COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA PUBLIC UTILITY COMMISSION
COMMONWEALTH KEYSTONE BUILDING
400 NORTH STREET, HARRISBURG, PA 17120

BUREAU OF
INVESTIGATION
&
ENFORCEMENT

January 9, 2025

Via Electronic Filing
Secretary Rosemary Chiavetta
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120

Re: Pennsylvania Public Utility Commission v.
The Newtown Artesian Water Company
Docket No. R-2024-3050208
I&E Pre-Served Testimony, Exhibits, and Verification Statements

Enclosed for electronic filing please find the Bureau of Investigation and Enforcement's (I&E) Pre-Served Testimony, Exhibits, and Verification Statements in the above-captioned proceeding. The following documents were admitted into the record via the Order Granting Joint Stipulation for Admission of Evidence filed on January 7, 2025:

Vanessa Okum:	I&E Statement No. 1	I&E Exhibit No. 1
D. C. Patel:	I&E Statement No. 2	I&E Exhibit No. 2
Esyan Sakaya:	I&E Statement No. 3	I&E Exhibit No. 3
Vanessa Okum:	I&E Statement No. 1-SR	
D. C. Patel:	I&E Statement No. 2-SR	I&E Exhibit No. 2-SR
Esyan Sakaya:	I&E Statement No. 3-SR	I&E Exhibit No. 3-SR

Verification Statements of Vanessa Okum, D. C. Patel, and Esyan Sakaya

Copies of this letter are being served on parties of record per the attached Certificate of Service. Should you have any questions, please do not hesitate to contact me.

Sincerely,

Michael Podskoch

Michael A. Podskoch, Jr.
Prosecutor
Bureau of Investigation and Enforcement
PA Attorney ID No. 330132
(717) 783-6151
mpodskoch@pa.gov

MAP/ac
Enclosures

cc: Administrative Law Judge Eranda Vero (*Cover Letter and Certificate of Service only - via email)*
Per Certificate of Service (*Cover Letter and Certificate of Service only - via email*)

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No. R-2024-3050208
	:	
The Newtown Artesian Water Company	:	

CERTIFICATE OF SERVICE

I hereby certify that I am serving the foregoing **Letter Regarding Pre-Served Testimony, Exhibits, and Verification Statements** dated January 9, 2024, in the manner and upon the persons listed below:

Served via Electronic Mail Only

Courtney L. Schultz, Esq.
Shane P. Simon, Esq.
Saul Ewing LLP
1500 Market Street, 38th Floor
Philadelphia, PA 19102
courtney.schultz@saul.com
shane.simon@saul.com
Counsel for NAWC

Christy M. Appleby, Esq.
Kathrine M. Kennedy, Esq.
Office of Consumer Advocate
555 Walnut Street
5th Floor, Forum Place
Harrisburg, PA 17101-1923
OCANAWC2024@paoca.org

Thomas J. Walsh, III, Esq.
Newtown Artesian Water Company
3655 Route 202, Suite 105
Doylestown, PA 18902
twalsh@twalshlaw.com
Counsel for NAWC

Steven C. Gray, Esq.
Office of Small Business Advocate
555 Walnut Street
1st Floor, Forum Place
Harrisburg, PA 17101
sgray@pa.gov

Michael Podskoch

Michael A. Podskoch, Jr.
Prosecutor
Bureau of Investigation and Enforcement
PA Attorney ID No. 330132
(717) 783-6151
mpodskoch@pa.gov

I&E Statement No. 1
Witness: Vanessa Okum

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

NEWTOWN ARTESIAN WATER COMPANY

Docket No. R-2024-3050208

Direct Testimony

of

Vanessa Okum

Bureau of Investigation and Enforcement

Concerning:

OPERATING & MAINTENANCE EXPENSES

CASH WORKING CAPITAL

TABLE OF CONTENTS

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Vanessa Okum, 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 EMPLOYMENT BACKGROUND?

A. An outline of my education and employment background 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 the 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 review the base rate filing of Newtown Artesian Water Company (NAWC or Company) and make recommended adjustments to the Company's proposed operating and maintenance (O&M) expenses and cash working capital claims for the fully projected future test year (FPFTY) ending March 31, 2026. I also present the overall I&E recommended revenue requirement based on my adjustments and the adjustments of the other I&E witnesses.

Q. DOES YOUR DIRECT TESTIMONY INCLUDE AN EXHIBIT?

A. Yes. I&E Exhibit No. 1 contains schedules that support my direct testimony.

Q. WHAT TEST YEARS HAS NAWC USED IN THIS PROCEEDING?

A. The Company is using the twelve months ended March 31, 2024 as the historic test year (HTY), the twelve months ending March 31, 2025 as the future test year (FTY), and the twelve months ending March 31, 2026 as the FPFTY in this proceeding.[1]

Q. WHAT IS THE COMPANY'S REQUESTED REVENUE INCREASE?

A. The Company is requesting a total annual revenue increase of $922,419 based

[1] NAWC Statement No. 2, p. 2.

upon the FPFTY pro forma revenue requirement.[2]

SUMMARY OF RECOMMENDED ADJUSTMENTS

Q. PLEASE SUMMARIZE YOUR RECOMMENDED ADJUSTMENTS.

A. The following table summarizes my recommended adjustments:

	NAWC Claim	I&E Recommended Allowance	I&E Adjustment
O&M Expenses:			
Rate Case Expense	$161,667	$97,000	($64,667)
Employee Welfare	$231,809	$186,809	($45,000)
Total O&M Adjustments			**($109,667)**
Rate Base Adjustments:			
Cash Working Capital	$642,579	$366,917	($275,662)
Total Rate Base Adjustments			**($275,662)**

SUMMARY OF OVERALL I&E POSITION

Q. WHAT IS I&E'S TOTAL RECOMMENDED REVENUE REQUIREMENT?

A. I&E's total recommended revenue requirement for NAWC is $7,224,471. This recommended revenue requirement represents an increase of $629,483 to the Company's claimed present rate revenues of $6,594,988. This total recommended allowance incorporates my adjustments made in this testimony to O&M expenses and cash working capital and those recommended adjustments made in the

[2] NAWC Statement No. 2, p. 3 and NAWC Exhibit GRH-1, p. 11.

testimony of I&E witness D.C. Patel.[3] A calculation of the I&E recommended revenue requirement is shown below:

Newtown Artisian Water Company		TABLE I			
R-2024-3050208		INCOME SUMMARY			
	3/31/26	INVESTIGATION & ENFORCEMENT			
	Proforma	[----------			]
	Present Rates	Adjustments	Present Rates	Allowances	Proposed
	$	$	$	$	$
Operating Revenue	6,594,988	0	6,594,988	629,483	7,224,471
Deductions:					
O&M Expenses	4,605,898	-109,667	4,496,231	0	4,496,231
Depreciation	817,790	0	817,790		817,790
Taxes, Other	503,594	0	503,594	4,010	507,604
Income Taxes:					
Current State	26,699	9,223	35,922	49,975	85,897
Current Federal	108,386	22,303	130,689	120,855	251,544
Deferred Taxes/Amort Reg Liab	33,684	0	33,684		33,684
ITC	0	0	0		0
Total Deductions	6,096,051	-78,141	6,017,910	174,840	6,192,750
Income Available	498,937	78,141	577,078	454,643	1,031,721
Measure of Value	14,506,299	-275,662	14,230,637	0	14,230,637
Rate of Return	3.44%		4.06%		7.25%

It should be noted that the above table is calculated using an I&E-determined gross revenue conversion factor of 1.38436 rather than the Company's factor of 1.41728. An error in the Company's calculation of this factor was identified and corrected by I&E witness D.C. Patel.[4]

[3] I&E Statement No. 2.
[4] I&E Exhibit No. 2, Schedule 3, p. 2.

RATE CASE EXPENSE

Q. BRIEFLY EXPLAIN THE NATURE AND TYPE OF EXPENSES TYPICALLY ALLOWED AS 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.

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 up to and including the currently filed case.

Q. WHAT IS NAWC'S CLAIM FOR RATE CASE EXPENSE?

A. The Company's normalized FPFTY claim for rate case expense is $161,667.[5]

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. NAWC has estimated total rate case expense of $485,000 normalized over three years for an annual expense of $161,667 ($485,000 ÷ 3). The Company asserts that a three-year normalization period is reasonable as it acknowledges that rate case expense should be spread over a period of years, but NAWC asserts that its normalization period does not penalize the Company for delaying a rate case due to costs, requirements from the previous case, and limited resources.[6]

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM?

A. No. I disagree with the Company's use of a three-year normalization period, as it is not supported by the Company's historic filing frequency.

Q. WHAT IS YOUR RECOMMENDATION FOR RATE CASE EXPENSE?

A. I recommend normalizing the total expense over a five-year period, resulting in an

[5] NAWC Exhibit GRH-1, p. 30.
[6] I&E Exhibit No. 1, Schedule 1.

allowance of $97,000 ($485,000 ÷ 5 years) for rate case expense, or a reduction of $64,667 ($161,667 - $97,000) to the Company's FPFTY claim.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDED FIVE-YEAR NORMALIZATION PERIOD?

A. My recommended five-year normalization period is based on the calculated interval resulting from the Company's historic filing frequency as provided by the Company in I&E-RE-10-D.[7] My calculation is shown below:

Docket No.	Date Filed	Interval (Months)	Average
R-2024-3050208	7/19/2024	64	64
R-2019-3006904	3/1/2019	96	
R-2011-2230259	3/10/2011	32	
R-2008-2042293	7/11/2008		

Using the Company's historic base rate case interval, an average interval is computed to be 64 months, which I have rounded down to 60 months, or five years. The proposed three-year period is not supported by historic filing frequency and is speculative in nature. Thus, a three-year normalization period should be rejected as it would result in an unreasonable increase in rates and would likely cause the Company to over-collect its rate case expense.

[7] I&E Exhibit No. 1, Schedule 2.

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.[8] 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 recommended normalization period in the 2012 PPL proceeding was a 32-month interval based on PPL's historic filing frequency.[9] 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.

[8] *PA. PUC v. PPL Electric Utilities Corporation*, Docket No. R-2012-2290597, pp. 47-48 (Order Entered December 28, 2012).

[9] I&E Statement No. 2, pp. 13-14 at Docket No. R-2012-2290597.

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.[10]

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.[11]

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.[12]

Fourth, in a base rate case filed by PECO Energy Company – Gas Division (PECO), 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.[13]

Fifth, in a base rate case filed by Philadelphia Gas Works (PGW), the Commission agreed with I&E's recommended 53-month normalization period

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[10] *PA PUC v. Emporium Water Company*, Docket No. R-2014-2402324, p. 50 (Order Entered January 28, 2015).

[11] *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).

[12] *PA PUC v. Columbia Gas,* Docket No. R-2020-3018835, Opinion and Order, pp. 78-79 (Order Entered February 19, 2021).

[13] *PA PUC v. PECO Energy Company- Gas Division*, Docket No. R-2020-3018929, Opinion and Order, pp. 117-119 (Order Entered June 22, 2021).

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.[14]

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.[15]

Q. ARE THERE ANY OTHER REASONS WHY THE COMPANY'S CLAIMED THREE-YEAR NORMALIZATION PERIOD IS INAPPROPRIATE?

A. Yes. In NAWC's last base rate case at Docket No. R-2019-3006904, the Company projected that it would file a base rate case in three years and requested normalization of rate case expense over that three-year period. I&E recommended a 55-month filing interval based on the historic filing frequency at that time; however, it has been 64 months since NAWC filed that case.

[14] *PA PUC v. Philadelphia Gas Works*, Docket No. R-2023-3037933, Opinion and Order, pp. 65-66 (Order Entered November 9, 2023).

[15] *PA PUC v. Columbia Water Company*, Docket No. R-2023-3040258, Opinion and Order, p. 34 (Order Entered January 18, 2024).

EMPLOYEE WELFARE EXPENSE

Q. WHAT IS EMPLOYEE WELFARE EXPENSE?

A. Employee welfare expense includes medical, life, dental, and vision insurance coverage costs incurred by the Company on behalf of its employees.[16]

Q. WHAT IS THE COMPANY'S CLAIM FOR EMPLOYEE WELFARE EXPENSE?

A. The Company is claiming FPFTY employee welfare expense of $231,809.[17]

Q. WHAT IS THE BASIS FOR THE COMPANY'S CLAIM?

A. The Company's claim is based on actual HTY expenses with a 5% increase to calculate the FTY expense, and an additional 5% increase to calculate the FPFTY expense. The Company is also planning to change its health insurance provider in the FPFTY, which it anticipates will cost an additional $50,000 in expenses annually, for a total cost of $257,566.[18] The Company then applies a capitalization rate of 10% (90% charged to expenses)[19] to calculate the FPFTY claim of $231,809.

[16] I&E Exhibit No. 1, Schedule 3.
[17] NAWC Exhibit No. GRH-1, p. 29.
[18] I&E Exhibit No. 1, Schedule 3.
[19] NAWC Exhibit No. GRH-1, p. 29.

Q. DO YOU AGREE WITH THE COMPANY'S CLAIM FOR EMPLOYEE WELFARE EXPENSE?

A. No.

Q. WHAT IS YOUR RECOMMENDATION?

A. I recommend an allowance of $186,809 for employee welfare expense, or a reduction of $45,000 ($231,809 - $186,809) to the Company's claim.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. I recommend disallowance of the additional funds requested as a result of the Company's anticipated change to its health insurance provider. The Company has not provided any documentation in support of the calculated increase, nor has the Company provided any evidence to support that such a change in provider is prudent or necessary. The increase is speculative, unsupported, and potentially imprudent, and therefore should be rejected.

Q. HOW DID YOU CALCULATE YOUR RECOMMENDED ADJUSTMENT?

A. The reduction of $45,000 was calculated by applying the capitalization rate to the requested increase of $50,000 as shown below:

Requested Increase	$50,000
Less Capitalized Portion (10%)	$5,000
Total Adjustment to O&M	$45,000

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. One way to calculate cash working capital is the one-eighth method.

Q. DESCRIBE THE ONE-EIGHTH METHOD.

A. The one-eighth method uses a net O&M expense amount. The net O&M expense amount is the total O&M expense claim reduced by any non-cash O&M expense claims. The net O&M expense amount is multiplied by 1/8 (or 45/360) to produce a CWC allowance to be included in rate base. The result approximates a company's committed funds.

Q. WHAT IS NAWC'S CWC CLAIM?

A. NAWC is claiming FPFTY CWC expense of $642,579.[20]

Q. WHAT IS THE BASIS FOR NAWC'S CLAIM?

A. NAWC used the one-eighth method, also known as the "rule of thumb" method, to

[20] NAWC Exhibit No. GRH-1, p. 13.

compute its CWC claim.[21] NAWC calculated its cash working capital requirement by multiplying total operating expenses and taxes other than income[22] of $5,140,635 by 12.5% (or 1/8). The result is the amount of CWC that is part of NAWC's overall rate base claim.

Q. DO YOU AGREE WITH THE COMPANY'S USE OF THE ONE-EIGHTH METHOD?

A Yes. I agree with the Company's use of this method.

Q. DO YOU AGREE WITH THE COMPANY'S CWC CLAIM?

A. No.

Q. WHAT IS YOUR RECOMMENDATION FOR CWC?

A. I recommend an allowance of $366,917 or a reduction of $275,662 ($642,579 - $366,917) to the Company's claim.

Q. WHAT IS THE BASIS OF YOUR RECOMMENDATION?

A. First, I disagree with the Company's inclusion of purchased water and taxes other than income in the calculation for CWC. Next, my recommendation includes

[21] NAWC Statement No. 2, p. 8.
[22] NAWC Exhibit No. GRH-1, p. 17.

modification of the Company's claim based on all recommended adjustments to O&M expenses as discussed previously in this testimony.

Q. HOW DID YOU CALCULATE YOUR RECOMMENDATION?

A. My calculation is based on the Company's FPFTY claim for total operating expense[23] excluding taxes other than income, less purchased water[24] prior to reducing the amount for the impact of my recommended adjustments calculated as follows:

FPFTY Total Operating Expenses	$4,594,707
Less Purchased Water	($1,549,704)
Less I&E Adjustments to O&M	($109,667)
I&E Adjusted Total	$2,935,336
Multiplied by 1/8th (12.5%)	$366,917

Q. PLEASE EXPLAIN WHY PURCHASED WATER SHOULD BE EXCLUDED.

A. It is my general understanding that the revenue and expense lags for purchased water (purchased for resale to customers) are presumed to zero one another out. Similarly, the 2003 NARUC Rate Case and Audit Manual addresses purchased power on p. 19, in that it "was also excluded (based on the contention that

[23] NAWC Exhibit No. GRH-1, p. 17.
[24] NAWC Exhibit No. GRH-1, p. 16.

purchased power is paid for after revenues are received),"[25] thus, my understanding is that purchased water should be handled similarly for a water company.

Another publication, the 2012 Deloitte Regulated Utilities Manual, addresses purchased power on p. 12 in the same manner.[26]

Finally, the Notice of Proposed Rulemaking Order at Docket No. L-2021-2317273 (Order Entered June 17, 2021), pp. 31-32, outlines the use of the one-eighth method for CWC to read:

> (6) Explain how cash working capital is calculated including the formula used to calculate the claim. Exclude the following from cash working capital when the 1/8 method is used:
>
> (a) Exclude income taxes because income taxes are not an operating and maintenance expense, and funds are collected from customers prior to payments being made;
>
> (b) Exclude Purchased Water or Wastewater Conveyance/Treatment expenses because funds are collected from customers prior to payments being made unless the public utility can justify that it is billed in advance for services rather than in arrears; and
>
> (c) Exclude non-cash operating and maintenance expenses, such as depreciation, amortization, and bad debt expenses.

This language supports my recommendation to exclude purchased water from the cash working capital computation.

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[25] https://ipu.msu.edu/wp-content/uploads/2017/09/NARUC-Ratecase-and-Audit-Manual-2003.pdf, accessed October 1, 2024.

[26] https://ipu.msu.edu/wp-content/uploads/2017/09/Deloitte-Regulated-Utilities-Manual-2012-2.pdf, accessed October 1, 2024.

Q. PLEASE EXPLAIN WHY TAXES OTHER THAN INCOME SHOULD BE EXCLUDED.

A. Generally, tax payments are viewed as made after the related revenues have been received. Therefore, taxes other than income should be removed prior to applying the one-eighth method.

Q. IS YOUR RECOMMENDED CWC ALLOWANCE A FINAL RECOMMENDATION?

A. No. All adjustments to the Company's claims for revenues, expenses, taxes, and rate base must be continually brought together 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 claim.

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-2024-3077068 – FirstEnergy Pennsylvania Electric Company

R-2024-3045192 at al. – Veolia Water Pennsylvania, Inc.

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

Casework not requiring testimony:

R-2024-3045177 – National Fuel Gas Distribution Corporation (1307(f))

I&E Exhibit No. 1
Witness: Vanessa Okum

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

NEWTOWN ARTESIAN WATER COMPANY

Docket No. R-2024-3050208

Exhibit to Accompany

the

Direct Testimony

of

Vanessa Okum

Bureau of Investigation and Enforcement

Concerning:

OPERATING & MAINTENANCE EXPENSES

CASH WORKING CAPITAL

BUREAU OF INVESTIGATION & ENFORCEMENT DATA REQUESTS

NEWTOWN ARTESIAN WATER COMPANY

Docket No. R-2024-3050208

Analyst: Vanessa Okum

I&E-RE-9-D Reference NAWCO Exhibit No. GRH-1, p. 30, Adjustment E-7 concerning rate case expense. Provide the following:

A. Copies of all current outside service contract agreements for rate case related services and in which rate case expense category they are being forecasted;

B. Receipts for rate case-related expenses incurred to date for the current filing, and provide updates during the duration of this proceeding;

C. Justification for the proposed three-year normalization period.

Response:

A. Please see I&E-RE-9-D Attachment for the outside service contract agreements and year-to-date invoices related to rate case expense.

B. Please see response to Part A.

C. The Company views a 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 also does not penalize the Company for delaying a rate case due to costs, requirements from the previous case, and limited resources.

Responsible Witness: Gregory R. Herbert

BUREAU OF INVESTIGATION & ENFORCEMENT DATA REQUESTS

NEWTOWN ARTESIAN WATER COMPANY

Docket No. R-2024-3050208

Analyst: Vanessa Okum

I&E-RE-10-D Reference NAWCO Exhibit No. GRH-1, p. 30, Adjustment E-7 concerning rate case expense. Provide the following details for the last three base rate cases filed with the Commission:

A. Docket number and date of filing;

B. Indicate whether it was fully litigated or settled, and at what point in the proceeding a settlement occurred;

C. Effective date of the rate increase;

D. Dollar amount claimed for rate case expense, and the actual dollar amount incurred for each proceeding broken down by expense type.

Response:

Docket No. R-2019-3006904; Filed – March 1, 2019; rate case settled; Effective date of the rate increase – October 4, 2019; Rate Case Expense requested was $377,000 normalized over 3 years. Actual expenses were $594,785.52.

Docket No. R-2011-2230259; Filed – March 10, 2011; rate case settled; Effective date of the rate increase – October 15, 2011; Rate case expense requested was $200,000 normalized over 2 years. Actual expenses were $-352,760.89.

Docket No. R-2008-2042293; Filed – July 11, 2008; rate case settled; Effective date of the rate increase – March 1, 2009; Rate case expense requested was $197,000 plus $52,311 unamortized from 2005 case with the total then normalized over 3 years. Actual expenses were $245,431,85.

Responsible Witness: Gregory R. Herbert

BUREAU OF INVESTIGATION & ENFORCEMENT DATA REQUESTS

NEWTOWN ARTESIAN WATER COMPANY

Docket No. R-2024-3050208

Analyst: Vanessa Okum

I&E-RE-6-D Reference NAWCO Exhibit No. GRH-1, p. 29, Adjustment E-4 concerning employee welfare:

A. Define employee welfare and provide a breakdown of the total $257,566 claim by benefit type;

B. Provide support for the 10% capitalized percentage;

C. Provide supporting documentation for the welfare adjustment, including the calculation and basis.

Response:

A. Please see I&E-RE-6-D Attachment for the breakdown of the total employee welfare expense for the HTY, which includes medical, life insurance and dental/vision coverage costs. See part C. for an explanation of the $257,566 claim.

B. Please see the Company's response to I&E-RE-2-D.

C. The employee welfare adjustment is calculated by increasing each employee's benefits costs in 2024 by 5% to derive the 2025 benefits costs per employee, which totaled $197,682. The 2025 estimated benefits costs per employee were increased by 5% to develop the 2026 employee benefits costs, which totaled $207,566. See response to I&E-RE-25-D for projected benefits costs per employee. Additionally, the Company anticipates an additional $50,000 per year in health provider costs, as the Company is changing its health provider, which have been estimated to add an additional $50,000 in employee benefits costs per year. ($207,566 + $50,000 = $257,566 FPFTY claim).

Responsible Witness: Gregory R. Herbert

I&E Statement No. 2
Witness: D. C. Patel

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

THE NEWTOWN ARTESIAN WATER COMPANY

Docket No. R-2024-3050208

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 Newtown Artesian Water Company (NAWC or Company) for the fully

projected future test year (FPFTY) ending March 31, 2026.

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 BASE 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. It is typically expressed as a percentage of the amount of an asset base at a particular point in time, which in base rate proceedings, is the projected rate base balance at the end of the FPFTY.

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 x 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 debt cost rate 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. NAWC witness Harold Walker, III, of Gannett Fleming Valuation and Rate Consultants, LLC, is the primary witness addressing the Company's rate of return claim (NAWC Statement No. 3). 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 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 operations based on its FPFTY ending March 31, 2026 (NAWC Exhibit HW-1, Schedule 1):

THE NEWTOWN ARTESIAN WATER COMPANY
Summary of Cost of Capital

Type of Capital	Ratio	Cost Rate	Weighted Cost Rate
Long-Term Debt	45.00%	4.64%	2.09%
Common Equity	55.00%	10.80%	5.94%
Total	**100.00%**		**8.03%**

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 (I&E Exhibit No. 2, Schedule

1):

I&E The Newtown Artesian Water Company **Summary of Cost of Capital**			
Type of Capital	**Ratio**	**Cost Rate**	**Weighted Cost Rate**
Long-Term Debt	45.00%	4.64%	2.09%
Common Equity	55.00%	9.39%	5.16%
Total	**100.00%**		**7.25%**

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. Additionally, Value Line does not specifically cover the wastewater industry as a standalone category. Therefore, my proxy group selection begins with a search of the regulated water utility companies covered by Value Line.

Q. WHAT CRITERIA DID YOU USE IN SELECTING YOUR WATER INDUSTRY PROXY GROUP?

A. The criteria for my proxy group or comparable utilities group was designed to select companies that are representative of NAWC. 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 (NAWC Statement No. 3, p. 9, line 19 through p. 10, line 6), 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 value 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 (NAWC Statement No. 3, p. 10, lines 8-10):

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 that I excluded from my proxy group because this company was not included in Value Line's "Water Utility" company group, which is one of the selection criterion required for my proxy group 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 is summarized in the table below (NAWC Statement No. 3, p. 12, lines 6-8 and Exhibit HW-1, Schedule 1):

THE NEWTOWN ARTESIAN WATER COMPANY
Projected Capital Structure as on March 31, 2026

Type of Capital	Capitalization Ratio
Long-Term Debt	45.00%
Common Equity	55.00%
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 NAWC's current cost of capital based on NAWC's projected capital structure as of March 31, 2025, which includes 45% long-term debt and 55% common equity (NAWC Statement No. 3, p. 12, lines 6-8). Mr. Walker avers that when a utility issues its own debt that is not guaranteed by the public or private parent company 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 (NAWC Statement No. 3, p. 13, lines 1-5). He then states that his recommended capital structure is similar to the range of the ratios employed by other investor-owned water companies as shown in NAWC Exhibit HW-1 (NAWC Statement No. 3, p. 14, lines 20-22 and NAWC Exhibit HW-1, Schedule 2 pp. 2-3). Finally, he opines that NAWC's ratemaking capital structure ratios are reasonable and justifies the Company's smaller size and risk associated with the size (NAWC Statement No. 3, p. 15, lines 3-6).

Q. WHAT IS YOUR RECOMMENDATION REGARDING THE COMPANY'S CAPITAL STRUCTURE?

A. I recommend using the Company's claimed capital structure of 45% long-term debt and 55% common equity as presented in the table above.

Q. WHAT IS THE BASIS FOR YOUR CAPITAL STRUCTURE RECOMMENDATION?

A. Although I believe a capital structure of 50% long-term debt and 50% common equity is optimal when trying to balance the financial integrity of a utility as well as trying to control costs to ratepayers in this proceeding, I recommend using the Company's claimed capital structure as it falls within the range of my proxy group's capital structures. The average capital structure of my proxy group for the most recent five years (2019-2023) consists of long-term debt ratios ranging from 44.06% to 58.08% and common equity ratios ranging from 41.92% to 55.63%, with an overall five-year average of 50.76% long-term debt and 49.19% common equity (I&E Exhibit No. 2, Schedule 2).

It should be noted that the Company's claimed common equity ratio of 55% is well above my proxy group average equity ratio of 49.19% and very close to the higher end of the proxy group's equity ratio of 55.63%. It should also be noted that three of the six companies in my proxy group have a capital structure where the equity ratio is less than 50% for the most recent five-year average, and the other three companies have an equity ratio of more than 50% in the most recently published year (2023) (I&E Exhibit No. 2, Schedule 2). This equity heavy capital structure must be recognized when considering NAWC's financial risk associated with its small size. Mr. Walker acknowledges that NAWC's smaller size justifies the use of more equity capital than the Comparison Group to counterbalance some of the risk associated with its size because the size of a company is an indicator of risk (NAWC Statement No. 3, p. 15, lines 4-6).

Q. WHAT IS THE COST SAVINGS TO RATEPAYERS IF THE COMPANY WERE TO EMPLOY A 50/50 CAPITAL STRUCTURE COMPARED TO THE COMPANY'S CLAIMED CAPITAL STRUCTURE?

A. The example below shows the cost savings to ratepayers if the Company were to employ a 50% long-term debt and 50% common equity capital structure in its cost of capital while maintaining its claimed return on equity (ROE) and rate base:

THE NEWTOWN ARTESIAN WATER COMPANY Claimed Capital Structure and Cost Rates			
Type of Capital	**Ratio**	**Cost Rate**	**Weighted Cost Rate**
Long-Term Debt	45.00%	4.64%	2.09%
Common Equity	55.00%	10.80%	5.94%
Total	**100.00%**		**8.03%**
50/50 Optimal Capital Structure and Cost Rates			
Long-Term Debt	50.00%	4.64%	2.32%
Common Equity	50.00%	10.80%	5.40%
Total	**100.00%**		**7.72%**
Difference in the Overall Rate of Return (8.03% - 7.72%)			0.31%
Impact Prior to Gross Up [Claimed Rate Base* x Difference in the Overall Rate of Return ($14,506,299 x 0.0031)]			$44,970
Gross Revenue Conversion Factor**			1.38436
Total Impact to Ratepayers			**$62,255**

* NAWC Exhibit GRH-1, p. 11.
** I&E Exhibit No. 2, Schedule 3, p. 2.

In this example, if the Company employed a 50/50 capital structure and made no change to the requested ROE (which I do not agree with and discuss in more detail below), the annual cost savings to ratepayers would be $62,255. While I understand

achieving and maintaining an exact 50/50 capital structure is not always feasible, this example is intended to demonstrate NAWC's financial security despite the small size as compared to the proxy group companies and proves that Mr. Walker's various "add-ons" or "adjustments" to his Discounted Cash Flow (DCF), the Capital Asset Pricing Model (CAPM), and the Risk Premium (RP) analysis results (NAWC Statement No. 3, pp. 46-47, lines 22 through 5, p. 50, lines 12-16, and p. 55, lines 17-21) are unnecessary and unsupported, only serving to unreasonably inflate the rate of return.

COST OF LONG-TERM DEBT

Q. WHAT IS THE COMPANY'S CLAIMED COST RATE OF LONG-TERM DEBT?

A. Mr. Walker recommends a 4.64% weighted cost rate of long-term debt, which is based on NAWC's projected long-term debt cost rate as of March 31, 2026. This debt cost rate reflects NAWC's contracted debts for a specific period of time and at a specific cost that includes the coupon rate, annual amortized discount or premium, and debt issuance expenses (NAWC Statement No. 3, p. 15, lines 12-17 and NAWC Exhibit HW-1, Schedule 1 and 2, p. 1).

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 4.64%.

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 NAWC's actual long-term debt cost rate as of March 31, 2024 (NAWC Exhibit HW-1, Schedule 2, p. 1), which is representative of the water industry. The 4.64% 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 5.69% (September 2023 through August 2024) for A-rated public utility bonds (I&E Exhibit No. 2, Schedule 4). Therefore, I believe that the NAWC's claim for 4.64% long-term debt cost is representative of the utility industry and recommend it be used in determining the weighted cost of long-term debt in this proceeding.

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 DCF, CAPM, RP, 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. 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 risk 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. Like the RP method, the 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 as recently as 2017, 2018, 2020, and 2021.[1]

[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.

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. First, 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] Second, 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. Third, 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 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

[2] David C. Parcell, "The Cost of Capital – A Practitioner's Guide," 2020 Edition, p. 153.

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 the 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 and 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

[3] Berg, Eric N. "Market Place; A Study Shakes Confidence in the Volatile-Stock Theory," *The New York Times*, February 18, 1992.

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.

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

[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.

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 Commission practice of primarily relying on the DCF model. Additionally, 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] Finally, in the most recent Pennsylvania-American Water Company (PAWC) case, the Commission agreed with the ALJ's recommended ROE which was based on the average of I&E's DCF and CAPM analyses.[8]

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,[9] 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%[10] for water and wastewater utilities for the year ended December 31, 2021. This DSIC rate for water and

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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.

7 *Pa. PUC v. Columbia Water Company,* Docket No. R-2023-3040258, p. 105 (Order Entered January 18, 2024).

8 *Pa. PUC v. Pennsylvania American Water* Company, Docket Nos. 2023-3043189 and 2023-3043190, p. 172 (Order Entered July 22, 2024).

9 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 September 23, 2024).

10 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.

wastewater utilities has since dropped 5 basis points to 9.75% for the year ended March 31, 2023[11] and further dropped 10 basis points to 9.65% for the year ended June 30, 2023,[12] which remained at the same level of 9.65% for the year ended March 31, 2024.[13] 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.[14] 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 below the forecasted lower-level inflation rates, and the

[11] 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.

[12] 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.

[13] PA Public Utility Commission, Bureau of Technical Utility Services Report on the Quarterly Earnings of Jurisdictional Utilities for the Year Ended March 31, 2024, approved at Public Meeting on August 1, 2024, at Docket No. M-2024-3049527.

[14] *Pa. PUC v. Columbia Water Company,* Docket No. R-2023-3040258, pp.108-109 (Order Entered January 18, 2024).

most recent Federal Reserve's interest rate cut of 0.50% and its intention to implement a series of interest rate cuts from 2024 through 2026, which would have the effect of reducing potential inflation and interest rate risks in the capital costs during 2025-2026, when the Company's new rates will be in effect.

In the PAWC case, although the Commission determined PAWC's ROE based on the average results of DCF and CAPM analyses, the Commission most importantly notes in the Order:

> Before concluding this section, we stress that based upon the specific record developed in this proceeding, we have determined that taking the average of the DCF and CAPM results produces a reasonable ROE. However, we do not strictly endorse averaging the DCF and CAPM in other proceedings where it is determined that methodologies other than the DCF are necessary to determine the utility's ROE. Consistent with these determinations, we shall deny PAWC's Exception No. 1, I&E's Exception No. 1, and the OCA's Exception No. 11.[15]

Finally, 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 inflation,

[15] *Pa. PUC v. Pennsylvania-American Water Company*, Docket Nos. R-2023-3043189 & R-203-3043190, pp. 194-195 (Order Entered July 22, 2024).

increased interest rates and government bond yields, however, it is important to note that all companies, including regulated utilities, have been impacted by higher interest rates. Second, per the latest news article,[16] Federal Reserve officials made their first interest rate cut since 2020 of 0.50% on September 18, 2024 and charted a course for two additional cuts this year followed by four more rate cuts in 2025. The proposed rate cuts in 2025 cover NAWC's FPFTY when the new rates will be in effect.

Second, per the monthly Blue Chip Financial Forecasts (August 30, 2024),[17] the 2024-2025 inflation rates by two measures are forecasted to be slightly over 2% as shown in the table below:

	Q3 2024	**Q4 2024**	**Q1 2025**	**Q2 2025**	**Q3 2025**	**Q4 2025**
Consumer Price Index	1.9%	2.3%	2.3%	2.2%	2.3%	2.3%
PCE Price Index	1.9%	2.1%	2.2%	2.0%	2.1%	2.1%

The Federal Reserve's commitment for a series of interest rate reductions in 2024-2025 would have the effect of reducing the inflation pressure and interest rate risks in the 2025-2026 capital costs, when NAWC's rates will be in effect.

Third, 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.

Lastly, as discussed above, I reiterate that the current inflationary and economic trends are most certainly reflected in DCF results that use the stock's price and projected

[16] Fed lowers interest rates by half point in first cut since 2020 (yahoo.com) (Accessed September 18, 2024).
[17] Blue Chip Financial Forecasts, Vol. 43, No. 9, August 30, 2024, p. 2.

dividend rate, which are used in determining the forecasted dividend yield, and the forecasted five-year earnings growth rates of independent professional analysts. Therefore, the DCF with the most up-to-date projected information is the superior forward-looking method for determining the rate of return for the current economic market.

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 (NAWC Statement No. 3, p. 2, lines 8-10) and his calculated common equity cost rates are as follows (NAWC Statement No. 3, p. 3 and NAWC Exhibit HW-1, Schedule 19):

	Analysis Results	Financial Risk Adjustment/Adder	Adjusted Results
DCF	9.10%	0.70%	9.80%
CAPM	11.00%	0.70%	11.80%
RP	10.50%	0.70%	11.20%

Based on the application of above methods, Mr. Walker opines that 10.80% is a reasonable cost of equity for NAWC. In order to support his recommended 10.80% cost of equity, he refers to the Value Line's projected return average result of 10.60% and the median result of 10.80% on common equity for his comparable utilities group (NAWC Statement No. 3, p. 3, lines 5-10).

I&E RECOMMENDATION

Q. WHAT IS YOUR RECOMMENDED COST OF COMMON EQUITY FOR NAWC?

A. Based upon my analysis, I recommend a cost of common equity of 9.39% for NAWC (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 result. 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 5):

Proxy Group - Average Dividend Yields	
(a) Spot Dividend Yield	2.52%
(b) 52-week Average Dividend Yield	2.71%
(c) Average ((a +b) ÷ 2)	2.61%

Q. WHAT INFORMATION DID YOU RELY UPON TO DETERMINE YOUR EXPECTED GROWTH RATE?

A. I have used five-year projected growth rate estimates from Value Line, Yahoo! Finance, and Zacks.

Q. WHAT WERE THE RESULTS OF YOUR FORECASTED EARNINGS GROWTH RATES?

A. The expected growth rates for my proxy group companies ranged from 2.70% to 11.50% with an overall average growth rate of 6.78% (I&E Exhibit No. 2, Schedule 6).

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 7):

K	**=**	**D_1/P_0**	**+**	**g**
9.39%	=	2.61%	+	6.78%

<u>CAPITAL ASSET PRICING MODEL</u>

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 8).

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.[18]

The forecasted yield on the 10-year Treasury Note, as seen in Blue Chip Financial Forecasts, is expected to range between 3.80% and 3.90% from the fourth quarter of 2024 through the fourth quarter of 2025, and it is forecasted to be 4.10% from 2026-2030. For my forecasted CAPM analysis, I used 3.87%, which is the average of all the yield forecasts I observed (I&E Exhibit No. 2, Schedule 9).

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 10.78% over the next three to five years based on a forecasted dividend yield of 2.00% and a yearly index

[18] *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; Pa. PUC v. Pennsylvania-American Water Company; Docket Nos. R-2023-3043189 and R-2023-3043190 (Order Entered July 22, 2024). See generally Disposition of Capital Asset Pricing Model (CAPM), pp. 171-172.

appreciation of 40.00%. 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 (I&E Exhibit No. 2, Schedule 10, pp. 1-2). Therefore, 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 11.47% [(10.78% + 12.16%) ÷ 2] (I&E Exhibit No. 2, Schedule 10, p. 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 11):

K	=	R_f	+	$\beta(R_m - R_f)$
10.18%	=	3.87%	+	0.83 (11.47% - 3.87%)

Q. HAVE YOU PROVIDED AN ADDITIONAL CAPM ANALYSIS?

A. Yes. I have provided an additional CAPM analysis using Kroll's (formerly Duff & Phelps) recommended U.S. Equity Risk Premium (ERP). Kroll is a trusted and publicly available source that bases its recommended ERP on current and forecasted economic and financial market conditions.

Q. WHAT IS KROLL'S CURRENT RECOMMENDED ERP?

A. As of June 5, 2024, Kroll recommends an ERP of 5.0%.

Q. WHAT IS THE COST OF EQUITY RESULT FROM YOUR CAPM ANALYSIS USING KROLL'S RECOMMENDED ERP?

A. The result of my analysis using Kroll's recommended ERP is as follows (I&E Exhibit No. 2, Schedule 11):

K	=	R_f	+	β(ERP)
8.02%	=	3.87%	+	0.83 (5.00%)

Q. WHAT IS THE RESULT OF YOUR CAPM ANALYSIS BASED ON THE AVERAGE OF USING A FORECASTED OVERALL MARKET RETURN AND USING KROLL'S RECOMMENDED ERP?

A. The average of my CAPM analyses is 9.10% ((10.18% + 8.02%) ÷ 2) (I&E Exhibit No. 2, Schedule 11).

Q. DO YOU HAVE ANY ADDITIONAL COMMENTS REGARDING YOUR CAPM ANALYSIS?

A. Yes. As discussed earlier in my testimony and as I&E has historically reasoned, 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 SAME WEIGHT TO THE CAPM AS 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 rate concerns. My use of the DCF as a primary method in determining an appropriate ROE 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 79 basis points (CAPM result of 10.18% - DCF result of 9.39% = 0.79% difference). As demonstrated below, relying on the results of the CAPM is unnecessary and places undue hardship on NAWC's ratepayers.

Q. BASED ON THE COMPANY'S CLAIMED RATE BASE AND CAPITAL STRUCTURE, WHAT IS THE VALUE OF AN ADDITIONAL 79 BASIS POINTS TO THE COST OF EQUITY BASED ON THE DIFFERENCE IN RESULTS

BETWEEN YOUR CAPM ANALYSIS (10.18%) AND YOUR DCF ANALYSIS (9.39%)?

A. The example below illustrates the impact of 79 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:

NAWC Claimed Equity Percentage of Capital Structure	55.00%
Difference in Return on Equity between I&E's CAPM and DCF Analysis (10.18% – 9.39% = 0.79%)	0.79%
Claimed Rate Base *	$14,506,299
Impact Prior to Gross Up (0.55 x 0.0079 x $14,506,299)	$63,030
NAWC Claimed Gross Revenue Conversion Factor***	1.38436
Total Impact to Ratepayers ($63,030 x 1.38436)	**$87,256**

*NAWC Exhibit GRH-1, p. 11.
** I&E Exhibit No. 2, Schedule 3, p. 2.

In this example, an addition of 79 basis points (0.79%) to the cost of equity would burden ratepayers to fund an additional annual amount of $87,256 to cover the increased portion 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 $87,256 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 79-basis-point impact of CAPM results would be unwarranted

and inappropriate. In my opinion, and as demonstrated by my analysis, any amount granted above my DCF results (9.39% based on my recommendation) is not justified because it places an inappropriate burden on ratepayers for the additional revenue impact of $87,256. Therefore, I continue to assert that it is inappropriate to use or consider the CAPM results in determining an ROE for NAWC or to establish CAPM as the top end of a range for reasonableness 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 applying a financial risk leverage adjustment of 0.70% to account for the difference between the market value derived cost rates and book value cost rates due to the difference in the Market to Book (M/B) Capitalization Ratio and his market determined DCF, CAPM, and RP analysis results. The following table summarizes Mr. Walker's ROE results relative to his proxy group (NAWC Statement No. 3, p. 56, lines 3-15 and NAWC Exhibit HW-1, Schedule 19):

	Analysis Results	Financial Risk Leverage Adjustment	Adjusted Results
DCF	9.10%	0.70%	9.80%
CAPM	11.00%	0.70%	11.70%
RP	10.50%	0.70%	11.20%
Claimed 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 2.60% based on May 2024 stock market data after adjusting for growth in dividend and an average growth rate of 6.50% of his proxy group companies, which produces the DCF result of 9.10% (NAWC Exhibit HW-1, Schedules 12 and 13). He then applies the M/B ratio leverage adjustment of 0.70% to the DCF result that produces his adjusted DCF of 9.80%.

Q. DO YOU AGREE WITH MR. WALKER'S ADJUSTED DCF ANALYSIS RESULTS?

A. No. It is inappropriate to inflate DCF results by applying the M/B ratio leverage adjustment of 0.70% to the market determined DCF result of 9.10%. The M/B capitalization ratio and leverage adjustment impact on the cost of equity analysis are discussed in more detail 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. 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, however, I am opposed to giving the CAPM and RP results considerable weight. For the reasons discussed above, including my reference to the Commission's 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% (NAWC Statement No. 3, p. 56, lines 3-15 and NAWC 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 method is a simplified version of the CAPM, it suffers these same flaws. In effect, Mr. Walker blends the RP approach with the CAPM model to calculate the risk premium estimates using the Value Line, S&P Public Utilities, and S&P 500 market return data (NAWC Exhibit HW-1, Schedules 17 and 18).

In response to I&E-RR-13-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 11.70%, which includes size/leverage adjustment of 0.70% and RP results of 11.20%, which includes an M/B ratio leverage adjustment of 0.70% in recommending a 10.80% ROE for NAWC. I discuss the M/B ratio, size adjustment, and the impact of 0.70% leverage adjustment in the cost of equity in subsequent sections 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 4.50% based upon the recent and forward

long term Treasury yields future contract rates (June 2024 - 4.51%, September 2024 - 4.50%, and December 2024 - 4.37%) traded on the Chicago Boards of Trade (CBOT) at the close of June 3, 2024 (NAWC 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 bond yields in his risk-free rate calculation for the CAPM analysis.

Q. DO YOU AGREE WITH MR. WALKER'S USE OF THE LONG-TERM TREASURY BOND'S (30-YEAR) YIELDS TO DETERMINE THE RISK-FREE RATE?

A. No. As discussed above, long-term Treasury Bonds (30-year) 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. 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. Therefore, my choice of a 10-year Treasury Note is appropriate, and as pointed out above, the Commission has consistently agreed with I&E that the 10-year Treasury Note is the superior measure of the risk-free rate of return.

MARKET TO BOOK RATIO

Q. WHAT DOES MR. WALKER CLAIM REGARDING IMPACT OF THE M/B RATIO 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) (NAWC Statement No. 3, p. 38, lines 20-22). He then states that since the Comparable Group's current M/B ratio average is 228% (M/B > 1 or M/B = 2.28), the DCF derived cost rate understates the common equity cost rate for NAWC because a DCF-derived market cost rate is applied to a book value rate base. 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 (NAWC Statement No. 3, p. 41, line 19 through p. 42, line 4).

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 (NAWC Statement No. 3, p. 44, lines 10-13 and NAWC 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 55 basis points or 0.55% as shown on Schedule 16, p. 3 (NAWC Statement No. 3, p. 46, lines 17-21).

Q. WHAT DOES MR. WALKER RECOMMEND FOR A FINANCIAL RISK LEVERAGE ADJUSTMENT TO HIS DCF, CAPM, AND RP RESULTS TO ACCOUNT FOR THE IMPACT OF AN M/B RATIO ABOVE 1.0?

A. Based on the average of end results of the application of the Hamada Model (0.89%) and

the bond yield spread (0.55%), Mr. Walker recommends that the Water Group common equity cost rates should be adjusted for the financial risk leverage upward by at least 0.70% [1.44% (0.89% Hamada estimate + 0.55% Bond yield spread) ÷ 2] to account for the difference in the M/B ratio (NAWC Statement No. 3, p. 46, line 22 through p. 47, line 2).

Accordingly, he adjusts his Water Group cost of equity analysis results as follows: (a) DCF results of 9.10% to 9.80% (8.10% + 0.70%) (NAWC Statement No. 3, p. 47, lines 3-5); (b) CAPM results of 11.00% to 11.70% (11.00% + 0.70%) (NAWC Statement No. 3, p. 50, lines 12-16); and (c) RP results of 10.50% to 11.20% (10.50% + 0.70%) (NAWC Statement No. 3, p. 55, line 17-21).

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 25-year period) the market-to-book ratios for the S&P 500 stocks have ranged from 206% to 460% and utility stocks have also followed the same direction (NAWC Statement No. 3, p. 40, line 23 through p. 41, line 9). 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 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 (who project the utility's growth rate) 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 utility's M/B ratio and apply a financial risk leverage adjustment as an adder to inflate the market determined DCF, CAPM, and RP results in this proceeding.

Q. DO YOU HAVE ANY OTHER REASONS TO SUPPORT REJECTION OF A FINANCIAL RISK LEVERAGE ADJUSTMENT FOR THE M/B RATIO?

A. Yes. 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 (NAWC Statement No. 3, p. 46, lines 15-17). Second, in response to I&E-RR-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). Additionally, in response to I&E-RR-10-D he 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-12-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 70 BASIS POINTS (0.70%) 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 70 additional basis points to the Company's cost of equity if applied to the Company's claimed FPFTY rate base and capital structure:

NAWC Claimed Equity Percentage of Capital Structure	55.00%
M/B Ratio Financial Risk Leverage Adjustment/Adder in the Cost of Equity	0.70%
Claimed Rate Base *	$14,506,299
Impact Prior to Gross Up (0.55 x 0.0070 x $14,506,299)	$55,849

NAWC Claimed Gross Revenue Conversion Factor**	1.38436
Total Impact to Ratepayers ($55,849 x 1.38436)	**$77,315**

* NAWC Exhibit GRH-1, p. 11.
** I&E Exhibit No. 2, Schedule 3, p. 2.

In this example, an addition of 70 basis points (0.70%) to the cost of equity would burden ratepayers to fund an additional $77,315 to cover the increased portion of the inflated rate of return along with the associated impact resulting from the increased income taxes.

SMALL SIZE RISK

Q. SUMMARIZE MR. WALKER'S DISCUSSION REGARDING SMALL SIZE RISK ANALYSIS.

A. First, Mr. Walker states that the size difference between NAWC and the Comparable Group companies is an indicator of business 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 and if the investment risk is not balanced out, then a higher cost of capital is required (NAWC Statement No. 3, p. 19, lines 6-12). 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 (NAWC Statement No. 3, p. 19, lines 16-18). Thus, he concludes that a larger company with a more diverse customer base and diverse geographic operation is less susceptible to downturns associated with regional economic conditions than a small company (NAWC Statement No. 3, p. 20, lines 6-8).

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 NAWC's claimed equity ratio of 55% is already higher than the average equity capitalization ratio of my proxy group that would provide NAWC a higher overall rate of return (I&E Exhibit No. 2, Schedules 1 and 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 NAWC has lost a large customer recently to demonstrate its impact on financial results. Third, as discussed in the Business Risk Analysis section below, Mr. Walker acknowledges that NAWC has similar regulatory risk, credit rating risk, and investment risk as compared to his comparable Water Group companies. Additionally, Mr. Walker acknowledges that NAWC's financial risks are less and/or similar to the risks of the comparable Water Group companies. Considering all these facts, Mr. Walker's claim for NAWC's smaller size risk concern is invalidated and unsupported because NAWC's business and financial risk profile is similar to the large size companies of his Water Group.

Finally, 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 where the Commission has specifically approved a small size premium adjustment to the CAPM results or in 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 financial risk adjustment of 0.70% for NAWC's small size and M/B ratio difference in the CAPM analysis for the reasons discussed above. Mr. Walker's CAPM analysis result is summarized below (NAWC Exhibit HW-1, Schedule 17, p. 1):

$$K = R_f + \beta\ (R_m - R_f) + \text{Small Size Adjustment}$$

$$11.34\% = 4.50\% + 0.83\ (11.90\% - 4.50\%) + 0.70\%$$

Q. WHAT WOULD MR. WALKER'S CAPM RESULT BE WITHOUT THE SMALL SIZE RISK OF 0.70%?

A. Mr. Walker's CAPM result would be 10.64%. The calculation is repeated below without Mr. Walker's inappropriate and unsupported size adjustment in the CAPM results:

$$K = R_f + \beta\ (R_m - R_f) + \text{Small Size Adjustment}$$

$$10.64\% = 4.50\% + 0.83\ (11.90\% - 4.50\%) + 0.00\%$$

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.[19]

NAWC 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.[20]

BUSINESS RISK ANALYSIS

Q. SUMMARIZE MR. WALKER'S DISCUSSION REGARDING BUSINESS RISK ANALYSIS.

A. First, Mr. Walker states that NAWC 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

[19] Dr. Annie Wong, "Utility Stocks and the Size Effect: An Empirical Analysis," *Journal of Midwest Finance Association* (1993), pp. 95-101.

[20] *Pa. PUC v. UGI Utilities, Inc. - Electric Division*, Docket No. R-2017-2640058, p. 100 (Order Entered October 25, 2018) (Disposition of Cost of Common Equity).

safe and reliable service to customers and comply with the Commission's regulations (NAWC Statement No. 3, p. 22, lines 17-20). Second, he states that the Comparable Group has an "A" credit profile and NAWC does not have bonds rated. (NAWC Statement No. 3, p. 23, lines 15-16). Lastly, he concludes that overall, the information summarized in Table 5 indicates that NAWC has similar investment risk to the Water Group (NAWC Statement No. 3, p. 26, lines 15-16).

Q. WHAT IS YOUR RESPONSE TO MR. WALKER'S BUSINESS RISK ANALYSIS?

A. I agree with Mr. Walker's conclusion that NAWC has similar regulatory risk, credit rating risk, business risk, and investment risk to his comparable water group companies. This signifies that though NAWC 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 NAWC's various cash flow coverages reveals that NAWC has had higher levels of coverage than the comparable Water Group companies (NAWC Statement No. 3, p. 16, lines 12-14). Moreover, the evidence from the various financial ratios shows that NAWC's risks are similar to the comparable Water Group companies, but less than the larger S&P Utilities Group (NAWC Statement No. 3, p. 16, lines 21-23). Second, he states that the Water Group's average issuer credit ratings and

common stock rankings are higher than the S&P Utilities Group and that the Comparable Group average beta of 0.83 is less than the S&P Utilities average beta of the 0.97. He then states that beta is a measure of volatility or market risk; the higher the beta, the higher the market risk (NAWC Statement No. 3, p. 17, lines 10-13).

Q. WHAT IS YOUR RESPONSE TO MR. WALKER'S FINANCIAL RISK ANALYSIS?

A. I agree with Mr. Walker's conclusion that NAWC's financial risks are less or similar to the risks of the comparable Water Group companies.

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 8.03%.

Q. WHAT IS I&E'S RECOMMENDED COST OF EQUITY AND OVERALL RATE OF RETURN FOR NAWC?

A. I&E Exhibit No. 2, Schedule 1, shows the calculation of an appropriate cost of equity for NAWC to be 9.39% and overall rate of return of 7.25%.

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 and my recommended 9.39% return on common equity is 26 basis points (0.26%) lower than the Commission's latest approved DSIC incentive ROE of 9.65% (Q1 2024 Quarterly Earnings Summary Report)[21] for water utility companies. It is important note that the DSIC rate is designed to encourage its use and to incentivize accelerated pipeline replacement and infrastructure upgrades to bring 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. In the most recent base rate case of Peoples Natural Gas Company, LLC, the Commission's Vice Chair, Kimberly Barrow noted in her statement:

> The quarterly DSIC calculations are for the targeted and discrete purpose of the DSIC investment, not setting an overall return on equity for a company. The DSIC quarterly numbers are a solid proxy utilized to incent DSIC investment; however, they were not designed or meant to substitute the myriad of inputs submitted to the record during a litigated base rate proceeding. Notably, as highlighted by I&E, the DSIC rate establishes a benchmark that is meant to cap or curb utility overearnings. It is not meant to serve as a measurement for the cost of equity in a base rate case proceeding.[22]

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[21] PA Public Utility Commission, Bureau of Technical Utility Services Report on the Quarterly Earnings of Jurisdictional Utilities for the Year Ended March 31, 2024, approved at Public Meeting on August 1, 2024, at Docket No. M-2024-3049527.

[22] *Pa. PUC v. Peoples Natural Gas Company, LLC*, Docket No. 2023-3044549 (Order Entered September 12, 2024) (Vice Chair Barrow's Statement); *See* I&E Statement No. 2, p. 67; *See also Implementation of Act 11 of 2012*, Docket No. M-2012-2293611, pp. 5-7 (Supp. Implementation Order Entered September 21, 2016).

Second, considering the impact NAWC's claimed ROE of 10.80% would have on rates, I believe it is important not to overburden ratepayers. As illustrated in charts above, any additional basis points beyond the I&E recommended ROE of 9.39% based on a DCF (a market-determined) result are unnecessary and will put an enormous burden on ratepayers.

Finally, as discussed above, the effect of Mr. Walker's adjustments to the market-determined cost of common equity and the company's claimed 10.80% ROE are an enormous burden to ratepayers and are completely unwarranted and unnecessary. It is important to note that without the financial risk adjustment of 0.70% disputed above, Mr. Walker's market determined DCF results is 9.10%, which is lower than my DCF analysis results of 9.39%.

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-2024-3048767 - PECO Energy Co. - Gas Operations (1307(f))
- R-2024-3047014 - Columbia Gas of Pennsylvania, Inc. (1307(f))
- 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-2024-3047068 First Energy Pennsylvania Electric Company
- R-2024-3046931 PECO Energy Co. - Electric Operations
- R-2024-3046519 Columbia Gas of Pennsylvania, Inc.
- R-2024-3045192 et al. Veolia Water Pennsylvania, Inc.
- 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.

THE NEWTOWN ARTESIAN WATER COMPANY

Docket No. R-2024-3050208

Exhibit to Accompany

the

Direct Testimony

of

D. C. Patel

Bureau of Investigation & Enforcement

Concerning:

Rate of Return

I&E Exhibit No. 2
Schedule 1

I&E
Summary of Cost of Capital

Type of Capital	Ratio	Cost Rate	Weighted Cost
Newtown Artesian Water Company			
Long-Term Debt	45.00%	4.64%	2.09%
Common Equity	55.00%	9.39%	5.16%
Total	100.00%		7.25%

Proxy Group Capital Structure

	2023		2022		2021		2020		2019		Average
American States Water Co.											
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 Co.											
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	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%
Middlesex Water Co.											
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%
SJW Group											
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%

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 of each year.
Data accessed on Spetember 13, 2024.
Dollar amounts in million.

I&E Exhibit No. 2
Schedule 2

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

THE NEWTOWN ARTESIAN WATER COMPANY

Docket No. R-2024-3050208

I&E-RR-19-D Reference NAWC Exhibit GRH-1 concerning the revenue requirement calculation. Provide the calculation for the gross revenue conversion factor for the HTY, FTY, and FPFTY to account for the need to gross-up revenue for taxes, uncollectibles, assessments (utility tax), etc.

Response: Please see I&E-RR-19 Attachment, which provided the gross revenue conversion factor for the HTY, FTY and FPFTY.

Responsible Witness: Gregory R. Herbert

Newtown Artesian Water Co.
Docket No. R-2024-3050208

I&E-RR-19 Attachment

Taxes and Gross revenue Conversion Factor

Line No.	Description	**Newtown** Tax Rates	**I&E Modified*** Tax Rates
1	Pennsylvania State Corporate Tax Rate	7.990%	7.990%
2	Federal Corporate Tax Rate	21.000%	21.000%
3	Rate Applicable to O&M Expenses:		
4	Uncollectible Accounts Ratio	0.000%	0.000%
5	PSC Assessment Ratio	0.637%	0.637%
6	Rate for O&M Expense	0.637%	0.637%
7	Composite Tax Rate - State	7.939%	7.939%
8	(1-Line 6) X Line 2		
	Composite Tax Rate - Federal		
9	(1-Line 5) X Line 2	20.866%	19.188%
	Revenue Conversion Factor		
10	1/((1-Line 6) - Line 8- Line 9)	**1.41728**	**1.38436**

* I&E corrected a formula error in the calculation of Newtown's Composite Tax Rate-Federal (20.866%) shown in line no. 9, which changed the Revenue Conversion Factor from 1.41728 to 1.38436 on line no. 10.

	2023		
	Interest Charges	**Long-Term Debt**	**Debt Cost**
American States Water Co.	$ 42.76	$ 873.67	4.89%
American Water Works Co.	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 Co.	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 of each year
(data in millions)

Accessed on September 13, 2024

Mergent Bond Record
A-Rated Public Utility Bond Yields

Month	Yield
September 2023	5.86%
October 2023	6.34%
November 2023	5.96%
December 2023	5.42%
January 2024	5.48%
February 2024	5.56%
March 2024	5.55%
April 2024	5.79%
May 2024	5.74%
June 2024	5.61%
July 2024	5.64%
August 2024	5.38%
Average	**5.69%**

Source:
Mergent Bond Record
September 2024

I&E Exhibit No. 2
Schedule 5

Dividend Yields of Six Company Proxy Group

Company	American States Water Co.	American Water Works Co.	California Water Service Group	Essential Utilities, Inc.	Middlesex Water Co.	SJW Group
Symbol	*AWR*	*AWK*	*CWT*	*WTRG*	*MSEX*	*SJW*
Div	1.95	3.23	1.20	1.35	1.40	1.68
52-wk low	66.03	113.34	43.50	32.07	45.42	51.17
52-wk high	85.72	149.00	55.52	41.78	73.47	70.43
Spot Price	83.12	148.13	54.98	39.33	64.76	59.64
Spot Div Yield	2.35%	2.18%	2.18%	3.43%	2.16%	2.82%
52-wk Div Yield	2.57%	2.46%	2.42%	3.66%	2.36%	2.76%
Average	**2.46%**	**2.32%**	**2.30%**	**3.54%**	**2.26%**	**2.79%**

	Average
Spot Div Yield	**2.52%**
52-wk Div Yield	**2.71%**
Average	**2.61%**

Source: Barrons September 13, 2024
Value Line July 5, 2024

Five-Year Growth Estimate Forecast for Proxy Group (Actual)

Company	Symbol	Yahoo	Zacks	Value Line
		Source		
American States Water Co.	AWR	4.40%	6.30%	6.50%
American Water Works Co.	AWK	7.50%	8.00%	4.50%
California Water Service Group	CWT	10.80%	NA	11.50%
Essential Utilities, Inc.	WTRG	5.20%	5.80%	7.00%
Middlesex Water Co.	MSEX	2.70%	NA	6.50%
SJW Group	SJW	7.50%	7.50%	6.50%
Average		**6.35%**	**6.90%**	**7.08%**

Overall Average **6.78%**

Sources:
Yahoo! Fiance, Zacks, and Value Line
July 5, 2024 and September 13, 2024

I&E Exhibit No. 2
Schedule 7

Expected Market Cost Rate of Equity
Using Data for the Proxy Group of Six Water Companies
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:** September 13, 2024	2.71%	6.78%	9.48%
(2)	**Spot Price Ending:** September 13, 2024	2.52%	6.78%	9.30%
(3)	**Average:**	**2.61%**	**6.78%**	**9.39%**

Sources: Value Line July 5, 2024
Barrons September 13, 2024

Company	Beta
American States Water Co.	0.70
American Water Works Co.	0.95
California Water Service Group	0.75
Essential Utilities, Inc.	1.00
Middlesex Water Co.	0.75
SJW Group	0.85
Average beta for CAPM	**0.83**

Source:
Value Line
July 5, 2024

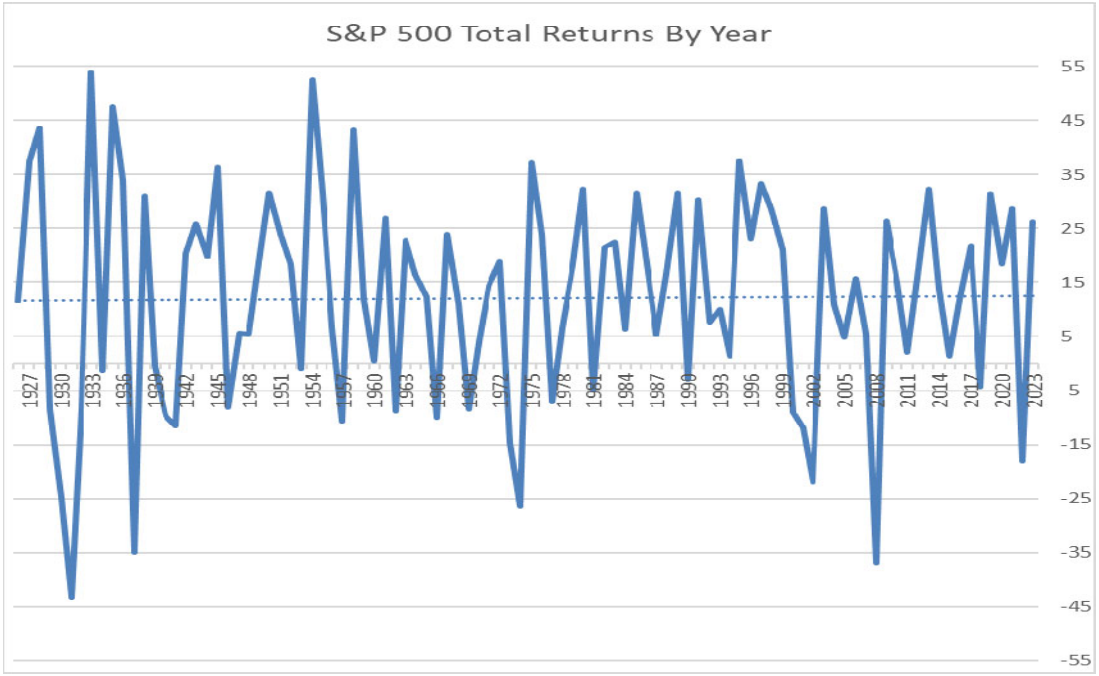
Risk-Free Rate **Treasury note 10-yr Note**	**Yield**
4Q 2024	3.90
1Q 2025	3.80
2Q 2025	3.80
3Q 2025	3.80
4Q 2025	3.80
2026-2030	4.10
Average	**3.87**

Source:
Blue Chip
August 30, 2024 and May 31, 2024

S&P 500 Yearly Total Return (in percentage)

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#google_vignette
Accessed on Spetember 23, 2024

Required Rate of Return on Market as a Whole Forecasted

	Dividend Yield	+	Growth Rate	=	Expected Market Return
Value Line Estimate	2.00%		8.78%	(a)	10.78%
S&P 500 Historical Return					12.16%
Average Expected Market Return				=	**11.47%**

(a) ((1+40%)^.25) -1) Value Line forecast for the 3 to 5 year index appreciation is 40%

Sources:

S&P 500 Historical Rate	1926-2023	12.16%
Value Line Dividend Yield	7/13/2024	2.00%
Value Line Appreciation Yield	7/13/2024	40.00%

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	**=**	3.87
Rm	**=**	11.47
Be	**=**	0.83
Re	**=**	**10.18**

Sources:	Value Line	July 5, 2024
	Blue Chip	August 30, 2024 and May 31, 2024

CAPM Using Kroll ERP

Re		Required return on individual equity security
Rf		Risk-free rate
ERP		Equity Risk Premium
Be		Beta on individual equity security
Re	**=**	Rf+Be(ERP)
Rf	**=**	3.87
ERP	**=**	5.00
Be	**=**	0.83
Re	**=**	**8.02**

Sources:	Value Line	July 5, 2024
	Blue Chip	August 30, 2024 and May 31, 2024
	Kroll	June 6, 2024

Average of CAPM Results

Forecasted CAPM	10.18
CAPM with ERP	8.02
Average CAPM Result	**9.10**

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

THE NEWTOWN ARTESIAN WATER COMPANY

Docket No. R-2024-3050208

I&E-RR-13-D Reference NAWC Statement No. 3, p. 55, lines 17-21 concerning the Risk Premium (RP) results of 11.20% (10.50% + 0.70%). 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.

Response: 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.

Responsible Witness: Harold Walker

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

THE NEWTOWN ARTESIAN WATER COMPANY

Docket No. R-2024-3050208

I&E-RR-9-D Reference NAWC Statement No. 3, p. 42, lines 1-4 concerning Mr. Walker's recommendation to give less weight 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. 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.

Response: 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.

Responsible Witness: Harold Walker

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

THE NEWTOWN ARTESIAN WATER COMPANY

Docket No. R-2024-3050208

I&E-RR-10-D Reference NAWC Statement No. 3, pp. 38-47 concerning the discussion on financial risk difference due to the market capitalization ratios being different from book value capitalization ratios and recommending a financial risk leverage adjustment of 0.70% to the DCF result of 9.80% (9.10% + 0.70% = 9.80%). 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.

Response: 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.

Responsible Witness: Harold Walker

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

THE NEWTOWN ARTESIAN WATER COMPANY

Docket No. R-2024-3050208

I&E-RR-12-D Reference NAWC Statement No. 3, p. 50, lines 12-16 concerning the financial risk leverage adjustment of 0.70% to the CAPM result of 11.00% (11.00% + 0.70% = 11.70%). 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.

Response: Mr. Walker has not conducted an exhaustive study of all Commission orders. Mr. Walker believes the Commission considers many factors including financial risk in reaching their conclusion but cannot accurately cite each occurrence.

Responsible Witness: Harold Walker

BUREAU OF INVESTIGATION AND ENFORCEMENT DATA REQUESTS

THE NEWTOWN ARTESIAN WATER COMPANY

Docket No. R-2024-3050208

I&E-RR-11-D Reference NAWC Statement No. 3, pp. 49-50, lines 21 through 3 and Schedule 17, p. 4 concerning the application of a size adjustment premium in 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 to recognize a small size impact. If so, identify the applicable cases, including the docket numbers.

Response: 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.

Responsible Witness: Harold Walker

I&E Statement No. 3
Witness: Esyan Sakaya

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

THE NEWTOWN ARTESIAN WATER COMPANY

Docket No. R-2024-3050208

Direct Testimony

of

Esyan Sakaya

Bureau of Investigation and Enforcement

Concerning:

Test Year
Rate Base
Plant in Service
Reporting Requirements
Scale Back of Rates

TABLE OF CONTENTS

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Esyan Sakaya. My business address is 400 North Street, Harrisburg, Pennsylvania 17120.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed as a Fixed Utility Valuation Engineer in the Pennsylvania Public Utility Commission's ("Commission") Bureau of Investigation and Enforcement ("I&E").

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. The I&E analysis in the 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. My direct testimony addresses Newtown Artesian Water Company's ("NAWC" or "Company") request for a base rate increase of $922,419 in additional annual

revenue. My testimony specifically addresses the following issues:

- Use of a Test Year;
- Rate Base Components;
- Plant in Service;
- Reporting Requirements;
- Revenue Increase and Proposed Revenue; and
- Scale back of Rates.

Q. DOES YOUR DIRECT TESTIMONY INCLUDE AN EXHIBIT?

A. Yes. I&E Exhibit No. 3 contains schedules relating to my direct testimony.

TEST YEAR

Q. WHAT IS A TEST YEAR AND HOW IS IT USED BY A COMPANY IN A BASE RATE PROCEEDING?

A. A test year is the twelve-month period over which a utility's assets, liabilities, revenues and expenses are measured as the basis for setting prospective base rates. Before the use of a fully projected future test year ("FPFTY") in rate case proceedings became available, a utility could only use a historic test year ("HTY") or a future test year ("FTY"). An HTY is a twelve-month period selected by a company that represents a recent full year of actual data. An FTY begins the day after the HTY ends and is used to allow for the time it takes to adjudicate a rate proceeding by permitting a company to select a future time period upon which to base its financial information. The FTY is allowed so that the rates set by the Commission will reflect

current and synchronized financial information to prevent regulatory lag in the very first year that rates are in effect. An FTY includes both actual and projected annualized and normalized estimates of revenues and expenses and a corresponding measure of value at the end of the period.

Q. PLEASE EXPLAIN THE USE OF AN FPFTY.

A. Act 11, which was signed into law on February 14, 2012, permits a utility to use an FPFTY to meet its burden of proof in rate cases. The FPFTY is defined as the twelve-month period that begins on the first date that new rates will be placed into effect, after the application of the full suspension period permitted under Section 1308(d). The FPFTY is a shift from the fundamental ratemaking principle that a public utility should only be permitted to include projects in rate base and earn a reasonable return on its investments after they become "used and useful" for the utility's public service. Prior to the passage of Act 11 by the Pennsylvania Legislature, utilities could use either an HTY or an FTY.

Q. WHAT TEST YEARS HAS THE COMPANY USED IN THIS PROCEEDING?

A. The Company has reflected data for the twelve-month period ended March 31, 2024 as the HTY, the twelve-month period ending March 31, 2025 as the FTY, and the twelve-month period ending March 31, 2026 as the FPFTY. The Company's rate increase claim is specifically based on projections for the FPFTY (NAWC St. No. 2, p. 2).

RATE BASE

Q. WHAT IS RATE BASE?

A. Rate base is the depreciated original cost of a utility's investment in plant a utility has in place to serve customers, plus other additions and deductions that the Commission determines to be necessary to keep the utility operating and providing safe and reliable service to its customers.

Q. WHAT OTHER ADDITIONS AND DEDUCTIONS TO THE DEPRECIATED ORIGINAL COST OF UTILITY PLANT MAY BE ALLOWED TO DETERMINE RATE BASE?

A. An example of additions to the depreciated original cost of a company's investment in utility are materials and supplies and cash working capital. An example of a deduction is deferred income taxes.

Q. WHAT IS NAWC'S RATE BASE CLAIM IN THIS PROCEEDING?

A. The FPFTY depreciated original cost claimed by NAWC in this proceeding is $44,247,367 (NAWC Exhibit GRH-1, p. 13). However, after including additions and deductions, its FPFTY rate base claim is reduced to $14,506,299 (NAWC Exhibit GRH-1, p. 13). The claimed additions to the Company's depreciated original cost include:

Materials and Supplies ("M&S") of $273,723; and

Cash Working Capital ("CWC") of $642,579.

The deductions to the depreciated original cost include:

Contributions in Aid of Construction ("CIAC") of $24,983,770;

Customer Advances for Construction ("CAC") of $1,321,725; and

Deferred Taxes of $4,351,876.

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 on rate base. The equation used to determine the proper revenue requirement level is:

Revenue Requirement = (Rate Base x Rate of Return) + Operating Expenses + Depreciation Expenses + Taxes

PLANT IN SERVICE

Q. WHAT IS UTILITY PLANT IN SERVICE?

A. Plant in service represents property, plant, and equipment owned by a utility for the provision of utility service. Plant in service includes such items such as meters, mains and accessories, office buildings, safety and communication equipment.

Q. HOW IS THE DEPRECIATED ORIGINAL COST OF PLANT IN SERVICE AT THE END OF THE TEST YEAR DETERMINED?

A. The depreciated original cost of plant in service 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 accumulated depreciation as adjusted by other items such as salvage value and removal costs.

Q. HOW IS DEPRECIATED ORIGINAL COST OF PLANT-IN-SERVICE RELATED TO RATE BASE?

A. As explained above, rate base is part of the revenue requirement calculation. Rate base is calculated by subtracting the accumulated depreciation from the original plant in service cost (which is equal to the Depreciated Original Cost Plant in Service), then further subtracting any deductions (such as CIAC and CAC as stated above), and adding any additions (such as M&S and CWC as stated above). Before the passage of Act 11, the end of the HTY or FTY was the focal point used to calculate the depreciated original cost. With the addition of the FPFTY in Act 11, the depreciated original cost of the plant in service is established by projecting the depreciated original cost value of used and useful utility plant projected to be in service at the end of the FPFTY based on anticipated additions, retirements, and accumulated depreciation.

Q. WHAT AMOUNT OF PLANT IN SERVICE IS CLAIMED FOR THE FTY ENDING MARCH 31, 2025 AND THE FPFTY ENDING MARCH 31, 2026?

A. The amount of plant in service for the proposed FTY is shown below:[1]

[1] NAWC Exhibit JJS-2, p. 45.

HTY Depreciable Plant	Plant Retirements	Plant Additions	FTY Depreciable Plant
$51,285,395	($409,189)	$2,866,500	$53,742,706

The amount of plant in service for the proposed FPFTY is shown below:[2]

FTY Depreciable Plant	Plant Retirements	Plant Additions	FPFTY Depreciable Plant
$53,742,706	($192,196)	$2,747,300	$56,297,810

Q. ARE YOU RECOMMENDING ANY CHANGES TO THE COMPANY'S PROPOSED PLANT?

A. No. However, I am recommending additional reporting requirements as discussed below.

PLANT RELATED REPORTING RECOMMENDATION

Q. DO YOU HAVE ANY RECOMMENDATIONS REGARDING PLANT ADDITIONS THAT THE COMPANY PROJECTS TO BE IN SERVICE DURING THE FTY ENDING MARCH 31, 2025, AND THE FPFTY ENDING MARCH 31, 2026?

A. Yes. I recommend that the Company be required to provide the Commission's Bureau of Investigation and Enforcement and the Office of Consumer Advocate with an update to NAWC's Table No. 4 (NAWC Exhibit JJS-2, p. 45) for the years 2024-2025 no later than August 1, 2025, and Table No. 4 (NAWC Exhibit JJS-3, p. 12) for the years 2025-2026 no later than August 1, 2026, to be filed under this docket

[2] NAWC Exhibit JJS-3, p. 12.

number. The tables should include actual beginning balances, plant additions, retirements, reclassifications, and ending balances by month for the twelve months ending March 31, 2025, and March 31, 2026.

Q. WHY DO YOU RECOMMEND THAT NAWC BE REQUIRED TO PROVIDE THESE UPDATES?

A. There is value in determining how closely NAWC's projected investments in future facility compare to the actual investments that are made by the end of the FTY and FPFTY. Determining the correlation between NAWC's projected and actual results will help inform the Commission and the parties in NAWC's future rate cases.

The updates are important because, as previously explained, through use of the FPFTY, NAWC is essentially requiring ratepayers to pre-pay a return on its projected investment in future facilities that are not in place and providing service at the time the new rates take effect, but also are 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 projections. Therefore, requiring the Company to provide updates demonstrating that actual investments align with projections used in setting rates using the FPFTY provides the Commission with actual data to gauge the accuracy of NAWC's projected investments in future proceedings.

PFAS-RELATED CONCERNS

Q. WHAT IS PFAS?

A. PFAS stands for per- and polyfluoroalkyl substances. These substances that are also

referred to as "forever chemicals" are widely used, long lasting chemicals linked to harmful health effects that have been found in the environment, including the water supply.[3]

Q. HAS THE COMPANY EXPLAINED WAYS IT IS PREPARING TO MEET THE UPCOMING EPA DEADLINE FOR PFAS REQUIREMENTS?

A. The Company has mentioned the construction of a new treatment plant for the "forever chemicals"[4] along with treatment plant upgrades where bids have already been awarded for such projects.[5] Additionally, the Company has claimed additional annual lab testing expense for PFAS of $6,400 in the FPFTY.[6] FTY claims for PFAS-related water treatment equipment are detailed on NAWC Exhibit JJS-2, p. 40, pp. 44-45, and p. 113. FPFTY claims are detailed on NAWC Exhibit JJS-3, p. 7, p. 9, pp. 11-12, and p. 29.

Q. DO YOU HAVE ANY COMMENTS RELATED TO PFAS REQUIREMENTS?

A. Yes. While the Company has mentioned plant-related improvements and an increase in FPFTY testing, it should be required to explain in detail how NAWC is moving toward ensuring that both well water and purchased water will meet the EPA standards in 2029. It has mentioned well-related plant improvements but has not

[3] https://www.epa.gov/pfas/pfas-explained, accessed September 27, 2024.
[4] NAWC Statement No. 1, p. 4.
[5] NAWC Statement No. 2, p. 8.
[6] NAWC Exhibit GRH-1, p. 33.

specifically explained how it will ensure that purchased water meets the future requirements.

REVENUE INCREASE AND PROPOSED REVENUE

Q. WHAT REVENUE INCREASE IS THE COMPANY REQUESTING?

A. The Company is requesting a revenue increase of $922,419 for the FPFTY ending March 31, 2026, representing a 14.2% increase in annual revenues (NAWC Exhibit GRH-1, p. 11).

Q. WHAT IS THE COMPANY'S PROPOSED TOTAL OPERATING REVENUE?

A. The Company's proposed total operating revenue is $7,517,407 (NAWC Exhibit GRH-1, p. 12).

PROPOSED RATES

Q. WHAT PERCENTAGE INCREASES TO THE VARIOUS RATES IS THE COMPANY PROPOSING?

A. The Company is proposing that all customer charges increase by 18.5%, that the NAWC usage rate increase by 18.5% from $6.635 per thousand gallons to $7.860 per thousand gallons, and that all Private Fire service charges increase by 18.5% (NAWC Exhibit GRH-1, pp. 39-41).

Q. HAVE YOU SUMMARIZED THE PROPOSED RATES AND SHOWN THE INCREASE IN REVENUE AND PERCENTAGE INCREASE UNDER PROPOSED RATES?

A. Yes. I have compiled I&E Ex. No. 3, Sch. 1 which shows the proof of revenue under proposed rates, the increase in revenue from increasing each rate, the percent increase and the total revenue increase requested by the Company after several revenue adjustments. The Company's requested increase of approximately $922,419 was derived from NAWC Exhibit GRH-1, p. 12, and is replicated on I&E Ex. No. 3, Sch. 1, p. 1, line 13, column I.

Q. DO YOU OPPOSE THE PROPOSED VOLUMETRIC RATES FOR PUBLIC AND PRIVATE FIRE INCREASING BY THE SAME PERCENTAGE AS THE PROPOSED CUSTOMER CHARGES?

A. No. As shown on I&E Ex. No. 3, Sch. 1, p. 2, line 14, columns E and G, the proposed usage rate of $7.860 per thousand gallons results in an 18.5% increase in the total usage revenue received from all customer classes, matching the 18.5% increase in the customer charges for all meter classes including fire protection. I believe the matching percentage increases between the customer charges and usage rates is reasonable as it equally spreads the increase to both the customer charge and usage rate.

SCALE BACK OF RATES

Q. IF THE COMMISSION GRANTS NAWC LESS THAN ITS PROPOSED $922,419 INCREASE, WHAT DO YOU RECOMMEND?

A. If the Commission grants an increase less than $922,419, both the customer charges and usage rates for all the affected rate classes should be scaled back proportionally.

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 Nos. R-2023-3040153 and R-2023-3040151
43. Veolia Water, Inc., Docket No. R-2024-3045192
44. Veolia Wastewater, Inc., No. Docket R-2024-3045193
45. Columbia Gas Company, Docket No. R-2024-3046519
46. PECO Energy Company – Electric, Docket No. R-2024-3046931

I&E Exhibit No. 3
Witness: Esyan Sakaya

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

THE NEWTOWN ARTESIAN WATER COMPANY

Docket No. R-2024-3050208

Exhibit to Accompany

the

Direct Testimony

of

Esyan Sakaya

Bureau of Investigation and Enforcement

Concerning:

Test Year
Rate Base
Plant in Service
Reporting Requirements
Scale Back of Rates

Newtown Artesian Water Company

R-2024-3050208

I&E Summary

of

Statement of Net Operating Revenue for the Twelve Months Ending March 31, 2026

Based on Data Shown in NAWC Exhibit GRH-1, p. 12

Line	Class	Per Books 3/31/2024	Historic Present Adjustments	Company at Present Rates 3/31/2024	Company Pro-Forma Adjustments	Company at Present Rates 3/31/2025	Company Pro-Forma Adjustments	Company at Present Rates 3/31/2026	Company Increase	Company Proposed Rates	Percent
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
1	Residential	$4,001,969	$129,800	$4,131,769	$7,088	$4,138,857	-$8,767	$4,130,090	$579,625	$4,709,716	14%
2	Commercial	$924,875	$107,115	$1,031,990	$21,332	$1,053,322	$21,223	$1,074,545	$142,443	$1,216,988	14%
3	Industrial	$455,335	$48,629	$503,963	$0	$503,963	$0	$503,963	$67,219	$571,183	13%
4	Public	$193,092	$21,649	$214,741	$0	$214,741	$0	$214,741	$29,796	$244,537	14%
5	Private Fire	$265,639	-$14,174	$251,466	$9,136	$260,602	$2,624	$263,226	$45,061	$308,286	17%
6	Public Fire	$267,132	-$2,786	$264,347	$0	$264,347	$0	$264,347	$48,825	$313,171	18%
7	**Sub Total**	**$6,108,042**	**$290,233**	$6,398,275	**$37,556**	**$6,435,831**	**$15,081**	**$6,450,912**	**$912,969**	**$7,363,881**	**14.2%**
8	**Other Operating Revenues**										
9	Metered Sales-Yard Hydrants	$24,414	$0.00	$24,414	$0.00	$24,414	$0.00	$24,414	$7,570	$31,984	31%
10	Forfeited Discounts	$13,251	$0.00	$13,251	$0.00	$13,251	$0.00	$13,251	$1,880	$15,131	14%
11	Rents from Water Property	$106,410	$0.00	$106,410	$0.00	$106,410	$0.00	$106,410	$0.00	$106,410	0%
12	**Total Other**	**$144,074**	**$0**	**$144,074**	**$0**	**$144,074**	**$0**	**$144,074**	**$9,450**	**$153,524**	7%
13	**TOTAL REVENUE**	**$6,252,116**	**$290,233**	**$6,542,350**	**$37,556**	**$6,579,905**	**$15,081**	**$6,594,986**	**$922,419**	**$7,517,405**	**14.02%**

I&E Exhibit No. 3
Schedule 1
Page 1 of 2

Newtown Artesian Water Company
R-2024-3050208
Present & Proposed Rates

Lines	All Classes Meter Size	NEWTOWN Present Rate Base	Increase	Proposed Rate Base	Percent Increase	I&E Present Rate Base	Increase	Proposed Quarterly Rate	Percent Increase
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
1	5/8	$22.71	$4.19	$26.90	18.5%	$22.71	$4.19	$26.90	18.5%
2	3/4	$34.11	$6.30	$40.41	18.5%	$34.11	$6.30	$40.41	18.5%
3	1	$56.82	$10.49	$67.31	18.5%	$56.82	$10.49	$67.31	18.5%
4	1-1/2	$113.64	$20.99	$134.63	18.5%	$113.64	$20.99	$134.63	18.5%
5	2	$181.80	$33.58	$215.38	18.5%	$181.80	$33.58	$215.38	18.5%
6	3	$340.92	$62.97	$403.89	18.5%	$340.92	$62.97	$403.89	18.5%
7	1 1/2 - monthly	$37.88	$7.00	$44.88	18.5%	$37.88	$7.00	$44.88	18.5%
8	2-monthly	$60.60	$11.19	$71.79	18.5%	$60.60	$11.19	$71.79	18.5%
9	3 - monthly	$113.64	$20.99	$134.63	18.5%	$113.64	$20.99	$134.63	18.5%
10	4 - monthly	$189.41	$34.98	$224.39	18.5%	$189.41	$34.98	$224.39	18.5%
11	6 - monthly	$378.83	$69.97	$448.80	18.5%	$378.83	$69.97	$448.80	18.5%
12	8 - monthly	$606.11	$111.95	$718.06	18.5%	$606.11	$111.95	$718.06	18.5%
13	10 - monthly	$871.29	$160.93	$1,032.22	18.5%	$871.29	$160.93	$1,032.22	18.5%

	Volumetric Rate	Present Per Thousand Gallons	Increase Per Thousand Gallons	Proposed Per Thousand Gallons	Rate Percent Increase	Present Per Thousand Gallons	Increase Per Thousand Gallons	Proposed Per Thousand Gallons	I&E Rate Percent Increase
14	Newtown Artesian Rate Area	$6.635	$1.225	$7.860	18.5%	$6.635	$1.225	$7.860	18.5%
15	Wholesale Demand Charge	$0.97	$0.14	$1.110	14.4%	$0.97	$0.140	$1.110	14.4%

	FIRE PROTECTION	Present Rate	Rate Increase	Company Annual Proposed	Rate Percent Increase	Present Rate	Present Quarterly Annual Rate	Proposed Quarterly Annual Rate	I&E Rate Percent Increase
	Private Fire Protection								
16	4" Sprinkler System (<300)	$121.11	$22.37	$143.48	18.5%	$121.11	$484.44	$573.92	18.5%
17	6" Sprinkler System (<300)	$121.11	$22.37	$143.48	18.5%	$121.11	$484.44	$573.92	18.5%
18	8" Sprinkler System (<300)	$141.28	$26.09	$167.37	18.5%	$141.28	$565.12	$669.48	18.5%
19	Private Hydrant- Newtown	$101.75	$18.79	$120.54	18.5%	$101.75	$407.00	$482.17	18.5%
20	Each Head Over 300	$0.26	$0.05	$0.31	18.5%	$0.26	$1.04	$1.23	18.5%
21	**Public Fire Protection**								
22	Public Hydrant-Newtown	$101.75	$18.79	$120.54	18.5%	$101.75	$407.00	$482.16	18.5%

Columns A to E were derived from Newtown Exhibit GRH-1, Page 46

I&E Statement No. 1-SR
Witness: Vanessa Okum

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

NEWTOWN ARTESIAN WATER COMPANY

Docket No. R-2024-3050208

Surrebuttal Testimony

of

Vanessa Okum

Bureau of Investigation and Enforcement

Concerning:

OPERATING & MAINTENANCE EXPENSES

CASH WORKING CAPITAL

TABLE OF CONTENTS

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Vanessa Okum, 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. ARE YOU THE SAME VANESSA OKUM WHO SUBMITTED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes. I submitted I&E Statement No. 1 and I&E Exhibit No. 1.

Q. DOES YOUR SURREBUTTAL TESTIMONY INCLUDE AN ACCOMPANYING EXHIBIT?

A. No.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimony of Gregory Herbert, witness for Newtown Artesian Water Company (NAWC or

Company) regarding operating and maintenance (O&M) expenses and cash working capital.

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 NAWC UPDATED ITS OVERALL REVENUE REQUIREMENT CLAIM IN REBUTTAL TESTIMONY?

A. Yes. Mr. Herbert's updated exhibit shows that the Company is requesting an increase of $923,418.[1]

Q. DO YOU ACCEPT THE COMPANY'S UPDATED REVENUE REQUIREMENT AS THE COMPANY'S NEW STARTING POINT PRIOR TO I&E'S RECOMMENDED ADJUSTMENTS?

A. Yes. I am applying my recommended adjustments for surrebuttal testimony to this updated NAWC position.

[1] NAWC Exhibit No. GRH-1R, p. 2.

SUMMARY OF RECOMMENDED ADJUSTMENTS

Q. PLEASE SUMMARIZE YOUR UPDATED RECOMMENDED ADJUSTMENTS.

A. The following table summarizes my updated recommended adjustments:

	Updated NAWC Claim	Updated I&E Recommended Allowance	Updated I&E Adjustment
O&M Expenses:			
Rate Case Expense	$161,667	$97,000	($64,667)
Total O&M Adjustments			**($64,667)**
Rate Base Adjustments:			
Cash Working Capital	$652,650	$373,281	($279,369)
Total Rate Base Adjustments			**($279,369)**

SUMMARY OF OVERALL I&E POSITION

Q. WHAT IS I&E'S TOTAL RECOMMENDED REVENUE REQUIREMENT?

A. I&E's total updated recommended revenue requirement for NAWC is $7,340,171. This recommended revenue requirement represents an increase of $746,180 to the Company's claimed present rate revenues of $6,593,991. This total recommended allowance incorporates my adjustments made in this testimony to O&M expenses and cash working capital and those recommended adjustments made in the

testimony of I&E witness D.C. Patel.[2] A calculation of the I&E recommended revenue requirement is shown below:

Newtown Artisian Water Company		TABLE I			
R-2024-3050208		INCOME SUMMARY			
	3/31/26	INVESTIGATION & ENFORCEMENT			
	Proforma	[---]			
	Present Rates	Adjustments	Present Rates	Allowances	Proposed
	$	$	$	$	$
Operating Revenue	6,593,991	0	6,593,991	746,180	7,340,171
Deductions:					
O&M Expenses	4,667,645	-64,667	4,602,978	0	4,602,978
Depreciation	817,790	0	817,790		817,790
Taxes, Other	511,216	0	511,216	4,754	515,970
Income Taxes:					
Current State	21,060	5,634	26,694	59,240	85,934
Current Federal	94,750	13,623	108,373	143,259	251,632
Deferred Taxes/Amort Reg Liab	33,684	0	33,684		33,684
ITC	0	0	0		0
Total Deductions	6,146,145	-45,410	6,100,735	207,253	6,307,988
Income Available	447,846	45,410	493,256	538,927	1,032,183
Measure of Value	14,516,370	-279,369	14,237,001	0	14,237,001
Rate of Return	3.09%		3.46%		7.25%

RATE CASE EXPENSE

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR RATE CASE EXPENSE.

A. I recommended normalizing the total expense over a five-year period, resulting in an allowance of $97,000 ($485,000 ÷ 5 years) for rate case expense, or a reduction of $64,667 ($161,667 - $97,000) to the Company's FPFTY claim. My

[2] I&E Statement No. 2-SR.

recommended normalization period was based on the average interval between rate case filings resulting from the Company's historic filing frequency.[3]

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. NAWC 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.

Mr. Herbert claims that the Company had been filing at a three-year cadence from 2005 to 2011 and that the recent delays in filing are anomalies. He explains that the Company's DSIC proceedings influenced the extended period between its 2011 and 2019 cases, and the timing of the Company's PFAS treatment upgrades affected the timing of its most recent filing. He expects that the Company will not be able to wait five years for its next rate case filing.[4]

Q. ARE YOU PERSUADED BY MR. HERBERT'S RESPONSE?

A. No. I disagree that a three-year normalization period is reasonable because it does

[3] I&E Statement No. 1, pp. 5-10.
[4] NAWC Statement No. 2-R, pp. 6-7.

not reflect the Company's most recent historic filing frequency, which the Commission has cited as an essential element in determining the normalized level of rate case expense for ratemaking purposes.

While I understand that the Company had reasons for not filing its recent rate cases sooner, I disagree that the recent delays should be classified as anomalies. I agree that there are various reasons why a company might choose to delay a rate case filing, and though these reasons are valid, they still contribute to the rate case filing frequency and the establishment of new filing patterns. In fact, any number of issues could affect the timing of the Company's next rate case filing.

The proposed three-year period is not supported by the historic filing frequency and is speculative in nature. Therefore, a three-year normalization period should be rejected as it would result in an unreasonable increase in rates and would likely cause the Company to over-collect its rate case expense. A five-year 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 five-year period, resulting in an allowance of $97,000 ($485,000 ÷ 5 years) for rate case expense, or a reduction of $64,667 ($161,667 - $97,000) to the Company's FPFTY claim.

EMPLOYEE WELFARE EXPENSE

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR WELFARE EXPENSE?

A. I recommended an allowance of $186,809 for employee welfare expense, or a reduction of $45,000 ($231,809 - $186,809) to the Company's claim. My recommendation was based on disallowance of the additional funds requested because of the Company's anticipated change to its health insurance provider.[5]

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. NAWC witness Gregory Herbert accepts my recommendation.[6] The change is reflected in the Company's updated revenue requirement and detailed in Adjustment E-4 of NAWC Exhibit GRH-1R.[7]

CASH WORKING CAPITAL

Q. SUMMARIZE YOUR RECOMMENDATION IN DIRECT TESTIMONY FOR CASH WORKING CAPITAL (CWC).

A. I recommended an allowance of $366,917 or a reduction of $275,662 ($642,579 - $366,917) to the Company's claim. My recommendation was based on eliminating purchased water and taxes other than income from the CWC

[5] I&E Statement No. 1, pp. 11-12.
[6] NAWC Statement No. 2, p. 8.
[7] NAWC Exhibit No. GRH-1R, p. 20.

calculation, as well as modifications due to my recommended adjustments to O&M expenses.[8]

Q. DID ANY WITNESS RESPOND TO YOUR RECOMMENDATION?

A. Yes. NAWC witness Gregory Herbert disagrees with my CWC adjustments in as much as he disagrees with my O&M adjustments. Additionally, he disagrees with my recommendation to exclude purchased water and taxes other than income from the CWC calculation.

Q. PLEASE SUMMARIZE MR. HERBERT'S RESPONSE REGARDING YOUR RECOMMENDED EXCLUSION OF PURCHASED WATER AND TAXES OTHER THAN INCOME.

A. Mr. Herbert states that taxes other than income should not be excluded from the CWC calculation, as these are PURTA taxes and payroll taxes, which he opines are unrelated to revenue and are paid before the revenues are received.

Mr. Herbert also states that purchased water should not be excluded from the CWC calculation because the Company pays the purchased water invoices as supplied, not only when the Company receives the revenues from its customers. He adds that I did not object to the inclusion of purchased water in the CWC calculation in a recent case for Veolia Water Pennsylvania (Veolia).[9]

[8] I&E Statement No. 1, pp. 13-17.
[9] NAWC Statement No. 2-R, p. 11.

Q. WHAT IS YOUR RESPONSE TO MR. HERBERT'S ARGUMENT REGARDING TAXES OTHER THAN INCOME?

A. According to *A Guide to Ratemaking*, written by James H. Cawley and Norman J. Kennard, taxes are collected from ratepayers prior to the payments being made and as such, should be excluded from CWC when using the 1/8 method.[10]

Q. WHAT IS YOUR RESPONSE TO MR. HERBERT'S ARGUMENT REGARDING PURCHASED WATER?

A. I disagree with Mr. Herbert that purchased water should be included in the CWC calculation. As stated in my direct testimony, purchased water should be excluded unless a Company can demonstrate that they are billed for water in advance rather than in arrears.[11] Mr. Herbert has not demonstrated that the Company is billed in advance for purchased water. I also reiterate that the 2003 NARUC Rate Case and Audit Manual[12] addresses purchased power on p. 19, which is excluded based on the contention that purchased power is paid for after revenues are received, and I argue that purchased water should be treated in a similar manner.[13] The 2012 Deloitte Regulated Utilities Manual on p. 12 supports this argument for purchased power,[14] and the Notice of Proposed Rulemaking Order at Docket No. L-2021-

[10] https://www.puc.pa.gov/General/publications_reports/pdf/Ratemaking_Guide2018.pdf, p. 123.
[11] I&E Statement No. 1, p. 16.
[12] https://ipu.msu.edu/wp-content/uploads/2017/09/NARUC-Ratecase-and-Audit-Manual-2003.pdf, accessed November 7, 2024.
[13] I&E Statement No. 1, pp. 15-16.
[14] https://ipu.msu.edu/wp-content/uploads/2017/09/Deloitte-Regulated-Utilities-Manual-2012-2.pdf, accessed November 7, 2024.

2317273 (Order Entered June 17, 2021), pp. 31-32, directly mentions such treatment for purchased water.[15]

Additionally, the comparison Mr. Herbert uses with Veolia is inappropriate because Veolia does not calculate its CWC using the 1/8 method, but rather conducts an in-depth lead/lag study for this calculation. I&E has, however, argued that purchased water should be removed when using the 1/8 method in the rate case filing of the Greater Hazleton Community Area New Development Organization, Inc., T/A CAN DO, Inc. - Water Division (CAN DO) at Docket No. R-2023-3040153.[16]

Q. DID NAWC UPDATE ITS CWC CLAIM IN REBUTTAL TESTIMONY?

A. Yes. Since the Company updated several of its O&M expense claims, the FPFTY CWC claim has been updated correspondingly.

Q. WHAT IS THE COMPANY'S UPDATED CLAIM?

A. The Company's updated FPFTY claim for CWC expense is $652,650.[17]

Q. DO YOU AGREE WITH COMPANY'S UPDATED CWC CLAIM?

A. No. However, I have an update to my recommendation for CWC. As stated in

[15] I&E Statement No. 1, pp. 16.

[16] *Pa. P.U.C. v. Greater Hazelton Community Area New Development Organization T/A CAN Do, Inc.,* Docket No. R-2023-3040153, I&E Statement No. 1, pp. 30-31 and I&E Statement No. 1-SR, pp. 30-36.

[17] NAWC Statement No. 2-R, p. 11 and NAWC Exhibit GRH-1R, p. 4.

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.

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 recommended allowance for CWC is $373,281, or a reduction of $279,369 ($652,650 – $373,281) to the Company's updated claim, which is calculated as follows:

FPFTY Total Operating Expenses	$4,667,645
Less Purchased Water	($1,616,728)
Less I&E Adjustments to O&M	($64,667)
I&E Adjusted Total	$2,986,250
Multiplied by 1/8th (12.5%)	$373,281

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 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 Statement No. 2-SR
Witness: D. C. Patel

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

THE NEWTOWN ARTESIAN WATER COMPANY

Docket No. R-2024-3050208

Surrebuttal Testimony

of

D. C. Patel

Bureau of Investigation & Enforcement

Concerning:

Rate of Return

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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 The Newtown Artesian Water Company (NAWC or Company) witness Harold Walker, III (NAWC Statement No. 3-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 NAWC's rate base.

The absence of my comments or responses to particular statements or topics addressed in NAWC'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. Yes. I&E Exhibit No. 2-SR supports my surrebuttal testimony. Additionally, 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 fully projected future test year (FPFTY) ending March 31, 2026 (I&E Statement No. 2, p. 6):

I&E
The Newtown Artesian Water Company
Summary of Cost of Capital

Type of Capital	Ratio	Cost Rate	Weighted Cost Rate
Long-Term Debt	45.00%	4.64%	2.09%
Common Equity	55.00%	9.39%	5.16%
Total	**100.00%**		**7.25%**

Q. DID THE COMPANY PROVIDE AN UPDATE TO ITS RATE OF RETURN CLAIM?

A. No. Company witness Mr. Walker does not change his recommendation and continues to recommend a return on equity (ROE) of 10.80% inclusive of his financial risk leverage adjustment of 0.70% for a Market to Book (M/B) ratio difference and size premium adjustment. The Company's supported rate of return claim is as follows (NAWC Exhibit HW-1, Schedule 1):

THE NEWTOWN ARTESIAN WATER COMPANY Summary of Cost of Capital			
Type of Capital	**Ratio**	**Cost Rate**	**Weighted Cost Rate**
Long-Term Debt	45.00%	4.64%	2.09%
Common Equity	55.00%	10.80%	5.94%
Total	**100.00%**		**8.03%**

However, it should be noted that the claimed overall rate of return in the Company's updated revenue requirement in rebuttal testimony is 7.68% (NAWC Exhibit GRH-1R, p. 2).

SUMMARY OF MR. WALKER'S REBUTTAL TESTIMONY

Q. SUMMARIZE MR. WALKER'S RESPONSE TO YOUR COST OF EQUITY RECOMMENDATION.

A. Mr. Walker makes initial general comments on my recommended ROE of 9.39% comparing it with Value Line's projected earned return on equity, he disputes my

ROE recommendation's exclusive reliance on the Discounted Cash Flow (DCF) model, and asserts that it is necessary to estimate common equity cost rates using a number of multiple analytical models considering "the current unusual and extremely high inflation rate" that has resulted in increases in interest rates and capital cost rates (NAWC Statement No. 3-R, pp. 5-6). He avers that my recommended ROE is not consistent with the Commission's authorized return rates on common equity in base rate cases (approved during the period March 2017 through July 2024) (NAWC Statement No. 3-R, pp. 9-13).

INFLATION AND CAPITAL COSTS

Q. SUMMARIZE MR. WALKER'S COMMENTS ON INCREASED CAPITAL COSTS DUE TO THE CURRENT INFLATION RATE.

A. Mr. Walker points to the current yields of 4.24% on 10-year treasury notes and 5.59% on "A" rated public utility bonds as of October 23, 2024 and the rolling average yields of 4.25% on 10-year treasury notes and 5.65% on "A" rated public utility bonds from October 2023 through September 2024. He then states that this has similarly resulted in higher common equity cost rates today than have existed over the last several years (NAWC Statement No. 3-R, pp. 6-7 and NAWC Exhibit HW-1R, Schedule 2, p. 4). Briefly, he tries to prove that investors' expectations have not been influenced by the reduction in inflation rates shown in the Blue Chip Financial Forecasts (August 30, 2024 publication) as is evidenced by the increase in 10-year treasury notes and 30-year treasury bonds yields as of

September 17, 2024 and October 23, 2024 as shown in his Table 1 (NAWC Statement No. 3-R, p. 8).

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 September 17, 2024 and October 23, 2024 for 10-year treasury notes and 30-year treasury bonds that were 0.59% and 0.55% respectively (NAWC Statement No. 3-R, Table 1, p. 8). 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. For example, per the latest Mergent Bond Records of November 2024, the "A" rated public utility bond average yield for October 2024 was 5.41% (I&E Exhibit No. 2-SR, p. 2) rather than the 5.59% yield on "A" rated public utility bonds as of October 23, 2024 cited by Mr. Walker.

All companies, including regulated utilities, have been impacted by higher interest rates, however, all companies would also realize the benefit of the Federal Reserve's proposed interest rate cuts. It is important to note that with the September 18, 2024 interest rate cut of 0.50%, the Federal Reserve has charted a course for two additional cuts this year followed by four more rate cuts in 2025. Most recently on November 7, 2024, the Federal Reserve announced an additional

rate cut of 0.25%[1]. The proposed interest rate cuts in 2025 would have the effect of reducing inflation pressure and interest rate risks, and potentially reduce capital costs for the entire industry. As discussed in direct testimony, the 2025 interest rate cuts cover NAWC's FPFTY when the new rates will be in effect (I&E Statement No. 2, p. 25). Additionally, it is important to note that unlike unregulated companies, public utilities have an option to file rate cases to 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 an average ROE of 9.70% in nine historic base rate cases (March 2017 through July 2024), and he compares this to my recommended ROE of 9.39% for NAWC (NAWC Statement No. 3-R, Table 2, p. 10). He then states that the Commission's average authorized ROE for these bases rate cases is higher by 0.31% (9.70% - 9.39%) (NAWC Statement No. 3-R, p. 10). Second, he presents statistics for the average 10-year treasury note yield of 2.24% and an "A" rated public utility bond yield of 3.97% that prevailed in the month of the Commission's orders in the

[1] The Federal Reserve gave Americans another interest rate cut (accessed on November 7, 2024).

respective base rate cases and compared these to the current trailing 12-month average yields on the 10-year treasury note of 4.25% and the "A" rated public utility bond of 5.65% (NAWC Statement No. 3-R, Table 3, p. 11). He then concludes that this comparison shows that measurable capital cost rates have increased since the Commission's orders were entered in respective base rate cases (March 2017 through July 2024) due to increased inflation and interest rates (NAWC Statement No. 3-R, p. 13). Third, 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. The market value derived cost rate reflects the financial risk or leverage associated with capitalization ratios based on market value, and not the book value. Considering the increased amount of leverage between market value derived DCF cost rates and book value cost rates, he indicates that my proxy group's market value DCF cost rate (9.39%) should reflect an equity ratio of 69% rather than applying this cost rate to NAWC's claimed 55% equity ratio. He then concludes that since the capital structure and firm value are related, a leverage adjustment (e.g., Hamada adjustment) is required and justified when a cost of common equity model is based on market value and if its results are then applied to book value capital structure (NAWC Statement No. 3-R, pp. 13-16).

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 inappropriate comparison of the Commission authorized average ROE of 9.70% in nine historic base rate cases to my recommended ROE of 9.39% for NAWC. It is important to note that I have cited the Commission 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. 17). Mr. Walker's comparison of the Commission's authorized ROE in historic base rate case orders (issued from March 2017 through July 2024) to my recommended ROE for NAWC in this proceeding is irrelevant and inappropriate because all the cited utilities' base rate cases had different risk characteristics, merits of the rate cases, 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 were considered on a case by case basis. The Commission authorized ROE in those cases considered these differences and the merits of each case, so the outcome of those cases has no bearing in determining an appropriate ROE for NAWC. Therefore, Mr. Walker's reliance on or comparison of the historic authorized ROEs to invalidate my recommended ROE for NAWC and to support his claimed ROE is not appropriate or relevant in this base rate proceeding. Second, Mr. Walker's comparison of the trailing 12-month average 10-year treasury note yield and "A" rated public utility

bond yield that prevailed in the month of the Commission orders in respective historic base rate cases with the current average 10-year treasury notes yield and "A" rated public utility bonds yield does not produce any additional support for the Company's claimed ROE. Third, 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 adjustment (Hamada models) of 0.70% to his market determined DCF result of 9.10% and continue to recommend an ROE of 9.39% based on my DCF analysis. As discussed at length in my direct testimony, I reiterate that in traditional ratemaking, a utility's 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, those 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. 41, line 23 through p. 43, line 5). Lastly, it is important to note that in none of the Commission orders in base rate cases cited by Mr. Walker was a financial leverage adjustment for the difference in market and book value capitalization ratios approved in determining the appropriate ROE for any of the utility companies (I&E Exhibit No. 2, Schedule 13, p. 2).

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 to the cost of equity results. I have discussed in more detail the market and book capitalization ratio difference and leverage adjustment in the M/B ratio section below.

CAPITAL ASSET PRICING MODEL (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), Comparable Earnings (CE), credit analyses, bond ratings, etc. (NAWC Statement No. 3-R, p. 17).

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 are based on different fundamental theories and

assumptions. Therefore, it is irrelevant to relate the CAPMs underlying assumptions with 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. First, 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 (NAWC Statement No. 3-R, p. 19). He 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 by the stock ticker symbol (NAWC Statement No. 3-R, p. 19). He then concludes that he continues to recommend a ROE of 10.80% for NAWC despite using my proxy group excluding The York Water Company (NAWC Statement No. 3-R, p. 20). Second, he states that I did not provide an analysis of similarity or dissimilarity of risk between the proxy group companies and NAWC, and therefore, he opines the Commission should not rely upon my ROE recommendation (NAWC Statement No. 3-R, p. 21).

Q. WHAT IS YOUR RESPONSE TO MR. WALKER'S REBUTTAL TESTIMONY REGARDING YOUR EXCLUSION OF THE YORK WATER COMPANY FROM YOUR PROXY GROUP?

A. First, 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 1-2). 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. Second, regarding the similarity or dissimilarity of risk between the proxy group companies and NAWC, it is important to note that Value Line has identified all companies in my proxy group as "water utilities" and all six companies of my proxy group are included in Mr. Walker's proxy group. I agreed with Mr. Walker's business risk analysis conclusion that NAWC has similar regulatory risk, credit rating risk, and investment risk to his comparable Water Group companies (I&E Statement No. 2, p. 48, line 10-13). Similarly, I agreed with Mr. Walker's conclusion that NAWC's financial risks are less and/or similar to the risks of the comparable Water Group companies (I&E Statement No. 2, p. 49, line 8-9). This signifies that although NAWC is smaller in size, the business and financial risk profile remains more or less similar to the larger 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 NAWC. 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 identified in my direct testimony (I&E Statement No. 2, p. 9, line 2).

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 for my proxy group companies and states that the mathematical average of my growth rates should be 6.89% rather than 6.78% (I&E Exhibit No. 2 Schedule 6). He then asserts that my DCF results would be 9.50% and not 9.39% based on a growth rate of 6.89% (NAWC Statement No. 3-R, p. 24). Second, he disputes Middlesex Water Company's low-end DCF result of 6.86% included in my proxy group companies because he states it is below the zone of reasonableness and that this heavily impacts the average of the proxy group companies' DCF results. He suggests that if Middlesex Water's DCF result is excluded, the average of the proxy group DCF results would be 10.03% instead of 9.39% (NAWC Statement No. 3-R, pp. 24-25).

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 6.89% rather than 6.78%. He suggests using the average of each company's growth rates forecasted by Yahoo!, Zacks, and Value Line rather than using my 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) as shown in the table below (I&E Exhibit No. 2, Schedule 6):

Five-Year Growth Estimate Forecast for Proxy Group (Actual)					
Company	**Symbol**	**Yahoo**	**Zack's**	**Value Line**	**Average**
		(a)	**(b)**	**(c)**	**(d)**
American States Water Co.	AWR	4.40%	6.30%	6.50%	5.73%
American Water Works Co.	AWK	7.50%	8.00%	4.50%	6.67%
California Water Service Group	CWT	10.80%	NA	11.50%	11.15%
Essential Utilities, Inc.	WTRG	5.20%	5.80%	7.00%	6.00%
Middlesex Water Co.	MSEX	2.70%	NA	6.50%	4.60%
SJW Group	SJW	7.50%	7.50%	6.50%	7.17%
Average		**6.35%**	**6.90%**	**7.08%**	**6.78%**
				6.78% = [(6.35%+6.90%+7.08%)÷3]	
				Average of Column (d) 6.89%	
Sources:					
Yahoo! Finance, Zacks, and Value Line					
July 5, 2024 and September 13, 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 6.86% and use his modified average DCF result of 10.03% 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 13.45% 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 13.45% and Middlesex Water's DCF result of 6.86% would produce an average DCF result of 9.17% (rather than my average DCF result of 9.39%) 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 Co.	2.46%	5.73%	8.19%	8.19%
American Water Works Co.	2.32%	6.67%	8.99%	8.99%
California Water Service Group	2.30%	11.15%	13.45%	-
Essential Utilities, Inc.	3.54%	6.00%	9.54%	9.54%
Middlesex Water Co.	2.26%	4.60%	6.86%	-
SJW Group	2.79%	7.17%	9.96%	9.96%
Average	2.61%	6.89%	9.50%	**9.17%**

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 10.03% 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. First, 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 (NAWC Statement No. 3-R, pp. 25-26). Second, he disagrees with me for rejecting his size premium adjustment to

the CAPM results (NAWC Statement No. 3-R, pp. 27-28). Third, he disputes my CAPM results based on Kroll's recommended equity risk premium (ERP) because Kroll's projected total market return is below the returns earned from investing (NAWC Statement No. 3-R, pp. 29-31). Lastly, he raises concern about ignoring the CAPM results to determine an appropriate ROE for NAWC (NAWC Statement No. 3-R, pp. 31-33).

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 (NAWC statement No 3-R, p. 26). Second, he disagrees with my calculation of the risk-free rate because my CAPM results reflect a *forecasted* average yield of 3.87% on 10-year Treasury Notes while the current actual yield on 10-year Treasury Notes was 4.24% as of October 23, 2024. He then states that using the current risk-free rate of 4.24% my CAPM result would be 10.24% rather than 10.18% (NAWC Statement No 3-R, p. 26).

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 shortcomings 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 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 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[2] (I&E Statement No. 2, pp. 30-31).

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. NAWC is setting new rates to be applicable or effective in the FPFTY ending March 31, 2026, and not in the current year (future test year) ending March 31, 2025. Therefore, it is irrelevant and improper to use the current yield of 4.24% on 10-year Treasury Notes as of October 23, 2024 rather than applying an average of *forecasted* yield on 10-year Treasury Notes (3.87%) as the risk-free rate in my CAPM analysis for calculating the *forecasted* CAPM results (I&E Exhibit No. 2, Schedules 9 and 11).

Considering the above, Mr. Walker's assertion is misplaced because I considered the projected yields for the five quarters (Q4-2024 through Q4-2025) and for the 2026-2030 period available from Blue Chip Financial Forecasts of August 30, 2024 and May 31, 2024 respectively. Lastly, applying the current yield (4.24%) on 10-year Treasury Notes in the CAPM analysis is less reliable and

[2] *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; *Pa. PUC v. Pennsylvania-American Water Company*; Docket Nos. R-2023-3043189 and R-2023-3043190 (Order Entered July 22, 2024). *See generally* Disposition of Capital Asset Pricing Model (CAPM), pp. 171-172.

creates more speculative estimates for the future period. My calculation provides a balance of future estimates for the FPFTY and the future period when NAWC's new rates will be in effect.

Q. DO YOU AGREE WITH MR. WALKER'S MODIFIED I&E CAPM RESULTS OF 10.24% AFTER APPLYING THE CURRENT RISK-FREE RATE OF 4.24%?

A. No. I disagree with Mr. Walker's modified CAPM result of 10.24% for the cost of equity estimation (NAWC Statement No. 3-R, p, 26).

KROLL ERP

Q. SUMMARIZE MR. WALKER'S RESPONSE TO YOUR CAPM ANALYSIS BASED ON KROLL'S ERP.

A. Mr. Walker claims that Kroll's recommended ERP of 5.0% is based on a total market return of 8.5% projection that was published June 5, 2024 and since then the market (S&P 500) has provided investors an annualized market return of 23.1%. He asserts that investors' return requirements are higher than what Kroll advocates and claims that investors in the market have not relied upon the cited Kroll study/article since the projected market return cited in the study/article is considerably below the returns earned from investing.

Q. WHAT IS YOUR RESPONSE TO MR. WALKER'S REBUTTAL TESTIMONY CONCERNING THE KROLL ERP?

A. As discussed in my direct testimony, my recommendation is based on the DCF method as the primary method to determine the cost of common equity. I am providing the results of my CAPM analysis as a comparison, and not as a check, to my DCF results (I&E Statement No. 2, p. 17).

My inclusion of the Kroll ERP in my CAPM analysis is to provide more information to the Commission as it has recently expressed increasing interest in the CAPM model. Kroll is a trusted and publicly available source that bases its recommended ERP on current and forecasted economic and financial conditions. Mr. Walker's opposition to my use of Kroll's ERP further demonstrates that the inputs to the CAPM are highly subjective and can lead to wildly different results. This is not the case with the DCF inputs and analysis results.

<u>SIZE PREMIUM ADJUSTMENT</u>

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 (NAWC Statement No. 3-R, p. 29). He claims that a size premium reflects the risks associated with my proxy group's small size relative to the market and its impact on the determination of its beta (NAWC Statement No. 3-R, p. 27). He asserts that this adjustment is

necessary because beta (systematic risk) does not capture or reflect the proxy group's small size (NAWC Statement No. 3-R, p. 27). Additionally, he claims that CAPM understates the return for small companies and for companies with betas below 1.0 (NAWC Statement No. 3-R, p. 28).

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. It is also important to note that my proxy group companies are large in size as compared to NAWC and the proxy group beta appropriately represents the water industry's market risk. Investors are aware that utility 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. I have discussed in more detail the size adjustment concept in a separate section below.

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 10.18% (I&E Exhibit No. 2, Schedule 11) as simply a comparison to my DCF result of 9.39% (I&E Exhibit No. 2, Schedule 7) 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, pp. 45-47), I stated that Mr. Walker's 70-basis point adjustment to the CAPM results is unnecessary because none of the technical literature 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 vice versa, and it is difficult to establish a sufficient correlation to prove that size is a specific risk for utilities. NAWC's smaller size risk concern is invalidated and unsupported because NAWC'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, pp. 46-47). Finally, the Commission has recently rejected the application of a size adjustment to the cost of equity calculation where it agreed that the same literature the Company cites is not specific to the utility industry[3] (I&E Statement No. 2, p. 47).

Q. SUMMARIZE MR. WALKER'S RESPONSE IN REBUTTAL TESTIMONY REGARDING A SIZE RISK FACTOR ADJUSTMENT.

A. Mr. Walker opines that the firm size plays a role in the pricing of securities in the unregulated financial markets, and therefore, it is necessary to reflect this fact when determining capital cost rates for utilities. He implies that a small utility is at a competitive disadvantage in the money market when competing for capital if a size adjustment is not applied (NAWC Statement No. 3-R, p. 28). He attempts to support this assertion by pointing to studies/articles (NAWC Statement No. 3-R,

[3] *Pa. PUC v. UGI Utilities, Inc. - Electric Division,* Docket No. R-2017-2640058, p. 100 (Order Entered October 25, 2018). *See generally* Disposition of Capital Asset Pricing Model (CAPM), p. 100.

pp. 27-28 and p. 38). 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 (NAWC Statement No. 3-R, p. 39).

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 (NAWC Statement No. 3-R, pp. 38-39). 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 on 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 (NAWC Statement No. 3-R, p. 39); however, it is not specific to regulated utilities and does not define or quantify minimum size criterion. In my opinion, there is no direct nexus between Standard & Poor's credit rating methodology and applying a size adjustment premium adder in the cost of equity estimation for regulated utility ratemaking.

Additionally, 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 competitive market structure.

Q. PLEASE CONTINUE.

A. It is also important to note that 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 market conditions, 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 that 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 above and in my direct testimony (I&E Statement No. 2, p. 47),

I reiterate that the Commission has rejected the application of a size adjustment to the cost of equity calculation in a base rate case proceeding.[4]

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 the cost of equity estimation in consideration of the Company's small size be disallowed.

M/B RATIO ADJUSTMENT

Q. SUMMARIZE MR. WALKER'S RESPONSE IN REBUTTAL TESTIMONY REGARDING A M/B RATIO ADJUSTMENT.

A. Mr. Walker alleges that my DCF results and OCA witness Morgan N. DeAngelo's DCF results are less reliable the larger the difference between proxy group's market value capitalization and book value capitalization ratios because the DCF model provides an estimate of the cost of capital of market value and not the book value (NAWC Statement No. 3-R, p. 14). 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 31%/69% (debt/equity) market value ratio used to calculate the return, which will be applied to NAWC's

[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.

claimed 45%/55% (debt/equity) book value ratio (NAWC Statement No. 3-R, p. 16). Therefore, he concludes that my recommended market value derived DCF cost rate of 9.39% needs to be adjusted by 0.70% for the M/B ratio difference, inflating my DCF cost rate to 10.09% (NAWC Statement No. 3-R, pp. 16-17).

Q. WHAT IS YOUR RESPONSE TO MR. WALKER'S DISCUSSION REGARDING THE M/B RATIO AND THE SUPPOSED NEED FOR A LEVERAGE ADJUSTMENT/ADDER IN THE MARKET DETERMINED DCF COST RATE?

A. I disagree with Mr. Walker's assertion to apply the M/B ratio leverage adjustment of 0.70% to the market determined DCF cost rate. 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, pp. 41-44), 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 that historically (for a 25-year period) the M/B ratios for S&P 500 stocks have ranged from 206% to 460% and utility stocks have also followed the same direction (NAWC Statement No. 3, p. 40, line 22 through p. 41, line 9). 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 one (1.0) causes the DCF to incorrectly estimate or underestimate the investor-required return on equity and a need for leverage adjustment to the market determined cost of 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 0.70% leverage adjustment for the 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	9.10%	0.70%	9.80%
CAPM	11.00%	0.70%	11.70%
RP	10.50%	0.70%	11.20%
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, the Commission should consider models that directly measure interest rate levels (e.g., the CAPM and RP) when determining NAWC's cost of equity (NAWC Statement No. 3-R, p. 33). 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 (NAWC Statement No. 3-R, pp. 29-30). Additionally, he cites academic and financial literature survey results to support his assertion for relevance of the CAPM method (NAWC Statement No. 3-R, pp. 30-31).

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 high interest rates. 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 as

[5] *Pa. PUC v. Aqua Pennsylvania, Inc.,* Docket Nos. R-2021-3027385 & R-2021-3027386, pp. 178 (Order Entered May 16, 2022).

> 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 March 31, 2026, 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. PLEASE CONTINUE.

A. In the most recent Pennsylvania-American Water Company (PAWC) base rate case, although the Commission determined PAWC's ROE based on the average results of DCF and CAPM analyses, the Commission most importantly notes in its order:

> Before concluding this section, we stress that based upon the specific record developed in this proceeding, we have determined that taking the average of the DCF and CAPM results produces a reasonable ROE. However, *we do not strictly endorse averaging the DCF and CAPM in other proceedings* ("emphasis added") where it is determined that methodologies other than the DCF are necessary to determine the utility's ROE. Consistent with these determinations, we shall deny PAWC's Exception No. 1, I&E's Exception No. 1, and the OCA's Exception No. 11.[7]

Finally, 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 in direct testimony, the use of the CAPM in this proceeding would result in a significant burden to ratepayers (I&E Statement No. 2, pp. 34-35). Therefore, I continue to disagree with providing the CAPM comparable weight to the DCF method.

[7] *Pa. PUC v. Pennsylvania-American Water Company*, Docket Nos. R-2023-3043189 & R-203-3043190, pp. 194 195 (Order Entered July 22, 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 NAWC's ROE determination because academic and financial literature supports the use of multiple models such as the DCF and CAPM models in determining the 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 used the CAPM model for comparison purposes, and not as a check (I&E Statement No. 2, pp. 17-24). As discussed above, the Commission's recent final orders in the Aqua, Columbia Water, and PAWC base rate 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.

DISTRIBUTION SYSTEM IMPROVEMENT CHARGE (DSIC) RATE

Q. SUMMARIZE MR. WALKER'S RESPONSE IN REBUTTAL TESTIMONY REGARDING CONSIDERATION OF THE COMMISSION'S LATEST DSIC RATE IN DETERMINING THE COST OF EQUITY.

A. Mr. Walker states that the DSIC rate is a less risky return, and he asserts that 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. Further, he states that the Commission does not rely on a single model's results in reaching its conclusion of the DSIC rate. For example, the DSIC rate is usually set well above the cost of equity indicated by the DCF model alone. Finally, he concludes that the Commission relies on informed judgment and information provided by other models, especially in a rising interest rate environment (NAWC Statement No. 3-R, p. 17).

Q. PLEASE RESPOND TO MR. WALKER'S COMMENTS ON THE COMMISSION'S DSIC RATE.

A. First, I disagree with Mr. Walker's unsupported claim that investors view the DSIC rate as a foundation or sub-floor of a likely fair rate of return determination in a base rate proceeding. Second, I agree that Commission relies on informed judgment and information provided by other models, however, it does not imply that the Commission should consider the latest DSIC rate as foundation nor does the DSIC rate mean to serve as a measurement for the cost of equity in a base rate

case proceeding. As discussed in direct testimony, I reiterate that the DSIC rate is designed specifically to encourage its use and to incentivize accelerated pipeline replacement and infrastructure upgrades to bring the existing aging infrastructure closer to meeting safety and reliability requirements in between base rate filings (I&E Statement No. 2, p. 50).

It is pertinent to reiterate that the DSIC rate does not serve as a proper measurement or proxy of a subject utility's cost of equity in a base rate case proceeding (I&E Statement No. 2, p. 50). In the most recent base rate case of Peoples Natural Gas Company, LLC, the Commission's Vice Chair, Kimberly Barrow, noted in her statement:

> The quarterly DSIC calculations are for the targeted and discrete purpose of the DSIC investment, not setting an overall return on equity for a company. The DSIC quarterly numbers are a solid proxy utilized to incent DSIC investment; however, they were not designed or meant to substitute the myriad of inputs submitted to the record during a litigated base rate proceeding. Notably, as highlighted by I&E, the DSIC rate establishes a benchmark that is meant to cap or curb utility overearnings. It is not meant to serve as a measurement for the cost of equity in a base rate case proceeding.[8]

[8] *Pa. PUC v. Peoples Natural Gas Company, LLC*, Docket No. 2023-3044549 (Order Entered September 12, 2024) (Vice Chair Barrow's Statement); *See* I&E Statement No. 2, p. 67; *See also Implementation of Act 11 of 2012*, Docket No. M-2012-2293611, pp. 5-7 (Supp. Implementation Order Entered September 21, 2016).

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 7.25% for NAWC.

Q. PLEASE RESTATE YOUR OVERALL RATE OF RETURN RECOMMENDATION FOR NAWC.

A. I continue to recommend the following rate of return for NAWC:

I&E
The Newtown Artesian Water Company
Summary of Cost of Capital

Type of Capital	Ratio	Cost Rate	Weighted Cost Rate
Long-Term Debt	45.00%	4.64%	2.09%
Common Equity	55.00%	9.39%	5.16%
Total	**100.00%**		**7.25%**

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes.

I&E Exhibit No. 2-SR
Witness: D. C. Patel

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

THE NEWTOWN ARTESIAN WATER COMPANY

Docket No. R-2024-3050208

Exhibit to Accompany

the

Surrebuttal Testimony

of

D. C. Patel

Bureau of Investigation & Enforcement

Concerning:

Rate of Return

Corporate Bond Yield Averages

	AV. CORP.	CORPORATE BY RATINGS Aaa	Aa	A	Baa	CORPORATE BY GROUPS P.U.	IND.	P.R.		PUBLIC UTILITY BONDS Aaa	Aa	A	Baa		INDUSTRIAL BONDS Aaa	Aa	A	Baa		RAILROAD BONDS Aaa	Aa	A	Baa
2017																							
Jan.	4.22	3.92	3.98	4.16	4.66	4.24	4.20	----	Jan.	----	3.96	4.14	4.62	Jan.	3.92	4.00	4.17	4.70	Jan.	----	----	----	----
Feb.	4.23	3.95	4.01	4.18	4.64	4.25	4.21	----	Feb.	----	3.99	4.18	4.58	Feb.	3.95	4.02	4.19	4.70	Feb.	----	----	----	----
Mar.	4.28	4.01	4.06	4.23	4.68	4.30	4.27	----	Mar.	----	4.04	4.23	4.62	Mar.	4.01	4.07	4.23	4.74	Mar.	----	----	----	----
Apr.	4.16	3.87	3.93	4.12	4.57	4.19	4.13	----	Apr.	----	3.93	4.12	4.51	Apr.	3.87	3.92	4.11	4.62	Apr.	----	----	----	----
May	4.15	3.85	3.93	4.11	4.55	4.19	4.12	----	May	----	3.94	4.12	4.50	May	3.85	3.92	4.09	4.60	May	----	----	----	----
June	3.98	3.68	3.78	3.93	4.37	4.01	3.95	----	June	----	3.77	3.94	4.32	June	3.68	3.78	3.92	4.41	June	----	----	----	----
July	4.01	3.70	3.80	3.98	4.39	4.06	3.96	----	July	----	3.82	3.99	4.36	July	3.70	3.78	3.95	4.41	July	----	----	----	----
Aug.	3.92	3.63	3.72	3.88	4.31	3.92	3.92	----	Aug.	----	3.67	3.86	4.23	Aug.	3.63	3.76	3.90	4.38	Aug.	----	----	----	----
Sept.	3.92	3.63	3.73	3.88	4.30	3.93	3.91	----	Sept.	----	3.70	3.87	4.24	Sept.	3.63	3.75	3.89	4.37	Sept.	----	----	----	----
Oct.	3.94	3.60	3.75	3.91	4.32	3.97	3.90	----	Oct.	----	3.74	3.91	4.26	Oct.	3.60	3.74	3.90	4.37	Oct.	----	----	----	----
Nov.	3.88	3.57	3.67	3.84	4.27	3.88	3.87	----	Nov.	----	3.65	3.83	4.16	Nov.	3.57	3.68	3.85	4.37	Nov.	----	----	----	----
Dec.	3.83	3.51	3.61	3.79	4.22	3.85	3.80	----	Dec.	----	3.62	3.79	4.14	Dec.	3.51	3.60	3.79	4.31	Dec.	----	----	----	----
2018																							
Jan.	3.88	3.55	3.68	3.85	4.26	3.91	3.85	----	Jan.	----	3.69	3.86	4.18	Jan.	3.55	3.66	3.84	4.33	Jan.	----	----	----	----
Feb.	4.13	3.82	3.95	4.09	4.51	4.15	4.12	----	Feb.	----	3.94	4.09	4.42	Feb.	3.82	3.95	4.09	4.60	Feb.	----	----	----	----
Mar.	4.20	3.87	3.99	4.14	4.64	4.21	4.19	----	Mar.	----	3.97	4.13	4.52	Mar.	3.87	4.00	4.14	4.75	Mar.	----	----	----	----
Apr.	4.22	3.85	4.01	4.17	4.67	4.24	4.20	----	Apr.	----	3.99	4.17	4.58	Apr.	3.85	4.03	4.17	4.76	Apr.	----	----	----	----
May	4.36	4.00	4.12	4.30	4.83	4.36	4.34	----	May	----	4.10	4.28	4.71	May	4.00	4.13	4.31	4.94	May	----	----	----	----
June	4.35	3.96	4.11	4.29	4.83	4.37	4.33	----	June	----	4.11	4.27	4.71	June	3.96	4.11	4.29	4.95	June	----	----	----	----
July	4.31	3.87	4.07	4.26	4.79	4.35	4.26	----	July	----	4.10	4.27	4.67	July	3.87	4.03	4.23	4.91	July	----	----	----	----
Aug.	4.29	3.88	4.05	4.23	4.77	4.33	4.25	----	Aug.	----	4.08	4.26	4.64	Aug.	3.88	4.01	4.20	4.89	Aug.	----	----	----	----
Sept.	4.38	3.98	4.14	4.31	4.88	4.41	4.35	----	Sept.	----	4.18	4.32	4.74	Sept.	3.98	4.09	4.30	5.02	Sept.	----	----	----	----
Oct.	4.54	4.14	4.28	4.46	5.07	4.56	4.52	----	Oct.	----	4.31	4.45	4.91	Oct.	4.14	4.24	4.45	5.22	Oct.	----	----	----	----
Nov.	4.64	4.22	4.37	4.53	5.22	4.65	4.62	----	Nov.	----	4.40	4.52	5.03	Nov.	4.22	4.34	4.53	5.42	Nov.	----	----	----	----
Dec.	4.49	4.02	4.20	4.37	5.13	4.51	4.47	----	Dec.	----	4.24	4.37	4.92	Dec.	4.02	4.16	4.36	5.34	Dec.	----	----	----	----
2019																							
Jan.	4.45	3.93	4.13	4.34	5.12	4.48	4.41	----	Jan.	----	4.18	4.35	4.91	Jan.	3.93	4.07	4.32	5.32	Jan.	----	----	----	----
Feb.	4.31	3.79	3.99	4.23	4.95	4.35	4.27	----	Feb.	----	4.05	4.25	4.76	Feb.	3.79	3.93	4.21	5.13	Feb.	----	----	----	----
Mar.	4.24	3.77	3.92	4.17	4.84	4.26	4.21	----	Mar.	----	3.98	4.16	4.65	Mar.	3.77	3.87	4.17	5.02	Mar.	----	----	----	----
Apr.	4.15	3.69	3.85	4.08	4.70	4.18	4.11	----	Apr.	----	3.91	4.08	4.55	Apr.	3.69	3.79	4.08	4.85	Apr.	----	----	----	----
May	4.08	3.67	3.80	4.01	4.63	4.10	4.06	----	May	----	3.84	3.98	4.47	May	3.67	3.76	4.03	4.78	May	----	----	----	----
June	3.89	3.42	3.59	3.83	4.46	3.93	3.85	----	June	----	3.65	3.82	4.31	June	3.42	3.53	3.84	4.60	June	----	----	----	----
July	3.75	3.29	3.46	3.70	4.28	3.79	3.70	----	July	----	3.53	3.69	4.13	July	3.29	3.38	3.70	4.42	July	----	----	----	----
Aug.	3.36	2.98	3.08	3.32	3.87	3.36	3.36	----	Aug.	----	3.17	3.29	3.63	Aug.	2.98	2.99	3.34	4.11	Aug.	----	----	----	----
Sept.	3.42	3.03	3.14	3.37	3.91	3.44	3.38	----	Sept.	----	3.24	3.37	3.71	Sept.	3.03	3.02	3.35	4.11	Sept.	----	----	----	----
Oct.	3.41	3.01	3.13	3.37	3.93	3.45	3.37	----	Oct.	----	3.24	3.39	3.72	Oct.	3.01	3.01	3.35	4.12	Oct.	----	----	----	----
Nov.	3.44	3.06	3.16	3.40	3.94	3.48	3.40	----	Nov.	----	3.25	3.43	3.76	Nov.	3.06	3.06	3.37	4.12	Nov.	----	----	----	----
Dec.	3.40	3.01	3.11	3.36	3.88	3.45	3.34	----	Dec.	----	3.22	3.40	3.73	Dec.	3.01	3.00	3.32	4.03	Dec.	----	----	----	----
2020																							
Jan.	3.30	2.94	3.02	3.27	3.77	3.34	3.26	----	Jan.	----	3.12	3.29	3.60	Jan.	2.94	2.92	3.24	3.94	Jan.	----	----	----	----
Feb.	3.13	2.78	2.85	3.09	3.61	3.16	3.10	----	Feb.	----	2.96	3.11	3.42	Feb.	2.78	2.75	3.06	3.80	Feb.	----	----	----	----
Mar.	3.53	3.02	3.08	3.43	4.29	3.59	3.46	----	Mar.	----	3.30	3.50	3.96	Mar.	3.02	2.86	3.35	4.61	Mar.	----	----	----	----
Apr.	3.22	2.43	2.75	3.12	4.13	3.31	3.12	----	Apr.	----	2.93	3.19	3.82	Apr.	2.43	2.56	3.05	4.43	Apr.	----	----	----	----
May	3.16	2.49	2.72	3.12	3.95	3.22	3.10	----	May	----	2.89	3.14	3.63	May	2.49	2.55	3.09	4.27	May	----	----	----	----
June	3.02	2.44	2.64	3.02	3.64	3.10	2.93	----	June	----	2.80	3.07	3.44	June	2.44	2.48	2.97	3.84	June	----	----	----	----
July	2.70	2.14	2.32	2.69	3.31	2.77	2.62	----	July	----	2.46	2.74	3.09	July	2.14	2.16	2.63	3.53	July	----	----	----	----
Aug.	2.71	2.25	2.37	2.68	3.27	2.76	2.65	----	Aug.	----	2.49	2.73	3.06	Aug.	2.25	2.25	2.63	3.49	Aug.	----	----	----	----
Sept.	2.80	2.31	2.47	2.79	3.36	2.88	2.73	----	Sept.	----	2.62	2.84	3.17	Sept.	2.31	2.31	2.73	3.55	Sept.	----	----	----	----
Oct.	2.89	2.35	2.55	2.88	3.44	2.98	2.79	----	Oct.	----	2.72	2.95	3.27	Oct.	2.35	2.37	2.81	3.60	Oct.	----	----	----	----
Nov.	2.79	2.30	2.47	2.79	3.30	2.89	2.68	----	Nov.	----	2.63	2.85	3.17	Nov.	2.30	2.30	2.72	3.41	Nov.	----	----	----	----
Dec.	2.72	2.26	2.44	2.72	3.16	2.80	2.63	----	Dec.	----	2.57	2.77	3.05	Dec.	2.26	2.31	2.66	3.27	Dec.	----	----	----	----
2021																							
Jan.	2.85	2.45	2.61	2.84	3.24	2.94	2.75	----	Jan.	----	2.73	2.91	3.18	Jan.	2.45	2.49	2.77	3.30	Jan.	----	----	----	----
Feb.	3.05	2.70	2.83	3.03	3.42	3.13	2.97	----	Feb.	----	2.93	3.09	3.37	Feb.	2.70	2.73	2.97	3.46	Feb.	----	----	----	----
Mar.	3.38	3.04	3.17	3.37	3.74	3.48	3.29	----	Mar.	----	3.27	3.44	3.72	Mar.	3.04	3.06	3.29	3.76	Mar.	----	----	----	----
Apr.	3.25	2.90	3.03	3.24	3.60	3.33	3.16	----	Apr.	----	3.13	3.30	3.57	Apr.	2.90	2.92	3.17	3.64	Apr.	----	----	----	----
May	3.28	2.96	3.07	3.27	3.62	3.36	3.19	----	May	----	3.17	3.33	3.58	May	2.96	2.95	3.21	3.65	May	----	----	----	----
June	3.11	2.79	2.91	3.10	3.45	3.19	3.02	----	June	----	3.01	3.16	3.41	June	2.79	2.80	3.03	3.47	June	----	----	----	----
July	2.91	2.57	2.71	2.89	3.24	2.99	2.82	----	July	----	2.80	2.95	3.20	July	2.57	2.62	2.82	3.28	July	----	----	----	----
Aug.	2.91	2.55	2.73	2.89	3.24	2.99	2.82	----	Aug.	----	2.82	2.95	3.19	Aug.	2.55	2.63	2.83	3.28	Aug.	----	----	----	----
Sept.	2.91	2.53	2.73	2.89	3.23	3.00	2.81	----	Sept.	----	2.84	2.96	3.19	Sept.	2.53	2.61	2.82	3.27	Sept.	----	----	----	----
Oct.	3.04	2.68	2.86	3.02	3.35	3.13	2.94	----	Oct.	----	2.99	3.09	3.32	Oct.	2.68	2.73	2.96	3.38	Oct.	----	----	----	----
Nov.	2.96	2.62	2.77	2.95	3.28	3.06	2.86	----	Nov.	----	2.91	3.02	3.25	Nov.	2.62	2.63	2.88	3.30	Nov.	----	----	----	----
Dec.	3.04	2.71	2.82	3.04	3.37	3.17	2.91	----	Dec.	----	3.01	3.13	3.36	Dec.	2.71	2.62	2.95	3.37	Dec.	----	----	----	----
2022																							
Jan.	3.36	3.07	3.13	3.34	3.69	3.25	3.46	----	Jan.	----	3.19	3.33	3.57	Jan.	2.93	2.83	3.17	3.59	Jan.	----	----	----	----
Feb.	3.61	3.25	3.36	3.60	3.97	3.48	3.73	----	Feb.	----	3.56	3.68	3.95	Feb.	3.25	3.16	3.52	3.99	Feb.	----	----	----	----
Mar.	3.88	3.43	3.62	3.88	4.29	4.02	3.74	----	Mar.	----	3.81	3.98	4.28	Mar.	3.43	3.43	3.77	4.30	Mar.	----	----	----	----
Apr.	4.22	3.76	3.94	4.23	4.66	4.34	4.09	----	Apr.	----	4.10	4.32	4.61	Apr.	3.76	3.76	4.13	4.70	Apr.	----	----	----	----
May	4.65	4.13	4.36	4.65	5.12	4.79	4.50	----	May	----	4.55	4.75	5.07	May	4.13	4.17	4.55	5.16	May	----	----	----	----
June	4.78	4.24	4.49	4.77	5.27	4.91	4.64	----	June	----	4.65	4.86	5.22	June	4.24	4.32	4.68	5.31	June	----	----	----	----
July	4.67	4.06	4.37	4.67	5.21	4.84	4.51	----	July	----	4.57	4.78	5.15	July	4.06	4.16	4.55	5.27	July	----	----	----	----
Aug.	4.65	4.07	4.36	4.65	5.15	4.80	4.49	----	Aug.	----	4.54	4.76	5.09	Aug.	4.07	4.17	4.53	5.21	Aug.	----	----	----	----
Sept.	5.18	4.59	4.87	5.18	5.69	5.33	5.03	----	Sept.	----	5.08	5.28	5.61	Sept.	4.59	4.66	5.08	5.77	Sept.	----	----	----	----
Oct.	5.73	5.10	5.40	5.74	6.26	5.91	5.53	----	Oct.	----	5.68	5.88	6.18	Oct.	5.10	5.11	5.59	6.33	Oct.	----	----	----	----
Nov.	5.56	4.90	5.23	5.58	6.07	5.78	5.32	----	Nov.	----	5.54	5.75	6.05	Nov.	4.90	4.92	5.40	6.08	Nov.	----	----	----	----
Dec.	5.09	4.43	4.77	5.12	5.59	5.30	4.87	----	Dec.	----	5.06	5.28	5.57	Dec.	4.43	4.48	4.94	5.61	Dec.	----	----	----	----
2023																							
Jan.	5.02	4.40	4.72	5.04	5.50	5.23	4.81	----	Jan.	----	4.98	5.20	5.49	Jan.	4.40	4.46	4.88	5.51	Jan.	----	----	----	----
Feb.	5.14	4.56	4.84	5.16	5.59	5.32	4.95	----	Feb.	----	5.121	5.29	5.54	Feb.	4.56	4.56	5.03	5.64	Feb.	----	----	----	----
Mar.	5.23	4.60	4.94	5.25	5.71	5.44	5.02	----	Mar.	----	5.24	5.39	5.68	Mar.	4.60	4.64	5.10	5.75	Mar.	----	----	----	----
Apr.	5.05	4.47	4.82	5.02	5.53	5.20	4.90	----	Apr.	----	5.00	5.13	5.47	Apr.	4.47	4.63	4.89	5.60	Apr.	----	----	----	----
May	5.28	4.67	5.06	5.24	5.77	5.44	5.12	----	May	----	5.24	5.36	5.71	May	4.67	4.87	5.12	5.82	May	----	----	----	----
June	5.28	4.65	5.06	5.24	5.75	5.46	5.09	----	June	----	5.26	5.38	5.73	June	4.65	4.85	5.09	5.77	June	----	----	----	----
July	5.29	4.66	5.07	5.25	5.74	5.48	5.08	----	July	----	5.30	5.41	5.73	July	4.66	4.84	5.08	5.74	July	----	----	----	----
Aug.	5.58	4.95	5.37	5.55	6.02	5.77	5.38	----	Aug.	----	5.58	5.71	6.08	Aug.	4.95	5.15	5.38	6.02	Aug.	----	----	----	----
Sept.	5.72	5.13	5.51	5.70	6.16	5.91	5.53	----	Sept.	----	5.72	5.86	6.15	Sept.	5.13	5.30	5.52	6.16	Sept.	----	----	----	----
Oct.	6.20	5.61	5.97	6.18	6.63	6.38	6.01	----	Oct.	----	6.19	6.34	6.61	Oct.	5.61	5.76	6.02	6.64	Oct.	----	----	----	----
Nov.	5.78	5.61	5.57	5.78	6.19	5.99	5.57	----	Nov.	----	5.82	5.96	6.20	Nov.	5.20	5.32	5.59	6.18	Nov.	----	----	----	----
Dec.	5.26	4.74	5.05	5.25	5.64	5.46	5.06	----	Dec.	----	5.27	5.42	5.68	Dec.	4.74	4.82	5.07	5.60	Dec.	----	----	----	----
2024																							
Jan.	5.33	4.87	5.13	5.31	5.68	5.51	5.14	----	Jan.	----	5.34	5.48	5.73	Jan.	4.87	4.91	5.14	5.62	Jan.	----	----	----	----
2024																							
Feb.	5.44	5.03	5.25	5.43	5.77	5.59	5.28	----	Feb.	----	5.42	5.56	5.79	Feb.	5.03	5.08	5.29	5.74	Feb.	----	----	----	----
2024																							
Mar.	5.43	5.01	5.26	5.42	5.75	5.59	5.28	----	Mar.	----	5.43	5.55	5.79	Mar.	5.01	5.09	5.28	5.72	Mar.	----	----	----	----
2024																							
Apr.	5.68	5.28	5.50	5.67	6.00	5.83	5.53	----	Apr.	----	5.67	5.79	6.01	Apr.	5.28	5.32	5.54	5.99	Apr.	----	----	----	----

2024 May	5.64	5.25	5.45	5.62	5.95	5.78	5.49	----	May	----	5.62	5.74	5.97	May	5.25	5.28	5.50	5.92	May	----	----	----	----
2024 June	5.51	5.13	5.35	5.50	5.82	5.65	5.37	----	June	----	5.50	5.61	5.84	June	5.13	5.18	5.38	5.80	June	----	----	----	----
2024 July	5.53	5.12	5.38	5.52	5.84	5.68	5.39	----	July	----	5.54	5.64	5.85	July	5.12	5.21	5.40	5.82	July	----	----	----	----
2024 Aug.	5.29	4.87	5.12	5.28	5.60	5.42	5.15	----	Aug.	----	5.27	5.38	5.61	Aug.	4.87	4.97	5.18	5.59	Aug.	----	----	----	----
2024 Sept.	5.10	4.68	4.94	5.10	5.42	5.23	4.97	----	Sept.	----	5.09	5.20	5.41	Aug.	4.68	4.79	5.00	5.42	Sept.	----	----	----	----
2024 Oct.	5.33	4.95	5.17	5.33	5.63	5.44	5.23	----	Oct.	----	5.29	5.41	5.61	Oct.	4.95	5.05	5.24	5.65	Oct.	----	----	----	----

Notes: Moody's®Long-Term Corporate Bond Yield Averages have been published daily since 1929. They are derived from pricing data on a regularly-replenished population of over 100 seasoned corporate bonds in the US market, each with current outstandings over $100 million. The bonds have maturities as close as possible to 30 years, with an average maturity of 28 years. They are dropped from the list if their remaining life falls below 20 years or if their ratings change. Bonds with deep discounts or steep premiums to par are generally excluded. All yields are yield-to-maturity calculated on a semi-annual compounding basis. Each observation is an unweighted average, with Average Corporate Yields representing the unweighted average of the corresponding Average Industrial and Average Public Utility observations. Because of the dearth of **Aaa** -rated railroad term bond issues, Moody's® **Aaa** railroad bond yield average was discontinued as of December 18, 1967. Moody's® **Aaa** public utility average was suspended from Jan. 1984 thru Sept. 1984. Oct. 1984 figure for last 14 business days only. The Railroad Bond Averages were discontinued as of July 17, 1989 because of insufficient frequently tradable bonds. The July figures were based on 8 business days.
Because of the dearth of **Aaa** rated public utility bond issues, Moody's® **Aaa** public utility bond yield average was discontinued as of December 10, 2001.

I&E Statement No. 3-SR
Witness: Esyan Sakaya

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

THE NEWTOWN ARTESIAN WATER COMPANY

Docket No. R-2024-3050208

Surrebuttal Testimony

of

Esyan Sakaya

Bureau of Investigation and Enforcement

Concerning:

Rate Base
Reporting Requirements
PFAS Related Recommendations
Scale Back of Rates

TABLE OF CONTENTS

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Esyan 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 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 the Newtown Artesian Water Company (Newtown, NAWC, or Company) rebuttal testimony of Daniel J. Angove (NAWC Statement No. 1-R) and Gregory R. Herbert (NAWC Statement No. 2-R) concerning the Company's revised rate base claim, plant reporting requirements, PFAS chemicals, and the scale back of rates related to Newtown's

requested approximately $922,419 base revenue increase (NAWC Statement 2-R, p. 12).

Q. DOES YOUR SURREBUTTAL TESTIMONY INCLUDE AN EXHIBIT?

A. Yes. I&E Exhibit No. 3-SR contains schedules that support my surrebuttal testimony.

Q. DO YOU HAVE ANY REVISIONS TO ANY OF YOUR EXHIBITS PRESENTED IN YOUR DIRECT TESTIMONY?

A. Yes. I am correcting my rates for fire protection as originally shown in I&E Ex. No. 3, Sch. No. 1, p. 2, columns G and H, lines 16-22.

Q. WHY ARE YOU REVISING THE FIRE RATES?

A. A correction is necessary to my rates for fire protection due to improperly increasing proposed quarterly rates in my exhibit. My updated proposed revenues by class are shown in I&E Ex. No. 3-SR, Sch. No. 1, p. 1, column J. My corrected fire rates and corresponding percentage increases are shown on I&E Ex. No. 3-SR, Sch. No. 1, p. 2, columns G and H, lines 16-22.

RATE BASE

Q. WHAT RATE BASE DID THE COMPANY CLAIM IN ITS FILING?

A. In its filing, the Company's rate base claim was $14,506,299 for the Fully

Projected Future Test Year (FPFTY) ending March 31, 2026 (NAWC Exhibit GRH-1, p. 13).

Q. WHAT NET UTILITY PLANT AND CASH WORKING CAPITAL (CWC) DID THE COMPANY CLAIM IN THIS $14,506,299 RATE BASE CLAIM?

A. The Company's rate base claim included $17,941,872 of net utility plant and $642,579 CWC for the FPFTY ending March 31, 2026 (NAWC Exhibit GRH-1, p. 13).

Q. DID YOU RECOMMEND ANY ADJUSTMENTS TO THE ADDITIONS AND DEDUCTIONS TO NET UTILITY PLANT IN DIRECT TESTIMONY?

A. No.

Q. DID NEWTOWN REVISE ITS FPFTY RATE BASE IN REBUTTAL TESTIMONY?

A. Yes. In rebuttal testimony, the Company's proposed rate base for the FPFTY ending March 31, 2026 is now $14,516,370 (NAWC Exhibit GRH-1R, p. 4).

Q. WHAT ADJUSTMENTS DID NEWTOWN MAKE TO ITS FPFTY RATE BASE PROJECTION?

A. Newtown added $10,071 ($652,650 - $642,579) to its initial FPFTY CWC claim

of $642,579, producing a revised amount of $652,650 in rebuttal testimony (NAWC Exhibit GRH-1, p. 13 and NAWC Exhibit GRH-1R, p. 4).

Q. DO YOU RECOMMEND ANY ADJUSTMENTS TO NEWTOWN'S UPDATED RATE BASE CLAIM?

A. No. However, I&E witness Vanessa Okum recommends an adjustment to CWC in I&E Statement No. 1-SR.

PLANT RELATED REPORTING RECOMMENDATION

Q. DID YOU HAVE ANY RECOMMENDATIONS IN DIRECT TESTIMONY REGARDING PLANT ADDITIONS THAT THE COMPANY PROJECTS TO BE IN SERVICE DURING THE FTY ENDING MARCH 31, 2025, AND THE FPFTY ENDING MARCH 31, 2026?

A. Yes. I recommended that the Company provide I&E and the Office of Consumer Advocate with an update to NAWC's Table No. 4 (NAWC Exhibit JJS-2, p. 45) for the years 2024-2025 no later than August 1, 2025, and Table No. 4 (NAWC Exhibit JJS-3, p. 12) for the years 2025-2026 no later than August 1, 2026, to be filed under this docket number. The tables should include actual beginning balances, plant additions, retirements, reclassifications, and ending balances by month for the twelve months ending March 31, 2025, and March 31, 2026 (I&E St. No. 3, pp. 7-8).

Q. DID THE COMPANY ACCEPT YOUR RECOMMENDATION?

A. Yes. The Company accepts my plant reporting timelines; therefore, my recommendation should be approved (NAWC St. No. 1-R, p. 2).

PFAS-RELATED CONCERNS

Q. DID YOU MAKE ANY RECOMMENDATIONS IN DIRECT TESTIMONY REGARDING PERFLUOROALKYL AND POLYFLUOROALKYL SUBSTANCES (PFAS)?

A. Yes. I stated that Newtown should be required to explain in detail how the Company is moving towards confirming that both of its water sources (well water and purchased water) will meet the 2029 mandate established by the EPA regarding the reduction of PFAS in potable water sources (I&E St. No. 3, pp. 8-10).

Q. DID THE COMPANY RESPOND TO YOUR RECOMMENDATION?

A. Yes. Newtown states that all of its well water is required to meet the PFAS compliance standards of the Pennsylvania Department of Environmental Protection and that the design stage is 60% complete and that plans have been submitted for permitting purposes (NAWC St. No. 1-R, p. 3 and NAWC Ex. DJA-1R, pp. 1-7). The Company has also asserted that Pennsylvania American Water Company and Bucks County Water and Sewer Company are responsible for

ensuring their sourced water meets the requirements (NAWC St. No. 1-R, p. 3 and NAWC Ex. DJA-1R, pp. 1-7).

Q. DO YOU AGREE WITH NEWTOWN'S ASSESSMENT OF PRIVATELY SOURCED PURCHASED WATER?

A. No. Newtown itself is charged with providing safe service to its customers regardless of the water source. Merely stating future state and federal regulatory PFAS standards are to be met by Pennsylvania American Water Company or Bucks County Water and Sewer without documentation is insufficient.

PROPOSED RATES - SCALE BACK OF RATES

Q. PLEASE SUMMARIZE YOUR RECOMMENDATION FROM DIRECT TESTIMONY CONCERNING THE INCREASE AND WHY YOU MADE THAT RECOMMENDATION.

A. I recommended if the Commission grants an increase less than the initially proposed $922,419, that both the customer charges and usage rates for all the affected rate classes should be scaled back proportionally (I&E St. No. 3, p. 8).

Q. DID THE COMPANY RESPOND TO YOUR RECOMMENDATION?

A. Yes. The Company accepts my proportional scale back recommendation (NAWC St. No. 2-R, pp. 11-12).

Q. PLEASE SUMMARIZE YOUR REVISED RECOMMENDATION.

A. If the Commission grants an increase less than Newtown's requested increase in rates, both the customer charges and usage rates for all the affected rate classes should be scaled back proportionally from what is shown in I&E in Ex. No. 3-SR, pp. 1-2.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes.

I&E Exhibit No. 3-SR
Witness: Esyan Sakaya

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

THE NEWTOWN ARTESIAN WATER COMPANY

Docket No. R-2024-3050208

Exhibit to Accompany

the

Surrebuttal Testimony

of

Esyan Sakaya

Bureau of Investigation and Enforcement

Concerning:

Rate Base
Reporting Requirements
PFAS Related Recommendations
Scale Back of Rates

Newtown Artesian Water Company

R-2024-3050208

I&E Summary - Surrebuttal

of

Statement of Net Operating Revenue for the Twelve Months Ending March 31, 2026

Based on Data Shown in NAWC Exhibit GRH-1R, p. 3

Line	Class	Per Books 3/31/2024	Historic Present Adjustments	Company at Present Rates 3/31/2024	Company Pro-Forma Adjustments	Company at Present Rates 3/31/2025	Company Pro-Forma Adjustments	Company at Present Rates 3/31/2026	Company Increase	I&E -Adjusted Proposed Rates	Percent
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
1	Residential	$4,001,969	$129,800	$4,131,769	$6,803	$4,138,572	-$9,478	$4,129,094	$580,619	$4,709,714	14%
2	Commercial	$924,875	$107,115	$1,031,990	$21,332	$1,053,322	$21,223	$1,074,545	$142,442	$1,216,987	14%
3	Industrial	$455,335	$48,629	$503,963	$0	$503,963	$0	$503,963	$67,219	$571,182	13%
4	Public	$193,092	$21,649	$214,741	$0	$214,741	$0	$214,741	$29,796	$244,537	14%
5	Private Fire	$265,639	-$14,174	$251,466	$9,136	$260,602	$2,624	$263,226	$45,079	$308,305	17%
6	Public Fire	$267,132	-$2,786	$264,347	$0	$264,347	$0	$264,347	$48,825	$313,171	18%
7	**Sub Total**	**$6,108,042**	**$290,233**	$6,398,275	**$37,271**	**$6,435,546**	**$14,369**	**$6,449,915**	**$913,981**	**$7,363,896**	**14.2%**
8	**Other Operating Revenues**										
9	Metered Sales-Yard Hydrants	$24,414	$0.00	$24,414	$0.00	$24,414	$0.00	$24,414	$7,570	$31,984	31%
10	Forfeited Discounts	$13,251	$0.00	$13,251	$0.00	$13,251	$0.00	$13,251	$1,882	$15,133	14%
11	Rents from Water Property	$106,410	$0.00	$106,410	$0.00	$106,410	$0.00	$106,410	$0.00	$106,410	0%
12	**Total Other**	**$144,074**	**$0**	**$144,074**	**$0**	**$144,074**	**$0**	**$144,074**	**$9,452**	**$153,526**	7%
13	**TOTAL REVENUE**	**$6,252,116**	**$290,233**	**$6,542,350**	**$37,271**	**$6,579,621**	**$14,369**	**$6,593,990**	**$923,433**	**$7,517,422**	**14.03%**

I&E Exhibit No. 3-SR
Schedule 1
Page 1 of 2

Newtown Artesian Water Company
R-2024-3050208
Present & Proposed Rates - I&E Surrebuttal - CORRECTED

Lines	All Classes Meter Size	NEWTOWN Company Present Rate	Increase	Company Proposed Rate	Rate Percent Increase	I&E Company Present Rate	Increase	Company Proposed Rate	Rate Percent Increase
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
1	5/8	$22.71	$4.19	$26.90	18.5%	$22.71	$4.19	$26.90	18.5%
2	3/4	$34.11	$6.30	$40.41	18.5%	$34.11	$6.30	$40.41	18.5%
3	1	$56.82	$10.49	$67.31	18.5%	$56.82	$10.49	$67.31	18.5%
4	1-1/2	$113.64	$20.99	$134.63	18.5%	$113.64	$20.99	$134.63	18.5%
5	2	$181.80	$33.58	$215.38	18.5%	$181.80	$33.58	$215.38	18.5%
6	3	$340.92	$62.97	$403.89	18.5%	$340.92	$62.97	$403.89	18.5%
7	1 1/2 - monthly	$37.88	$7.00	$44.88	18.5%	$37.88	$7.00	$44.88	18.5%
8	2-monthly	$60.60	$11.19	$71.79	18.5%	$60.60	$11.19	$71.79	18.5%
9	3 - monthly	$113.64	$20.99	$134.63	18.5%	$113.64	$20.99	$134.63	18.5%
10	4 - monthly	$189.41	$34.98	$224.39	18.5%	$189.41	$34.98	$224.39	18.5%
11	6 - monthly	$378.83	$69.97	$448.80	18.5%	$378.83	$69.97	$448.80	18.5%
12	8 - monthly	$606.11	$111.95	$718.06	18.5%	$606.11	$111.95	$718.06	18.5%
13	10 - monthly	$871.29	$160.93	$1,032.22	18.5%	$871.29	$160.93	$1,032.22	18.5%
	Volumetric Rate	Present Per Thousand Gallons	Increase Per Thousand Gallons	Proposed Per Thousand Gallons	Rate Percent Increase	Present Per Thousand Gallons	Increase Per Thousand Gallons	Proposed Per Thousand Gallons	Rate Percent Increase
14	Newtown Artesian Rate Area	$6.635	$1.225	$7.860	18.5%	$6.635	$1.225	$7.860	18.5%
15	Wholesale Demand Charge	$0.97	$0.14	$1.110	14.4%	$0.97	$0.140	$1.110	14.4%
	FIRE PROTECTION	Present Quarterly Rate	Rate Increase	Company Quarterly Proposed	Rate Percent Increase	Present Quarterly Rate	Increase Annual	Company Quartley Proposed	Rate Percent Increase
	Private Fire Protection								
16	4" Sprinkler System (<300)	$121.11	$22.37	$143.48	18.5%	$121.11	$22.37	$143.48	18.5%
17	6" Sprinkler System (<300)	$121.11	$22.37	$143.48	18.5%	$121.11	$22.37	$143.48	18.5%
18	8" Sprinkler System (<300)	$141.28	$26.09	$167.37	18.5%	$141.28	$26.09	$167.37	18.5%
19	Private Hydrant- Newtown	$101.75	$18.79	$120.54	18.5%	$101.75	$18.79	$120.54	18.5%
20	Each Head Over 300	$0.26	$0.05	$0.31	18.5%	$0.26	$0.05	$0.31	18.5%
21	**Public Fire Protection**								
22	Public Hydrant-Newtown	$101.75	$18.79	$120.54	18.5%	$101.75	$18.79	$120.54	18.5%

Columna A to E were derived from Newtown Exhibit GRH-1R, Page 37

I&E Exhibit No. 3-SR
Schedule 1
Page 2 of 2

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No. R-2024-3050208
	:	
Newtown Artesian Water Company	:	

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
- I&E Exhibit No. 1
- I&E Statement No. 1-SR – Surrebuttal Testimony of Vanessa Okum

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: 11/19/2024

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No. R-2024-3050208
	:	
Newtown Artesian Water Company	:	

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
- I&E Exhibit No. 2-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/ *DCPatel*
D. C. Patel
Pennsylvania Public Utility Commission
Bureau of Investigation and Enforcement

Dated: November 19, 2024

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No. R-2024-3050208
	:	
Newtown Artesian Water Company	:	

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 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: 11/19/2024