$ 434,046
5	Additions			
6	Working Capital	$ 3,438	$ -	$ 3,438
7	Materials & Supplies	-	-	-
8	Total Rate Base Additions	$ 3,438	$ -	$ 3,438
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	-	-	-
12	Regulatory Liability - New Fed Rate	-	-	-
13	Regulatory Liability - 2018 Portion	-	-	-
14	Accumulated Deferred Income Taxes	-	-	-
15	Total Rate Base Deductions	$ -	$ -	$ -
16				
17	Total Rate Base	$ 437,484	$ -	$ 437,484

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.
Mahoning Township Wastewater
Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 7,157,751	$ -	$ 7,157,751
2	Acquisition Adjustment	1,377,307	-	1,377,307
3	Accumulated Depreciation	(3,260,894)	-	(3,260,894)
4	Net Plant in Service	$ 5,274,164	$ -	$ 5,274,164
5	Additions			
6	Working Capital	$ 15,292	$ -	$ 15,292
7	Materials & Supplies	-	-	-
8	Total Rate Base Additions	$ 15,292	$ -	$ 15,292
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	-	-	-
12	Regulatory Liability - New Fed Rate	-	-	-
13	Regulatory Liability - 2018 Portion	-	-	-
14	Accumulated Deferred Income Taxes	-	-	-
15	Total Rate Base Deductions	$ -	$ -	$ -
16				
17	Total Rate Base	$ 5,289,456	$ -	$ 5,289,456

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Combined Wastewater Operations

Summary of Adjustments to Income Before Income Taxes
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount	Source
1	Operating Income per Company	$ 44,933	Schedule LKM-WW-1
2			
3	OCA Adjustments:		
4	Normalize Materials and Supplies	$ 166	
5	Normalize Lab Testing Fees	3,602	
6	Normalize Outside Contractors Expense	29,248	
7	Normalize Outside Professional Services	1,533	
8	Normalize Office Expense	34	
9	Remove Inflation Escalation	661	
10	Remove Mahoning Acq. Adj. Amort.	111,237	
11	Include Mahoning Revalued Plant Depr. Expense	(41,146)	
12	Depreciation Expense to Reflect OCA's Depr. Rates	21,809	
13	Interest Synchronization	2,646	
14		-	
15	Total OCA Adjustments	129,789	
16			
17	Operating Income per OCA	$ 174,722	

VEOLIA WATER PENNSYLVANIA INC.

Combined Wastewater Operations

Summary of Adjustments to Income Before Income Taxes
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Operating Revenues	O&M Expenses	Depreciation & Amortization	Amortization of Acquisition Adjustment	Taxes Other Than Income	State & Federal Income Taxes	Operating Income Before Income Taxes
1	Amount per Company	$ 1,636,049	$ 1,155,148	$ 326,830	$ 153,034	$ 52	$ (43,948)	$ 44,933
2								
3	OCA Adjustments:							
4	Normalize Materials and Supplies	$ -	$ (228)	$ -	$ -	$ -	62	$ 166
5	Normalize Lab Testing Fees	-	(4,955)	-	-	-	1,353	3,602
6	Normalize Outside Contractors Expense	-	(40,238)	-	-	-	10,990	29,248
7	Normalize Outside Professional Services	-	(2,109)	-	-	-	576	1,533
8	Normalize Office Expense	-	(47)	-	-	-	13	34
9	Remove Inflation Escalation	-	(910)	-	-	-	249	661
10	Remove Mahoning Acq. Adj. Amort.	-	-	-	(153,034)	-	41,797	111,237
11	Include Mahoning Revalued Plant Depr. Expense	-	-	56,607		-	(15,461)	(41,146)
12	Depreciation Expense to Reflect OCA's Depr. Rates	-	-	(30,004)	-	-	8,195	21,809
13	Interest Synchronization	-	-	-	-	-	(2,646)	2,646
14								
15	Total OCA Adjustments	$ -	$ (48,487)	$ 26,604	$ (153,034)	$ -	$ 45,128	$ 129,789
16								
17	Total Adjusted Income Before Income Taxes	$ 1,636,049	$ 1,106,661	$ 353,434	$ -	$ 52	$ 1,180	$ 174,722

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Cash Working Capital
For the Fully Projected Test Year Ending October 30, 2025

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	OCA Adjustments	Expense Claim FPFTY After OCA Adjustments Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 4,076		$ 4,076	$ 258
Employee Group Health & Life	34.5	10.1	24.4	596	(332)	264	18
Employee Pension Benefits	34.5	29.3	5.2	171	(95)	76	1
Other Employee Benefits	34.5	276	-241.5	67	(19)	48	(32)
Purchased Water	34.5	26.6	7.9	-		-	-
Purchased Power	34.5	57.1	-22.6	-		-	-
Fuel for Power Production	34.5	38.8	-4.3	-		-	-
Chemicals	34.5	27.9	6.6	-	(230)	(230)	(4)
Materials and Supplies	34.5	29.1	5.4	5,015	(228)	4,787	71
Management and Service Fees	34.5	14.7	19.8	-		-	-
Lab Testing Fees	34.5	26.2	8.3	108,368	(4,955)	103,413	2,352
Outside Contractors	34.5	30.9	3.6	880,038	(40,238)	839,800	8,283
Outside Professional Services	34.5	45	-10.5	46,127	(2,109)	44,018	(1,266)
Rental - Building/Real Property	34.5	-13.2	47.7	-		-	-
Rental of Equipment	34.5	7.9	26.6	-		-	-
Transportation Expense	34.5	38.1	-3.6	420	234	654	(6)
Prop& Gen Liab. Insurance	34.5	-130.5	165	-		-	-
Worker Compensation	34.5	-130.5	165	1		1	-
Regulatory Commission Expense	34.5	-101.5	136	13,682		13,682	5,098
Office Expense and Utilities	34.5	8.9	25.6	1,027	(47)	980	69
Postage and Air Freight Expense	34.5	40.3	-5.8	-		-	-
Other O&M	34.5	30.3	4.2	-		-	-
Real Estate Tax	34.5	-26.9	61.4	-		-	-
Payroll	34.5	18.5	16	4		4	-
Federal Income Taxes	34.5	37	-2.5	57,482		57,482	(394)
State Income Taxes	34.5	28.75	5.75	23,688		23,688	373
Total CWC per OCA							14,821
Total CWC per Company							15,292
Adjustment							$ (471)

Docket No. R-2024-3045193
Schedule LKM-WW-5R

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Normalize Materials and Supplies
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	3-Year Average Materials & Supplies Expense	$ 4,932 [1/]
2		
3	FPFTY Materials & Supplies Expense per Company	5,160 [1/]
4		
5	Adjustment to Operating Expense	$ (228)

Notes:
[1/] Exhibit No. GRH-5, Schedule 8.

Docket No. R-2024-3045193
Schedule LKM-WW-6R

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Normalize Lab Testing Fees
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	2-Year Average Lab Testing Expense	$ 107,082 [1/]
2		
3	FPFTY Lab Testing Fees per Company	112,037 [1/]
4		
5	Adjustment to Operating Expense	$ (4,955)

Notes:
[1/] Exhibit No. GRH-5, Schedule 9.

Docket No. R-2024-3045193
Schedule LKM-WW-7R

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Normalize Outside Contractors Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	2-Year Average Outside Contractors Expense	$ 869,595 [1/]
2		
3	FPFTY Outside Contractors Expense Per Company	909,833 [1/]
4		
5	Adjustment to Operating Expense	$ (40,238)

Notes:
[1/] Exhibit No. GRH-5, Schedule 10.

Docket No. R-2024-3045193
Schedule LKM-WW-8R

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Normalize Outside Professional Services
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	3-Year Average Outside Professional Services	$ 45,579 [1/]
2		
3	FPFTY Outside Professional Service Expense Per Company	47,688 [1/]
4		
5	Adjustment to Operating Expense	$ (2,109)

Notes:
[1/] Exhibit No. GRH-5, Schedule 11.

Docket No. R-2024-3045193
Schedule LKM-WW-9R

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Normalize Office Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	3-Year Average Office Expense	$ 1,010 [1/]
2		
3	FPFTY Office Expense Per Company	1,057 [1/]
4		
5	Adjustment to Operating Expense	$ (47)

Notes:
[1/] Exhibit No. GRH-5, Schedule 17.

Docket No. R-2024-3045193
Schedule LKM-WW-10R

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Remove Inflation Escalation
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount	
1	Group Health and Life Insurance	$ 332	1/
2	Pension	95	2/
3	Post-Retirement Benefits Other than Pensions ("PBOP")	19	3/
4	Chemicals Expense	230	4/
5	Transportation Expense	234	5/
	Total Inflation Adjustments	$ 910	
	Adjustment to Operating Expenses.	$ (910)	

Notes:
1/ Exhibit No. GRH-5, Schedule 3.
2/ Exhibit No. GRH-5, Schedule 4.
3/ Exhibit No. GRH-5, Schedule 5.
4/ Exhibit No. GRH-5, Schedule 7.
5/ Exhibit No. GRH-5, Schedule 12.

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Interest Synchronization Adjustment
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	Company Rate Base	$ 5,726,469 [1/]
2	Weighted Cost of Debt	2.30% [2/]
3		
4	Adjusted Interest Deduction	$ 131,709
5	Interest Deduction Per Company	122,020 [3/]
6		
7	Adjustment to Synchronize Interest Expense	$ 9,689
8	Effective State Income Tax Rate	7.99%
9		
10	Adjustment to State Income Taxes	$ (774)
11		
12	Federal Income Tax Base	$ 8,915
13	Federal Income Tax Rate	21.00%
14		
15	Adjustment to Federal Income Taxes	$ (1,872)

Notes:

[1/] Schedule LKM-WW-2, Page 1.

[2/] Schedule LKM-WW-12.

[3/] Exhibit No. GRH-5, Schedule 21, Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Calculation of Overall Rate of Return
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Capitalization Ratio	Cost Rate	Weighted Cost
1	Long-Term Debt	50.00%	4.60%	2.30%
2	Short-Term Debt	0.00%	0.00%	0.00%
3	Total Debt	50.00%	4.60%	2.30%
4	Preferred Stock	0.00%	0.00%	0.00%
5	Common Equity	50.00%	9.10%	4.55%
6				
7	Total	100.00%		6.85%

Notes:
Per OCA Witness Garrett.

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Reflect Revalued Mahoning Plant in Service
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
	Rate Base	
1	Remove Mahoning Acquisition Adjustment	$ (1,377,307) [1/]
2	Reflect Revalued Plant in Service	$ 1,377,307
3	Net Adjustment to Rate Base	$ -
	Operating Income Adjustments	
4	Remove Amortization of Mahoning Acquisition Adjustment	$ (153,034) [2/]
5	Reflect Revalued Plant in Service	$ 1,377,307 [1/]
	OCA Composite Water Depreciation Rate	4.11% [3/]
6	Net Adjustment to Depreciation Expense	$ 56,607

Notes:
[1/] Exhibit No. GRH-4, Schedule -1.1, Page 1.
[2/] Exhibit No. GRH-5, Schedule -20, Page 1.
[2/] Exhibit DJG-17,Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Depreciation Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	Reflect OCA witness Garrett Recommendation	$ 30,004 [1/]
2	Adjustment to Depreciation Expense	$ (30,004)

Notes:
[1/] Exhibit DJG-17,Page 1.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	Docket Nos. R-2024-3045192
v.	:	R-2024-3045193
Veolia Water Pennsylvania, Inc.	:	

VERIFICATION

I, Lafayette K. Morgan Jr., hereby state that the facts set forth in my Rebuttal Testimony, OCA Statement 2R, are true and correct (or are true and correct to the best of my knowledge, information, and belief) and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: June 7, 2024

Signature: Lafayette Morgan Jr.
Lafayette K. Morgan Jr.

Consultant Address: Exeter Associates, Inc.
10480 Little Patuxent Parkway
Suite 300
Columbia, MD 21044-3575

OCA St. 4R

BEFORE
THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	)	Docket Nos. R-2024-3045192 (Water)
v.	)	R-2024-3045193 (Wastewater)
Veolia Water Company Pennsylvania, Inc.	)	
	)	

`

REBUTTAL TESTIMONY

OF

JEROME D. MIERZWA

ON BEHALF OF
THE PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

JUNE 7, 2024

EXETER
ASSOCIATES, INC.
10480 Little Patuxent Parkway, Suite 300
Columbia, Maryland 21044

I. INTRODUCTION

Q. WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS ADDRESS?

A. My name is Jerome D. Mierzwa. I am a Principal and Vice President of Exeter Associates, Inc. ("Exeter"). My business address is 10480 Little Patuxent Parkway, Suite 300, Columbia, Maryland 21044. Exeter specializes in providing public utility-related consulting services.

Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN THIS PROCEEDING?

A. Yes. My Direct Testimony was submitted in this Veolia Water Company Pennsylvania, Inc. ("Veolia" or "Company") proceeding as OCA Statement 4 on May 17, 2024.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my Rebuttal Testimony is to respond to certain cost allocation and rate design recommendations presented in the Direct Testimony of Bureau of Investigation and Enforcement ("I&E") witness Esyan A. Sakay and Office of Small Business Advocate ("OSBA) witness Neal Townsend.

II. WITNESS: ESYAN A. SAKAYA

Bureau of Investigation and Enforcement

Q. PLEASE SUMMARIZE THE COST ALLOCATION AND RATE DESIGN RECOMMENDATIONS PRESENTED BY MR. SAKAYA FOR THE MAHONING SERVICE TERRITORY.

A. Mr. Sakaya recommends that the increase proposed by Veolia for Public Fire protection service be eliminated. He also recommends that Veolia's proposal to recover $237,000 of the cost of serving the Mahoning service territory from the Main Division be disallowed.

Q. WHY DOES MR. SAKAYA RECOMMEND THAT THE INCREASE FOR PUBLIC FIRE IN THE MAHONING SERVICE TERRITORY BE ELIMINATED?

A. Mr. Sakaya claims that Veolia's cost of providing Public Fire service in the Mahoning service territory is $68,238, and the present rate revenue from Public Fire service in the Mahoning service territory is $46,804. Mr. Sakaya then claims that calculating 25% of the cost to provide Public Fire service in accordance with Section 1328 (b) of the Public Utility Code indicates that if present rate revenue received from Public Fire service is above $17,060 ($68,238 x 25%), present rates cannot be increased. Since present rate revenues are $46,804 and this is more than $17,060, Mr. Sakaya claims he is advised by counsel that Public Fire service rates cannot be increased in the Mahoning service territory.

Q. DO YOU AGREE WITH MR. SAKAY THAT PUBLIC FIRE SERVICE RATES IN THE MAHONING SERVICE TERRITORY CANNOT BE INCREASED?

A. No. Mr. Sakaya has misinterpreted Veolia's rate proposal for Public Fire service in the Mahoning service territory. As shown on Exhibit CEH-2, Schedule B, page 5, the full cost of providing Public Fire service in the Mahoning service territory is $272,951. The $68,238 identified by Mr. Sakaya already only reflects 25% of the cost of service ($272,951 x 25% = $68,238). Therefore, it would be reasonable to increase Public Fire service rates in the Mahoning service territory to recover $68,238, or 25% of the cost of service, as I have recommended in my Direct Testimony.

Q. WHY DOES MR. SAKAYA RECOMMEND THAT VEOLIA'S PROPOSAL TO RECOVER $237,000 OF THE COST OF SERVICE OF THE MAHONING SERVICE TERRITORY FROM THE MAIN DIVISION BE DISALLOWED?

A. First, Mr. Sakaya contends that disallowing Veolia's proposal to recover Mahoning costs from the Main Division would lower rates for the Main Division, and that Mahoning customers should pay rates that recover the costs of operating the Mahoning water system. In addition, Mr. Sakaya notes that while Act 11 of 2012 provides for the allocation of wastewater system revenue requirements to a company's owned water utility, it does not include provisions that allow for a similar transfer of system costs between water rate zones.

Q. DO YOU AGREE WITH MR. SAKAYA THAT VEOLIA'S PROPOSAL TO RECOVER A PORTION OF THE COST OF SERVING THE MAHONING SERVICE TERRITORY FROM CUSTOMERS IN THE MAIN DIVISION SHOULD BE DISALLOWED?

No. Mr. Sakaya inconsistently applies his recommendation, and his recommendation ignores the concept of gradualism. As shown on Table 1 of my Direct Testimony, Veolia is proposing that Residential customers in the Main Division pay rates which exceed the cost of service by $1,831,932. However, Mr. Sakaya has not proposed to eliminate this difference in costs and revenues and, therefore Mr. Sakaya has inconsistently applied his recommendation.

As also shown on Table 1 of my Direct Testimony, Veolia is requesting an overall rate increase of 26.5% in this proceeding. As shown on I&E Exhibit No. 3, Schedule No. 4, Mr. Sakaya is proposing an increase of 133.1% for customers in the Mahoning service territory. Clearly such an increase, which is 5 times the overall system average increase, is inconsistent with the rate design principle of gradualism.

In addition, recovering a portion of the Mahoning water service territory revenue requirement from Main Division water customers is comparable to the recovery a portion of the Main Division water revenue requirement for one customer class from another customer class in the Main Division. As shown on Table 1 of my Direct Testimony, for various reasons, Veolia has proposed to recover revenues from each Main Division customer class which differ from each customer class's revenue requirement.

Finally, in this proceeding, Veolia is proposing to move toward consolidating the rates of its five water service territories. The rates currently assessed to customers in the Mahoning service territory are lower than the rates currently assessed to customers in the Main Division which is by far the largest of the five service territories. In this proceeding, Veolia has generally proposed to adopt the same rates for customers in the Mahoning service territory and the Main Division. Adopting Mr. Sakaya's recommendation to eliminate the recovery of a portion of the Mahoning service territory cost of service from the Main Division would require adopting rates for the Mahoning service territory that are higher than the rates for the Main Division. This would be inconsistent with Veolia's proposal to consolidate the rates of its five service territories.

Q. DO YOU HAVE ANY OTHER COMMENTS CONCERNING VEOLIA'S PROPOSAL TO RECOVER A PORTION OF THE MAHONING SERVICE TERRITORY COST OF SERVICE FROM CUSTOMERS IN THE MAIN DIVISION?

A. Under Veolia's proposal to recover $237,000 of the Mahoning cost of service from the Main Division, the monthly bill of an average customer in the Main Division would increase by approximately 30 cents. To provide for gradualism, as discussed in my Direct Testimony, I have recommended certain modifications to Veolia's rate design consolidation proposals in this proceeding. As shown on Table 2 of my Direct Testimony,

based on the revenue requirement increase requested by Veolia in this proceeding, the amount of the Mahoning cost of service to be recovered from the Main Division would increase to $451,614 under my recommendations. This would result in an increase in the monthly bill of an average customer in the Main Division of approximately 55 cents.

Q. MR. SAKAYA RECOMMENDS THAT IF THE COMMISSION GRANTS VEOLIA AN INCREASE WHICH IS LESS THAN ITS REQUESTED INCREASE THAT THERE BE NO SCALE BACK TO BETHEL SERVICE TERRITORY USAGE RATES. IS THIS RECOMMENDATION REASONABLE?

A. Yes. Mr. Sakaya notes that the Bethel usage rates proposed by Veolia are below the present usage rates for the Company's other service territories and maintaining the proposed rates would help to consolidate rates in the future.

III. WITNESS: NEAL TOWNSEND

Office of Small Business Advocate

Q. MR. TOWNSEND RECOMMENDS THAT MAHONING SERVICE TERRITORY NON-RESIDENTIAL WASTEWATER CUSTOMERS RECEIVE NO INCREASE IN RATES IN THIS PROCEEDING. DO YOU AGREE WITH THIS RECOMMENDATION?

A. No. I believe that all customers should receive at least some rate increase when overall, the rates of a utility are increasing. Recognizing Mr. Townsend's concerns that non-Residential customer rates currently exceed the cost of service of non-Residential customers, I recommend that the 17.3% increase proposed by the Company be reduced to 10.0%. This proposed increase should be proportionately further reduced to the extent that the revenue increase authorized by the Commission in this proceeding for Mahoning service territory wastewater service is less than the revenue increase requested by Veolia.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes, it does at this time.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:		
v	:	Docket Nos.	R-2024-3045192
Veolia Water Pennsylvania, Inc.	:		R-2024-3045193
	:		

VERIFICATION

I, Jerome D. Mierzwa, hereby state that the facts above set forth in my Rebuttal Testimony, OCA Statement 4R, are true and correct (or are true and correct to the best of my knowledge, information, and belief) and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: June 7, 2024

Signature: _____
Jerome D. Mierzwa

Consultant Address: Exeter Associates, Inc. 10480
Little Patuxent Parkway, Suite 300
Columbia, MD 21044-3575

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	Docket No.: R-2024-3045192 (Water)
v.	:	R-2024-3045193 (Wastewater)
	:	
Veolia Water Pennsylvania, Inc.	:	

SURREBUTTAL TESTIMONY

OF

MORGAN N. DEANGELO

On behalf of the

PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

PUBLIC VERSION

June 21, 2024

Table of Contents

Introduction

Q. Please state your name, business address and occupation.

A. My name is Morgan N. DeAngelo. My business address is 555 Walnut Street, Forum Place, 5th Floor, Harrisburg, Pennsylvania 17101. I am currently employed as a Regulatory Analyst by the Pennsylvania Office of Consumer Advocate (OCA).

Q. Have you provided testimony in this case?

A. Yes. I provided Direct Testimony in this case on May 17, 2024, in OCA Statement 1.

Q. What is the purpose of your Surrebuttal Testimony?

A. My Surrebuttal Testimony will introduce the witnesses who are submitting Surrebuttal testimony for the OCA, in addition to responding to the Rebuttal Testimony of Veolia Water Pennsylvania, Inc. (VWPA) witnesses Larry Finnicum, VWPA Statement No. 1-R, and James Cagle, VWPA Statement No. 6-R. To the extent that a witness has provided Rebuttal Testimony to a position I took in my Direct Testimony and Rebuttal Testimony, but did not address in my Surrebuttal Testimony, it should not be construed that I agree.

Overview

Q. Please provide an overview of the OCA's Surrebuttal Testimony.

A. In OCA Statement 2SR, Mr. Morgan revised his Direct Testimony recommendation of the Company's proposed revenue increase. In Surrebuttal, he recommends that for water, the revenue increase should be $4,923,450, compared to its proposed increase $15,494,620, and the proposed revenue increase for wastewater should be $316,779, compared to its proposed increase of $468,719. Mr. Morgan also responded to the Company's Rebuttal testimony, regarding adjustments he makes to inflation escalation,

rate case expense, payroll expense, chemicals expense, purchased power expense, customer assistance program expense, acquisition transaction amortization expense, and depreciation expense.

In OCA Statement 3SR, Mr. Garrett indicated the Company's Rebuttal Testimony did not cause him to change any of his positions or recommendations discussed in his Direct Testimony. His recommendations include that the Company's proposed return on equity should be set at a market-based rate of 9.1%, and the Commission should reject the Company's proposed capital structure and instead use a capital structure for ratemaking purposes consisting of 50% debt and 50% equity. Mr. Garrett proposed an alternative recommendation, suggesting that if the Commission accepts the Company's proposed capital structure, an ROE of 8.6% should only be granted. Based on Mr. Garrett's depreciation analysis, he recommended Veolia use the average life group (ALG) method. This recommendation is based, in part on conclusions from the NARUC Public Utility Depreciation Practices that "[T]he ELG method results in annual accruals that are higher during the early years of a vintage's life, thereby causing an increase in depreciation expense and revenue requirements during these years."[1] Additionally, Mr. Garrett made a $2,144,164 million adjustment due to depreciation which is reflected in Mr. Morgan's overall recommended revenue requirement.

In OCA Statement 4SR, Mr. Mierzwa responds to certain cost allocation and rate design recommendations. Mr. Mierzwa argues his customer charge calculation and recommendation should be adopted in this proceeding, as they are consistent with the

[1] National Association of Regulatory Utility Commissioners, *Public Utility Depreciation Practices* 176 (NARUC 1996) (emphasis added).

recommendations he made in the Columbia Water Company proceeding. Mr. Mierzwa made four recommendations regarding VWPA's rate consolidation proposals, in which he continues to recommend. His recommendations from Direct Testimony include the following:

First, he adjusted the proposed increase for the Bethel service territory and recommends the Bethel district customer charge should be moved to 75% of the customer charge for all other areas, as opposed to the 100% the Company proposed. Second, he recommends the Kensington service territory adopt the current usage charge in excess of the free allowance for all usage. Third, he recommends the Overbrook service territory adopt a usage charge that results in a 2.0 times the system average increase for the average residential customer. Fourth, he recommends the Mahoning service territory adopt a usage charge of $7.55 per 1,000 gallons that is proportionately scaled back to reflect the revenue requirements authorized by the Commission in this proceeding. Additionally, Mr. Mierzwa recommends the water monthly customer charges adopted in this proceeding should be reduced from $19.80 to $17.96, and that Public Fire charges be increased to recover 25% of the cost of service, subject to a maximum increase of 2.0 times the system average increase authorized by the Commission in this proceeding.

OCA Statement 5SR, Mr. Fought continues to recommend the Company should provide documentation that it has hydraulic models of all its distribution systems and has determined that all its fire hydrants attached to water mains larger than 6-inch can provide the minimum fire flow criteria. Mr. Fought also continues to recommend that VWPA should install a flushing device to the dead-end line upon receiving a customer complaint that requires flushing that line. Further, Mr. Fought recommended that VWPA

submit a schedule with the Company's next rate case filing to the Commission, OCA and other parties indicating when they will be in compliance with the requirements of §65.8(b).

In OCA Statement 6SR, Mr. DeMarco responds to Rebuttal Testimony regarding the Company's Low-Income program and the Company's plans to fund its Customer Assistance Program. He discusses that the OCA is willing to compromise on the overall CAP discount, but still recommends the Company continue to collect data on its low-income program. He also addresses concerns that still remain regarding the Company's arrearage management program. Finally, Mr. DeMarco is recommending an increase in the wastewater emergency grant.

Customer Notices

Q. Please summarize your Direct Testimony regarding customer notices.

A. In my Direct Testimony, I recommended in future cases, the notice should include (1) a rate impact for each of the proposed rate increases, depicting a more accurate representation of what customers could expect, and (2) bill impacts for different usage levels. By doing so, this provides more accurate representation to help customers better understand what the impact on their bill will be like.

Q. VWPA witness Larry Finnicum found your recommendations to be impractical. Please respond.

A. Mr. Finnicum conflated my testimony when he stated, "It is impractical to expect the Company to essentially provide written notice for each customer on the system.". (VWPA Statement No. 1-R, p. 14, ln. 4-6) I am not suggesting VWPA should have notice for *each customer* on the system. What I am suggesting is that VWPA include customer notices for

each of the systems. This is consistent with how Pennsylvania American Water Company (PAWC) notifies its water and wastewater customers in each of its rate zones. I used customer notices from the most recent PAWC Base Rate Case [2] for Zones 1, 2 and 3 as examples, and they are attached to my testimony as Exh. MND-1SR. For example, the current VWPA customer notice identifies that a bill for a residential customer using an average of 3,500 gallons per month would increase by 22% for water and by 37% for wastewater. This is the proposed increase for customers on the main system. However, a customer that is a part of the Bethel system could anticipate a 63% increase, a customer in the Overbrook system could anticipate a 123% increase, a customer in the Kensington system could anticipate a 102% increase, and a customer in the Mahoning system could anticipate a 101% increase. (VWPA Exhibit No. GRH-2, Schedule 10.6 – 10.10) This clearly shows the misrepresentation of the potential bill impact that is listed in the current customer notice.

Further, I am suggesting that VWPA add in two additional usage levels to its customer notices. Mr. Finnicum cites to VWPA Exhibit LFK-3, p. 1 at P 5, concluding that the notice provides customers the opportunity to more specifically see how their water or wastewater bills may be affected by calling Veolia Customer Service. Additionally, that paragraph indicates customers may examine the rates requested in Supplement No. 68 Water Tariff PA P.U.C. No.7 and Supplement No.5 Wastewater Tariff PA P.U.C. No. 2. While this may be true, there is no rate calculation provided there, let alone bill impact calculations at different consumption levels. Even if a customer examined the proposed

[2] PaPUC v. Pennsylvania-American Water Company C, Docket Nos. R-2023-3043189 and R-2023-3043190

tariff, it would not reflect an accurate impact of the increase. It would reflect only VWPA's proposal.

BEGIN CONFIDENTIAL

[redacted]

[redacted]

END CONFIDENTIAL

Proposed Positive Acquisition Adjustments

Q. Please summarize your Direct Testimony regarding the acquisition adjustments.

A. In my Direct Testimony, I recommended the Commission reject the positive acquisition adjustments proposed for the Kensington and Overbrook systems. VWPA has not provided sufficient information to satisfy the Section 1327 requirements for approval of an acquisition adjustment under Section 1327(a), specifically under Section 1327(a)(3). VWPA has failed to show Kensington or Overbrook was not providing adequate service to its customers at the time of acquisition. For the Mahoning systems, I indicated that the

OCA does not challenge that the full $9,500,000 can be placed into ratemaking rate base, as this number was established by the Commission in the application dockets.

Q. VWPA witness Larry Finnicum addresses the acquisition adjustments in his Rebuttal Testimony. Please respond.

A. In his Rebuttal Testimony, Mr. Finnicum stated, "For all the reasons stated in my direct testimony, VWPA Statement No. 1 at pages 9 through 16, VWPA clearly has adequately satisfied the requirements of Section 1327 and should be allowed by the Commission to recover an acquisition adjustment as proposed by the Company.". (VWPA Statement No. 1-R, p. 16, ln. 13-16) Mr. Finnicum indicated he does not agree with your recommendation that the Commission should reject the positive acquisition adjustments proposed for the Kensington and Overbrook systems, and goes on to say, "I&E's recommendation does not coincide with this recommendation either. (VWPA Statement No. 1-R, p. 16, ln. 12-16) However, I&E's acceptance of VWPA's claims does not provide substantial support for the criterion identified in the requirements of Section 1329. Further, VWPA does not provide any additional information to support the claims, and therefore I continue to recommend that VWPA's proposal for positive acquisition adjustments should be rejected.

<u>Conclusion</u>

Q. Please summarize your recommendations, including any changes you made in this Surrebuttal Testimony.

A. I continue to make the same recommendations as in my Direct Testimony. In conclusion, I encourage the Commission to consider each of the recommendations proposed by the other OCA witnesses in this case, along with the following recommendations I propose:

(1) I recommend the customer notices include bill impacts for different usage levels;

(2) I recommend the customer notices include bill impacts for the systems with different proposed rate increases;

(3) I recommend the Commission reject the positive acquisition adjustments proposed for the Kensington and Overbrook systems in this case;

BEGIN CONFIDENTIAL

[redacted]

END CONFIDENTIAL

Q. Does this conclude your Surrebuttal Testimony?

A. Yes. However, I reserve the right to modify if necessary.

Exh. MND-1SR

PENNSYLVANIA AMERICAN WATER

NOTICE OF PROPOSED WATER RATE CHANGES

Dear Customer:

On November 8, 2023, Pennsylvania American Water filed a request with the Pennsylvania Public Utility Commission (PUC) to increase your water rates as of January 7, 2024. A full investigation of this request could delay the change until August 2024. This notice describes our request, the PUC's role, and what actions you can take.

RATE REQUEST

Pennsylvania American Water is requesting an overall increase of $203.9 million for all of its water and wastewater operations. Over the 18 months beginning January 2024, Pennsylvania American Water plans to invest approximately $1 billion to improve service reliability, water quality and fire protection for your community and more than 400 others across the Commonwealth.

These investments include necessary upgrades to treatment facilities, storage tanks, wells and pumping stations to help ensure that systems meet regulatory standards. Pennsylvania American Water plans to replace more than 100 miles of aging pipeline, as well as valves, service lines and other parts of its 11,650-mile network of water and sewer lines. By making prudent, ongoing investments to maintain and upgrade water and wastewater systems, Pennsylvania American Water is committed to protecting communities from public health concerns and quality of life issues associated with failing infrastructure.

If the entire rate request is approved as filed, the typical water bill for:

- Residential customers using 3,201 gallons a month would increase from $70.65 to $88.24 per month.
- Commercial customers using 22,094 gallons a month would increase from $346.13 to $439.77 per month.
- Industrial customers using 685,947 gallons a month would increase from $7,663.50 to $10,173.68 per month.

Pennsylvania American Water's filing requests approval of a combined revenue requirement for the company's water and wastewater operations as authorized by legislation enacted in 2012. The filing also requests approval of the following alternative rate mechanisms in accordance with 66 Pa. C.S. § 1330: a Revenue Decoupling Mechanism and an Environmental Compliance Investment Charge. If approved as filed, the immediate impact on your rates from these alternative rate mechanisms would be $0.

To find out more about how the request might affect your water bill, please contact Pennsylvania American Water's customer service center at 1-800-565-7292. You can also find the rates requested by Pennsylvania American Water in Supplement No. 45 to Tariff Water PA PUC No. 5, and Supplement No. 47 to Tariff Wastewater PA PUC No. 16 on our website at www.pennsylvaniaamwater.com. Under the Customer Service & Billing menu, select "Your Water and Wastewater Rates." You can also review the material filed with the PUC at our office at 852 Wesley Drive, Mechanicsburg, PA 17055. In addition, you can request that we mail you a copy of Pennsylvania American Water's Statement of Reasons, which is a plain language summary of why we are requesting the rate change.

PUC ROLE

The state agency that approves rates for regulated public utilities is the PUC. The PUC will review and investigate the requested rate increase. Pennsylvania American Water must prove that the requested rates are reasonable. After examining the evidence, the PUC might grant all, some, or none of the request, or it might reduce existing rates. **As a result, the final effect on your bill might be different than the company's request.**

ACTIONS YOU CAN TAKE

There are three ways you can challenge Pennsylvania American Water's request:

1. **Send a letter to the PUC.** You can tell the PUC why you object to the requested rate increase in your letter. You can also tell the PUC about any other concerns you have about the company. This information can be helpful when the PUC investigates the rate request. Send your letter to the Pennsylvania Public Utility Commission, Post Office Box 3265, Harrisburg, PA 17105-3265.

2. **Attend or present testimony at a PUC public input hearing.** You can attend or be a witness at a PUC public hearing. The PUC holds public input hearings if it opens an investigation of Pennsylvania American Water's rate request and if there is enough interest in the case. At these hearings, you can present your views to the PUC judge and to company representatives. Testimony under oath becomes part of the rate case record. The PUC holds these hearings in the service area of the company. For more information, call the PUC at 1-800-692-7380.

3. **File a formal complaint.** If you want to be a party to the case, you must file a formal complaint. You then have an opportunity to take part in all the hearings about the rate increase request. You can receive copies of all materials distributed by the other parties. Formal complaints should be filed with the PUC before January 7, 2024. If no one files a formal complaint, the Commission may grant all, some or none of the request without holding a hearing before a PUC judge. You can request a formal complaint form by writing to the Pennsylvania Public Utility Commission, Post Office Box 3265, Harrisburg, PA 17105-3265, or by going to its website at www.puc.state.pa.us.

PENNSYLVANIA AMERICAN WATER

NOTICE OF PROPOSED WATER AND WASTEWATER RATE CHANGES

Dear Customer:

On November 8, 2023, Pennsylvania American Water filed a request with the Pennsylvania Public Utility Commission (PUC) to increase your water and wastewater rates as of January 7, 2024. A full investigation of this request could delay the change until August 2024. This notice describes our request, the PUC's role, and what actions you can take.

RATE REQUEST

Pennsylvania American Water is requesting an overall increase of $203.9 million for all of its water and wastewater operations. Over the 18 months beginning January 2024, Pennsylvania American Water plans to invest approximately $1 billion to improve service reliability, water quality and fire protection for your community and more than 400 others across the Commonwealth.

These investments include necessary upgrades to treatment facilities, storage tanks, wells and pumping stations to help ensure that systems meet regulatory standards. Pennsylvania American Water plans to replace more than 100 miles of aging pipeline, as well as valves, service lines and other parts of its 11,650-mile network of water and sewer lines. By making prudent, ongoing investments to maintain and upgrade water and wastewater systems, Pennsylvania American Water is committed to protecting communities from public health concerns and quality of life issues associated with failing infrastructure.

If the entire rate request is approved as filed, the typical water bill for:

- Residential customers using 3,201 gallons a month would increase from $70.65 to $88.24 per month.
- Commercial customers using 22,094 gallons a month would increase from $346.13 to $439.77 per month.
- Industrial customers using 685,947 gallons a month would increase from $7,663.50 to $10,173.68 per month.

If the entire rate request is approved as filed, the typical wastewater bill for:

- Residential customers using 3,122 gallons a month would decrease from $105.18 to $100.08 per month.
- Commercial customers using 22,094 gallons a month would decrease from $505.04 to $491.88 per month.
- Industrial customers using 685,947 gallons a month would decrease from $14,616.64 to $13,768.94 per month.

Pennsylvania American Water's filing requests a change to base residential wastewater bills from April-December on an average of usage during the prior January-March to better reflect seasonal outdoor usage. The filing requests approval of a combined revenue requirement for the company's water and wastewater operations as authorized by legislation enacted in 2012. The filing also requests approval of the following alternative rate mechanisms in accordance with 66 Pa. C.S. § 1330: a Revenue Decoupling Mechanism and an Environmental Compliance Investment Charge. If approved as filed, the immediate impact on your rates from these alternative rate mechanisms would be $0.

To find out more about how the request might affect your water and wastewater bill, please contact Pennsylvania American Water's customer service center at 1-800-565-7292. You can also find the rates requested by Pennsylvania American Water in Supplement No. 45 to Tariff Water PA PUC No. 5, and Supplement No. 47 to Tariff Wastewater PA PUC No. 16 on our website at www.pennsylvaniaamwater.com. Under the Customer Service & Billing menu, select "Your Water and Wastewater Rates." You can also review the material filed with the PUC at our office at 852 Wesley Drive, Mechanicsburg, PA 17055. In addition, you can request that we mail you a copy of Pennsylvania American Water's Statement of Reasons, which is a plain language summary of why we are requesting the rate change.

PUC ROLE

The state agency that approves rates for regulated public utilities is the PUC. The PUC will review and investigate the requested rate increase. Pennsylvania American Water must prove that the requested rates are reasonable. After examining the evidence, the PUC might grant all, some, or none of the request, or it might reduce existing rates. **As a result, the final effect on your bill might be different than the company's request.**

ACTIONS YOU CAN TAKE

There are three ways you can challenge Pennsylvania American Water's request:

1. **Send a letter to the PUC.** You can tell the PUC why you object to the requested rate increase in your letter. You can also tell the PUC about any other concerns you have about the company. This information can be helpful when the PUC investigates the rate request. Send your letter to the Pennsylvania Public Utility Commission, Post Office Box 3265, Harrisburg, PA 17105-3265.

2. **Attend or present testimony at a PUC public input hearing.** You can attend or be a witness at a PUC public hearing. The PUC holds public input hearings if it opens an investigation of Pennsylvania American Water's rate request and if there is enough interest in the case. At these hearings, you can present your views to the PUC judge and to company representatives. Testimony under oath becomes part of the rate case record. The PUC holds these hearings in the service area of the company. For more information, call the PUC at 1-800-692-7380.

3. **File a formal complaint.** If you want to be a party to the case, you must file a formal complaint. You then have an opportunity to take part in all the hearings about the rate increase request. You can receive copies of all materials distributed by the other parties. Formal complaints should be filed with the PUC before January 7, 2024. If no one files a formal complaint, the Commission may grant all, some or none of the request without holding a hearing before a PUC judge. You can request a formal complaint form by writing to the Pennsylvania Public Utility Commission, Post Office Box 3265, Harrisburg, PA 17105-3265, or by going to its website at www.puc.state.pa.us.

PENNSYLVANIA AMERICAN WATER

NOTICE OF PROPOSED WATER AND WASTEWATER RATE CHANGES

Dear Customer:

On November 8, 2023, Pennsylvania American Water filed a request with the Pennsylvania Public Utility Commission (PUC) to increase your water and wastewater rates as of January 7, 2024. A full investigation of this request could delay the change until August 2024. This notice describes our request, the PUC's role, and what actions you can take.

RATE REQUEST

Pennsylvania American Water is requesting an overall increase of $203.9 million for all of its water and wastewater operations. Over the 18 months beginning January 2024, Pennsylvania American Water plans to invest approximately $1 billion to improve service reliability, water quality and fire protection for your community and more than 400 others across the Commonwealth.

These investments include necessary upgrades to treatment facilities, storage tanks, wells and pumping stations to help ensure that systems meet regulatory standards. Pennsylvania American Water plans to replace more than 100 miles of aging pipeline, as well as valves, service lines and other parts of its 11,650-mile network of water and sewer lines. By making prudent, ongoing investments to maintain and upgrade water and wastewater systems, Pennsylvania American Water is committed to protecting communities from public health concerns and quality of life issues associated with failing infrastructure.

If the entire rate request is approved as filed, the typical water bill for:

- Residential customers using 3,201 gallons a month would increase from $70.65 to $88.24 per month.
- Commercial customers using 22,094 gallons a month would increase from $346.13 to $439.77 per month.
- Industrial customers using 685,947 gallons a month would increase from $7,663.50 to $10,173.68 per month.

If the entire rate request is approved as filed, the typical wastewater bill for:

- Residential customers using 3,201 gallons a month would not change and remain $95.78 per month.
- Commercial customers using 22,094 gallons a month would increase from $421.06 to $421.07 per month.
- Industrial customers using 685,947 gallons a month would increase from $12,009.62 to $12,009.96 per month.

Pennsylvania American Water's filing requests a change to base residential wastewater bills from April-December on an average of usage during the prior January-March to better reflect seasonal outdoor usage. The filing requests approval of a combined revenue requirement for the company's water and wastewater operations as authorized by legislation enacted in 2012. The filing also requests approval of the following alternative rate mechanisms in accordance with 66 Pa. C.S. § 1330: a Revenue Decoupling Mechanism and an Environmental Compliance Investment Charge. If approved as filed, the immediate impact on your rates from these alternative rate mechanisms would be $0.

To find out more about how the request might affect your water and wastewater bill, please contact Pennsylvania American Water's customer service center at 1-800-565-7292. You can also find the rates requested by Pennsylvania American Water in Supplement No. 45 to Tariff Water PA PUC No. 5, and Supplement No. 47 to Tariff Wastewater PA PUC No. 16 on our website at www.pennsylvaniaamwater.com. Under the Customer Service & Billing menu, select "Your Water and Wastewater Rates." You can also review the material filed with the PUC at our office at 852 Wesley Drive, Mechanicsburg, PA 17055. In addition, you can request that we mail you a copy of Pennsylvania American Water's Statement of Reasons, which is a plain language summary of why we are requesting the rate change.

PUC ROLE

The state agency that approves rates for regulated public utilities is the PUC. The PUC will review and investigate the requested rate increase. Pennsylvania American Water must prove that the requested rates are reasonable. After examining the evidence, the PUC might grant all, some, or none of the request, or it might reduce existing rates. **As a result, the final effect on your bill might be different than the company's request.**

ACTIONS YOU CAN TAKE

There are three ways you can challenge Pennsylvania American Water's request:

1. **Send a letter to the PUC.** You can tell the PUC why you object to the requested rate increase in your letter. You can also tell the PUC about any other concerns you have about the company. This information can be helpful when the PUC investigates the rate request. Send your letter to the Pennsylvania Public Utility Commission, Post Office Box 3265, Harrisburg, PA 17105-3265.

2. **Attend or present testimony at a PUC public input hearing.** You can attend or be a witness at a PUC public hearing. The PUC holds public input hearings if it opens an investigation of Pennsylvania American Water's rate request and if there is enough interest in the case. At these hearings, you can present your views to the PUC judge and to company representatives. Testimony under oath becomes part of the rate case record. The PUC holds these hearings in the service area of the company. For more information, call the PUC at 1-800-692-7380.

3. **File a formal complaint.** If you want to be a party to the case, you must file a formal complaint. You then have an opportunity to take part in all the hearings about the rate increase request. You can receive copies of all materials distributed by the other parties. Formal complaints should be filed with the PUC before January 7, 2024. If no one files a formal complaint, the Commission may grant all, some or none of the request without holding a hearing before a PUC judge. You can request a formal complaint form by writing to the Pennsylvania Public Utility Commission, Post Office Box 3265, Harrisburg, PA 17105-3265, or by going to its website at www.puc.state.pa.us.

PENNSYLVANIA AMERICAN WATER

NOTICE OF PROPOSED WATER AND WASTEWATER RATE CHANGES

Dear Customer:

On November 8, 2023, Pennsylvania American Water filed a request with the Pennsylvania Public Utility Commission (PUC) to increase your water and wastewater rates as of January 7, 2024. A full investigation of this request could delay the change until August 2024. This notice describes our request, the PUC's role, and what actions you can take.

RATE REQUEST

Pennsylvania American Water is requesting an overall increase of $203.9 million for all of its water and wastewater operations. Over the 18 months beginning January 2024, Pennsylvania American Water plans to invest approximately $1 billion to improve service reliability, water quality and fire protection for your community and more than 400 others across the Commonwealth.

These investments include necessary upgrades to treatment facilities, storage tanks, wells and pumping stations to help ensure that systems meet regulatory standards. Pennsylvania American Water plans to replace more than 100 miles of aging pipeline, as well as valves, service lines and other parts of its 11,650-mile network of water and sewer lines. By making prudent, ongoing investments to maintain and upgrade water and wastewater systems, Pennsylvania American Water is committed to protecting communities from public health concerns and quality of life issues associated with failing infrastructure.

If the entire rate request is approved as filed, the typical water bill for:

- Residential customers using 3,201 gallons a month would increase from $70.65 to $88.24 per month.
- Commercial customers using 22,094 gallons a month would increase from $346.13 to $439.77 per month.
- Industrial customers using 685,947 gallons a month would increase from $7,663.50 to $10,173.68 per month.

If the entire rate request is approved as filed, the typical wastewater bill for:

- Residential customers using 3,122 gallons a month would increase from $91.77 to $100.08 per month.
- Commercial customers using 22,094 gallons a month would increase from $459.70 to $491.88 per month.

Pennsylvania American Water's filing requests a change to base residential wastewater bills from April-December on an average of usage during the prior January-March to better reflect seasonal outdoor usage. The filing requests approval of a combined revenue requirement for the company's water and wastewater operations as authorized by legislation enacted in 2012. The filing also requests approval of the following alternative rate mechanisms in accordance with 66 Pa. C.S. § 1330: a Revenue Decoupling Mechanism and an Environmental Compliance Investment Charge. If approved as filed, the immediate impact on your rates from these alternative rate mechanisms would be $0.

To find out more about how the request might affect your water and wastewater bill, please contact Pennsylvania American Water's customer service center at 1-800-565-7292. You can also find the rates requested by Pennsylvania American Water in Supplement No. 45 to Tariff Water PA PUC No. 5, and Supplement No. 47 to Tariff Wastewater PA PUC No. 16 on our website at www.pennsylvaniaamwater.com. Under the Customer Service & Billing menu, select "Your Water and Wastewater Rates." You can also review the material filed with the PUC at our office at 852 Wesley Drive, Mechanicsburg, PA 17055. In addition, you can request that we mail you a copy of Pennsylvania American Water's Statement of Reasons, which is a plain language summary of why we are requesting the rate change.

PUC ROLE

The state agency that approves rates for regulated public utilities is the PUC. The PUC will review and investigate the requested rate increase. Pennsylvania American Water must prove that the requested rates are reasonable. After examining the evidence, the PUC might grant all, some, or none of the request, or it might reduce existing rates. **As a result, the final effect on your bill might be different than the company's request.**

ACTIONS YOU CAN TAKE

There are three ways you can challenge Pennsylvania American Water's request:

1. **Send a letter to the PUC.** You can tell the PUC why you object to the requested rate increase in your letter. You can also tell the PUC about any other concerns you have about the company. This information can be helpful when the PUC investigates the rate request. Send your letter to the Pennsylvania Public Utility Commission, Post Office Box 3265, Harrisburg, PA 17105-3265.

2. **Attend or present testimony at a PUC public input hearing.** You can attend or be a witness at a PUC public hearing. The PUC holds public input hearings if it opens an investigation of Pennsylvania American Water's rate request and if there is enough interest in the case. At these hearings, you can present your views to the PUC judge and to company representatives. Testimony under oath becomes part of the rate case record. The PUC holds these hearings in the service area of the company. For more information, call the PUC at 1-800-692-7380.

3. **File a formal complaint.** If you want to be a party to the case, you must file a formal complaint. You then have an opportunity to take part in all the hearings about the rate increase request. You can receive copies of all materials distributed by the other parties. Formal complaints should be filed with the PUC before January 7, 2024. If no one files a formal complaint, the Commission may grant all, some or none of the request without holding a hearing before a PUC judge. You can request a formal complaint form by writing to the Pennsylvania Public Utility Commission, Post Office Box 3265, Harrisburg, PA 17105-3265, or by going to its website at www.puc.state.pa.us.

PENNSYLVANIA AMERICAN WATER

NOTICE OF PROPOSED WATER AND WASTEWATER RATE CHANGES

Dear Customer:

On November 8, 2023, Pennsylvania American Water filed a request with the Pennsylvania Public Utility Commission (PUC) to increase your water and wastewater rates as of January 7, 2024. A full investigation of this request could delay the change until August 2024. This notice describes our request, the PUC's role, and what actions you can take.

RATE REQUEST

Pennsylvania American Water is requesting an overall increase of $203.9 million for all of its water and wastewater operations. Over the 18 months beginning January 2024, Pennsylvania American Water plans to invest approximately $1 billion to improve service reliability, water quality and fire protection for your community and more than 400 others across the Commonwealth.

These investments include necessary upgrades to treatment facilities, storage tanks, wells and pumping stations to help ensure that systems meet regulatory standards. Pennsylvania American Water plans to replace more than 100 miles of aging pipeline, as well as valves, service lines and other parts of its 11,650-mile network of water and sewer lines. By making prudent, ongoing investments to maintain and upgrade water and wastewater systems, Pennsylvania American Water is committed to protecting communities from public health concerns and quality of life issues associated with failing infrastructure.

If the entire rate request is approved as filed, the typical water bill for:

- Residential customers using 3,201 gallons a month would increase from $70.65 to $88.24 per month.
- Commercial customers using 22,094 gallons a month would increase from $346.13 to $439.77 per month.
- Industrial customers using 685,947 gallons a month would increase from $7,663.50 to $10,173.68 per month.

If the entire rate request is approved as filed, the typical wastewater bill for:

- Residential customers using 3,122 gallons a month would increase from $106.70 to $109.76 per month.
- Commercial customers using 22,094 gallons a month would decrease from $472.74 to $469.79 per month.
- Industrial customers using 685,947 gallons a month would increase from $12,611.80 to $13,082.99 per month.

Pennsylvania American Water's filing requests a change to base residential wastewater bills from April-December on an average of usage during the prior January-March to better reflect seasonal outdoor usage. The filing requests approval of a combined revenue requirement for the company's water and wastewater operations as authorized by legislation enacted in 2012. The filing also requests approval of the following alternative rate mechanisms in accordance with 66 Pa. C.S. § 1330: a Revenue Decoupling Mechanism and an Environmental Compliance Investment Charge. If approved as filed, the immediate impact on your rates from these alternative rate mechanisms would be $0.

To find out more about how the request might affect your water and wastewater bill, please contact Pennsylvania American Water's customer service center at 1-800-565-7292. You can also find the rates requested by Pennsylvania American Water in Supplement No. 45 to Tariff Water PA PUC No. 5, and Supplement No. 47 to Tariff Wastewater PA PUC No. 16 on our website at www.pennsylvaniaamwater.com. Under the Customer Service & Billing menu, select "Your Water and Wastewater Rates." You can also review the material filed with the PUC at our office at 852 Wesley Drive, Mechanicsburg, PA 17055. In addition, you can request that we mail you a copy of Pennsylvania American Water's Statement of Reasons, which is a plain language summary of why we are requesting the rate change.

PUC ROLE

The state agency that approves rates for regulated public utilities is the PUC. The PUC will review and investigate the requested rate increase. Pennsylvania American Water must prove that the requested rates are reasonable. After examining the evidence, the PUC might grant all, some, or none of the request, or it might reduce existing rates. **As a result, the final effect on your bill might be different than the company's request.**

ACTIONS YOU CAN TAKE

There are three ways you can challenge Pennsylvania American Water's request:

1. **Send a letter to the PUC.** You can tell the PUC why you object to the requested rate increase in your letter. You can also tell the PUC about any other concerns you have about the company. This information can be helpful when the PUC investigates the rate request. Send your letter to the Pennsylvania Public Utility Commission, Post Office Box 3265, Harrisburg, PA 17105-3265.

2. **Attend or present testimony at a PUC public input hearing.** You can attend or be a witness at a PUC public hearing. The PUC holds public input hearings if it opens an investigation of Pennsylvania American Water's rate request and if there is enough interest in the case. At these hearings, you can present your views to the PUC judge and to company representatives. Testimony under oath becomes part of the rate case record. The PUC holds these hearings in the service area of the company. For more information, call the PUC at 1-800-692-7380.

3. **File a formal complaint.** If you want to be a party to the case, you must file a formal complaint. You then have an opportunity to take part in all the hearings about the rate increase request. You can receive copies of all materials distributed by the other parties. Formal complaints should be filed with the PUC before January 7, 2024. If no one files a formal complaint, the Commission may grant all, some or none of the request without holding a hearing before a PUC judge. You can request a formal complaint form by writing to the Pennsylvania Public Utility Commission, Post Office Box 3265, Harrisburg, PA 17105-3265, or by going to its website at www.puc.state.pa.us.

PENNSYLVANIA AMERICAN WATER

NOTICE OF PROPOSED WATER AND WASTEWATER RATE CHANGES

Dear Customer:

On November 8, 2023, Pennsylvania American Water filed a request with the Pennsylvania Public Utility Commission (PUC) to increase your water and wastewater rates as of January 7, 2024. A full investigation of this request could delay the change until August 2024. This notice describes our request, the PUC's role, and what actions you can take.

RATE REQUEST

Pennsylvania American Water is requesting an overall increase of $203.9 million for all of its water and wastewater operations. Over the 18 months beginning January 2024, Pennsylvania American Water plans to invest approximately $1 billion to improve service reliability, water quality and fire protection for your community and more than 400 others across the Commonwealth.

These investments include necessary upgrades to treatment facilities, storage tanks, wells and pumping stations to help ensure that systems meet regulatory standards. Pennsylvania American Water plans to replace more than 100 miles of aging pipeline, as well as valves, service lines and other parts of its 11,650-mile network of water and sewer lines. By making prudent, ongoing investments to maintain and upgrade water and wastewater systems, Pennsylvania American Water is committed to protecting communities from public health concerns and quality of life issues associated with failing infrastructure.

If the entire rate request is approved as filed, the typical water bill for:

- Residential customers using 3,201 gallons a month would increase from $70.65 to $88.24 per month.
- Commercial customers using 22,094 gallons a month would increase from $346.13 to $439.77 per month.
- Industrial customers using 685,947 gallons a month would increase from $7,663.50 to $10,173.68 per month.

If the entire rate request is approved as filed, the typical wastewater bill for:

- Residential customers using 3,122 gallons a month would decrease from $105.18 to $100.08 per month.
- Commercial customers using 22,094 gallons a month would decrease from $505.04 to $491.88 per month.

Pennsylvania American Water's filing requests a change to base residential wastewater bills from April-December on an average of usage during the prior January-March to better reflect seasonal outdoor usage. The filing requests approval of a combined revenue requirement for the company's water and wastewater operations as authorized by legislation enacted in 2012. The filing also requests approval of the following alternative rate mechanisms in accordance with 66 Pa. C.S. § 1330: a Revenue Decoupling Mechanism and an Environmental Compliance Investment Charge. If approved as filed, the immediate impact on your rates from these alternative rate mechanisms would be $0.

To find out more about how the request might affect your water and wastewater bill, please contact Pennsylvania American Water's customer service center at 1-800-565-7292. You can also find the rates requested by Pennsylvania American Water in Supplement No. 45 to Tariff Water PA PUC No. 5, and Supplement No. 47 to Tariff Wastewater PA PUC No. 16 on our website at www.pennsylvaniaamwater.com. Under the Customer Service & Billing menu, select "Your Water and Wastewater Rates." You can also review the material filed with the PUC at our office at 852 Wesley Drive, Mechanicsburg, PA 17055. In addition, you can request that we mail you a copy of Pennsylvania American Water's Statement of Reasons, which is a plain language summary of why we are requesting the rate change.

PUC ROLE

The state agency that approves rates for regulated public utilities is the PUC. The PUC will review and investigate the requested rate increase. Pennsylvania American Water must prove that the requested rates are reasonable. After examining the evidence, the PUC might grant all, some, or none of the request, or it might reduce existing rates. **As a result, the final effect on your bill might be different than the company's request.**

ACTIONS YOU CAN TAKE

There are three ways you can challenge Pennsylvania American Water's request:

1. **Send a letter to the PUC.** You can tell the PUC why you object to the requested rate increase in your letter. You can also tell the PUC about any other concerns you have about the company. This information can be helpful when the PUC investigates the rate request. Send your letter to the Pennsylvania Public Utility Commission, Post Office Box 3265, Harrisburg, PA 17105-3265.

2. **Attend or present testimony at a PUC public input hearing.** You can attend or be a witness at a PUC public hearing. The PUC holds public input hearings if it opens an investigation of Pennsylvania American Water's rate request and if there is enough interest in the case. At these hearings, you can present your views to the PUC judge and to company representatives. Testimony under oath becomes part of the rate case record. The PUC holds these hearings in the service area of the company. For more information, call the PUC at 1-800-692-7380.

3. **File a formal complaint.** If you want to be a party to the case, you must file a formal complaint. You then have an opportunity to take part in all the hearings about the rate increase request. You can receive copies of all materials distributed by the other parties. Formal complaints should be filed with the PUC before January 7, 2024. If no one files a formal complaint, the Commission may grant all, some or none of the request without holding a hearing before a PUC judge. You can request a formal complaint form by writing to the Pennsylvania Public Utility Commission, Post Office Box 3265, Harrisburg, PA 17105-3265, or by going to its website at www.puc.state.pa.us.

PENNSYLVANIA AMERICAN WATER

NOTICE OF PROPOSED WATER AND WASTEWATER RATE CHANGES

Dear Customer:

On November 8, 2023, Pennsylvania American Water filed a request with the Pennsylvania Public Utility Commission (PUC) to increase your water and wastewater rates as of January 7, 2024. A full investigation of this request could delay the change until August 2024. This notice describes our request, the PUC's role, and what actions you can take.

RATE REQUEST

Pennsylvania American Water is requesting an overall increase of $203.9 million for all of its water and wastewater operations. Over the 18 months beginning January 2024, Pennsylvania American Water plans to invest approximately $1 billion to improve service reliability, water quality and fire protection for your community and more than 400 others across the Commonwealth.

These investments include necessary upgrades to treatment facilities, storage tanks, wells and pumping stations to help ensure that systems meet regulatory standards. Pennsylvania American Water plans to replace more than 100 miles of aging pipeline, as well as valves, service lines and other parts of its 11,650-mile network of water and sewer lines. By making prudent, ongoing investments to maintain and upgrade water and wastewater systems, Pennsylvania American Water is committed to protecting communities from public health concerns and quality of life issues associated with failing infrastructure.

If the entire rate request is approved as filed, the typical water bill for:

- Residential customers using 3,201 gallons a month would increase from $70.65 to $88.24 per month.
- Commercial customers using 22,094 gallons a month would increase from $346.13 to $439.77 per month.
- Industrial customers using 685,947 gallons a month would increase from $7,663.50 to $10,173.68 per month.

If the entire rate request is approved as filed, the typical wastewater bill for:

- Residential customers using 3,122 gallons a month would increase from $105.18 to $109.76 per month.
- Commercial customers using 22,094 gallons a month would decrease from $513.66 to $469.79 per month.
- Industrial customers using 685,947 gallons a month would decrease from $14,884.27 to $13,082.99 per month.

Pennsylvania American Water's filing requests a change to base residential wastewater bills from April-December on an average of usage during the prior January-March to better reflect seasonal outdoor usage. The filing requests approval of a combined revenue requirement for the company's water and wastewater operations as authorized by legislation enacted in 2012. The filing also requests approval of the following alternative rate mechanisms in accordance with 66 Pa. C.S. § 1330: a Revenue Decoupling Mechanism and an Environmental Compliance Investment Charge. If approved as filed, the immediate impact on your rates from these alternative rate mechanisms would be $0.

To find out more about how the request might affect your water and wastewater bill, please contact Pennsylvania American Water's customer service center at 1-800-565-7292. You can also find the rates requested by Pennsylvania American Water in Supplement No. 45 to Tariff Water PA PUC No. 5, and Supplement No. 47 to Tariff Wastewater PA PUC No. 16 on our website at www.pennsylvaniaamwater.com. Under the Customer Service & Billing menu, select "Your Water and Wastewater Rates." You can also review the material filed with the PUC at our office at 852 Wesley Drive, Mechanicsburg, PA 17055. In addition, you can request that we mail you a copy of Pennsylvania American Water's Statement of Reasons, which is a plain language summary of why we are requesting the rate change.

PUC ROLE

The state agency that approves rates for regulated public utilities is the PUC. The PUC will review and investigate the requested rate increase. Pennsylvania American Water must prove that the requested rates are reasonable. After examining the evidence, the PUC might grant all, some, or none of the request, or it might reduce existing rates. **As a result, the final effect on your bill might be different than the company's request.**

ACTIONS YOU CAN TAKE

There are three ways you can challenge Pennsylvania American Water's request:

1. **Send a letter to the PUC.** You can tell the PUC why you object to the requested rate increase in your letter. You can also tell the PUC about any other concerns you have about the company. This information can be helpful when the PUC investigates the rate request. Send your letter to the Pennsylvania Public Utility Commission, Post Office Box 3265, Harrisburg, PA 17105-3265.

2. **Attend or present testimony at a PUC public input hearing.** You can attend or be a witness at a PUC public hearing. The PUC holds public input hearings if it opens an investigation of Pennsylvania American Water's rate request and if there is enough interest in the case. At these hearings, you can present your views to the PUC judge and to company representatives. Testimony under oath becomes part of the rate case record. The PUC holds these hearings in the service area of the company. For more information, call the PUC at 1-800-692-7380.

3. **File a formal complaint.** If you want to be a party to the case, you must file a formal complaint. You then have an opportunity to take part in all the hearings about the rate increase request. You can receive copies of all materials distributed by the other parties. Formal complaints should be filed with the PUC before January 7, 2024. If no one files a formal complaint, the Commission may grant all, some or none of the request without holding a hearing before a PUC judge. You can request a formal complaint form by writing to the Pennsylvania Public Utility Commission, Post Office Box 3265, Harrisburg, PA 17105-3265, or by going to its website at www.puc.state.pa.us.

PENNSYLVANIA AMERICAN WATER

NOTICE OF PROPOSED WATER AND WASTEWATER RATE CHANGES

Dear Customer:

On November 8, 2023, Pennsylvania American Water filed a request with the Pennsylvania Public Utility Commission (PUC) to increase your water and wastewater rates as of January 7, 2024. A full investigation of this request could delay the change until August 2024. This notice describes our request, the PUC's role, and what actions you can take.

RATE REQUEST

Pennsylvania American Water is requesting an overall increase of $203.9 million for all of its water and wastewater operations. Over the 18 months beginning January 2024, Pennsylvania American Water plans to invest approximately $1 billion to improve service reliability, water quality and fire protection for your community and more than 400 others across the Commonwealth.

These investments include necessary upgrades to treatment facilities, storage tanks, wells and pumping stations to help ensure that systems meet regulatory standards. Pennsylvania American Water plans to replace more than 100 miles of aging pipeline, as well as valves, service lines and other parts of its 11,650-mile network of water and sewer lines. By making prudent, ongoing investments to maintain and upgrade water and wastewater systems, Pennsylvania American Water is committed to protecting communities from public health concerns and quality of life issues associated with failing infrastructure.

If the entire rate request is approved as filed, the typical water bill for:

- Residential customers using 3,201 gallons a month would increase from $70.65 to $88.24 per month.
- Commercial customers using 22,094 gallons a month would increase from $346.13 to $439.77 per month.
- Industrial customers using 685,947 gallons a month would increase from $7,663.50 to $10,173.68 per month.

If the entire rate request is approved as filed, the typical wastewater bill for:

- Residential customers using 3,122 gallons a month would increase from $49.68 to $64.18 per month.
- Commercial customers using 22,094 gallons a month would decrease from $229.94 to $215.71 per month.
- Industrial customers using 685,947 gallons a month would decrease from $6,537.55 to $5,194.60 per month.

Pennsylvania American Water's filing requests a change to base residential wastewater bills from April-December on an average of usage during the prior January-March to better reflect seasonal outdoor usage. The filing requests approval of a combined revenue requirement for the company's water and wastewater operations as authorized by legislation enacted in 2012. The filing also requests approval of the following alternative rate mechanisms in accordance with 66 Pa. C.S. § 1330: a Revenue Decoupling Mechanism and an Environmental Compliance Investment Charge. If approved as filed, the immediate impact on your rates from these alternative rate mechanisms would be $0.

To find out more about how the request might affect your water and wastewater bill, please contact Pennsylvania American Water's customer service center at 1-800-565-7292. You can also find the rates requested by Pennsylvania American Water in Supplement No. 45 to Tariff Water PA PUC No. 5, and Supplement No. 47 to Tariff Wastewater PA PUC No. 16 on our website at www.pennsylvaniaamwater.com. Under the Customer Service & Billing menu, select "Your Water and Wastewater Rates." You can also review the material filed with the PUC at our office at 852 Wesley Drive, Mechanicsburg, PA 17055. In addition, you can request that we mail you a copy of Pennsylvania American Water's Statement of Reasons, which is a plain language summary of why we are requesting the rate change.

PUC ROLE

The state agency that approves rates for regulated public utilities is the PUC. The PUC will review and investigate the requested rate increase. Pennsylvania American Water must prove that the requested rates are reasonable. After examining the evidence, the PUC might grant all, some, or none of the request, or it might reduce existing rates. **As a result, the final effect on your bill might be different than the company's request.**

ACTIONS YOU CAN TAKE

There are three ways you can challenge Pennsylvania American Water's request:

1. **Send a letter to the PUC.** You can tell the PUC why you object to the requested rate increase in your letter. You can also tell the PUC about any other concerns you have about the company. This information can be helpful when the PUC investigates the rate request. Send your letter to the Pennsylvania Public Utility Commission, Post Office Box 3265, Harrisburg, PA 17105-3265.

2. **Attend or present testimony at a PUC public input hearing.** You can attend or be a witness at a PUC public hearing. The PUC holds public input hearings if it opens an investigation of Pennsylvania American Water's rate request and if there is enough interest in the case. At these hearings, you can present your views to the PUC judge and to company representatives. Testimony under oath becomes part of the rate case record. The PUC holds these hearings in the service area of the company. For more information, call the PUC at 1-800-692-7380.

3. **File a formal complaint.** If you want to be a party to the case, you must file a formal complaint. You then have an opportunity to take part in all the hearings about the rate increase request. You can receive copies of all materials distributed by the other parties. Formal complaints should be filed with the PUC before January 7, 2024. If no one files a formal complaint, the Commission may grant all, some or none of the request without holding a hearing before a PUC judge. You can request a formal complaint form by writing to the Pennsylvania Public Utility Commission, Post Office Box 3265, Harrisburg, PA 17105-3265, or by going to its website at www.puc.state.pa.us.

PENNSYLVANIA AMERICAN WATER

NOTICE OF PROPOSED WATER AND WASTEWATER RATE CHANGES

Dear Customer:

On November 8, 2023, Pennsylvania American Water filed a request with the Pennsylvania Public Utility Commission (PUC) to increase your water and wastewater rates as of January 7, 2024. A full investigation of this request could delay the change until August 2024. This notice describes our request, the PUC's role, and what actions you can take.

RATE REQUEST

Pennsylvania American Water is requesting an overall increase of $203.9 million for all of its water and wastewater operations. Over the 18 months beginning January 2024, Pennsylvania American Water plans to invest approximately $1 billion to improve service reliability, water quality and fire protection for your community and more than 400 others across the Commonwealth.

These investments include necessary upgrades to treatment facilities, storage tanks, wells and pumping stations to help ensure that systems meet regulatory standards. Pennsylvania American Water plans to replace more than 100 miles of aging pipeline, as well as valves, service lines and other parts of its 11,650-mile network of water and sewer lines. By making prudent, ongoing investments to maintain and upgrade water and wastewater systems, Pennsylvania American Water is committed to protecting communities from public health concerns and quality of life issues associated with failing infrastructure.

If the entire rate request is approved as filed, the typical water bill for:

- Residential customers using 3,201 gallons a month would increase from $53.92 to $88.24 per month.
- Commercial customers using 22,094 gallons a month would increase from $267.55 to $439.77 per month.
- Industrial customers using 685,947 gallons a month would increase from $7,843.57 to $10,173.68 per month.

If the entire rate request is approved as filed, the typical wastewater bill for:

- Residential customers using 3,122 gallons a month would decrease from $105.18 to $100.08 per month.
- Commercial customers using 22,094 gallons a month would decrease from $505.04 to $491.88 per month.

Pennsylvania American Water's filing requests a change to base residential wastewater bills from April-December on an average of usage during the prior January-March to better reflect seasonal outdoor usage. The filing requests approval of a combined revenue requirement for the company's water and wastewater operations as authorized by legislation enacted in 2012. The filing also requests approval of the following alternative rate mechanisms in accordance with 66 Pa. C.S. § 1330: a Revenue Decoupling Mechanism and an Environmental Compliance Investment Charge. If approved as filed, the immediate impact on your rates from these alternative rate mechanisms would be $0.

To find out more about how the request might affect your water and wastewater bill, please contact Pennsylvania American Water's customer service center at 1-800-565-7292. You can also find the rates requested by Pennsylvania American Water in Supplement No. 45 to Tariff Water PA PUC No. 5, and Supplement No. 47 to Tariff Wastewater PA PUC No. 16 on our website at www.pennsylvaniaamwater.com. Under the Customer Service & Billing menu, select "Your Water and Wastewater Rates." You can also review the material filed with the PUC at our office at 852 Wesley Drive, Mechanicsburg, PA 17055. In addition, you can request that we mail you a copy of Pennsylvania American Water's Statement of Reasons, which is a plain language summary of why we are requesting the rate change.

PUC ROLE

The state agency that approves rates for regulated public utilities is the PUC. The PUC will review and investigate the requested rate increase. Pennsylvania American Water must prove that the requested rates are reasonable. After examining the evidence, the PUC might grant all, some, or none of the request, or it might reduce existing rates. **As a result, the final effect on your bill might be different than the company's request.**

ACTIONS YOU CAN TAKE

There are three ways you can challenge Pennsylvania American Water's request:

1. **Send a letter to the PUC.** You can tell the PUC why you object to the requested rate increase in your letter. You can also tell the PUC about any other concerns you have about the company. This information can be helpful when the PUC investigates the rate request. Send your letter to the Pennsylvania Public Utility Commission, Post Office Box 3265, Harrisburg, PA 17105-3265.

2. **Attend or present testimony at a PUC public input hearing.** You can attend or be a witness at a PUC public hearing. The PUC holds public input hearings if it opens an investigation of Pennsylvania American Water's rate request and if there is enough interest in the case. At these hearings, you can present your views to the PUC judge and to company representatives. Testimony under oath becomes part of the rate case record. The PUC holds these hearings in the service area of the company. For more information, call the PUC at 1-800-692-7380.

3. **File a formal complaint.** If you want to be a party to the case, you must file a formal complaint. You then have an opportunity to take part in all the hearings about the rate increase request. You can receive copies of all materials distributed by the other parties. Formal complaints should be filed with the PUC before January 7, 2024. If no one files a formal complaint, the Commission may grant all, some or none of the request without holding a hearing before a PUC judge. You can request a formal complaint form by writing to the Pennsylvania Public Utility Commission, Post Office Box 3265, Harrisburg, PA 17105-3265, or by going to its website at www.puc.state.pa.us.

PENNSYLVANIA AMERICAN WATER

NOTICE OF PROPOSED WATER RATE CHANGES

Dear Customer:

On November 8, 2023, Pennsylvania American Water filed a request with the Pennsylvania Public Utility Commission (PUC) to increase your water rates as of January 7, 2024. A full investigation of this request could delay the change until August 2024. This notice describes our request, the PUC's role, and what actions you can take.

RATE REQUEST

Pennsylvania American Water is requesting an overall increase of $203.9 million for all of its water and wastewater operations. Over the 18 months beginning January 2024, Pennsylvania American Water plans to invest approximately $1 billion to improve service reliability, water quality and fire protection for your community and more than 400 others across the Commonwealth.

These investments include necessary upgrades to treatment facilities, storage tanks, wells and pumping stations to help ensure that systems meet regulatory standards. Pennsylvania American Water plans to replace more than 100 miles of aging pipeline, as well as valves, service lines and other parts of its 11,650-mile network of water and sewer lines. By making prudent, ongoing investments to maintain and upgrade water and wastewater systems, Pennsylvania American Water is committed to protecting communities from public health concerns and quality of life issues associated with failing infrastructure.

If the entire rate request is approved as filed, the typical water bill for:

- Commercial customers using 22,094 gallons a month would decrease from $488.47 to $439.77 per month.

Pennsylvania American Water's filing requests approval of a combined revenue requirement for the company's water and wastewater operations as authorized by legislation enacted in 2012. The filing also requests approval of the following alternative rate mechanisms in accordance with 66 Pa. C.S. § 1330: a Revenue Decoupling Mechanism and an Environmental Compliance Investment Charge. If approved as filed, the immediate impact on your rates from these alternative rate mechanisms would be $0.

To find out more about how the request might affect your water bill, please contact Pennsylvania American Water's customer service center at 1-800-565-7292. You can also find the rates requested by Pennsylvania American Water in Supplement No. 45 to Tariff Water PA PUC No. 5, and Supplement No. 47 to Tariff Wastewater PA PUC No. 16 on our website at www.pennsylvaniaamwater.com. Under the Customer Service & Billing menu, select "Your Water and Wastewater Rates." You can also review the material filed with the PUC at our office at 852 Wesley Drive, Mechanicsburg, PA 17055. In addition, you can request that we mail you a copy of Pennsylvania American Water's Statement of Reasons, which is a plain language summary of why we are requesting the rate change.

PUC ROLE

The state agency that approves rates for regulated public utilities is the PUC. The PUC will review and investigate the requested rate increase. Pennsylvania American Water must prove that the requested rates are reasonable. After examining the evidence, the PUC might grant all, some, or none of the request, or it might reduce existing rates. **As a result, the final effect on your bill might be different than the company's request.**

ACTIONS YOU CAN TAKE

There are three ways you can challenge Pennsylvania American Water's request:

1. **Send a letter to the PUC.** You can tell the PUC why you object to the requested rate increase in your letter. You can also tell the PUC about any other concerns you have about the company. This information can be helpful when the PUC investigates the rate request. Send your letter to the Pennsylvania Public Utility Commission, Post Office Box 3265, Harrisburg, PA 17105-3265.

2. **Attend or present testimony at a PUC public input hearing.** You can attend or be a witness at a PUC public hearing. The PUC holds public input hearings if it opens an investigation of Pennsylvania American Water's rate request and if there is enough interest in the case. At these hearings, you can present your views to the PUC judge and to company representatives. Testimony under oath becomes part of the rate case record. The PUC holds these hearings in the service area of the company. For more information, call the PUC at 1-800-692-7380.

3. **File a formal complaint.** If you want to be a party to the case, you must file a formal complaint. You then have an opportunity to take part in all the hearings about the rate increase request. You can receive copies of all materials distributed by the other parties. Formal complaints should be filed with the PUC before January 7, 2024. If no one files a formal complaint, the Commission may grant all, some or none of the request without holding a hearing before a PUC judge. You can request a formal complaint form by writing to the Pennsylvania Public Utility Commission, Post Office Box 3265, Harrisburg, PA 17105-3265, or by going to its website at www.puc.state.pa.us.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:		
v.	:	Docket Nos.	R-2024-3045192
Veolia Water Pennsylvania, Inc.	:		R-2024-3045193

VERIFICATION

I, Morgan N. DeAngelo, hereby state that the facts above set forth in my Surrebuttal Testimony, OCA Statement 1SR, are true and correct (or are true and correct to the best of my knowledge, information, and belief) and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: June 21, 2024

Signature: Morgan N. DeAngelo
Morgan N. DeAngelo

Address: Office of Consumer Advocate
555 Walnut Street
5th Floor, Forum Place
Harrisburg, PA 17101-1923

OCA St. 2SR

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION	:	
V.	:	R-2024-3045192 (Water) R-2024-3045193 (Wastewater)
VEOLIA WATER PENNSYLVANIA, INC.	:	

SURREBUTTAL TESTIMONY
OF
LAFAYETTE K. MORGAN, JR.

ON BEHALF OF THE
OFFICE OF CONSUMER ADVOCATE

JUNE 21, 2024

EXETER
ASSOCIATES, INC.
10480 Little Patuxent Parkway, Suite 300
Columbia, Maryland 21044

TABLE OF CONTENTS

I. Introduction

Q. **PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A. My name is Lafayette K. Morgan, Jr. My business address is 10480 Little Patuxent Parkway, Suite 300, Columbia, Maryland, 21044. I am a Public Utilities Consultant working with Exeter Associates, Inc. ("Exeter"). Exeter is a consulting firm specializing in issues pertaining to public utilities.

Q. **HAVE YOU PREVIOUSLY PROVIDED DIRECT AND REBUTTAL TESTIMONIES IN THIS PROCEEDING?**

A. Yes. I provided Direct Testimony on May 17, 2024, and Rebuttal Testimony on June 7, 2024, in OCA Statement 2 and OCA Statement 2R, respectively.

Q. **WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY**?

A. The purpose of my Surrebuttal Testimony is to respond to the Rebuttal Testimony of Veolia witness Gregory R. Herbert.

Q. **HAVE YOU PREPARED REVISED SCHEDULES TO ACCOMPANY YOUR TESTIMONY?**

A. Yes. I have prepared Schedules LKM-W-1S through LKM-W-20S for water operations and Schedules LKM-WW-1S through LKM-WW-14S. These schedules follow the same format and overall presentation of my direct testimony. However, certain schedules have been revised or updated to reflect the OCA's updated recommended change in revenues based upon changes and discussions that were made in the Company's rebuttal testimony. For ease in comparison to my direct testimony, I have retained the same format.

II. Summary and Recommendations

Q. **PLEASE SUMMARIZE THE REVISED RATE RELIEF YOU ARE RECOMMENDING FOR VWPA IN THIS SURREBUTTAL TESTIMONY**.

A. In my direct testimony, I indicated that the Company's proposed water revenue increase of $15,494,620 should be reduced to reflect an increase of $4,566,589, and that the Company's proposed wastewater revenue increase of $468,719 should be reduced to reflect an increase of $427,859. After reviewing and considering the Company's rebuttal testimony, I am reflecting certain changes to my direct testimony. These changes result in a revision of the change in revenue that I am recommending. As shown on Surrebuttal Schedule LKM-W-1S, I am recommending an increase in revenues of $4,923,450 for water operations and $316,779 for wastewater operations on LKM-WW-1S.

III. Inflation Escalation

Q. **MR. HERBERT DISAGREES WITH THE ADJUSTMENTS YOU MADE TO REVERSE THE COMPANY'S INFLATION ESCALATION CLAIMS. PLEASE RESPOND TO HIS REBUTTAL TESTIMONY.**

A. In my direct testimony, I stated that I disagree with the Company's use of inflation escalation solely as the basis of determining the FPFTY level of expenses. Therefore, I recommended that the Commission disallow recovery of those FPFTY costs based solely on inflation escalation. The reasoning behind my adjustment to remove inflation escalation adjustments is that such adjustments make no attempt to ensure they are reasonable or fairly accurate with respect to activities and initiatives planned by the utility for the FPFTY. Essentially, the inflation adjustments are neither known nor measurable. In Section 315(e) of the Public Utility Code, the legislature placed a clear

burden of proof on utilities who want to receive the benefit of a future test year or a fully projected future test year:

> Whenever a utility utilizes a future test year or a fully projected future test year in any rate proceeding and such future test year or a fully projected test year forms a substantive basis for the final rate determination of the commission, the utility shall provide, as specified by the commission in its final order, appropriate data evidencing the accuracy of the estimates contained in the future test year or a fully projected future test year, and the commission may after reasonable notice and hearing, in its discretion, adjust the utility's rates on the basis of such data.

In my opinion, it is clear that the intent of section 315(e) was that a properly prepared forecast was envisioned as the support for the FPFTY cost, not a general price inflator that may or may not occur. Thus, the purpose of using a fully projected future test year was to use cost data that could reasonably be expected to occur based on specific activities, initiatives, and plans that the Company intends to undertake during the rate effective period.

Q. **YOU MENTIONED THAT THE COMPANY DID NOT COMPLY WITH SECTION 315(E), DID MR. HERBERT ADDRESS THAT ISSUE IN HIS REBUTTAL TESTIMONY?**

A. No. Mr. Herbert simply said he disagreed with me.[1]

Q. **DOES MR. HERBERT ADDRESS WHETHER THE INFLATION ESCALATION ADJUSTMENT IS KNOWN AND MEASURABLE?**

A. Yes. He states:

> In my opinion, the U.S. economy is experiencing high inflation in recent years on all goods and services including the goods and services water and wastewater utilities need to purchase to provide safe and reliable water and wastewater services to their customers. The current high inflationary period is known and measurable.

[1] Rebuttal Testimony of Gregory R. Herbert at 7:21.

Here, Mr. Herbert misses the point because he assumes that when the inflation rate is at a given rate, the Company's expenses will increase by the same percentage rate. This is not a correct assumption as I will explain below. Nevertheless, while the inflation rate may be known, the impact of inflation on the Company's expenses is not known and measurable as he claims.

Mr. Herbert then states that the data in his MFR I-01 Attachment shows that most of the expense accounts, that I have reversed the Company's application of inflationary escalations for the FTY and FPFTY, were increasing greater than 2.38% or 2.20% from the year ended September 30, 2022 as compared to the HTY expenses. In making this statement, Mr. Herbert proves the point I am making. The data presented in MFR I-01 shows a wide variation in the percentage change in expenses between the 2 years shown. As can be seen in that attachment some expenses decreased and some expenses increased, and the changes were vastly different from year to year. This proves that one cannot predict the impact of inflation on the Company expenses as being known and measurable. The second point that Mr. Herbert gets wrong is that the change in expenses from year to year has two variables. There is the change in the per unit cost and there is also a change in the volume, quantity or units used. Often, an analysis will have to be performed before it can be concluded that the change in the expense was the result of inflation or the rate of usage. Mr. Herbert did not present a supporting analysis for his conclusion, he simply asserts that the changes were driven by inflation. Therefore, I do not understand how he concluded that the changes presented in MFR I-01 were caused solely by inflation.

Q. **WHAT IS THE BASIS FOR STATING THAT THE COMPANY'S INFLATION ESCALATION MAY NOT RESULT IN REALISTIC FPFTY EXPENSES?**

A. The use of the inflation escalation by the Company is so extensive that it is devoid of realistic cost projections. Using Mr. Herbert's own count, there are eighteen times where the Company simply applied an inflation factor as the basis for the increase in costs. Clearly, these amounts do not reflect properly prepared forecasts and amount to the Company's guess at the FPFTY level of costs.

Q. **HAS THE COMMISSION RULED ON THE USE OF INFLATION AS THE SOLE BASIS OF DETERMINING FPFTY EXPENSES?**

A. Yes. For example, in the Wellsboro Electric Company rate proceeding in Docket No. R-2019-3008208, the Commission stated:

> We agree with the ALJs that the Company did not meet its burden in demonstrating that its proposed blanket three percent inflation adjustment to all expenses would meet the "known and measurable" standard for increasing each FTY expense claim in the FPFTY. To state it another way, the Company did not demonstrate that making this blanket adjustment to each expense claim directly relates to the actual costs expected to be incurred in each expense account in the FPFTY.[2]

I disagree with the Company's approach to developing the FPFTY cost of service not only because it is not based upon planned activities or normal Company operations, but I do not believe the Company's blanket inflation approach is what was envisioned by Act 11.

IV. Rate Case Expense

Q. **PLEASE RESPOND TO MR. HERBERT'S DISAGREEMENT WITH YOUR ADJUSTMENT TO RATE CASE EXPENSES?**

A. In response to my recommendation that rate case expenses should be normalized over five years, Mr. Herbert states the three-year normalization period is reasonable as it

[2] Docket No. R-2019-3008208 Commission Order at 40.

acknowledges that rate case expense should be spread over a period of years, but it also does not penalize the Company for delaying a subsequent rate case whether due to costs, requirements from the previous case, limited resources, or any other number of reasons that could cause the Company to file a rate case over a period longer than planned.

I disagree that the use of a longer period is a penalty on the Company. However, it is appropriate to use a period that coincides with rate increase is expected to benefit. Therefore, the Commission should reject the Company's three-year period as the period over which to normalize rate case expenses.

V. Payroll Expenses

Q. **PLEASE RESPOND TO MR. HERBERT'S DISAGREEMENT WITH YOUR ADJUSTMENT TO PAYROLL EXPENSES.**

A. In my direct testimony, I adjusted labor expenses downward to remove vacant positions and positions that I considered to not be known and certain. Mr. Herbert stated, in his rebuttal testimony, his disagreement with removing the Company's vacant positions and any of the new positions projected for the FPFTY. He states that the Company fully expects to fill the positions by the FPFTY and expects these employees will be working for the Company after the FPFTY. I recommend that the Commission deny the recovery of the positions I identified for removal. Regarding the positions I identified as not being known and certain, I based that determination on the Company's own words. In the response to OCA-7-7, the Company designated these positions as being on hold, meaning it was not attempting to fill those positions currently. The remaining positions that I removed are to reflect a level of normal vacancy. Employee attrition is not unique to Veolia. Other Companies lose employees during the year as well. It would be inappropriate to include a level of employees as if the Company maintains a full

complement of employees. Therefore, the Commission should reject the Company's claim.

VI. Chemicals Expense

Q. **PLEASE RESPOND TO MR. HERBERT'S DISAGREEMENT WITH YOUR ADJUSTMENT TO CHEMICALS EXPENSE.**

A. In my direct testimony, I adjusted chemicals expense downward to remove the effect of inflation. Mr. Herbert argues that the amounts used by the Company is the best estimate the Company has for chemicals expense. He cites the Company's response to I&E-RE-16-D as support for his statement. As he explains in his rebuttal testimony, the Company's Supply Chain Management department keeps track of the purchase orders for the Company. It is my understanding from Mr. Herbert's rebuttal testimony, that the worksheets attached as I&E-RE-16-D Attachment 1 were prepared by the Supply Chain Management Department. That worksheet shows the annualized chemical expense of $1,325,574 based on estimated prices as of August 2024. I will accept that amount as the Company's best estimate of chemicals expense at this time instead of the $1,354,474 claimed in Mr. Herbert's rebuttal testimony. Therefore, I will revise my adjustment accordingly.

VII. Purchased Power Expense

Q. **PLEASE RESPOND TO MR. HERBERT'S DISAGREEMENT WITH YOUR ADJUSTMENT TO PURCHASED POWER EXPENSE.**

A. In my direct testimony, I disagreed with the Company's approach to projecting the cost of purchased power costs based on historical cost trends. I will maintain my stance that the historical trend is not an appropriate approach to project these costs especially since there are two separate components to the purchased power cost.

In Rebuttal Testimony, Mr. Herbert states that he disagrees that "the Company has some control of the costs associated with the power supply service component of purchased power." (VWPA St. 2-R at 16). Mr. Herbert misrepresents my position by implying that I suggested that the Company has some control of the costs associated with the power supply service component of its purchased power. I simply pointed out that the Company should have a more reasonable means of determining its power supply costs instead of cost trending. Cost trending is an imprecise way of cost determination when the Act 11 statute requires some degree of accuracy for FPFTY amounts. Therefore, I am recommending the Commission reject the Company's purchase power adjustment.

VIII. Customer Assistance Program Expense

Q. **PLEASE RESPOND TO MR. HERBERT'S DISAGREEMENT WITH YOUR ADJUSTMENT TO THE CUSTOMER ASSISTANCE PROGRAM EXPENSE.**

A. Mr. Herbert states that he rejects the adjustment I made to the Customer Assistance Program expense. It should be noted that my adjustment was based on the recommendation of OCA witness DeMarco. To the extent that a response is necessary, Mr. DeMarco will address it.

IX. Acquisition Transaction Amortization Expense

Q. **PLEASE RESPOND TO MR. HERBERT'S DISAGREEMENT WITH YOUR ADJUSTMENT TO THE ACQUISITION TRANSACTION AMORTIZATION EXPENSE.**

A. Mr. Herbert disagrees with the 10-year amortization of the transaction cost that I recommend in my direct testimony. He refers to the Company's response to OCA-7-42 as the support for the Company's stance. In that response, the Company states: "The Company views the 5-year amortization period is reasonable, as it acknowledges the expense should be spread over a period of years to mitigate the burden of recovering

these costs from revenues of customers' rates." I agree with the Company that the impact of the acquisitions on ratepayers should be mitigated. But the period used by the Company to amortize these costs is too short given that the acquisitions were not intended to be held for a short term. Instead, the Company has integrated these service territories in its franchise. Hence, the amortization of the transaction costs should not be treated as being related to a short-term investment. Accordingly, the Commission should reject the Company's claim for a 5-year amortization period and utilize the OCA-recommended 10-year period.

X. Depreciation Expense

Q. **PLEASE RESPOND TO MR. HERBERT'S DISAGREEMENT WITH YOUR ADJUSTMENT TO THE DEPRECIATION EXPENSE.**

A. In my direct testimony I made an adjustment to reflect the expense effect of OCA witness Garrett's Depreciation rate recommendations. Mr. Herbert points out that my adjustment to the water depreciation expense of $2,144,164 includes $30,000 related to wastewater operations. I have acknowledged that error in my rebuttal testimony and will reflect the change in the update of the OCA position in my attached updated schedules.

XI. Conclusion

Q. **DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

A. Yes, it does. However, I reserve the right to modify if necessary.

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION	:	
V.	:	R-2024-3045192 (Water)
	:	R-2024-3045193 (Wastewater)
VEOLIA WATER PENNSYLVANIA, INC.	:	

SCHEDULES ACCOMPANYING THE
SURREBUTTAL TESTIMONY
OF
LAFAYETTE K. MORGAN, JR

VEOLIA WATER PENNSYLVANIA INC.

Combined Water Operations

Summary of Operating Income
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Company Amounts at Present Rates [1/]	OCA Adjustments	Amounts After OCA Adjustments	Pro Forma Change in Revenues	Amounts After Change in Revenues
	(1)	(2)	(3)	(4)	(5)	(6)
	Operating Revenues					
1	Operating Revenues	$ 58,767,409	$ -	$ 58,767,409	$ -	$ 58,767,409
2	Revenue Increase	-	-	-	4,923,450	4,923,450
3	Total Operating Revenues	$ 58,767,409	$ -	$ 58,767,409	$ 4,923,450	$ 63,690,859
4						
5	Operating Expenses					
6	O&M Expenses	$ 25,417,358 -	$ (2,511,155)	$ 22,906,203	$ 51,154	$ 22,957,357
7	Depreciation	11,624,460	(2,172,946)	9,451,514	-	9,451,514
8	Amortization of Acquisition Adjustment	107,574	(49,830)	57,744	-	57,744
9	Taxes Other Than Income Taxes	1,249,172	-	1,249,172	-	1,249,172
10	Total Operating Expenses	$ 38,398,564	$ (4,733,931)	$ 33,664,633	$ 51,154	$ 33,715,787
11						
12	Operating Income Before Income Taxes	$ 20,368,845	$ 4,733,931	$ 25,102,776	$ 4,872,296	$ 29,975,072
13						
14	Federal & State Income Taxes	$ 3,155,859	$ 1,116,568	$ 4,272,427	$ 1,330,726	$ 5,603,153
15						
16	Net Operating Income	$ 17,212,986	$ 3,617,363	$ 20,830,349	$ 3,541,570	$ 24,371,918
17						
18	Rate Base	$ 356,302,279		$ 355,794,447		$ 355,794,447
19						
20	Return On Rate Base	4.83%		5.85%		6.85%

Notes:
[1/] Exhibit No. GRH-2, Schedule -1, Page 2, .

VEOLIA WATER PENNSYLVANIA INC.

Veolia Water, Bethel Water, Kensington Water & Overbrook Water

Summary of Operating Income
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Company Amounts at Present Rates [1/]	OCA Adjustments	Amounts After OCA Adjustments	Pro Forma Change in Revenues	Amounts After Change in Revenues
	(1)	(2)	(3)	(4)	(5)	(6)
	Operating Revenues					
1	Operating Revenues	$ 58,122,857	$ -	$ 58,122,857	$ -	$ 58,122,857
2	Revenue Increase	-	-	-	-	-
3	Total Operating Revenues	$ 58,122,857	$ -	$ 58,122,857	$ -	$ 58,122,857
4						
5	Operating Expenses					
6	O&M Expenses	$ 24,822,808	$ -	$ 24,822,808	$ -	$ 24,822,808
7	Depreciation	11,373,158	-	11,373,158	-	11,373,158
8	Amortization of Acquisition Adjustment	107,574	-	107,574	-	107,574
9	Taxes Other Than Income Taxes	1,261,241	-	1,261,241	-	1,261,241
10	Total Operating Expenses	$ 37,564,781	$ -	$ 37,564,781	$ -	$ 37,564,781
11						
12	Operating Income Before Income Taxes	$ 20,558,076	$ -	$ 20,558,076	$ -	$ 20,558,076
13						
14	Federal & State Income Taxes	$ 3,251,883	$ -	$ 3,251,883	$ -	$ 3,251,883
15						
16	Net Operating Income	$ 17,306,192	$ -	$ 17,306,192	$ -	$ 17,306,192
17						
18	Rate Base	$ 349,964,134		$ 349,964,134		$ 349,964,134
19						
20	Return On Rate Base	4.95%		4.95%		4.95%

Notes:
[1/] Exhibit No. GRH-2, Schedule -1, Page 2, Column 8.

VEOLIA WATER PENNSYLVANIA INC.

Mahoning Township

Summary of Operating Income
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Company Amounts at Present Rates [1/]	OCA Adjustments	Amounts After OCA Adjustments	Pro Forma Change in Revenues	Amounts After Change in Revenues
	(1)	(2)	(3)	(4)	(5)	(6)
	Operating Revenues					
1	Operating Revenues	$ 640,838	$ -	$ 640,838	$ -	$ 640,838
2	Revenue Increase	-	-	-	-	-
3	Total Operating Revenues	$ 640,838	$ -	$ 640,838	$ -	$ 640,838
4						
5	Operating Expenses					
6	O&M Expenses	$ 509,880 -	$ -	$ 509,880	$ -	$ 509,880
7	Depreciation	217,967	-	217,967	-	217,967
8	Amortization of Acquisition Adjustment	122,766	-	122,766	-	122,766
9	Taxes Other Than Income Taxes	7,469	-	7,469	-	7,469
10	Total Operating Expenses	$ 858,082	$ -	$ 858,082	$ -	$ 858,082
11						
12	Operating Income Before Income Taxes	$ (217,244)	$ -	$ (217,244)	$ -	$ (217,244)
13						
14	Federal & State Income Taxes	$ (103,198)	$ -	$ (103,198)	$ -	$ (103,198)
15						
16	Net Operating Income	$ (114,047)	$ -	$ (114,047)	$ -	$ (114,047)
17						
18	Rate Base	$ 6,338,145		$ 6,338,145		$ 6,338,145
19						
20	Return On Rate Base	-1.80%		-1.80%		-1.80%

Notes:
[1/] Exhibit No. GRH-2, Schedule -1, Page 2, Column 8.

VEOLIA WATER PENNSYLVANIA INC.

Combined Water Operations

Summary of Revenue Increase at OCA Rate of Return
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description		Amount	Source
1	Adjusted Rate Base		$ 355,794,447	Schedule LKM-2-W, Page 2
2	Required Rate of Return		6.850%	
3				
4	Net Operating Income Required		$ 24,371,920	
5	Net Operating Income at Present Rates		20,830,349	Schedule LKM-1-W, Page 1
6				
7	Income Deficiency/(Surplus)		$ 3,541,571	
8	Revenue Multiplier		1.390188	
9				
10	Required Change in Company Revenue		$ 4,923,450	
11				
12	Proposed Revenue Change		$ 4,923,450	
13	Less: Uncollectibles	0.5390% [1/]	26,537	
14	Revenues After Uncollectibles		4,896,913	
15	PUC / OCA & SBA Assessment	0.5000% [1/]	24,617	
16	Income Before State Taxes		$ 4,872,296	
17	State Income Tax Effect Tax Rate	7.99%		
18	Less: State Income Tax		389,296	
19				
20	Income Before Federal Taxes		$ 4,483,000	
21	Federal Income Tax	21.00%	941,430	
22				
23	Net Income Surplus/(Deficiency)		$ 3,541,570	

24	**Calculation Gross-up Factor**	
25	Gross Revenues	1.000000
26	Uncollectibles	0.005390 [1/]
27	PUC / OCA & SBA Assessment	0.005000 [1/]
28	State Taxable Income	0.989610
29	State Income Tax Effect	0.079070
30	Federal Taxable Income	0.910540
31	Federal Tax Effect	0.191213
32	Net Income Factor	0.719327
33	Gross-Up Factor	1.390188

Notes:
[1/] Exhibit No. GRH-2 (Excel Version), GRCF Tab.

VEOLIA WATER PENNSYLVANIA INC.

Combined Water Operations

Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 569,659,430	$ (448,470)	$ 569,210,960
2	Acquisition Adjustment	-	-	-
3	Accumulated Depreciation	(100,498,294)	-	(100,498,294)
4	Net Plant in Service	$ 469,161,136	$ (448,470)	$ 468,712,666
5	Additions			
6	Working Capital	$ 796,395	$ (59,362)	$ 737,033
7	Materials & Supplies	1,656,030	-	1,656,030
8	Total Rate Base Additions	$ 2,452,425	$ (59,362)	$ 2,393,063
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	(91,198,127)	-	(91,198,127)
12	Regulatory Liability - New Fed Rate	(8,435,964)	-	(8,435,964)
13	Regulatory Liability - 2018 Portion	(832,495)	-	(832,495)
14	Accumulated Deferred Income Taxes	(14,844,697)	-	(14,844,697)
15	Total Rate Base Deductions	$ (115,311,282)	$ -	$ (115,311,282)
16				
17	Total Rate Base	$ 356,302,279	$ (507,832)	$ 355,794,447

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Veolia Water, Bethel Water, Kensington Water & Overbrook Water

Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 560,386,067	$ -	$ 560,386,067
2	Acquisition Adjustment	-		
3	Accumulated Depreciation	(97,603,902)	-	(97,603,902)
4	Net Plant in Service	$ 462,782,165	$ -	$ 462,782,165
5	Additions			
6	Working Capital	$ 791,165	$ -	$ 791,165
7	Materials & Supplies	1,656,030	-	1,656,030
8	Total Rate Base Additions	$ 2,447,195	$ -	$ 2,447,195
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	(91,198,127)	-	(91,198,127)
12	Regulatory Liability - New Fed Rate	(8,435,964)	-	(8,435,964)
13	Regulatory Liability - 2018 Portion	(832,495)	-	(832,495)
14	Accumulated Deferred Income Taxes	(14,798,641)	-	(14,798,641)
15	Total Rate Base Deductions	$ (115,265,226)	$ -	$ (115,265,226)
16				
17	Total Rate Base	$ 349,964,134	$ -	$ 349,964,134

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.
Mahoning Township
Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 9,273,363	$ -	$ 9,273,363
2	Acquisition Adjustment	-	-	-
3	Accumulated Depreciation	(2,894,392)	-	(2,894,392)
4	Net Plant in Service	$ 6,378,971	$ -	$ 6,378,971
5	Additions			
6	Working Capital	$ 5,230	$ -	$ 5,230
7	Materials & Supplies	-	-	-
8	Total Rate Base Additions	$ 5,230	$ -	$ 5,230
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	-	-	-
12	Regulatory Liability - New Fed Rate	-	-	-
13	Regulatory Liability - 2018 Portion	-	-	-
14	Accumulated Deferred Income Taxes	(46,056)	-	(46,056)
15	Total Rate Base Deductions	$ (46,056)	$ -	$ (46,056)
16				
17	Total Rate Base	$ 6,338,145	$ -	$ 6,338,145

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

Docket No. R-2024-3045193
Schedule LKM-W-2-1R

VEOLIA WATER PENNSYLVANIA INC.
Veolia Water, Kensington Water & Overbrook Water
Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 551,668,720	$ -	$ 551,668,720
2	Acquisition Adjustment	-		
3	Accumulated Depreciation	(96,999,406)	-	(96,999,406)
4	Net Plant in Service	$ 454,669,314	$ -	$ 454,669,314
5	Additions			
6	Working Capital	$ 745,776	$ -	$ 745,776
7	Materials & Supplies	1,656,030	-	1,656,030
8	Total Rate Base Additions	$ 2,401,806	$ -	$ 2,401,806
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	(84,960,608)	-	(84,960,608)
12	Regulatory Liability - New Fed Rate	(8,301,533)	-	(8,301,533)
13	Regulatory Liability - 2018 Portion	(756,507)	-	(756,507)
14	Accumulated Deferred Income Taxes	(14,747,777)	-	(14,747,777)
15	Total Rate Base Deductions	$ (108,766,425)	$ -	$ (108,766,425)
16				
17	Total Rate Base	$ 348,304,695	$ -	$ 348,304,695

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.
Bethel Water
Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 8,717,347	$ -	$ 8,717,347
2	Acquisition Adjustment	-		
3	Accumulated Depreciation	(604,497)	-	(604,497)
4	Net Plant in Service	$ 8,112,850	$ -	$ 8,112,850
5	Additions			
6	Working Capital	$ 45,389	$ -	$ 45,389
7	Materials & Supplies	-	-	-
8	Total Rate Base Additions	$ 45,389	$ -	$ 45,389
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	(6,237,519)	-	(6,237,519)
12	Regulatory Liability - New Fed Rate	(134,430)	-	(134,430)
13	Regulatory Liability - 2018 Portion	(75,988)	-	(75,988)
14	Accumulated Deferred Income Taxes	(50,864)	-	(50,864)
15	Total Rate Base Deductions	$ (6,498,801)	$ -	$ (6,498,801)
16				
17	Total Rate Base	$ 1,659,439	$ -	$ 1,659,439

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Combined Water Operations

Summary of Rate Base Adjustments
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Source	Amount
1	Rate Base per Company Filing	Schedule LKM-2, Page 1	$ 356,302,279
2			
3			
4	OCA Adjustments:		
5	Remove Kensington & Overbrook Acquisition Adjustments		$ (448,470)
6	Adjustment to Remove Plant Held for Future Use		-
7	Cash Working Capital		(59,362)
8	Remove Mahoning Acquisition Adjustments		-
9	Include Revalued Mahoning Plant		-
10			-
8			-
9			
10	Total Ratemaking Adjustments		$ (507,832)
11			
12	Adjusted Rate Base per OCA		$ 355,794,447

VEOLIA WATER PENNSYLVANIA INC.

Combined Water Operations

Summary of Adjustments to Income Before Income Taxes
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount	Source
1	Operating Income per Company	$ 17,212,986	Schedule LKM-W-1
2			
3	OCA Adjustments:		
4	Payroll Expense	$ 597,355	
5	Reverse VWPA's Chemical Expense Inflation	21,198	
6	Reverse VWPA's Purchased Power Adjustment	540,587	
7	Transportation Expense for Increase in Vehicle Leases	32,905	
8	Normalize Rate Case Expense	68,751	
9	Remove Inflation Escalation	345,550	
10	Amortize Acquisition Transaction Costs	42,730	
11	Normalize Lab Testing Fees	15,719	
12	Adjustment to Normalize Outside Contractors Expense	55,016	
13	Depreciation Expense to Reflect OCA's Depr. Rates	1,536,739	
14	Remove Kensington & Overbrook Acq. Adj. Amort.	36,220	
15	Customer Assistance Plan Expense	148,223	
16	Remove Mahoning Acq. Adj. Amort.	-	
17	Include Mahoning Revalued Plant Depr. Expense	-	
18	Interest Synchronization	176,369	
19		-	
20	Total OCA Adjustments	3,617,363	
21			
22	Operating Income per OCA	$ 20,830,349	

VEOLIA WATER PENNSYLVANIA INC.

Combined Water Operations

Summary of Adjustments to Income Before Income Taxes
For the Fully Projected Test Year Ending October 30, 2025

Line No.		Operating Revenues	O&M Expenses	Depreciation & Amortization	Amortization of Acquisition Adjustment	Taxes Other Than Income	State & Federal Income Taxes	Operating Income Before Income Taxes
1	Amount per Company	$ 58,767,409	$ 25,417,358	$ 11,624,460	$ 107,574	$ 1,249,172	$ 3,155,859	$ 17,212,986
2								
3	OCA Adjustments:							
4	Payroll Expense	$ -	$ (821,808)	$ -	$ -	$ -	$ 224,453	$ 597,355
5	Reverse VWPA's Chemical Expense Inflation	-	(29,163)	-	-	-	7,965	21,198
6	Reverse VWPA's Purchased Power Adjustment	-	(743,710)	-	-	-	203,123	540,587
7	Transportation Expense for Increase in Vehicle Leases	-	(45,269)	-	-	-	12,364	32,905
8	Normalize Rate Case Expense	-	(94,584)	-	-	-	25,833	68,751
9	Remove Inflation Escalation	-	(475,389)	-	-	-	129,839	345,550
10	Amortize Acquisition Transaction Costs	-	-	(58,785)	-	-	16,055	42,730
11	Normalize Lab Testing Fees	-	(21,626)	-	-	-	5,907	15,719
12	Adjustment to Normalize Outside Contractors Expense	-	(75,688)	-	-	-	20,672	55,016
13	Depreciation Expense to Reflect OCA's Depr. Rates	-		(2,114,161)	-	-	577,422	1,536,739
14	Remove Kensington & Overbrook Acq. Adj. Amort.	-	-	-	(49,830)	-	13,610	36,220
15	Customer Assistance Plan Expense	-	(203,917)	-	-	-	55,694	148,223
16	Remove Mahoning Acq. Adj. Amort.	-	-	-	-	-	-	-
17	Include Mahoning Revalued Plant Depr. Expense	-	-	-	-	-	-	-
18	Interest Synchronization	-	-	-	-	-	(176,369)	176,369
19								
20	Total OCA Adjustments	$ -	$ (2,511,155)	$ (2,172,946)	$ (49,830)	$ -	$ 1,116,568	$ 3,617,363
21								
22	Total Adjusted Income Before Income Taxes	$ 58,767,409	$ 22,906,203	$ 9,451,514	$ 57,744	$ 1,249,172	$ 4,272,427	$ 20,830,349

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Cash Working Capital
Summary of Adjustments to Income Before Income Taxes

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Fully Projected Year Under Present Rates 10/31/2025 CWC	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	OCA Adjustments	Expense Claim FPFTY After OCA Adjustments Proposed Rates 10/31/2025	FPFTY After OCA Adjustments Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 469,501	$ 7,418,529	$ (821,808)	$ 6,596,722	$ 417,491
Employee Group Health & Life	34.5	10.1	24.4	106,752	1,596,912		1,596,912	106,752
Employee Pension Benefits	34.5	29.3	5.2	9,008	632,288		632,288	9,008
Other Employee Benefits	34.5	276.0	(241.5)	(294,362)	444,895		444,895	(294,362)
Purchased Water	34.5	26.6	7.9	39,787	1,838,244		1,838,244	39,787
Purchased Power	34.5	57.1	(22.6)	(178,732)	2,886,605	(743,710)	2,142,895	(132,683)
Fuel for Power Production	34.5	38.8	(4.3)	(25)	2,093		2,093	(25)
Chemicals	34.5	27.9	6.6	24,313	1,344,558	(368,507)	976,051	17,649
Materials and Supplies	34.5	29.1	5.4	6,028	407,435		407,435	6,028
Management and Service Fees	34.5	14.7	19.8	250,149	4,611,336		4,611,336	250,149
Lab Testing Fees	34.5	26.2	8.3	4,828	212,334	(22,140)	190,194	4,325
Outside Contractors	34.5	30.9	3.6	16,879	1,711,389	(75,688)	1,635,701	16,133
Outside Professional Services	34.5	45.0	(10.5)	(2,548)	88,583		88,583	(2,548)
Rental - Building/Real Property	34.5	(13.2)	47.7	-	-		-	-
Rental of Equipment	34.5	7.9	26.6	9,102	124,900		124,900	9,102
Transportation Expense	34.5	38.1	(3.6)	(7,381)	748,343	(45,269)	703,074	(6,934)
Prop& Gen Liab. Insurance	34.5	(130.5)	165.0	-	-		-	-
Worker Compensation	34.5	(130.5)	165.0	21,743	48,098		48,098	21,743
Regulatory Commission Expense	34.5	(101.5)	136.0	132,315	448,734	(94,584)	354,150	131,957
Office Expense and Utilities	34.5	8.9	25.6	60,435	861,668		861,668	60,435
Postage and Air Freight Expense	34.5	40.3	(5.8)	(6,100)	383,875		383,875	(6,100)
Other O&M	34.5	30.3	4.2	1,889	164,161	(475,389)	(311,228)	(3,581)
Real Estate Tax	34.5	(26.9)	61.4	57,703	343,022		343,022	57,703
Payroll	34.5	18.5	16.0	40,251	918,219		918,219	40,251
Federal Income Taxes	34.5	37.0	(2.5)	(10,447)	4,316,438		4,316,438	(29,565)
State Income Taxes	34.5	28.8	5.8	9,760	1,791,883		1,791,883	28,228
Total				$ 760,848				$ 740,943
CWC per Company								800,305
Adjustment								$ (59,362)

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Remove Acquisition Adjustments
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount	
	Rate Base		
1	Kensington Acquisition Adjustment	$ 202,500	1/
2	Overbrook Acquisition Adjustment	245,970	1/
3			
4	Adjustment to Plant in Service	$ (448,470)	
5			
6	Operating Expenses		
7	Amortization of Kensington Acquisition Adjustment	$ 22,500	2/
8	Amortization of Overbrook Acquisition Adjustment	27,330	2/
	Adjustment to Amortization Expense	$ (49,830)	

Notes:

1/ Exhibit No. GRH-1, Schedule 1.1.

1/ Exhibit No. GRH-3, Schedule 34.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Remove Plant Held for Future Use
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	Kensington Acquisition Adjustment	$ - [1/]
2		
3	Adjustment to Plant in Service	$ -

Notes:
[1/] Exhibit No. GRH-1, Schedule 1.1.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Payroll Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	Adjustment to Payroll Expense	$ 821,808 [1/]
2	Adjustment to Operating Expense	$ (821,808)

Notes:
[1/] Calculated from data provided in Workpaper GRH-3.1.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Reverse VWPA's Chemical Expense Adjustment
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	FTY Chemical Expense Inflation Escalation	$ - [1/]
2		
3	FPFTY Chemical Expense Inflation Escalation	29,163 [1/]
4		
5	Adjustment to Operating Expense	$ (29,163)

Notes:
[1/] Exhibit No. GRH-3, Schedule 10.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Reverse VWPA's Purchased Power Adjustment
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	FTY Purchased Power Inflation Escalation	$ 343,730 [1/]
2		
3	FPFTY Purchased Power Inflation Escalation	399,980 [1/]
4		
5	Adjustment to Operating Expense	$ (743,710)

Notes:
[1/] Exhibit No. GRH-3, Schedule 8.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Transportation Expense for Increase in Vehicle Leases
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description		Amount [1/]
1	FPFTY Vehicle Leases	$	591,887
2	Other Transportation Expenses		
3	Car Allowance		-
4	Fuel		254,005
5	Maintenance & Repair		110,391
6	Insurance		32,274
7	Other		59,339
8			
9	Total Transportation Costs	$	1,047,896
10	Less Cap and Billed Out		(344,889)
11			
12	FPFTY Total Transportation Expense per OCA	$	703,007
13	FPFTY Total Transportation Expense per Company		748,276
14			
15	Adjustment to Operating Expenses	$	(45,269)

Notes:
[1/] Exhibit No. GRH-3, Schedule 18.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Normalize Rate Case Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	Total Rate Case Expenses	$ 709,379 [1/]
2	Normalization Period (Years)	5
3		
4	Normalized Rate Case Expense per OCA	$ 141,876
5	Normalized Rate Case Expense per Company	236,460 [1/]
6		
7	Adjustment to Operating Expense	$ (94,584)

Notes:
[1/] Exhibit No. GRH-3, Schedule 21.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Remove Inflation Escalation
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount	
1	Group Health and Life Insurance	$ 34,399	1/
2	Pension	13,620	2/
3	Post-Retirement Benefits Other than Pensions (“PBOP”)	(18,760)	3/
4	401K (Other Benefits)	2	4/
5	Purchased Water	6,467	5/
6	Fuel for Power Production	93	6/
7	Chemicals Expense	368,507	7/
8	Materials & Supplies	17,590	8/
9	Rental of Equipment	5,530	9/
10	Office Expense	28,934	10/
11	Other O&M Expense	19,007	11/
	Total Inflation Adjustments	$ 475,389	
	Adjustment to Operating Expenses.	$ (475,389)	

Notes:

1/ Exhibit No. GRH-3, Schedule 3.
2/ Exhibit No. GRH-3, Schedule 4.
3/ Exhibit No. GRH-3, Schedule 5.
4/ Exhibit No. GRH-3, Schedule 6.
5/ Exhibit No. GRH-3, Schedule 7.
6/ Exhibit No. GRH-3, Schedule 9.
7/ Exhibit No. GRH-3, Schedule 10.
8/ Exhibit No. GRH-3, Schedule 11.
9/ Exhibit No. GRH-3, Schedule 17.
10/ Exhibit No. GRH-3, Schedule 25.
11/ Exhibit No. GRH-3, Schedule 27.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Amortize Acquisition Transaction Costs
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
	Acquisition Transaction Costs	
1	Kensington	$ 28,240 [1/]
2	Mahoning	543,227 [1/]
3	Overbrook	16,381 [1/]
4	Total	$ 587,848
5	Amortization Period	10
6	Transaction Costs Amortization Costs per OCA	$ 58,785
7	Transaction Costs Amortization Costs per Company	117,570
	Adjustment to Amortization Expense	$ (58,785)

Notes:
[1/] Exhibit No. GRH-3, Schedule 30.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Normalize Lab Testing Fees
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	3-Year Average Lab Testing Fees	$ 190,708 [1/]
2		
3	FPFTY Lab Testing Fees Per Company	212,334 [1/]
4		
5	Adjustment to Operating Expense	$ (21,626)

Notes:
[1/] Exhibit No. GRH-3, Schedule 13.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Normalize Outside Contractors Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	2-Year Average Outside Contractors Expense	$ 1,635,701 [1/]
2		
3	FPFTY Outside Contractors Expense Per Company	1,711,389 [1/]
4		
5	Adjustment to Operating Expense	$ (75,688)

Notes:
[1/] Exhibit No. GRH-3, Schedule 14.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Depreciation Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	Reflect OCA witness Garrett Recommendation	$ 2,114,161 [1/]
2	Adjustment to Depreciation Expense	$ (2,114,161)

Notes:
[1/] Exhibit DJG-17,Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Customer Assistance Plan Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	CAP Expenditures Recommended by OCA witness DeMarco	$ 1,096,083 [1/]
2	Veolia Shareholders Funding Commitment	300,000
3	Net Amount to be Recovered from Customers	796,083
4	Customer Assistance Plan Expense Included in the Cost of Service	1,000,000 [2/]
5	Adjustment to Operating Expense	$ (203,917)

Notes:
[1/] Per OCA Witness DeMarco.
[2/] Exhibit No. GRH-3, Schedule -29.

.93
7S

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Interest Synchronization Adjustment
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description		Amount	
1	Company Rate Base	$	355,794,447	1/
2	Weighted Cost of Debt		2.30%	2/
3				
4	Adjusted Interest Deduction	$	8,183,272	
5	Interest Deduction Per Company		7,537,520	3/
6				
7	Adjustment to Synchronize Interest Expense	$	645,752	
8	Effective State Income Tax Rate		7.99%	
9				
10	Adjustment to State Income Taxes	$	(51,596)	
11				
12	Federal Income Tax Base	$	594,156	
13	Federal Income Tax Rate		21.00%	
14				
15	Adjustment to Federal Income Taxes	$	(124,773)	

Notes:

1/ Schedule LKM-W-2, Page 1.

2/ Schedule LKM-W-19.

3/ Exhibit No. GRH-3, Schedule 35, Page 1.

Docket No. R-2024-3045193
Schedule LKM-W-19S

VEOLIA WATER PENNSYLVANIA INC.

Calculation of Overall Rate of Return
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Capitalization Ratio	Cost Rate	Weighted Cost
1	Long-Term Debt	50.00%	4.60%	2.30%
2	Short-Term Debt	0.00%	0.00%	0.00%
3	Total Debt	50.00%	4.60%	2.30%
4	Preferred Stock	0.00%	0.00%	0.00%
5	Common Equity	50.00%	9.10%	4.55%
6				
7	Total	100.00%		6.85%

Notes:
Per OCA Witness Garrett.

VEOLIA WATER PENNSYLVANIA INC.

Water Operations

Adjustment to Reflect Revalued Mahoning Plant in Service
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
	Rate Base	
1	Remove Mahoning Acquisition Adjustment	$ - 1/
2	Reflect Revalued Plant in Service	$ -
3	Net Adjustment to Rate Base	$ -
	Operating Income Adjustments	
4	Remove Amortization of Mahoning Acquisition Adjustment	$ - 2/
5	Reflect Revalued Plant in Service	$ - 1/
	OCA Composite Water Depreciation Rate	1.89% 3/
6	Net Adjustment to Depreciation Expense	$ -

Notes:

1/ Exhibit No. GRH-2, Schedule -1.1, Page 1.

2/ Exhibit No. GRH-3, Schedule -34, Page 1.

2/ Exhibit DJG-17,Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Combined Wastewater Operations

Summary of Operating Income
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Company Amounts at Present Rates [1/]	OCA Adjustments	Amounts After OCA Adjustments	Pro Forma Change in Revenues	Amounts After Change in Revenues
	(1)	(2)	(3)	(4)	(5)	(6)
	Operating Revenues					
1	Operating Revenues	$ 1,636,049	$ -	$ 1,636,049	$ -	$ 1,636,049
2	Revenue Increase	-	-	-	316,779	316,779
3	Total Operating Revenues	$ 1,636,049	$ -	$ 1,636,049	$ 316,779	$ 1,952,828
4						
5	Operating Expenses					
6	O&M Expenses	$ 1,154,935 -	$ (48,487)	$ 1,106,448	$ 1,590	$ 1,108,038
7	Depreciation	399,457	(30,004)	369,453	-	369,453
8	Amortization of Acquisition Adjustment	-	-	-	-	-
9	Taxes Other Than Income Taxes	52	-	52	-	52
10	Total Operating Expenses	$ 1,554,444	$ (78,491)	$ 1,475,953	$ 1,590	$ 1,477,543
11						
12	Operating Income Before Income Taxes	$ 81,605	$ 78,491	$ 160,096	$ 315,189	$ 475,285
13						
14	Federal & State Income Taxes	$ (21,856)	$ 18,792	$ (3,064)	$ 86,085	$ 83,021
15						
16	Net Operating Income	$ 103,461	$ 59,699	$ 163,160	$ 229,104	$ 392,264
17						
18	Rate Base	$ 5,726,940		$ 5,726,469		$ 5,726,469
19						
20	Return On Rate Base	1.81%		2.85%		6.85%

Notes:
[1/] Exhibit No. GRH-4, Schedule -1, Page 1, .

VEOLIA WATER PENNSYLVANIA INC.

Mahoning Township Wastewater

Summary of Operating Income
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Company Amounts at Present Rates [1/]	OCA Adjustments	Amounts After OCA Adjustments	Pro Forma Change in Revenues	Amounts After Change in Revenues
	(1)	(2)	(3)	(4)	(5)	(6)
	Operating Revenues					
1	Operating Revenues	$ 1,589,420	$ -	$ 1,589,420	$ -	$ 1,589,420
2	Revenue Increase	-	-	-	-	-
3	Total Operating Revenues	$ 1,589,420	$ -	$ 1,589,420	$ -	$ 1,589,420
4						
5	Operating Expenses					
6	O&M Expenses	$ 1,055,918 -	$ -	$ 1,055,918	$ -	$ 1,055,918
7	Depreciation	382,566	-	382,566	-	382,566
8	Amortization of Acquisition Adjustment	-	-	-	-	-
9	Taxes Other Than Income Taxes	4	-	4	-	4
10	Total Operating Expenses	$ 1,438,488	$ -	$ 1,438,488	$ -	$ 1,438,488
11						
12	Operating Income Before Income Taxes	$ 150,932	$ -	$ 150,932	$ -	$ 150,932
13						
14	Federal & State Income Taxes	$ 2,738	$ -	$ 2,738	$ -	$ 2,738
15						
16	Net Operating Income	$ 148,194	$ -	$ 148,194	$ -	$ 148,194
17						
18	Rate Base	$ 5,289,456		$ 5,289,456		$ 5,289,456
19						
20	Return On Rate Base	2.80%		2.80%		2.80%

Notes:
[1/] Exhibit No. GRH-4, Schedule -1, Page 2, Column 8.

VEOLIA WATER PENNSYLVANIA INC.

Columbia County Wastewater

Summary of Operating Income
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Company Amounts at Present Rates [1/]	OCA Adjustments	Amounts After OCA Adjustments	Pro Forma Change in Revenues	Amounts After Change in Revenues
	(1)	(2)	(3)	(4)	(5)	(6)
	Operating Revenues					
1	Operating Revenues	$ 46,629	$ -	$ 46,629	$ -	$ 46,629
2	Revenue Increase	-	-	-	-	-
3	Total Operating Revenues	$ 46,629	$ -	$ 46,629	$ -	$ 46,629
4						
5	Operating Expenses					
6	O&M Expenses	$ 99,017 -	$ -	$ 99,017	$ -	$ 99,017
7	Depreciation	16,891	-	16,891	-	16,891
8	Amortization of Acquisition Adjustment	-	-	-	-	-
9	Taxes Other Than Income Taxes	48	-	48	-	48
10	Total Operating Expenses	$ 115,956	$ -	$ 115,956	$ -	$ 115,956
11						
12	Operating Income Before Income Taxes	$ (69,327)	$ -	$ (69,327)	$ -	$ (69,327)
13						
14	Federal & State Income Taxes	$ (24,594)	$ -	$ (24,594)	$ -	$ (24,594)
15						
16	Net Operating Income	$ (44,733)	$ -	$ (44,733)	$ -	$ (44,733)
17						
18	Rate Base	$ 437,484	$ 437,484			$ 437,484
19						
20	Return On Rate Base	-10.23%	-10.23%			-10.23%

Notes:

[1/] Exhibit No. GRH-4, Schedule -1, Page 3, Column 8.

VEOLIA WATER PENNSYLVANIA INC.

Combined Wastewater Operations

Summary of Revenue Increase at OCA Rate of Return
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description		Amount	Source
1	Adjusted Rate Base		$ 5,726,469	Schedule LKM-2-WW, Page 2
2	Required Rate of Return		6.850%	
3				
4	Net Operating Income Required		$ 392,263	
5	Net Operating Income at Present Rates		163,160	Schedule LKM-1-WW, Page 1
6				
7	Income Deficiency/(Surplus)		$ 229,103	
8	Revenue Multiplier		1.382688	
9				
10	Required Change in Company Revenue		$ 316,779	
11				
12	Proposed Revenue Change		$ 316,779	
13	Less: Uncollectibles	0.0020% [1/]	6	
14	Revenues After Uncollectibles		316,773	
15	PUC / OCA & SBA Assessment	0.5000% [1/]	1,584	
16	Income Before State Taxes		$ 315,189	
17	State Income Tax Effect Tax Rate	7.99%		
18	Less: State Income Tax		25,184	
19				
20	Income Before Federal Taxes		$ 290,005	
21	Federal Income Tax	21.00%	60,901	
22				
23	Net Income Surplus/(Deficiency)		$ 229,104	

24	**Calculation Gross-up Factor**	
25	Gross Revenues	1.000000
26	Uncollectibles	0.000020 [1/]
27	PUC / OCA & SBA Assessment	0.005000 [1/]
28	State Taxable Income	0.994980
29	State Income Tax Effect	0.079500
30	Federal Taxable Income	0.915480
31	Federal Tax Effect	0.192251
32	Net Income Factor	0.723229
33	Gross-Up Factor	1.382688

Notes:
[1/] Exhibit No. GRH-4 (Excel Version), GRCF Tab.

VEOLIA WATER PENNSYLVANIA INC.

Combined Wastewater

Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 8,972,061	$ 1,377,307	$ 10,349,368
2	Acquisition Adjustment	-	(1,377,307)	(1,377,307)
3	Accumulated Depreciation	(3,263,851)	-	(3,263,851)
4	Net Plant in Service	$ 5,708,210	$ -	$ 5,708,210
5	Additions			
6	Working Capital	$ 18,730	$ (471)	$ 18,259
7	Materials & Supplies	-	-	-
8	Total Rate Base Additions	$ 18,730	$ (471)	$ 18,259
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	-	-	-
12	Regulatory Liability - New Fed Rate	-	-	-
13	Regulatory Liability - 2018 Portion	-	-	-
14	Accumulated Deferred Income Taxes	-	-	-
15	Total Rate Base Deductions	$ -	$ -	$ -
16				
17	Total Rate Base	$ 5,726,940	$ (471)	$ 5,726,469

Notes:

[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Columbia County Wastewater

Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 437,003	$ -	$ 437,003
2	Acquisition Adjustment	-		
3	Accumulated Depreciation	(2,957)	-	(2,957)
4	Net Plant in Service	$ 434,046	$ -	$ 434,046
5	Additions			
6	Working Capital	$ 3,438	$ -	$ 3,438
7	Materials & Supplies	-	-	-
8	Total Rate Base Additions	$ 3,438	$ -	$ 3,438
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	-	-	-
12	Regulatory Liability - New Fed Rate	-	-	-
13	Regulatory Liability - 2018 Portion	-	-	-
14	Accumulated Deferred Income Taxes	-	-	-
15	Total Rate Base Deductions	$ -	$ -	$ -
16				
17	Total Rate Base	$ 437,484	$ -	$ 437,484

Notes:

[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.
Mahoning Township Wastewater
Summary of Rate Base
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount per Company Filing [1/]	OCA Rate Base Adjustments	Amount After OCA Adjustments
	(1)	(2)	(3)	(4)
1	Utility Plant	$ 8,535,058	$ -	$ 8,535,058
2	Acquisition Adjustment	-	-	-
3	Accumulated Depreciation	(3,260,894)	-	(3,260,894)
4	Net Plant in Service	$ 5,274,164	$ -	$ 5,274,164
5	Additions			
6	Working Capital	$ 15,292	$ -	$ 15,292
7	Materials & Supplies	-	-	-
8	Total Rate Base Additions	$ 15,292	$ -	$ 15,292
9	Deductions			
10	Customer Deposits	$ -	$ -	$ -
11	Customer Advances for Construction	-	-	-
12	Regulatory Liability - New Fed Rate	-	-	-
13	Regulatory Liability - 2018 Portion	-	-	-
14	Accumulated Deferred Income Taxes	-	-	-
15	Total Rate Base Deductions	$ -	$ -	$ -
16				
17	Total Rate Base	$ 5,289,456	$ -	$ 5,289,456

Notes:
[1/] Exhibit No. GRH-2, Schedule -1.1, Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Combined Wastewater Operations

Summary of Adjustments to Income Before Income Taxes
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount	Source
1	Operating Income per Company	$ 103,461	Schedule LKM-WW-1
2			
3	OCA Adjustments:		
4	Normalize Materials and Supplies	$ 166	
5	Normalize Lab Testing Fees	3,602	
6	Normalize Outside Contractors Expense	29,248	
7	Normalize Outside Professional Services	1,533	
8	Normalize Office Expense	34	
9	Remove Inflation Escalation	661	
10	Remove Mahoning Acq. Adj. Amort.	-	
11	Include Mahoning Revalued Plant Depr. Expense	-	
12	Depreciation Expense to Reflect OCA's Depr. Rates	21,809	
13	Interest Synchronization	2,646	
14		-	
15	Total OCA Adjustments	59,699	
16			
17	Operating Income per OCA	$ 163,160	

VEOLIA WATER PENNSYLVANIA INC.

Combined Wastewater Operations

Summary of Adjustments to Income Before Income Taxes
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Operating Revenues	O&M Expenses	Depreciation & Amortization	Amortization of Acquisition Adjustment	Taxes Other Than Income	State & Federal Income Taxes	Operating Income Before Income Taxes
1	Amount per Company	$ 1,636,049	$ 1,154,935	$ 399,457	$ -	$ 52	$ (21,856)	$ 103,461
2								
3	OCA Adjustments:							
4	Normalize Materials and Supplies	$ -	$ (228)	$ -	$ -	$ -	62	$ 166
5	Normalize Lab Testing Fees	-	(4,955)	-	-	-	1,353	3,602
6	Normalize Outside Contractors Expense	-	(40,238)	-	-	-	10,990	29,248
7	Normalize Outside Professional Services	-	(2,109)	-	-	-	576	1,533
8	Normalize Office Expense	-	(47)	-	-	-	13	34
9	Remove Inflation Escalation	-	(910)	-	-	-	249	661
10	Remove Mahoning Acq. Adj. Amort.	-	-	-	-	-	-	-
11	Include Mahoning Revalued Plant Depr. Expense	-	-	-		-	-	-
12	Depreciation Expense to Reflect OCA's Depr. Rates	-	-	(30,004)	-	-	8,195	21,809
13	Interest Synchronization	-	-	-	-	-	(2,646)	2,646
14								
15	Total OCA Adjustments	$ -	$ (48,487)	$ (30,004)	$ -	$ -	$ 18,792	$ 59,699
16								
17	Total Adjusted Income Before Income Taxes	$ 1,636,049	$ 1,106,448	$ 369,453	$ -	$ 52	$ (3,064)	$ 163,160

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Cash Working Capital
For the Fully Projected Test Year Ending October 30, 2025

Utility Operating Expenses	Revenue Days	Expense Days	Net (Lead) Lag Days	Expense Claim Fully Projected Future Test Year Under Proposed Rates 10/31/2025	OCA Adjustments	Expense Claim FPFTY After OCA Adjustments Proposed Rates 10/31/2025	Fully Projected Future Test Year Under Proposed Rates 10/31/2025 CWC
Labor Expense	34.5	11.4	23.1	$ 4,076		$ 4,076	$ 258
Employee Group Health & Life	34.5	10.1	24.4	596	(332)	264	18
Employee Pension Benefits	34.5	29.3	5.2	171	(95)	76	1
Other Employee Benefits	34.5	276	-241.5	67	(19)	48	(32)
Purchased Water	34.5	26.6	7.9	-		-	-
Purchased Power	34.5	57.1	-22.6	-		-	-
Fuel for Power Production	34.5	38.8	-4.3	-		-	-
Chemicals	34.5	27.9	6.6	-	(230)	(230)	(4)
Materials and Supplies	34.5	29.1	5.4	5,015	(228)	4,787	71
Management and Service Fees	34.5	14.7	19.8	-		-	-
Lab Testing Fees	34.5	26.2	8.3	108,368	(4,955)	103,413	2,352
Outside Contractors	34.5	30.9	3.6	880,038	(40,238)	839,800	8,283
Outside Professional Services	34.5	45	-10.5	46,127	(2,109)	44,018	(1,266)
Rental - Building/Real Property	34.5	-13.2	47.7	-		-	-
Rental of Equipment	34.5	7.9	26.6	-		-	-
Transportation Expense	34.5	38.1	-3.6	420	234	654	(6)
Prop& Gen Liab. Insurance	34.5	-130.5	165	-		-	-
Worker Compensation	34.5	-130.5	165	1		1	-
Regulatory Commission Expense	34.5	-101.5	136	13,682		13,682	5,098
Office Expense and Utilities	34.5	8.9	25.6	1,027	(47)	980	69
Postage and Air Freight Expense	34.5	40.3	-5.8	-		-	-
Other O&M	34.5	30.3	4.2	-		-	-
Real Estate Tax	34.5	-26.9	61.4	-		-	-
Payroll	34.5	18.5	16	4		4	-
Federal Income Taxes	34.5	37	-2.5	57,482		57,482	(394)
State Income Taxes	34.5	28.75	5.75	23,688		23,688	373
Total CWC per OCA							14,821
Total CWC per Company							15,292
Adjustment							$ (471)

Docket No. R-2024-3045193
Schedule LKM-WW-5S

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Normalize Materials and Supplies
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	3-Year Average Materials & Supplies Expense	$ 4,932 [1/]
2		
3	FPFTY Materials & Supplies Expense per Company	5,160 [1/]
4		
5	Adjustment to Operating Expense	$ (228)

Notes:
[1/] Exhibit No. GRH-5, Schedule 8.

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Normalize Lab Testing Fees
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	2-Year Average Lab Testing Expense	$ 107,082 [1/]
2		
3	FPFTY Lab Testing Fees per Company	112,037 [1/]
4		
5	Adjustment to Operating Expense	$ (4,955)

Notes:
[1/] Exhibit No. GRH-5, Schedule 9.

Docket No. R-2024-3045193
Schedule LKM-WW-7S

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Normalize Outside Contractors Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	2-Year Average Outside Contractors Expense	$ 869,595 [1/]
2		
3	FPFTY Outside Contractors Expense Per Company	909,833 [1/]
4		
5	Adjustment to Operating Expense	$ (40,238)

Notes:
[1/] Exhibit No. GRH-5, Schedule 10.

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Normalize Outside Professional Services
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	3-Year Average Outside Professional Services	$ 45,579 [1/]
2		
3	FPFTY Outside Professional Service Expense Per Company	47,688 [1/]
4		
5	Adjustment to Operating Expense	$ (2,109)

Notes:
[1/] Exhibit No. GRH-5, Schedule 11.

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Normalize Office Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	3-Year Average Office Expense	$ 1,010 [1/]
2		
3	FPFTY Office Expense Per Company	1,057 [1/]
4		
5	Adjustment to Operating Expense	$ (47)

Notes:
[1/] Exhibit No. GRH-5, Schedule 17.

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Remove Inflation Escalation
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount	
1	Group Health and Life Insurance	$ 332	1/
2	Pension	95	2/
3	Post-Retirement Benefits Other than Pensions (“PBOP”)	19	3/
4	Chemicals Expense	230	4/
5	Transportation Expense	234	5/
	Total Inflation Adjustments	$ 910	
	Adjustment to Operating Expenses.	$ (910)	

Notes:

1/ Exhibit No. GRH-5, Schedule 3.
2/ Exhibit No. GRH-5, Schedule 4.
3/ Exhibit No. GRH-5, Schedule 5.
4/ Exhibit No. GRH-5, Schedule 7.
5/ Exhibit No. GRH-5, Schedule 12.

Docket No. R-2024-3045193
Schedule LKM-WW-11S

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Interest Synchronization Adjustment
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description		Amount	
1	Company Rate Base	$	5,726,469	1/
2	Weighted Cost of Debt		2.30%	2/
3				
4	Adjusted Interest Deduction	$	131,709	
5	Interest Deduction Per Company		122,020	3/
6				
7	Adjustment to Synchronize Interest Expense	$	9,689	
8	Effective State Income Tax Rate		7.99%	
9				
10	Adjustment to State Income Taxes	$	(774)	
11				
12	Federal Income Tax Base	$	8,915	
13	Federal Income Tax Rate		21.00%	
14				
15	Adjustment to Federal Income Taxes	$	(1,872)	

Notes:

1/ Schedule LKM-WW-2, Page 1.

2/ Schedule LKM-WW-12.

3/ Exhibit No. GRH-5, Schedule 21, Page 1.

Docket No. R-2024-3045193
Schedule LKM-WW-12S

VEOLIA WATER PENNSYLVANIA INC.

Calculation of Overall Rate of Return
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Capitalization Ratio	Cost Rate	Weighted Cost
1	Long-Term Debt	50.00%	4.60%	2.30%
2	Short-Term Debt	0.00%	0.00%	0.00%
3	Total Debt	50.00%	4.60%	2.30%
4	Preferred Stock	0.00%	0.00%	0.00%
5	Common Equity	50.00%	9.10%	4.55%
6				
7	Total	100.00%		6.85%

Notes:
Per OCA Witness Garrett.

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Reflect Revalued Mahoning Plant in Service
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
	Rate Base	
1	Remove Mahoning Acquisition Adjustment	$ (1,377,307) [1/]
2	Reflect Revalued Plant in Service	$ 1,377,307
3	Net Adjustment to Rate Base	$ -
	Operating Income Adjustments	
4	Remove Amortization of Mahoning Acquisition Adjustment	$ - [2/]
5	Reflect Revalued Plant in Service	$ - [1/]
	OCA Composite Water Depreciation Rate	4.11% [3/]
6	Net Adjustment to Depreciation Expense	$ -

Notes:

[1/] Exhibit No. GRH-4, Schedule -1.1, Page 1.

[2/] Exhibit No. GRH-5, Schedule -20, Page 1.

[2/] Exhibit DJG-17,Page 1.

VEOLIA WATER PENNSYLVANIA INC.

Wastewater Operations

Adjustment to Depreciation Expense
For the Fully Projected Test Year Ending October 30, 2025

Line No.	Description	Amount
1	Reflect OCA witness Garrett Recommendation	$ 30,004 [1/]
2	Adjustment to Depreciation Expense	$ (30,004)

Notes:
[1/] Exhibit DJG-17,Page 1.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	Docket Nos. R-2024-3045192
v.	:	R-2024-3045193
Veolia Water Pennsylvania, Inc.	:	

VERIFICATION

I, Lafayette K. Morgan, hereby state that the facts set forth in my Surrebuttal Testimony, OCA Statement 2SR, are true and correct (or are true and correct to the best of my knowledge, information, and belief) and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: June 21, 2024

Signature: Lafayette Morgan Jr.
Lafayette K. Morgan

Consultant Address: Exeter Associates, Inc.
10480 Little Patuxent Parkway
Suite 300
Columbia, MD 21044-3575

OCA Statement 3SR

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	**:**	
v.	**:**	**Docket Nos. R-2024-3045192 (Water)**
Veolia Water Pennsylvania, Inc.	**:**	**R-2023-3045193 (Wastewater)**

SURREBUTTAL TESTIMONY

OF

DAVID J. GARRETT

ON BEHALF OF

THE PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

June 21, 2024

I. INTRODUCTION

Q. State your name and occupation.

A. My name is David J. Garrett. I am a consultant specializing in public utility regulation. I am the managing member of Resolve Utility Consulting PLLC.

Q. Have you previously filed testimony in this proceeding?

A. Yes. I filed direct testimony in OCA Statement 3 on May 17, 2024, on behalf of the Pennsylvania Office of Consumer Advocate ("OCA"). A summary of my qualifications is included in my direct testimony.

Q. What is the purpose of your surrebuttal testimony?

A. My surrebuttal testimony responds to the rebuttal testimony of Veolia Water Pennsylvania's ("VWPA" or the "Company") witness Harold Walker regarding cost of capital and rate of return issues. I also respond to VWPA witness Dane Watson regarding depreciation issues.

Q. Did the Company's rebuttal testimony cause you to change any of your positions or recommendations discussed in your direct testimony?

A. No. Additionally, to the extent I do not specifically address a statement made in the company's rebuttal testimony filed in this case, it should not constitute my agreement with such testimony.

Q. Are you sponsoring any exhibits to your surrebuttal testimony?

A. No.

II. Rate of Return

Q. Please summarize your surrebuttal testimony directed to the rebuttal testimony of Mr. Walker.

A. In my surrebuttal testimony to Mr. Walker, I will address the assertions made in his rebuttal testimony regarding his initial comments, the Discounted Cash Flow ("DCF") Model, the Capital Asset Pricing Model ("CAPM"), and capital structure.

A. Initial Comments

Q. Mr. Walker suggests that current inflation rates have resulted in higher capital costs. Do you have a response to his testimony on this issue?

A. Yes. I believe it is more accurate to say that rising interest rates, which is driven by the Federal Reserve's response to rising inflation, has generally contributed to rising capital costs compared with those from several years ago. Mr. Walker also discusses the rising yields of Treasury notes,[1] which is used as a proxy for the risk-free rate in the CAPM. Regardless, the more salient point is that I have considered the latest market metrics, including interest rates, in my cost of capital analysis in this case. That analysis shows that VWPA's cost of equity is no higher than 9.1%.

[1] VWPA Statement No. 4R, Rebuttal Testimony of Harold Walker, p.7.

B. DCF Analysis

Q. Please summarize Mr. Walker's criticisms of your DCF Model.

A. Mr. Walker criticizes my use of analyst's divided growth projections in my DCF Model. He also criticizes my inclusion of all of the DCF Model results for each proxy company. In addition, Mr. Walker criticizes my reliance on the DCF Model over the results of the other models in this case.[2]

Q. Do you agree with Mr. Walker's criticisms regarding your use of projected dividend growth rates?

A. No. The "D" in DCF stands for *dividend*. That is the cash flow that is being discounted to estimate the cost of equity in this model. Mr. Walker also relied on earnings growth rates as part of his DCF Model. I do not believe it is unreasonable to consider earnings growth rates as a proxy for a dividend growth rate in the DCF Model, as long as long-term growth rate projections are generally sustainable. In general, I believe that the long-term growth rate inputs used in my "analyst growth" DCF Model as well as Mr. Walker's DCF Model are arguably not sustainable in that they exceed long-term growth rate projections for U.S. GDP on average. Regardless, I believe Mr. Walker's DCF Model result of 8.7% (before he applies adjustments that make it higher) is reasonable.

[2] VWPA Statement No. 4R, Rebuttal Testimony of Harold Walker, pp. 36-39.

Q. Do you agree with Mr. Walker's criticism regarding your inclusion of each proxy group's result in your DCF Model?

A. No. Mr. Walker apparently believes I should have excluded some of the lower DCF results of the proxy group from my overall DCF Model average. However, my DCF result of 9.1% is *higher* than his DCF result of 8.7%, so it is unclear exactly what his complaint is. In my experience it is common for a utility ROE witness to exclude the low results of individual proxy companies from both CAPM and DCF Models. I view these types of tactics as clear indication of bias designed for nothing more than to make the end result higher. I do not use such tactics. Instead, I included all of the results of the proxy companies in this case – both high and low.

Q. Do you agree with Mr. Walker's criticism regarding your reliance on your DCF results over your other model results in this case for your recommended ROE?

A. No. Once again Mr. Walker's criticisms make little sense. That is, my DCF Model result of 9.1% is the *highest* result of all my models. In other words, to the extent I would have mathematically incorporated the results of any of my other models into my final ROE recommendation, it would have resulted in recommending a lower ROE than 9.1%. My overall modeling range is 8.6% - 9.1%. While I believe it would be a reasonable choice for the Commission to authorize an ROE that is lower than 9.1% pursuant to this range, and thus incorporate my other model results to some extent, I stand by my recommended ROE of 9.1% for the Company.

C. CAPM Analysis

Q. Please summarize Mr. Walker's criticisms of your CAPM analysis.

A. The primary contentious issue under the CAPM is the equity risk premium ("ERP") (referred to as the "market risk premium" in Mr. Walker' testimony). Mr. Walker says I rely on "unique market premium projections which have substantially underestimated market performance and investors' returns."[3] Mr. Walker also criticizes my application of the Hamada model, which is used to adjusted VWPA's indicated cost of equity under the CAPM to account for the differences in capital structures between the Company and proxy group. Mr. Walker also uses the Hamada model to justify his proposed leverage adjustment.

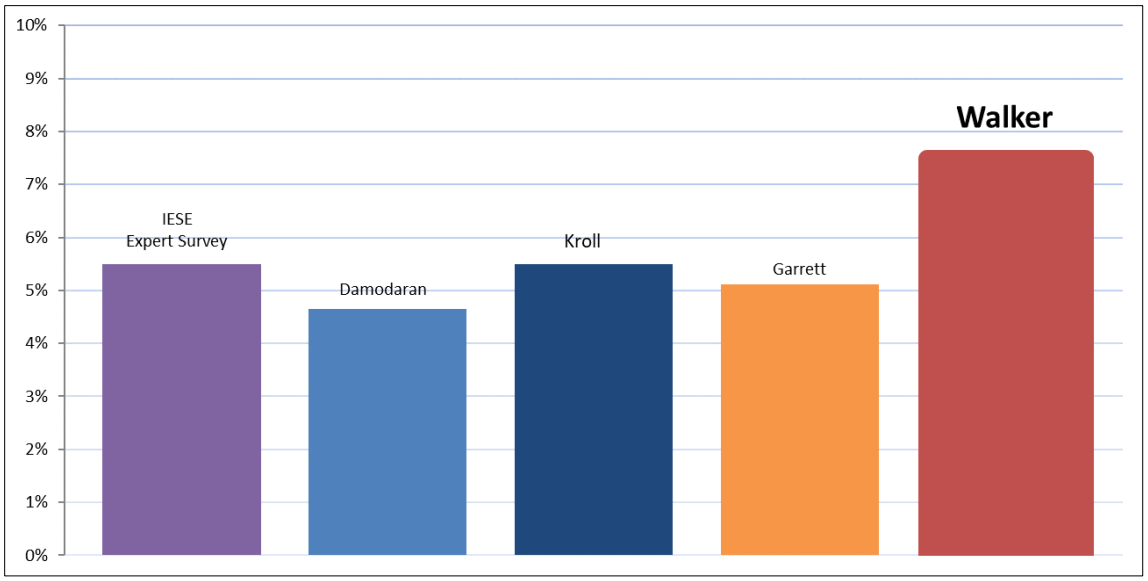
Q. Please briefly reiterate the sources you considered for the ERP estimate.

A. The ERP is an important figure for financial and market analysts in all industries, not just utility regulation. Thus, many analysts, managers, investors, and academics are constantly studying and are concerned with obtaining a reliable and accurate estimate of this important number, which can be used in a variety of financial analyses, including the CAPM. All else held constant, a higher ERP will result in a higher indicated higher cost of equity and apply upward pressure on the authorized ROE. I considered three reliable and objective sources to include in my overall ERP estimate, including the result of the IESE Business School survey of experts, the estimate published by Kroll (formerly Duff & Phelps), and

[3] VWPA Statement No. 4R, Rebuttal Testimony of Harold Walker, p. 40, lines 2-3.

the estimate published by one of the world's leading experts on the issue, Dr. Aswath Damodaran. I also conducted and presented my own ERP estimate, the result of which is similar to those from the other sources. The figure below contrasts the ERP estimates from these sources with the ERP estimated by Mr. Walker.[4]

Figure 1:
Equity Risk Premium Comparison



When compared with other independent sources for the ERP (as well as my estimate), which do not have a wide variance, Mr. Walker' ERP estimate is clearly not within the

[4] *See also* Exhibit DJG-10.

range of reasonableness.[5] Based on this graph, it is curious that Mr. Walker refers to my approach to estimating the ERP as "unique."

Q. Please summarize Mr. Walker's rebuttal testimony regarding the leverage adjustment and Hamada model.

A. Mr. Walker discusses the differences between market value and book value capitalizations, and claims that an adjustment is needed to increase the results of the DCF Model through the Hamada model adjustment. Mr. Walker also claims that I used the Hamada formula incorrectly.[6] Mr. Walker also uses a source I cited from Dr. Damodaran to support his arguments.

Q. Do you have a response to Mr. Walker's rebuttal testimony on this issue?

A. Yes. There are several glaring problems with Mr. Walker's arguments regarding book and market capitalizations and how they relate to the Hamada model in this case. First, in the regulatory environment, the authorized rate of return is based on book values of debt and equity. Indeed, VWPA does not have a market value of equity since it does not issue equity shares on the market. For these reasons, in order to compare the financial risk between VWPA and the proxy group, it is necessary to use the book values of debt and equity. Furthermore, when a firm's market value of equity exceeds its book value of equity, it is

[5] Mr. Walker's ERP estimate in his initial cost of equity estimate filed in his direct testimony was as high as 8.69%. In his updated cost of equity analysis, his ERP results range is as high as 8.12%. *See* VWPA Exhibit No. 13-R, Sch. 3. The graph in Figure 1 is from my direct testimony, which represents an ERP estimate of 8.69% from Mr. Walker's direct testimony.

[6] VWPA Statement No. 4R, Rebuttal Testimony of Harold Walker, p. 35, line 17.

an indication that the company is overvalued. For U.S. utility companies, it is very common to see market values that far exceed book values. This is likely due (at least in part) to authorized ROEs being generally and consistently higher than market-based equity costs. Regardless, to use the fact that utility market values exceed book values as a reason to further inflate VWPA's authorized ROE amounts to adding insult to injury. Comparing the book values of debt and equity of VWPA and the proxy group provides an apples-to-apples comparison which proves one critical fact: VWPA has less financial risk than the proxy group because it has less debt on its balance sheet. Less risk results in a lower cost of equity – a fact that can be mathematically accounted for through a proper application of the Hamda model. Mr. Walker cites a source from Dr. Damodaran in which his example of the Hamada model apparently uses market values of debt and equity. However, Dr. Damodaran's example is not applied to the unique situation regarding utility regulation, in which book values are routinely used to set rates, and utility proxy groups have consistently high market-to-book ratios. Citing Dr. Damodaran to support Mr. Walker's position in this case is a curious strategy on his part. If we apply Dr. Damodaran's ERP estimate of 4.6% to the CAPM, then VWPA's indicated cost of equity under the CAPM would be 8.4%.[7]

[7] Using a proxy group average beta of 0.83 and a risk-free rate of 4.6%, the CAPM calculation is: 4.6% + 0.83 x 4.6% = 8.4%.

D. Capital Structure

Q. Please summarize Mr. Walker's criticisms of your capital structure adjustment.

A. Mr. Walker disagrees with my recommendation to impute a capital structure for the Company. Mr. Walker claims it is Commission precedent that the choice of capital structure is within the discretion of utility management.

Q. What is your response to Mr. Walker's rebuttal testimony on this issue?

A. First, the Company's actual capital structure is obviously in the discretion of Company management. That is not the issue here. The issue is what the most fair and accurate capital structure should be for the purpose of calculating the weighted average rate of return for ratemaking. The average debt ratio of Mr. Walker's own proxy group is 50%. To accept a debt ratio less than this for the purpose of calculating the ROR essentially amounts to cherry-picking the metrics of the proxy group to obtain a more favorable ROR for the Company. This is because there is a direct relationship between risk and cost of equity. The more financial risk (or debt) a company has in its capital structure, it will have an increasing effect on its cost of equity. The fact that VWPA has less debt in its capital structure relative to the proxy group is significant, and it means that VWPA has less financial risk than the proxy group. Since we are obtaining all of the other metrics used to estimate VWPA's cost of equity from the proxy group, it would be inaccurate to reject the capital structure of that same proxy group as part of the analyses. The Hamada model I used in this case mathematically reconciles the discrepancy between VWPA's low debt ratio relative to the proxy group's average. This capital structure-adjusted CAPM indicates

a cost of equity of only 8.9% for VWPA, which is actually lower than my final ROE recommendation, which indicates a 9.1% ROE is more than fair for the Company.

III. Depreciation

Q. Please summarize your surrebuttal testimony directed to the rebuttal testimony of Mr. Watson.

A. In my surrebuttal testimony to Mr. Walker, I will address the assertions made in his rebuttal testimony regarding the average life group ("ALG") vs equal life group ("ELG") issues. I will also respond to Mr. Watson's criticisms regarding my service life estimates.

A. ALG vs. ELG

Q. Please summarize Mr. Watson's criticisms regarding your use of the ALG procedure.

A. Mr. Watson maintains that the ELG procedure should be used in this case and that the ALG will shift cost to future generations.[8]

Q. What is your response to Mr. Watson's testimony on this issue.

A. In reading Mr. Watson's testimony, one could get the impression that Mr. Watson himself does not also use the ALG in most of the depreciation studies that he conducts. However, based on my experience in reviewing Mr. Watson's depreciation studies filed in many other jurisdictions, Mr. Watson primarily uses the ALG procedure I am proposing in this case. This fact alone should negate any of Mr. Watson's suggestions related to the notion that

[8] VWPA Statement No. 5-R, Rebuttal Testimony of Dane Watson, pp. 5-16.

the ALG procedure might not be fair or accurate. Furthermore, it is disingenuous for Mr. Watson to suggest that his decisions are somehow affected by the financial well-being of future customers. Mr. Watson does not represent either present or future customers in this case, and he exclusively represents utility companies as I recall. Also in Mr. Watson's rebuttal testimony, I did not see him rebut the fact that compared with the ALG procedure, the ELG procedure will result in higher depreciation rates for customers. Likewise, the ELG procedure will result in higher cash flows for VWPA relative to the ALG procedure.

Q. Mr. Watson states that the Commission has approved ELG rates in prior proceedings. What is your response to his testimony?

A. On advice of counsel, my understanding is that the Commission approved settlements to resolve the base rate cases for Veolia's predecessor SUEZ Water in 2018[9] and United Water of Pennsylvania in 2015.[10] Also, that each of those settlements included an agreement to use the Company's proposed depreciation rates, while silent as to methodology. I am not persuaded by Mr. Watson's statement. I maintain the fairest and most reasonable approach in this case is for the Commission to adopt the procedure used by the vast majority of regulatory jurisdictions based on my experience, which is the ALG

[9] P.U.C. v. SUEZ Water Pennsylvania Inc, Docket No. R-2018-3000834, Joint Petition for Settlement, ¶ III.19.f. (filed Oct. 10, 2018), available at https://www.puc.pa.gov/pcdocs/1589456.pdf. Settlement approved by PUC Order at ¶ 2 (entered Dec. 6, 2018), available at https://www.puc.pa.gov/pcdocs/1597092.docx

[10] P.U.C. v. United Water Pennsylvania Inc, Docket No. R-2015-2462723, Joint Petition for Approval of Settlement of Rate Proceeding, ¶ III.15.g. (filed June 26, 2015), available at https://www.puc.pa.gov/pcdocs/1368760.pdf . Settlement approved by PUC Order at ¶ 2 (entered Aug. 20, 2015), available at https://www.puc.pa.gov/pcdocs/1377965.doc

procedure. The ELG procedure is effectively a form of accelerated cost recovery for the utility, as the difference in depreciation rate proposals demonstrates in this case.

B. Service Life Analysis

Q. Please summarize Mr. Watson's criticisms regarding your service life estimates.

A. Mr. Watson claims that I analyzed only one set of placement and experience bands for each account, and that I did not incorporate information from Company personnel.[11]

Q. What is your response to Mr. Watson's testimony on these issues.

A. First, Mr. Watson is incorrect that I only considered one set of placement and experience bands. I consider multiple placement and experience bands as part of my analysis, but I show only one set of experience and placement bands in the graphs for each account in my testimony. It is impractical to show multiple graphs in testimony for each account in dispute, and there are numerous combinations of placement and experience bands for each account. Mr. Watson's criticism on this issue appears to be a distraction from the fact that the Iowa curves I propose for each of the accounts in dispute result in a better fit to the Company's historical retirement data – a fact that I have proven mathematically.

Q. Do you believe Mr. Watson's reliance on statements from Company personnel should outweigh the results of the statistical analyses?

A. No. To suggest otherwise effectively defeats the purpose of decades-long established principles of Iowa curve fitting and actuarial depreciation analyses. In other words, if the

[11] VWPA Statement No. 5-R, Rebuttal Testimony of Dane Watson, pp. 16-23.

statistical data strongly indicates an average life of 50 years for an account, but the utility's expert can simply claim that "Company personnel say its 30 years," then there was no point in doing any of the statistical analysis in the first place, nor in hiring an independent depreciation expert for that matter. It amounts to a baseless wildcard that is apparently meant to trump the statistical analyses. This scenario could be likened to Mr. Walker conducting an ROE analysis in this case using the CAPM and DCF Model, but then disregarding that analysis because Company management said their cost of equity is 15%. Mr. Watson's reliance on Company personnel who are not depreciation experts, have provided no basis for their opinions regarding service life, and who are not testifying in this case, should be given little consideration in comparison with the statistical data and analyses presented.

Q. Does this conclude your surrebuttal testimony?

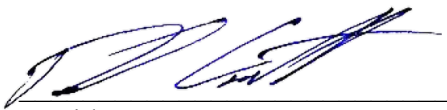
A. Yes, it does at this time.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	Docket Nos. R-2024-3045192
v.	:	R-2024-3045193
Veolia Water Pennsylvania, Inc.	:	

VERIFICATION

I, David J. Garrett, hereby state that the facts above set forth in my Surrebuttal Testimony, OCA Statement 3SR, are true and correct (or are true and correct to the best of my knowledge, information, and belief) and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: June 21, 2024 Signature: 

David J. Garrett

Consultant Address: Resolve Utility Consulting PLLC
101 Park Avenue Suite 1125
Oklahoma City, OK 73102

OCA St. 4S

BEFORE
THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	)	Docket Nos. R-2024-3045192 (Water)
v.	)	R-2024-3045193 (Wastewater)
Veolia Water Company Pennsylvania, Inc.	)	
	)	

`

SURREBUTTAL TESTIMONY

OF

JEROME D. MIERZWA

ON BEHALF OF
THE PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

JUNE 21, 2024

EXETER
ASSOCIATES, INC.
10480 Little Patuxent Parkway, Suite 300
Columbia, Maryland 21044

I. INTRODUCTION

Q. WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS ADDRESS?

A. My name is Jerome D. Mierzwa. I am a Principal and Vice President of Exeter Associates, Inc. ("Exeter"). My business address is 10480 Little Patuxent Parkway, Suite 300, Columbia, Maryland 21044. Exeter specializes in providing public utility-related consulting services.

Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN THIS PROCEEDING?

A. Yes. My Direct Testimony was submitted in this proceeding as OCA Statement 4 on May 17, 2024, and my Rebuttal Testimony was submitted as OCA Statement 4R on June 7, 2024.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my Surrebuttal Testimony is to respond to certain cost allocation and rate design recommendations presented in the Rebuttal Testimony of Veolia Water Company Pennsylvania, Inc. ("Veolia" or "Company") witnesses Constance E. Heppenstall and Gregory R. Herbert, and the Rebuttal Testimony of Bureau of Investigation and Enforcement ("I&E") witness Esyan A. Sakay.

II. WITNESS: CONSTANCE E. HEPPENSTALL

Veolia Water Company Pennsylvania, Inc.

Q. IN HER DIRECT TESTIMONY, MS. HEPPENSTALL PRESENTED A CALCULATION OF WHAT SHE CONSIDERED TO BE DIRECT CUSTOMER COSTS FOR THE PURPOSE OF CALCULATING CUSTOMER CHARGES IN THIS PROCEEDING. DID YOU AGREE WITH MS. HEPPENSTALL'S CALCULATION OF DIRECT CUSTOMER COSTS?

A. No. As indicated in my Direct Testimony, I noted that customer charges should be based on the direct costs associated with the addition or subtraction of a customer. The customer charge calculation presented by Ms. Heppenstall included costs that are not direct customer costs. More specifically, Ms. Heppenstall's customer charge calculation improperly included bad debt expense, office land and buildings, and office equipment and furniture. In addition, Ms. Heppenstall also improperly included $1,000,000 in costs associated with a Residential customer assistance program the Company is proposing in this proceeding. In my Direct Testimony I presented a revised direct customer cost calculation which excluded the costs improperly included in Ms. Heppenstall's calculation.

Q. WHAT WAS MS. HEPPENSTALL'S RESPONSE TO YOUR REVISED CUSTOMER CALCULATION?

A. Ms. Heppenstall claims that my definition of direct costs is similar to the definition of marginal costs, which are costs that are not fixed but vary with the addition or subtraction of a customer. Ms. Heppenstall further claims that a similar assertion to only include marginal costs in the calculation of direct customer costs was denied by the Commission in the 2021 Aqua Pennsylvania rate case, Docket No. R-2021-3027385.

Q. WHAT IS YOUR RESPONSE TO MS. HEPPENSTALL?

A. In Columbia Water Company ("CWC") Docket No. R-2023-3040258, I presented testimony on behalf of the OCA addressing the calculation of customer charges. In that proceeding, similar to my testimony in this proceeding, I recommended that only the direct costs required to connect and maintain a customer's account should be included in the calculation of a customer charge. I noted that CWC had improperly included indirect general and administrative expenses, building rental expense, bad debt expense, and office furniture and equipment costs in its direct customer charge calculation.

The Commission's January 18, 2024, Order in the CWC proceeding noted the ALJs recommended adoption of the OCA's proposed methodology for calculating customer charges. The Order included the following passage that was included in the ALJs' recommended decision:

> We agree with the OCA that the Company's analysis includes numerous overhead costs that cannot reasonably be considered "direct costs" required to connect and maintain a customer's account. Rather, they are simply overhead costs that Columbia Water incurs in rendering service to its customers. The fact that some of these costs may be fixed, does not in and of itself make them direct costs that should be collected from a customer charge. Rather, the appropriate test is "whether the costs would increase with the addition of a customer and decrease with the subtraction of a customer". (Order at 155).

The Commission's Order in the CWC proceeding adopted the ALJs' recommendation concerning the calculation of customer charges without further comment (Order at 156). Therefore, since my recommendation in this proceeding is consistent with the Commission's recent order in the CWC proceeding, my customer charge calculation and recommendation should be adopted in this proceeding.

III. WITNESS: GREGORY R. HERBERT

Veolia Water Company Pennsylvania, Inc.

Q. IN YOUR DIRECT TESTIMONY YOU RECOMMENDED THAT PUBLIC FIRE SERVICE RATES SHOULD BE ADJUSTED TO FULLY RECOVER 25% OF THE COST OF SERVICE, LIMITED TO A MAXIMUM INCREASE OF 2.0 TIMES THE SYSTEM AVERAGE INCREASE. DOES MR. HERBERT AGREE WITH YOUR RECOMMENDATION?

A. Yes, he does.

Q. IN YOUR DIRECT TESTIMONY, FOR THE REASONS PREVIOUSLY DISCUSSED, YOU REVISED MS. HEPPENSTALL'S CUSTOMER CHARGE CALCULATION WHICH WAS PRESENTED IN EXHIBIT CEH-1 FROM $19.80 TO $17.96. DOES MR. HERBERT'S PROPOSED RATE DESIGN ADOPT YOUR REVISED CALCULATION?

A. No, it does not. Mr. Herbert's rate design maintains the $19.80 customer charge.

Q. SHOULD THE $19.80 CUSTOMER CHARGE BE MAINTAINED?

A. No. As discussed in responding to Ms. Heppenstall, in the recent CWC proceeding, the Commission adopted my recommendations concerning the calculation of customer charges. Since my recommendations in this proceeding with respect to the calculation of customer charges are consistent with my recommendations in the CWC proceeding, my customer charge recommendations should be adopted in this proceeding.

Q. IN YOUR DIRECT TESTIMONY, FOR THE MAHONING SERVICE AREA, YOU RECOMMENDED ADOPTING A RESIDENTIAL USAGE CHARGE OF $7.00 PER 1,000 GALLONS THAT IS PROPORTIONATELY SCALED BACK TO REFLECT THE REVENUE REQUIREMENT INCREASE AUTHORIZED BY THE COMMISSION IN THIS PROCEEDING. DOES MR. HERBERT AGREE WITH THIS RECOMMENDATION?

A. No. In this proceeding, the Company is proposing to move toward rate equalization for the Mahoning, Bethel, Kensington, and Overbrook service area with the rates of the Main Division. My recommended usage charge for Residential customers in the Mahoning service area was designed to limit the increase to these customers to 2.0 times the system average increase. Mr. Herbert disagrees with my proposal and recommends achieving rate equalization for the Mahoning service area in this case, which would result in Mahoning

Residential customers experiencing a rate increase that exceeds 2.0 times the system average increase.

Q. WHAT IS YOUR RESPONSE TO MR. HERBERT'S RECOMMENDATION THAT FULL RATE EQUALIZATION SHOULD BE ADOPTED IN THIS PROCEEDING?

A. I agree that full rate equalization is appropriate and reasonable in the long-term. However, as explained in my Direct Testimony, gradualism and the avoidance of rate shock is a principle of a sound rate design. My recommendation will provide for gradualism for Mahoning Residential customers and reduce rate shock, and full rate equalization can be achieved in a future proceeding.

Q. IN YOUR DIRECT TESTIMONY YOU ALSO RECOMMENDED RATE DESIGN ADJUSTMENTS FOR THE BETHEL, KENSINGTON, AND OVERBROOK SERVICE AREAS WHICH WOULD LIMIT THE INCREASE FOR RESIDENTIAL CUSTOMERS IN THESE SERVICE AREAS TO 2.0 TIMES THE SYSTEM AVERAGE INCREASE. DOES MR. HERBERT AGREE WITH THESE RECOMMENDATIONS?

A. No. For reasons similar to those he presented for not adopting my recommendation to limit the increase to the Mahoning service area to 2.0 times the system average increase, Mr. Herbert recommends that full rate equalization also be adopted in this proceeding for the Bethel, Kensington, and Overbrook service territories.

Q. WHAT IS YOUR RESPONSE TO MR. HERBERTS' RECOMMENDATION FOR FULL RATE EQUALIZATION FOR THE BETHEL, KENSINGTON, AND OVERBROOK SERVICE TERRITORIES IN THIS PROCEEDING?

A. Similar to my response to his recommendation that full rates equalization should be adopted in the Mahoning service territory in this proceeding, rate equalization is

appropriate and reasonable in the long-term for these additional service territories, and gradualism and the avoidance of rate shock should be provided for in this proceeding. Rate equalization can be achieved for these other service territories in a future proceeding.

Q. DOES MR. HERBERT BELIEVE THAT THE AVOIDANCE OF RATE SHOCK AND GRADUALISM SHOULD NOT BE CONSIDERED BY THE COMPANY IN THE DESIGN OF RATES?

A. As explained in his Rebuttal Testimony addressing the Company's proposed increases in Mahoning service area wastewater rates, Mr. Herbert believes it is appropriate for the Company to consider gradualism. However, for Mahoning, Bethel, Kensington, and Overbrook water customers, he does not apply or consider the concept of gradualism. Mr. Herbert provides no basis to support his differential rate treatment for wastewater and water customers. In my opinion, it would be appropriate to avoid rate shock and provide for gradualism in designing rates for both wastewater and water customers.

Q. WITH RESPECT TO WASTEWATER RATE DESIGN, YOU RECOMMENDED IN YOUR DIRECT TESTIMONY THAT THE COMPANY ADOPT A VOLUMETRIC USAGE RATE DESIGN FOR MAHONING RESIDENTIAL SERVICE AREA CUSTOMERS IN ITS NEXT BASE RATE PROCEEDING. DOES MR. HERBERT AGREE WITH THIS RECOMMENDATION?

A. No. Mr. Herbert claims that not all of the Company's Mahoning wastewater customers are Veolia water customers. Therefore, metering these customers or obtaining the necessary water usage from those customer' water service providers would become a labor intensive cost burden for the Company, which would ultimately be passed on to customers to be recovered through customers' rates.

Q. IN DISCOVERY DID THE OCA INQUIRE INTO THE FEASIBILITY OF ADOPTING VOLUMETRIC WASTEWATER CHARGES FOR MAHONING RESIDENTIAL CUSTOMERS?

A. Yes. In OCA-I-21, the OCA made this inquiry. The Company's response to the OCA's inquiry was as follows and failed to identify the lack of metered water consumption data as a concern:

> The Company is not proposing to adopt volumetric residential wastewater charges similar to those that exist for commercial customers based on consideration of the regulatory principle of gradualism in rate changes. Veolia Water Pennsylvania, Inc. ("VWPA") acquired its first residential wastewater customers with the acquisition to the water and wastewater system of the Township of Mahoning ("Mahoning"). The instant proceeding is the first base rate case for these customers as part of the VWPA system. The Company believes that it is reasonable and appropriate at this juncture to focus on bringing rates more into alignment with the actual cost to serve before considering additional changes such as rate-redesign.

Q. WHAT IS YOUR RESPONSE TO MR. HERBERT'S CLAIM CONCERNING THE ADOPTION OF VOLUMETRIC USAGE RATES FOR MAHONING WASTEWATER CUSTOMERS?

A. First, Veolia should adopt volumetric wastewater usage rates for those Mahoning Residential customers that are currently Veolia water customers in its next base rate proceeding. Currently, nearly 85% of Mahoning Residential wastewater customers are Veolia water customers.[1] For those Residential customers that are not current water customers, Veolia should attempt to establish procedures to obtain the necessary water usage data from those customers' current water service provider. Based on the response to OCA-17-1, the Mahoning Residential wastewater customers that are not provided water

[1] Based on the responses to OCA-1-2 and OCA-1-3, there are 1,432 Mahoning Residential wastewater customers, and 1,185 of these customers are Veolia water customers.

service by Veolia are provided water service by the Dansville Municipal Authority. In its next base rate proceeding, Veolia should report on its efforts to obtain the necessary water usage data from the Dansville Municipal Authority, and if that data can be acquired at a reasonable cost, Veolia should adopt volumetric usage rates for its Mahoning wastewater customers that are not current water customers. Based on the response to OCA-17-1, it appears that Veolia has not attempted to obtain water usage data from the Dansville Municipal Authority. It is my understanding that the Pennsylvania American Water Company currently obtains water usage data for some of its wastewater customers from those customer's water service provider for those wastewater customers that are not current water service customers.

IV. WITNESS: ESYAN A. SAKAYA

Bureau of Investigation and Enforcement

Q. ON PAGE 4 OF HIS REBUTTAL TESTIMONY, MR. SAKAYA CLAIMS THAT YOU RECOMMENDED INCREASING PUBLIC FIRE CHARGES TO A LEVEL THAT WOULD CONSTITUTE 25% OF THE COST OF SERVICE SUBJECT TO A MAXIMUM INCREASE OF 2.0 TIMES THE SYSTEM AVERAGE INCREASE AUTHORIZED BY THE COMMISSION IN THIS PROCEEDING. DOES MR. SAKAYA AGREE WITH THIS RECOMMENDATION?

A. No. On page 5 of his Rebuttal Testimony, Mr. Sakaya claims that according to Veolia, the Public Fire cost of service for the Mahoning service territory is $68,238 and the present rate revenue for Mahoning Public Fire service is $46,804. Mr. Sakaya claims that according to Section 1328 (b) of the Public Utility Code, if present rate revenue from Public Fire service is above 25% of the cost of service, present rates cannot be increased. Mr. Sakaya

contends that since present rate Public Fire service revenues in the Mahoning service territory are in excess of 25% of the cost of service, Public Fire rates cannot be increased.

Q. WHAT IS YOUR RESPONSE TO MR. SAKAYA?

A. As explained on page 2 of my Rebuttal Testimony, Mr. Sakaya has misinterpreted Veolia's claimed Public Fire cost of service for the Mahoning service territory. As indicated on Exhibit CEH-2, Schedule 3, page 5, the full cost of providing Public Fire service in the Mahoning service territory is $272,951, and $68,238 only reflects 25% of the Public Fire cost of service. Therefore, Mr. Sayaka's recommendation to maintain current Public Fire rates in the Mahoning service territory is unsupported and his rationale for doing so is not valid.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes, it does.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:		
v	:	Docket Nos.	R-2024-3045192
Veolia Water Pennsylvania, Inc.	:		R-2024-3045193
	:		

VERIFICATION

I, Jerome D. Mierzwa, hereby state that the facts above set forth in my Surrebuttal Testimony, OCA Statement 4SR, are true and correct (or are true and correct to the best of my knowledge, information, and belief) and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: June 21, 2024

Signature: Jerome D. Mierzwa

Jerome D. Mierzwa

Consultant Address: Exeter Associates, Inc. 10480
Little Patuxent Parkway, Suite 300
Columbia, MD 21044-3575

OCA St. SR5

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION	:	
	:	Docket No. R-2024-3045192
	:	(WATER)
v.	:	
	:	Docket No. R-2024-3045193
	:	(WASTEWATER)
VEOLIA WATER COMPANY PA., INC.	:	

SURREBUTTAL TESTIMONY

OF

TERRY L. FOUGHT

ON BEHALF OF

PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

JUNE 21, 2024

TABLE OF CONTENTS

VEOLIA WATER COMPANY WATER AND WASTEWATER OPERATIONS

1

TABLE OF EXHIBITS

Q MR. FOUGHT, DID YOU SUBMIT DIRECT TESTIMONY IN THE PROCEEDING ON BEHALF OF THE OFFICE OF CONSUMER ADVOCATE?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is to respond to portions of the rebuttal testimony by: Larry Finnicum, VWPA Statement No. 1-R.

Q. WHAT ISSUES ARE YOU GOING TO ADDRESS?

A. I am going to address the following issues addressed by Mr. Finnicum: (1) minimum fire flow at fire hydrants; (2) flushing dead end lines; (3) distribution storage tank maintenance and inspection; (4) information requested by OCA direct testimony; (5) unaccounted for water (UFW); and (6) customer complaints regarding quality of service contained in formal and informal complaints as well as public input hearing testimony that occurred during the rate case.

Q. ARE THERE OTHER ISSUES IN YOUR DIRECT TESTIMONY THAT MR. FINNICUM DID NOT REBUT?

A. Yes, Pressure Surveys, Complaint Logs and the Kensington and Overbrook Acquisitions. Mr. Finnicum did not rebut my Direct Testimony on those issues.

Minimum Fire Flow at Fire Hydrants

Q. WHAT IS MR. FINNICUM'S POSITION ON MINIMUM FIRE FLOW AT FIRE HYDRANTS?

A. As shown on page 6 of Mr. Finnicum's rebuttal testimony, his position is: (1) the Company will move forward in painting the bonnets of the identified fire hydrants on mains less than 6 inches in diameter in the color red as per the NFPA coding and (2) the Company will not move forward with Mr. Fought's recommendation in hiring a qualified engineer to prepare a hydraulic analysis of its public fire hydrants as the Company already has a hydraulic model of its distribution system.

Q. DO YOU AGREE WITH MR. FINNICUM'S POSITIONS?

A. I agree with Mr. Finnicum's first position described in (1) above and disagree with his second position described in (2) above.

Q. WHY DO YOU DISAGREE WITH MR. FINNICUM'S SECOND POSITION?

A. In Mr. Finnicum's second opinion, he assumes that all the Company's fire hydrants attached to mains 6-inch and larger meet the minimum fire flow criteria of providing 500 gallons per minute (gpm) at a residual pressure of 20 pounds per square inch (psi) for a duration of 2 hours without reducing the pressure in other areas of the distribution system to less than 20 psi. Mr. Finnicum testified that the Company has a hydraulic model of its distribution system but does not testify that the Company has up to date hydraulic models for all its distribution systems.

Q. WHAT DO YOU RECOMMEND?

A. The Company should provide documentation that it has hydraulic models of all its distribution systems, and it has determined that all its fire hydrants attached to water mains larger than 6-inch can provide the minimum fire flow criteria described above.

If the Company cannot provide that documentation for all its fire hydrants, then it should provide documentation indicating that other hydrants meet the minimum criteria from other sources such as PA Department of Protection (DEP) permit applications; hydrant flow tests performed by the Company, local fire departments or other qualified parties; and hydraulic analyses prepared by qualified engineers.

<u>Flushing Dead End Lines</u>

Q. WHAT IS MR. FINNICUM'S POSITION ON FLUSHING DEAD END LINES?

A. As shown on page 7 of Mr. Finnicum's rebuttal testimony, his position is: (1) for several years now, VWPA has executed a flushing program that is designed to remove sediments from its mains; (2) this program is run annually starting in early spring and wrapping up in late summer; (3) in addition to this one-time flushing, areas of concern of the distribution system are flushed on a six month or quarterly basis as system conditions warrant; (4) VWPA staff also actively flush lines in response to customer complaints using hydrants or installing blow offs if needed; (5) in addition, as part of VWPA's capital infrastructure replacement program, the elimination of dead ends via line extension or "looping" is examined as part of the planning process and included in construction when practical or necessary; and

(6) depending on the location of the water main, the installation of a blow off or flushing device can run $3,000 to $7,000 per location.

Q. WHAT IS YOUR RESPONSE TO MR. FINNICUM'S POSITIONS?

A. First, I want to repeat my recommendations regarding this issue from my Direct testimony as follows. "Veolia should install a flushing device to the dead-end line upon receiving a customer complaint that requires flushing that line. If agreeable to the customer, the Company can use the customer's facilities for flushing purposes by providing the customer a water usage credit."[1]

Second, I agree with all of Mr. Finnicum's positions with the possible exception of number (4) above where I also suggested using the customer's facilities for flushing purposes, if agreeable to the customer.

It is important that all complaints made by customers who are located on dead end lines must be included in the Complaint Log that the Company makes available in discovery.

Distribution Storage Tank Maintenance and Inspection

Q. WHAT IS MR. FINNICUM'S POSITION ON DISTRIBUTION STORAGE TANK MAINTENANCE AND INSPECTION?

A. As shown on pages 7 and 8 of Mr. Finnicum's rebuttal testimony, his position is that the Company will ensure that, when a distribution storage tank is more than 15 years old, it will be inspected by an experienced tank inspection contractor who

[1] OCA St. 5, p. 17.

will submit an inspection report as well as existing distribution storage tanks that have not been repainted for over 20 years will be inspected as well.

Q. WHAT IS YOUR RESPONSE TO MR. FINNICUM'S POSITION?

A. I agree with Mr. Finnicum's position, and this resolves my concern.

Information Requested by OCA Direct Testimony

Q. DID THE COMPANY RESPOND TO INFORMATION THAT OCA REQUESTED IN DIRECT TESTIMONY?

A. Yes. Mr. Finnicum presented information on customer meter age in Exhibit LKF - 1-R. See Exhibit TLF-20.

Q. DO YOU HAVE ANY COMMENTS CONCERNING VEOLIA'S METER AGE?

A. According to § 65.8 (b) *Periodic tests.* No public utility furnishing water service may allow a water meter of 1 inch or less nor a water meter of more than 1 inch to remain in service for a period longer than 20 years and 8 years respectively without testing it for accuracy and readjusting it if it is found incorrect beyond the limits established in subsection (a). As shown in Exhibit TLF-20, some of Veolia's 5/8-inch, 1-inch and greater than 1-inch customer meters exceed the recommended period.

Q. WHAT DO YOU RECOMMEND?

A. I recommend that Veolia submit a schedule with the Company's next rate case filng to the Commission, OCA and other parties indicating when they will be in compliance with the requirements of § 65.8 (b).

Unaccounted for Water (UFW)

Q. WHAT IS MR. FINNICUM'S POSITION ON UFW?

A. As shown on pages 8 and 9 of Mr. Finnicum testified that: (1) he agrees that "Unavoidable Leakage" should be included in UFW calculations; VWPA has received comments from the PUC that "Unavoidable Leakage" should not be included in UFW calculations (3) UFW was not submitted for each system where the Company completes Chapter 110 Reports due to employee turnover; (4) errors were made in the UFW included for 2020 and 2021 regarding the Bethel system submitted in their PUC Annual Reports; (5) corrected Form 500s will be submitted to the PUC; and (6) Exhibit LKF-2-R shows corrected UFW units for PA and Bethel.

Q. WHAT ARE YOUR COMMENTS CONCERNING THE UPDATED UFW SHOWN ON EXHIBIT LKF-2-R?

A. As shown on Exhibit TLF-21, the total UFW shown for Veolia's PA and Bethel combined systems is under 13%.

Q. WHY IS YOUR OPINION THAT "UNAVOIDABLE LEAKAGE" AS SHOWN ON PUC ANNUAL REPORT FORM 500 SHOULD BE INCLUDED IN THE UFW CALCULATIONS AND ACCEPTED IN REGARD TO THE 20% CRITERIA?

A. My opinion is based on the following: (1) the 20% criteria that the Commission has considered as excessive unaccounted for water is included in § 65.20 and was adopted in 1989; (2) the PUC Annual Report Form 500 has included the "unavoidable leakage" factor since 2009 or earlier[2]; and (3) the IWA/AWWA Water Loss Methodology was not in use in the United States until 2011 - 2014. See Exhibit TLF-22.

It is my opinion that using a Methodology, or portions of a methodology developed 22 years after the Commission set the 20% criteria is not usable for base rate cases.

Formal Complaints During the Rate Case and Public Input Testimony

Q. DID VEOLIA PROVIDE ADEQUATE RESPONSES TO THE QUALITY OF SERVICE ISSUES REGARDING FORMAL COMPLAINTS AND PUBLIC HEARING TESTIMONY THAT OCCURRED DURING THE RATE CASE?

A. Yes. Mr. Finnicum provided reasonable responses to the Public Input Hearing testimony of Doug Hassenbein. Mr. Finnicum explained in his rebuttal testimony that the water quality issues experienced by Mr. Hassenbein were due to a variety of convergent factors including: (1) "ice blockages" on the 6th St. Plant operations,

[2] Earliest date of Pennsylvania-American Water Company's and York Water Company's Annual Report included in the PUC website.

(2) “power outages” on the 6th St. Plant operations; (3) “fire hydrant usage”; and (4) the integrity of the Linglestown Road water line issues testified about at the PIHs. From the explanation provided in Mr. Finnicum’s testimony, the Company addressed each of the factors identified in my testimony, and I do not believe that further action is needed.

He also addressed a formal quality of service complaint by Mr. Solbergin regarding the removal fluoride in the Mechanicsburg system by noting that the Company followed proper notice and meeting protocols and obtained an approved PA DEP permit dated May 24, 2021.

Mr. Finnicum’s Position on the Kensington and Overbrook Acquisitions

Q. DOES MR. FINNICUM IN HIS REBUTTAL TESTIMONY SPECIFICALLY ADDRESS YOUR DIRECT TESTIMONY ABOUT THE KENSINGTON AND OVERBROOK ACQUISITIONS?

A. No. Mr. Finnicum relies upon the Direct Testimony of I&E witness Sakaya’s acceptance of the Company’s acquisition adjustments for the Kensington and Overbrook acquisitions.

Q. WHAT IS I&E’S POSITION ON THE KENSINGTON AND OVERBROOK ACQUISITIONS AS INCLUDED IN MR. FINNICUM’S REBUTTAL TESTIMONY?

A. I&E’s witness Sakaya recommended a positive acquisition adjustment for both the Kensington and Overbrook Systems because he asserted that Kensington was distressed and Overbrook was viewed by DEP to be a troubled water system.

Q. DO YOU AGREE ?

A. No, it is my opinion that both the Kensington & Overbrook Systems did not meet Section 1327(a)(3) for a positive acquisition for the following reasons:

Kensington. As noted on page 24 of my Direct Testimony, "On September 6, 2019 Suez indicated that there are no major deficiencies with the Kensington assets. As a result, SUEZ does not project any large capital improvement expenses for the first five years of SUEZ's ownership of the system. See Exhibit TLF-18". That does not describe a distressed system.

Overbrook. Also noted on pages 24 and 25 of my Direct Testimony, "page 9 of the Commission's Order indicates that Overbrook had only three DEP violations from 2016 through 2020 and according to TUS Data Request Set 1, A-11, those three violations concerned failure to filing Consumer Confidence Reports (CCRs) and routine monitoring. That does not describe a "troubled system". See Exhibit TLF-19".

Q. DOES THIS COMPLETE YOUR WRITTEN DIRECT TESTIMONY?

A. Yes, at this time. I reserve the right to supplement this testimony either in writing or orally if additional relevant information is received.

Exhibit TLF-20
(Meter Age)

#	Meter Size	Total Number	Average Age (years)	Maximun Age (years)
1	5/8-inch	63,603	10.14	41.00
2	3/4-inch	1,803	4.03	13.00
3	1-inch	1,801	8.97	31.00
4	> 1-inch	1,666	6.27	35.00
5	There are 66,319 meter records in PA (including Bethel), with all meters having installation dates and all meters having installation locations.			

Exhibit TLF-21
(UFW)

Updated TLF-15

Year 2020	PA	BE	PA & BE
Water Delivered	6,047,500,000	416,483,000	6,463,983,000
Total Sales	4,373,986,800	371,960,000	4,745,946,800
Total Allowances & Adjustments	883,926,000	14,992,000	898,918,000
Unaccounted for Water (UFW)	789,587,200	29,531,000	819,118,200
Percentage UFW	13.06%	7.09%	12.67%

Year 2021	PA	BE	PA & BE
Water Delivered	6,100,457,000	404,730,000	6,505,187,000
Total Sales	4,424,348,800	372,073,000	4,796,421,800
Total Allowances & Adjustments	939,325,000	16,029,000	955,354,000
Unaccounted for Water (UFW)	736,783,200	16,628,000	753,411,200
Percentage UFW	12.08%	4.11%	11.58%

Year 2022	PA	BE	PA & BE
Water Delivered	6,181,561,000	406,538,000	6,588,099,000
Total Sales	4,451,955,100	378,610,000	4,830,565,100
Total Allowances & Adjustments	942,354,000	16,032,000	958,386,000
Unaccounted for Water (UFW)	787,251,900	11,896,000	799,147,900
Percentage UFW	12.74%	2.93%	12.13%

Exhibit TLF-22
(UFW)

§ 65.20. Water conservation measures—statement of policy.

In rate proceedings of water utilities, the Commission intends to examine specific factors regarding the action or failure to act to encourage cost-effective conservation by their customers. Specifically, the Commission will review utilities' efforts to meet the criteria in this section when determining just and reasonable rates and may consider those efforts in other proceedings instituted by the Commission.

(1) *Education.* At least once a year a utility should provide each customer with a brochure or similar type of material which discusses efficient water use practices, the expensive waste caused by leaking plumbing fixtures, the availability of retrofitting plumbing devices to curtail unnecessary water use, and the possible savings on water and fuel bills that could ensue when these conservation methods are implemented.

(2) *Water audit for large users.* On an annual basis each large, nonresidential customer, such as a college, motel or health club, should receive, or be directed to the availability of the large water user audit procedure developed by the Department of Environmental Resources, or other, similar format, via a printed message on or with their bill.

(3) *Efficiency plumbing fixtures.* Customers should be notified annually that water-saving plumbing fixtures should be installed in new construction or when remodeling. If construction or renovations are not scheduled, customers should be encouraged to retrofit existing plumbing fixtures.

(4) *Unaccounted-for water.* Levels of unaccounted-for water should be kept within reasonable amounts. Levels above 20% have been considered by the Commission to be excessive.

(5) *Leak detection.* A system of leak detection should be utilized on a regular basis, with leaks being repaired as expeditiously and economically as possible.

(6) *Metering.* A comprehensive metering program should be in place which includes metering sources of supply, metering service to customers—aside from formally granted interim exemptions, and the regular testing and maintenance of meters in service.

(7) *Conservation plan.* The mandatory conservation contingency plan should be properly filed within each utility's tariff.

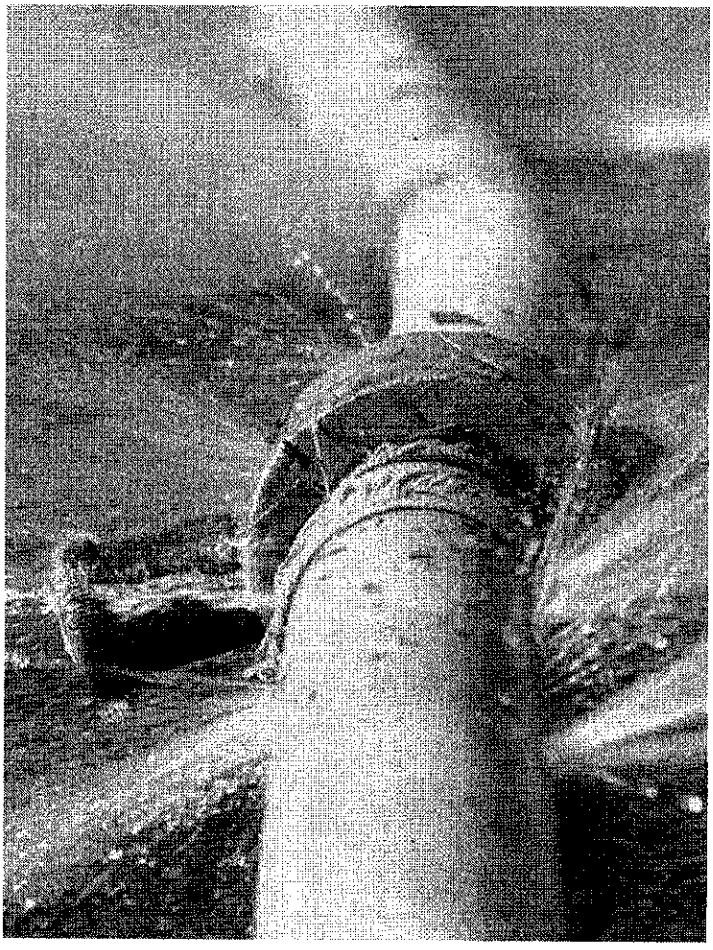
Authority

The provisions of this § 65.20 issued under the Public Utility Code, 66 Pa.C.S. § 523(b).

Source

The provisions of this § 65.20 adopted April 7, 1989, effective April 8, 1989, 19 Pa.B. 1575.

Minimize System Losses by Implementing Water Loss Controls



Water loss control represents the efforts of water utilities to provide accountability in their operation by reliably auditing their water supplies and implementing controls to minimize system losses.

Utilities incur real losses from pipeline leakage and apparent losses when customer water consumption is not properly measured or billed.

AWWA advocates the water audit method developed jointly by the International Water Association and AWWA.

Pressure Management: Options and Opportunities

For many drinking water utilities effective pressure management can help extend asset life, improve customer service, and reduce water losses and the risks of asset failures. This fact sheet, which was developed by AWWA's Water Loss Control Committee, provides a brief overview of pressure management and its benefits.

Key Performance Indicators for Non-Revenue Water – Water Loss Control Committee Report

This report, which was developed and approved by AWWA's Water Loss Control Committee, outlines the Association's position on the use of non-revenue water (NRW) key performance indicators (KPI). Building on the Committee's work to evaluate and update the KPIs in AWWA's *M36 Water Audits and Loss Control Programs* and Free Water Audit Software.

Assessment of Performance Indicators for Non-Revenue Water Target-setting and Progress Tracking

This report is part of the Water Loss Control Committee's work to evaluate and update the non-revenue water KPIs in AWWA's M36 Water Audits and Loss Control Programs and the associated Free Water Audit Software. The WLCC used information from the report to develop the *Key Performance Indicators for Non-Revenue Water* Committee Report, which recommends KPIs that utilities and regulators can use to assess and improve water loss control performance.

Governmental Policies for Drinking Water Utility Water Loss Control (2022)

The State of Water Loss Control in Drinking Water Utilities (2016)

State by State Water Loss Policy Map (2016)

Best Practice in Water Loss Control Flyer (2015)

Tools for Water Audit Analysis

AWWA Water Audit Compiler

The AWWA Water Audit Compiler© (Compiler) can be used to quickly assemble water audit data from multiple water utilities; allowing for comparisons of data across water utilities. The Compiler can also be used to compile multiple years' of water audit data for a single utility; allowing the water efficiency history of a water utility to be viewed at a single glance.

The IWA/AWWA Water Audit Method provides the best management practice tools and guidance water utilities need to efficiently manage their supplies.

Tools for Water Audit Analysis

AWWA Water Audit Software

The new version of the AWWA Free Water Audit Software (v6.0 2020) is now available. This software is the industry standard tool for conducting the annual water audit and using the results to guide a program for cost-effective water loss control and revenue recovery. It first came out nearly 15 years ago, and is now used throughout North America and in other countries around the world.
Version 6 represents a major evolution of this tool – incorporating over 1,000 improvements from user-provided comments. Key upgrades include a new Interactive Data Grading feature; a new Performance Indicator Dashboard providing more visibility into how well you are doing and how you can improve; and a streamlined user experience.

Water Audit Reference Dataset

A summary of the AWWA Water Audit Reference Dataset (WARD) is now available for download by filling out the form.
The WARD was created by AWWA's Water Loss Control Committee (WLCC) to help utilities compare their attributes and key performance indicators (KPIs) with other utilities.

- Technical Resources
- Events & Education
- Policy & Advocacy
- Get Involved
- Related Resources

AWWA Manuals
M36 Water Audits and Loss Control Program, Fourth Edition
Technical Guidance

Since the water audit results provide an annual real loss volume that is determined as a catch-all quantity remaining after all of audit components are input, very limited insight is given for leakage control purposes when compiling the water audit. The LCA Model was designed to pick up where the AWWA Free Water Audit Software leaves off, in terms of leakage assessments. The LCA Model provides the water industry with an easy-to-use spreadsheet tool to conduct a leakage component analysis, determine the water utility's failure frequency analysis, provide guidance to set the economic leakage control intervention strategy, and display key water loss performance indicators.

Project 4372b entitled Water Audits in the United States: A Review of Water Losses and Data Validity summarizes state regulations on water loss reporting and analyzes 4,575 water audits (that follow AWWA water audit methodology) submitted to the California Urban Water Conservation Council, Georgia EPD, Texas Water Development Board, Tennessee Comptroller of the Treasury, and the Delaware River Basin Commission from 2011-2014. The results provide a national snapshot of water loss reporting, including an assessment of water audit validity and median results for key performance indicators.

Validated Water Audit Data

The AWWA Water Loss Control Committee has been collecting and validating water audit data from up to 30 North American utilities using the IWA/AWWA Water Loss Methodology from 2011 to 2017. In the inaugural year, water loss findings from 21 North American utilities were presented in an analysis report, and validated audits have been added to the North American dataset each subsequent year.

A subsequent analysis and peer-reviewed article was developed in 2016 for *Journal AWWA*. This project is known as the Water Audit Data Initiative (WADI), and was sunset in 2017. Data from all seven years of the WADI can be downloaded from the links below. The AWWA Water Loss Control Committee wishes to thank all utility participants over the years for agreeing to share their data.

- 2011 Validated Water Audit Data for Reliable Benchmarking analysis report
- 2011 Validated Water Audit Data
- 2012 Validated Water Audit Data
- 2013 Validated Water Audit Data
- 2014 Validated Water Audit Data
- 2015 Validated Water Audit Data
- 2016 Validated Water Audit Data
- 2017 Validated Water Audit Data

Pennsylvania-American Water (Company Name) — For the Year Ended December 31, 2009

500. WATER DELIVERED INTO SYSTEM DURING YEAR

Every estimated value shall be supported by such detailed information as will permit a ready identification, analysis, & verification of all relevant facts. The Company shall be prepared to furnish to the Commission this detailed information.

Line No.	Description (a)	(Gallons) (b)	(gpd) (c)
1	**Water Delivered for Distribution & Sale:**		
2	Water Obtained from Company Sources	74,311,450	203,593
3	Water Obtained from Other Independent Utilities	939,112	2,573
4	**Total Water Delivered**	75,250,562	206,166
5	**Metered Sales:**		
6	Residential	28,933,869	79,271
7	Commercial	12,782,917	35,022
8	Industrial	4,021,597	11,018
9	Public	2,431,264	6,661
10	Other Water Utilities	582,327	1,595
11	Private Fire Protection		
12	Public Fire Protection		
13	Other Metered Sales Identify		
14	**Total Metered Sales**	48,751,974	133,567
15	**Unmetered Sales:**		
16	Residential	59,207	162
17	Commercial		
18	Industrial		
19	Private Fire Protection		
20	Public Fire Protection		
21	Other Unmetered Sales Identify		
21	**Total Unmetered Sales**	59,207	162
22	**Total Sales**	48,811,181	133,729
23	**Non-Revenue Usage Allowances:**		
24	**Authorized Unmetered Usage:**		
25	Main Flushing	304,257	834
26	Blow-off Use	362,289	993
27	Others: Identify See attachment below	520,156	1,425
28	Unauthorized Use	66,280	182
29	Unavoidable Leakage 2041 gpd/mile of main	7,525,112	20,617
30	Adjustments:		
31	Located & Repaired Breaks in Mains & Services	4,115,525	11,275
32	Others Identify		
33	**Total Allowances & Adjustments**	12,893,619	35,325
34	**Unaccounted-for-Water**	13,545,762	
35	**Percentage Unaccounted-for-Water**	18.0%	

Other Authorized Unmetered Usage

Office Use	33,761
Meter Shop Use	3,713
Draining Storage	40,966
Street Cleaning/Sewer Flushing/Fire Usage	82,268
Identified Fire Usage	276,294
Other	69,706
Goodwill	13,448
	520,156

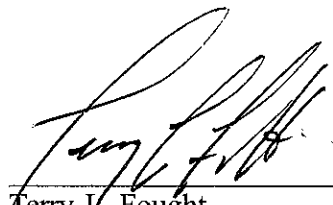
BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
v.	:	Docket Nos. R-2024-3045192
Veolia Water Pennsylvania, Inc.	:	R-2024-3045193

VERIFICATION

I, Terry L. Fought, hereby state that the facts above set forth in my Surrebuttal Testimony, OCA Statement 5SR, are true and correct (or are true and correct to the best of my knowledge, information, and belief) and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: June 21, 2024

Signature: 

Terry L. Fought

Address: 780 Cardinal Drive
Harrisburg, PA 17111

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	Docket No.: R-2024-3045192 (Water)
v.	:	R-2024-3045193 (Wastewater)
	:	
Veolia Water Pennsylvania, INC	:	

SURREBUTTAL TESTIMONY

OF

Nicholas A. DeMarco

On behalf of the

PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

Date Served: 6/21/2024

Table of Contents

Introduction

Q. Mr. DeMarco, did you previously provide testimony in this proceeding on behalf of the Office of Consumer Advocate?

A. Yes. My initial testimony was submitted as OCA Statement 6. I am a Regulatory Analyst for the Office of Consumer Advocate. My Testimony covered the Low-Income Program proposed by Veolia.

Q. What is the purpose of your surrebuttal testimony?

A. The purpose of my surrebuttal testimony is to respond to Veolia witness Jordan[1] rebuttal testimony regarding the Company's Low-Income program or Customer Assistance Program (CAP) and Company Witness Cagle[2] regarding how the Company plans to fund their CAP program.

Summary

Q. Please summarize those areas where the Company and the OCA continue to have differences regarding the Low-Income Program.

A. The OCA and the Company disagree about the following:

- The structure of the Company's Bill Discount Program. (BDP). The Company argues that the facts and logic behind my recommended adjustments are not reasonable.[3]
- Arrearage forgiveness: The Company and the OCA still differ on the timeline for full forgiveness.
- A claimed mischaracterization about Company outreach

[1] Veolia St. No. 7-R
[2] Veolia St. No. 6-R
[3] Veolia St. No. 7-R pg. 10 ln. 4-11

- The use of the Commission's CAP Policy Statement as a framework for new low-income programs.
- Funding for the CAP program
- And additional grants funds for wastewater customers under the Veolia Cares Program: The OCA and the Company still differ on the total grant amount that should be available to Veolia wastewater customers.

Q. Please provide an overview of your surrebuttal testimony.

A. Following a review of Veolia's rebuttal testimony, there are still some concerns to be addressed regarding the Company's low-income program offerings. The OCA is still concerned about the number of discounts tiers offered by Veolia and the discount allotted for each of those tiers. In Rebuttal Testimony, Ms. Jordan continues to hold the stance that three tiers are sufficient while the OCA supports a four tired system, or alternatively, greater discounts within the three tiers.[4] Ms. Jordan argues that the data the OCA used to base its expanded tier program is unreasonable due to size of the dataset used to make this determination.[5] Ms. Jordan also clarified that the Company will offer two separate arrearage forgiveness programs, a plan they are statutorily obligated to offer for customers at any income level (or payment arrangements) and the new and separate CAP plan.[6] This clarification in her Rebuttal Testimony alleviates some of the OCA's concerns around the program. However, the OCA and the Company still differ on the total time of forgiveness and the timeliness of payments towards forgiveness.[7]

[4] Veolia St. No. 7-R pg. 3 ln. 7-18
[5] Veolia St. No. 7-R pg. 8 ln. 4-17 & pg. 9-10 ln. 1-3
[6] Veolia St. No. 7-R pg. 13-15 ln. 18-11
[7] Veolia St. No. 7-R pg. 18 ln. 5-15

In addition, I address my concerns regarding the Company's Community Education and Outreach plan. The OCA maintains the position that the Utility Companies should use the Commission's Policy Statement on Customer Assistance Programs[8] as a framework to develop their low-income programs even if the statement does not apply directly to said utility. The Company and the OCA still differ in the funding of the program, in both the cost recovery mechanism[9,10] and the total possible low-income customer population who would participate[11,12]. Lastly, the OCA and the Company still differ on the total emergency grant amount available through its Veolia Cares program to wastewater customers.[13] The Company has not changed its stance still citing lack of wastewater customer interest[14].

ALICE

Q. Does Company witness Jordan comment on your use of ALICE data?

A. Yes. In her rebuttal testimony Company witness Jordan comments on my use of the ALICE data and my comment stating that the FPL is not a realistic measure of affordability. I would like to reiterate that the ALICE data is important and useful as a measure of affordability because it measures the number of customers living on a survival budget. A survival budget is meant to measure the minimum amount that a household can earn and afford life's necessities with little to no government assistance.[15] As utility rates continue to climb these customers are going to need more and more bill

[8] 52 Pa. 2 Code §§ 69.261-69.267
[9] Veolia St. No. 7-R pg. 24-25 ln. 8-4
[10] Veolia St. No. 6-R pg. 3 ln. 1-14
[11] Veolia St. No. 7-R pg. 23-24 ln. 16-7
[12] Veolia St. No. 6-R pg. 6 ln. 5-10
[13] Veolia St. No. 7-R pg. 4 ln. 8-14
[14] Veolia St. No. 7-R pg. 28 ln. 6-21
[15] https://www.unitedforalice.org/wage-tool

assistance. Knowing the number of potential customers who fall within the ALICE range can help a utility design a low-income program that is better tailored to the needs of their customers.

Bill Discount Program

Q. Did the Company choose to adopt any of the OCA's recommendations for the Bill Discount Portion (BDP) of its CAP?

A. No. The Company refrained from adopting any of the OCA's recommendations to its BDP.

Table 1 – Veolia's Proposed Low-Income Discount

Poverty Level	Service Charge Discount	Volumetric Discount	Monthly bill based on 3,500 gallons
0-100%	$0 fixed charge	$0 First 2,000 gallons	$17.55
101-150%	$0 fixed charge	$0 First 1,000 gallons	$29.25
151-200%	$0 fixed charge	No Discount	$60.75

Q. Please summarize what the OCA recommended.

A. **Table 2 – OCA Proposed Alternate Low-Income Discount**

Income % of FPL	Fixed Charge Discount	Fixed Charge[16]	Volumetric Charge Discount	Monthly bill based on 3,500 gallons
0-50	40%	$11.88	$0 for first 6,000 gallons	$11.88
51-100	40%	$11.88	$0 for first 5,500 gallons	$11.88
101-150	40%	$11.88	$0 for first 4,000 gallons	$11.88
151-200	40%	$11.88	$0 for first 2,500 gallons	$23.58

[16] The fixed charge is calculated using Veolia's proposed customer charge. This could be lower if OCA witness Mirzwa's recommendation is adopted by the Commission.

The proposed discount plan formulated by the OCA was based on an affordable Bill-to-Income[17] ratio for Veolia's low-income water customers and data provided by the Company.[18,19] The data from the Company showed that the low-income customers were using water at a higher rate than non-low-income customers.

Q. Did Company witness Jordan comment on the use of this data?

A. Yes. Ms. Jordan stated that the 662 customers represented in the information provided by the Company are only a small subset of Veolia's total customers. She also states that by the OCA asking for these customers to be broken down into small subsets (by 50% of FPL) the already small dataset could more easily be skewed.[20]

Q. Do you have any comments regarding the data used to formulate the OCA's proposed Volumetric Charge Discount?

A. Yes. The Company and I both recognize that the data can easily be skewed due to the relatively small customer count, approximately 1%[21] of Veolia Pennsylvania's total customer base. However, the Company estimated that they will only have a CAP participation rate of 1,625 customers, an already small subset of customers.[22] Assuming that the Company's proposed participation level is accurate, approximately 40%[23] of the Company's estimated 1,625 participants should be considered a large enough sample size to help estimate what usage rate low-income customers are using water.

---

[17] Guidance: Coordinating CSO Long-term Planning with Water Quality Standards Reviews." pp. 31-32 (July 2001),
available at https://www3.epa.gov/npdes/pubs/wqs_guide_final.pdf.)
[18] OCA-5-26 attachments A&B
[19] OCA-5-26 attachments C/D
[20] Veolia St. No. 7-R pg. 8 ln. 4-17
[21] 65,000 * .01 = 650
[22] Veolia St. No. 7-R pg. 8 ln. 4-17
[23] 662/1625= .407 or 41%

Q. Did Ms. Jordan or Mr. Cagle state any other reasons not to adjust the bill discount portion of the proposed CAP program?

A. Yes. Ms. Jordan stated that the program is new and that changes to the program could cost additional administrative fees.[24] In his testimony Mr. Cagle was also weary of changes due to the possible increased cost of the new program.[25]

Q. In light of the issues raised by Veolia, have you changed your position on the proposed alternative discount structure?

A. While I continue to recommend that Veolia address affordability at a deeper level than their proposal would allow and believe that my recommendations in direct would increase affordability, I am cognizant of the cost uncertainties and administrative complexities that were raised by Ms. Jordan. In order to address the small sample size of the Company data, the possible administrative burden, and the fact that this is a brand-new program, the I propose an alternative recommendation that should be simpler to implement.:

Table 3 – OCA Compromise

% of FPL	Customer Charge	Volumetric Discount	Monthly bill based on 3,500 gal
0-50	0	$0 for first 3000 gallons	$5.85
51-100	0	$0 for first 2000 gallons	$17.55
101-150	0	$0 for first 1000 gallons	$29.25
151-200	0	$0 for first 500 gallons	$35.10

[24] Veolia St. No. 7-R pg. 13 ln. 4-12
[25] Veolia St. No. 6-R pg. 6 ln. 1-16

Q. Do you have any comments?

A. While the OCA's Surrebuttal recommendation is not as ideal as the OCA's initial proposal, the recommendation I make above will still help to provide a level of affordability to those customers in need. The above proposal the OCA deems to be a compromise between the ideas and concerns of both the Company and CAUSE- PA. The addition of a 4th tier encompassing those at 151%-200% FPL helps to assist those households who are above the poverty threshold but nevertheless struggling.

Q. Do you have an additional comment regarding the volumetric usage rate of Veolia's low-income customers?

A. Yes. As the CAP program grows, Veolia should gather more data related to its customer usage rates to better estimate the cost of the program going forward and better tailor it to the needs of its customers.

Arrearage Forgiveness Program

Q. Did Veolia change its stance on its Arrearage Forgiveness Program?

A. No.

Q. Did Veolia provide additional clarity to its Arrearage Forgiveness Program in its rebuttal testimony?

A. Yes. Ms. Jordan provided further clarity about the difference between its existing payment arrangement program and the program proposed in the Company's CAP proposal. Ms. Jordan's table clearly indicates the differences between the existing Payment Arrangement program that is required by regulation (on the left) and the proposed CAP arrearage forgiveness program (on the right). The main differences being that the existing program does not require a customer to be in CAP nor does it have a

FPL requirement, while the proposed CAP plan does. The other important difference is that a customer in the existing plan must pay their bill and the additional payment arrangement amount. In the CAP program the customer must only make timely payments of the CAP bill to receive $25 in arrearage forgiveness.

Table 4 – Difference in Payment Arrangements[26]

Not Part of the CAP	Element of the CAP
Existing Payment Arrangement	**Arrearage Forgiveness Payments**

• Required by Regulation
• Available to customers regardless of income level
• Flexible payment arrangement
  ○ Up to 5 years to pay off balance in accordance with Exhibit JMJ-2
• Payment arrangement scale is based on FPL
• Must pay current bill PLUS the payment plan
	• Must be enrolled in CAP
	• Eligibility 0- 200% FPL
	• Freezes the amount in arrears at time of enrollment
	  ○ Arrears are not required to be paid down by a payment arrangement
	• Must pay *current* bill on time to receive $25 arrearage forgiveness
	• Allows for a 5 day payment grace period

Q. What concerns of the OCA does this clarification alleviate?

A. This clarification alleviates the following OCA concerns:

- A customer's arrears will be frozen upon enrollment in CAP.
- There will be no co-pay associated with program

Q. What concerns of the OCA does the clarification not alleviate?

A. The OCA is still concerned about the 5-day grace period. While the OCA appreciates the Company's attempt to assist customers who are payment troubled, 5 days may not be enough to help customers on fixed incomes or with inconsistent income. Thus, the OCA

[26] Veolia St. No. 7-R pg. 15

continues to recommend that customers receive forgiveness for each in-full payment regardless of whether the payment is timely. Allowing customers to earn credit forgiveness for each payment they make in full, recognizes the reality that low-income households often do not have the financial flexibility needed to pay all bills on time, but this would reward customers who pay their bills in full.

Secondly, the OCA still recommends that Veolia adopt a program in which, after 36-months of in-full payments the remainder of a customer's debt is forgiven. This is consistent with the Commission's CAP Policy Statement. While not binding, the CAP Policy Statement should be considered an acceptable framework from which utility companies can base their CAP policy, as it is an acceptable framework to the Commission itself. The 36-month arrearage forgiveness program would also allow customers with exceedingly large debts to be free from perpetual debt to the Company.

Community Outreach

Q. Does Ms. Jordan believe that you mischaracterized her direct testimony?

A. Yes. Company witness Jordan states in her rebuttal testimony that on page 11 of my direct testimony I mischaracterized her direct testimony regarding the Company's outreach and education plan relating to the CAP program. She states:

> "Mr. DeMarco mischaracterized my direct testimony, construing it to mean that the Company will only inform customers about the CAP program when they have problems paying their bill. Here is the full excerpt from my testimony:
>
> > Yes, the Company will continue to participate in community events and work with local agencies and also work with the customer service team to provide awareness to the customers we serve. I believe our customers will be reaching out to the Company for assistance on payment arrangements and termination notifications, and out customer service staff will be available to assist. In addition, the Company's website will be updated and the

> Company will provide bill inserts with program information."[27]

Q. What did you say on pages 10-11 of your direct testimony related to the Company's outreach plan?

A. I stated the following on pages 10-11 lines 16-4 in my direct testimony:

> "Yes. The Company states that it will continue to participate in community level events and work with local agencies. It will also work with the customer service team to bring awareness of the assistance programs to customers. The Company believes that customers will be able to be enrolled in the programs when the customers reach out to the Company for assistance with payment arrangements and terminations. This seems to mean that the Company will inform customers of the CAP program when they approach the Company when they have a difficult time paying their bill. The Company will also update its website.[28]"

Q. Do you believe that you mischaracterized Company witness Jordan's direct testimony in your testimony?

A. No, I do not believe that I mischaracterized Company witness Jordan's direct testimony. While I did not verbatim reiterate the Company's outreach plan, I did mention the ways that Company would continue its already existing outreach efforts. I did not say that the Company would ONLY inform a customer of the CAP program if the customer was already in financial trouble, as Ms. Jordans seems to think.

Q. Does the further explanation of the Company's plan by witness Jordan alleviate the OCA's concern?

A. Some but not all. While the clarification that Company witness Jordan provides in her rebuttal alleviates some of my concerns, such as the creation of a marketing plan

[27] Veolia St. No. 7-R pg. 20 ln. 1-12
[28] VWPA St. No. 7 pg. 11 ln. 9-17

designed to provide outreach to their customers[29] I still have the concern about the Company's estimate that only 1,625 or only roughly 3% of its customers[30] will or could participate in the CAP program. My concern stems from this lower estimate compared to a higher estimate from the OCA using ALICE data[31] where it is estimated that over 15,000 customers could be eligible for the program. To fully alleviate my concerns the Company should provide low-income customer outreach targets in its marketing plan at the next LIAC meeting and adjust in the future as the Company collects data on its possible low-income customer population.

Table 5 – ALICE Statistics of the Counties Served by Veolia

County	Percent of Total Population in Poverty[32]	Percent of Total Population at the ALICE Threshold	Number of Veolia Customers[33]	Potential Number of Customers at the ALICE Threshold[34]
Berks	13%	28%	2,452	686
Columbia	16%	28%	5,867	1,642
Cumberland	7%	26%	13,518	3,531
Dauphin	11%	25%	30,687	7,671
Franklin	9%	25%	73	18
Luzerne	14%	27%	369	99
Montour	10%	30%	1,243	372
Perry	9%	29%	1,287	373
Schuylkill	12%	28%	118	33
Wyoming	10%	27%	104	28
York	9%	29%	2,424	702
Total				15,155

[29] Veolia St. No. 7-R pg. 20 ln. 12-20
[30] Veolia St. No. 7-R pg. 8 ln. 4-17
[31] https://www.unitedforalice.org/county-reports/pennsylvania (also used for Percent of Total Population at ALICE Threshold)
[32] https://www.unitedforalice.org/county-reports/pennsylvania (also used for Percent of Total Population at ALICE Threshold)
[33] Response OCA-5-24 Attachment
[34] Percentage of ALICE Population*Number of Veolia Customers

CAP Policy Statement

Q. Does Company witness Jordan comment on your reliance and recommendations based on the Commission's CAP Policy Statement?

A. Yes.[35] Company witness Jordan and I both agree that the CAP Policy Statement does not directly apply to water utilities. However, I believe that the CAP Policy Statement provides important policy guidance from the Public Utility Commission about the Company's arrearage management program and has been the foundation for many long running. It should be considered a framework from which to build a viable CAP program.

Downward Adjustment/Program Cost

Q. Does Company witness Jordan take issue with the way you estimated the potential cost of the program with the OCA's adjusted discount?

A. Yes. Ms. Jordan indicates that because I did not estimate the proposed cost of the program at my estimated low-income usage rates or at the possible number of customers who would participate based on ALICE data, that I am not "comparing apples to apples".[36] I have to disagree with the premise of comparing apples to apples. In an attempt to compare what the Company expects with how the OCA believes the discounts should be structured to best meet the affordability of its customers, I decided to use the Company's numbers. Additionally, the ALICE data estimate of 15,155 is, in fact, lower than what the Company data suggests could be the total population of eligible low-income customers in the service territory (OCA-5-5 Attachment 1). In OCA-5-5 Attachment 1, the Company gives a breakdown of the total number of customers it has. In her direct testimony Ms. Jordan stated that Veolia estimates that 32% of customers could be eligible for their CAP

[35] Veolia St. No. 7-R pg. 17 ln. 11-16
[36] Veolia St. No. 7-R pg. 26-27 ln. 15-9

program. In my direct testimony I show that using the customer data from OCA-5-5 and the 32% provided by the Company, up to 19,000 low-income customers could be eligible for CAP .[37] [38] The Company chose to estimate 3% participation levels knowing that the participation could be much higher.

Q. Did the Company take issue with the way in which the OCA estimated the administrative costs?

A. Yes. The Company took issue with my downward adjustment from $200,000 to $118,445 based on the costs of existing CAP programs and existing Company infrastructure.[39] The Company states that the infrastructure they have in place is not suitable for a full-sized CAP program. [40]

Q. Do you have any comments?

A. Yes, as I stated in my testimony the estimates that I used were based on existing CAP programs and LIHEAP. While I understand Ms. Jordan's concerns that these more mature and larger programs may have less administrative costs, I continue to think that the Company's estimates were high and, I continue to recommend that the Company use the OCA's estimated administrative costs.

[37] Veolia St. No. 7 pg. 10-11 ln. 5-14
[38] OCA St. No. 6 pg. 34 ln. 15-20
[39] OCA St. No. 6 pg. 32-33 ln. 6-10
[40] Veolia St. No. 7-R pg. 25-26 ln. 6-6

Wastewater Grant

Q. Did Company witness Jordan disagree with your recommendation that the VWPA emergency wastewater grant be increased from $150 to $300 in line with its emergency water grant?

A. Yes. The Company states that because the funds from for the emergency grants are shareholder dollars, that the Commission should not and could not direct where and how these funds are used. Although the Company acknowledges that additional contribution levels for the grant program could be discussed during this rate case. Additionally, the Company states that there is a low number of sewer customers and they have not received a request for a sewage grant.[41]

Q. Do you have any comments?

A. Yes. I continue to recommend that the grant be increased to $300. Simply because there is a small number of customers and that the Company has yet to receive a request, does not mean there is a difference in importance of water or wastewater service. A customer cannot have water service without wastewater service. The data demonstrates the likelihood of ongoing affordability challenges for households with Veolia wastewater service. While I do not, in this proceeding, recommend a wastewater discount program[42], I do think that it would be beneficial to households to have access to the same grant for wastewater service as for water service if needed.

[41] Veolia St. No. 7-R pg. 26-27 ln. 6-2
[42] OCA St. No. 6 pg. 29 ln. 3-10

Conclusion

Q. Please summarize your conclusion.

A. In conclusion, the OCA has suggested reasonable and targeted alternatives to the overall CAP discount for the reasons set forth above and in my previous testimony.

The OCA continues to recommend that the Company collect data about its low-income program and population to propose any further needed adjustments during its next rate case. Both OCA and Company data indicate that there are thousands more customers who could sign-up and benefit from this program and Company should be ready to respond accordingly.

Additionally, Veolia should adopt an arrearage forgiveness program under which at the end of 36 in-full payments, the remainder of any outstanding preprogram arrears would be forgiven.

The Company should continue its outreach program to inform and educate its customers.

Finally, the Company should increase its emergency wastewater grant to that of its water customers.

Q. Does this conclude your testimony?

A. Yes.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:		
v.	:	Docket Nos.	R-2024-3045192
Veolia Water Pennsylvania, Inc.	:		R-2024-3045193

VERIFICATION

I, Nicholas A. DeMarco, hereby state that the facts above set forth in my Surrebuttal Testimony, OCA Statement 6SR, are true and correct (or are true and correct to the best of my knowledge, information, and belief) and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: June 21, 2024

Signature: */s/ Nicholas A. DeMarco*
Nicholas A. DeMarco

Address: Office of Consumer Advocate
555 Walnut Street
5th Floor, Forum Place
Harrisburg, PA 17101-1923