ECKERT SEAMANS
ATTORNEYS AT LAW

Eckert Seamans Cherin & Mellott, LLC
213 Market Street
8th Floor
Harrisburg, PA 17101

TEL: 717 237 6000
FAX: 717 237 6019

Deanne M. O'Dell
717-255-3744
dodell@eckertseamans.com

November 17, 2025

Via Electronic Filing
Matthew Homsher, Secretary
PA Public Utility Commission
P.O. Box 3265
Harrisburg, PA 17105-3265

RE: The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water – Water – R-2025-3055010;
The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water – Wastewater – R-2025-3055011;
The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water – Stormwater – R-2025-3055012

Dear Secretary Homsher:

Enclosed for electronic filing please find the following testimony and exhibits on behalf of The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water. The testimony and exhibits were admitted into the record in accordance with the Interim Order dated November 12, 2025 in the above-referenced matter. The rate filing package filed with the Commission on June 4, 2025, as corrected by letter dated August 29, 2025, was also admitted into the record pursuant to the Interim Order and is not being refiled. Note that the Direct Testimony and Exhibits referenced below were included in Volume II of the rate filing package and, therefore, are not being filed again here with the exceptions of a corrected version of Pittsburgh Water St. No. 2 and Pittsburgh Water St. No. 7. The Rebuttal, Surrebuttal and Rejoinder Testimonies are enclosed herein for filing.

Pittsburgh Water Direct Testimony (dated 6/4/25)	**Witness**	**Exhibits**
Pittsburgh Water St. No. 1 *(included in Volume II of Rate Filing Package filed June 4, 2025)*	Direct Testimony of William J. Pickering	WJP-1
Pittsburgh Water St. No. 2	Direct Testimony of Edward Barca	EB-1 to EB-10

Pittsburgh Water Direct Testimony (dated 6/4/25)	**Witness**	**Exhibits**
Corrected version enclosed	* Note: Testimony submitted for the record includes corrections provided with Mr. Barca's rebuttal testimony.	
Pittsburgh Water St. No. 3 *(included in Volume II of Rate Filing Package filed June 4, 2025)*	Direct Testimony of Barry King * Note: Testimony submitted for the record includes the revised Page 8 that was filed on 8/29/25 to remove Figure 3.	BK-1 to BK-6
Pittsburgh Water St. No. 4 *(included in Volume II of Rate Filing Package filed June 4, 2025)*	Direct Testimony of Katherine "Kate" Mechler	KM-1
Pittsburgh Water St. No. 5 *(included in Volume II of Rate Filing Package filed June 4, 2025)*	Direct Testimony of William J. McFaddin	WM-1
Pittsburgh Water St. No. 6 *(included in Volume II of Rate Filing Package filed June 4, 2025)*	Direct Testimony of Julie A. Mechling	JAM-1 to JAM-19
Pittsburgh Water St. No. 7 *Corrected version enclosed*	Direct Testimony of Christine M. Fay * Note: Testimony submitted for the record includes corrections provided with Ms. Fay's rebuttal testimony	Appendix A, CF-1 to CF-13
Pittsburgh Water St. No. 8 *(included in Volume II of Rate Filing Package filed June 4, 2025)*	Direct Testimony of Harold J. Smith	HJS-1 to HJS-2, HJS-1W to HJS-25W, HJS-1WW to HJS-24WW, HJS-1SW to HJS-13SW

Pittsburgh Water Rebuttal Testimony (dated 9/30/25)	**Witness**	**Exhibits**
Pittsburgh Water St. No. 1R	Rebuttal Testimony of William J. Pickering	WJP-1 (Revised), WJP-2
Pittsburgh Water St. No. 2R	Rebuttal Testimony of Edward Barca	EB-11 to EB-22
Pittsburgh Water St. No. 3R	Rebuttal Testimony of Barry King	None
Pittsburgh Water St. No. 4R	Rebuttal Testimony of Katherine "Kate" Mechler	None
Pittsburgh Water St. No. 5R	Rebuttal Testimony of William J. McFaddin	None
Pittsburgh Water St. No. 6R	Rebuttal Testimony of Julie A. Mechling	JAM-20 to JAM-22
Pittsburgh Water St. No. 7R	Rebuttal Testimony of Christine M. Fay	CF-12 (corrected), CF-13 (corrected), CF-14 to CF-19
Pittsburgh Water St. No. 8R	Rebuttal Testimony of Harold J. Smith	HJS-1 to HJS-2 (Rebuttal), HJS-1W to HJS-25W (Rebuttal), HJS-1WW to HJS-24WW (Rebuttal), HJS-1SW to HJS-13SW (Rebuttal)
Pittsburgh Water St. No. 9R	Rebuttal Testimony of Rocky Craley	None

Pittsburgh Water Surrebuttal Testimony (dated 10/14/25)	**Witness**	**Exhibits**
Pittsburgh Water St. No. 2SR	Surrebuttal Testimony of Edward Barca Note: record version does not include testimony on page 5 line 5 through page 7 line 7, which Pittsburgh Water has agreed to withdraw.	EB-23 to EB-26

Pittsburgh Water Rejoinder Testimony (dated 10/20/25)	**Witness**	**Exhibits**
Pittsburgh Water St. No. 2RJ	Rejoinder Testimony of Edward Barca	EB-27
Pittsburgh Water St. No. 6RJ	Rejoinder Testimony of Julie A. Mechling	None
Pittsburgh Water St. No. 7RJ	Rejoinder Testimony of Christine M. Fay	CF-20 to CF-22

All known parties and the presiding officers have been served previously with this Testimony and Exhibits. If you have any questions, please contact me. Copies of this letter to be served in accordance with the attached Certificate of Service.

Sincerely,

Deanne M. O'Dell

Deanne M. O'Dell

DMO/lww

cc: Hon. Emily DeVoe w/enc. (letter & COS only)
Hon. Ann Quimby w/enc. (letter & COS only)
Cert. of Service w/enc. (letter & COS only)

CERTIFICATE OF SERVICE

I hereby certify that this day I served a copy of the foregoing Letter upon the persons listed below in the manner indicated in accordance with the requirements of 52 Pa. Code Section 1.54.

Via Email Only

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

Christine Appleby, Esq.
Harrison Breitman, Esq.
Dave Evrard, Esq.
Katie Kennedy, Esq.
Ryan Morden, Esq.
Office of Consumer Advocate
555 Walnut St., 5th Fl., Forum Place
Harrisburg, PA 17101-1923
OCAPWSA2025@paoca.org

Scott B. Granger, Esq.
Michael A. Podskoch, Jr., Esq.
Bureau of Investigation & Enforcement
Commonwealth Keystone Building
400 North St., 2nd Floor West
Harrisburg, PA 17120
sgranger@pa.gov
mpodskoch@pa.gov

John W. Sweet, Esq.
Lauren N. Berman, Esq.
Ria M. Pereira, Esq.
Elizabeth R. Marx, Esq.
The Pennsylvania Utility Law Project
118 Locust St.
Harrisburg, PA 17101
pulp@pautilitylawproject.org

Joseph Kubas (OSBA request)
jkubas@pa.gov

Bureau of Audits
Chris Yother
Porus Irani
chyother@pa.gov
Pirani@pa.gov

Bureau of Technical Services
Vanessa Johns
Bambi Reese
Paul Zander
James Kennedy
Marlon Livingston
Vanjohns@pa.gov
bamreese@pa.gov
pzander@pa.gov
jameskenne@pa.gov
marlolivin@pa.gov

Deanne M. O'Dell

Dated: November 17, 2025

Deanne M. O'Dell, Esq.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

DIRECT TESTIMONY OF

EDWARD BARCA

ON BEHALF OF
THE PITTSBURGH WATER
AND SEWER AUTHORITY d/b/a Pittsburgh Water

Docket Nos.
R-2025-3055010 (Water)
R-2025-3055011 (Wastewater)
R-2025-3055012 (Stormwater)

TOPICS:
Support for Proposed Rate Increase
Support for DSIC Cap Increase
Support of PENNVEST Charge Expansion
Pro Forma Financial Results
Rate Structure Changes & New Charges
Calculation of Revenue Requirements
Development of Operating Budget & Capital Needs

June 4, 2025

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TABLE OF EXHIBITS

Exhibit EB-1	Schedules showing Pittsburgh Water's Income Statement, Cash Flow Statement, and Debt Service Coverage Statement at present rates for the HTY (FY 2024), FTY (FY 2025), FPFTY (FY 2026), and the Forecast Period (FY 2027)
Exhibit EB-2	Schedules showing Pittsburgh Water's Income Statement, Cash Flow Statement, and Debt Service Coverage Statement at proposed rates for the HTY, FTY, FPFTY, and Forecast Period 2027.
Exhibit EB-3	Additional budget information for HTY, FTY, FPFTY, and Forecast Period 2027
Exhibit EB-4	Pittsburgh Water's 2025–2029 Capital Improvement Plan
Exhibit EB-5	Pittsburgh Water's Financial Management Policy
Exhibit EB-6	Pittsburgh Water's Debt and Swap Portfolio Summary
Exhibit EB-7	Pittsburgh Water's Additional Bonds Test at Existing Rates
Exhibit EB-8	Pittsburgh Water's Additional Bonds Test at Proposed Rates
Exhibit EB-9	Pittsburgh Water's Rate Stabilization Fund Policy
Exhibit EB-10	Pittsburgh Water's Section 1330 Multi-Year Q&A

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND POSITION FOR THE RECORD.

A. My name is Edward Barca and I am the Director of Finance for the Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water.

Q. WHEN DID YOU TAKE ON THE POSITION OF TREASURER?

A. I was appointed as Pittsburgh Water's Treasurer in June 2018 and assumed my duties with Pittsburgh Water during August 2018. I was promoted to the Deputy Director of Finance/Treasurer in July 2019 and ultimately became the Director of Finance in June 2020, which is my current position.

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND.

A. I have a master's degree in finance from the Colorado State University-Global Campus and a bachelor's degree in finance from Mercyhurst University. I am also a licensed Certified Public Accountant in the Commonwealth of Pennsylvania.

Q. PLEASE PROVIDE A SUMMARY OF YOUR RELEVANT EXPERIENCE.

A. I have been at Pittsburgh Water since August 2018. As I stated, I started as Pittsburgh Water's Treasurer in August 2018. I remained in that position until I became Pittsburgh Water's Deputy Director of Finance/Treasurer in July 2019 and then the Director of Finance, which is the position I currently hold.

Prior to working at Pittsburgh Water, I worked for the City of Pittsburgh ("City"). I joined the City in 2015 and was promoted to the Assistant Director of Finance in 2017. While at the City, I served as a Business Intelligence Analyst, Senior Financial Analyst, Revenue Manager, and, finally, Assistant Director of Finance.

Before starting with the City, I had prior work experience at a boutique financial planning firm called Allegheny Financial Group as well as E*TRADE Financial. In addition,

since November 2015, I have owned and operated a business—Barca Tax Services, LLC—that provides tax preparation services.

Q. MR. BARCA, WHAT ARE YOUR VARIOUS JOB RESPONSIBILITIES WITH PITTSBURGH WATER?

A. In my present position, I am responsible for the financial affairs of Pittsburgh Water along with overseeing the Finance Department, which includes fleet management, budgeting, financial controls, procurement, and grants management. I also manage Pittsburgh Water's: (a) cash and liquidity to ensure that sufficient funds are available to process payments, invest in infrastructure, and service debt while preserving principal and thereafter maximizing return on cash and investments; and (b) debt portfolio, which includes assessing opportunities for financing and refinancing, securing additional debt capital from both bank and capital markets, managing the interest rate swap portfolio, and maintaining all credit support vehicles. I further help to ensure compliance with all trust indentures, loan agreements, bond covenants, and filing deadlines.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION?

A. Yes. I presented written Direct, Supplemental Direct, Rebuttal and Rejoinder testimony in support of Pittsburgh Water's most recent rate case at Docket Numbers R-2023-3039920 (water), R-2023-3039921 (wastewater), and R-2023-3039919 (stormwater). In addition, I have been directly involved in various financial proceedings before the Pennsylvania Public Utility Commission ("PUC" or "Commission") regarding the issuance of securities certificates. In 2023, 2024, and 2025, these proceedings included:

Docket No.	Initial Registration Amount	Issuance Amount/Balance	Issue Date
S-2023-3038462	$3,707,279	$2,918,874	July 6, 2023
S-2023-3039817	$260,000,000	$218,805,001	July 3, 2023
S-2023-3039894	$110,000,000	$106,075,000	July 3, 2023
S-2023-3039890	$100,000,000	$81,902,891	July 3, 2023
S-2023-3041861	$4,599,382	-	-
S-2023-3044106	$14,605,000	$2,906,924	February 21, 2024
S-2023-3044112	$3,160,825	$496,978	July 16, 2024
S-2023-3044113	$34,159,707	$29,995,713	July 16, 2024
S-2024-3049914	$18,278,381	$18,278,381	July 30, 2024
S-2024-3051512	$150,000,000	$129,220,000	January 25, 2025
S-2024-3051513	$25,000,000	$12,825,000	January 25, 2025
S-2025-3053151	$150,000,000	TBD	TBD
S-2025-3053864	$59,136,000	$59,136,000	April 16, 2025
S-2025-3053935	$62,672,221	TBD	TBD
S-2025-3053937	$1,715,938	TBD	TBD
S-2025-3053958	$12,962,589	TBD	TBD

Q. PLEASE EXPLAIN THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to:

1) Provide the documentation and supporting methodology for the schedules and exhibits that are included in Pittsburgh Water's rate filing;

2) Describe Pittsburgh Water's financial results for the proposed muti-year rate increase, which includes the fully projected future test year ("FPFTY") comprised of the period from January 1, 2026 through December 31, 2026, as well as period from January 1, 2027 through December 31, 2027;

3) Provide support for Pittsburgh Water's total requested overall rate increase of $84.4 million, which is inclusive of an increase to the Distribution System Improvement Charge ("DSIC") cap to 7.5% and expansion of the PENNVEST Charge starting March 3, 2026;

4) Explain the proposed removal of Pittsburgh Water's minimum water and wastewater charge, proposed to be effective on January 1, 2027; and,

5) Explain how Pittsburgh Water's capital budget spending will be recovered from ratepayers.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. Yes. I am sponsoring the following exhibits:

- **Exh. EB-1:** Exhibit EB-1 provides schedules showing Pittsburgh Water's Income Statement, Cash Flow Statement, and Debt Service Coverage Statement at present rates for the Historical Test Year ("HTY") (FY 2024), Future Test Year ("FTY") (FY 2025), FPFTY (FY 2026), and the Forecast Period (FY 2027).
- **Exh. EB-2:** Exhibit EB-2 provides schedules showing Pittsburgh Water's Income Statement, Cash Flow Statement, and Debt Service Coverage Statement at proposed rates for the HTY, FTY, FPFTY, and Forecast Period 2027.
- **Exh. EB-3:** Exhibit EB-3 contains additional budget information for HTY, FTY, FPFTY, and Forecast Period 2027.
- **Exh. EB-4:** Exhibit EB-5 contains Pittsburgh Water's 2025–2029 Capital Improvement Plan.
- **Exh. EB-5:** Exhibit EB-5 contains Pittsburgh Water's Financial Management Policy.
- **Exh. EB-6:** Exhibit EB-6 contains Pittsburgh Water's Debt and Swap Portfolio Summary.
- **Exh. EB-7:** Exhibit EB-7 contains Pittsburgh Water's Additional Bonds Test at Existing Rates.
- **Exh. EB-8:** Exhibit EB-8 contains Pittsburgh Water's Additional Bonds Test at Proposed Rates.
- **Exh. EB-9:** Exhibit EB-9 contains Pittsburgh Water's Rate Stabilization Policy
- **Exh. EB-10:** Exhibit EB-10 contains Pittsburgh Water's Section 1330 Multi-Year Q&A

II. PROPOSED RATE INCREASE

Q. PLEASE SUMMARIZE THE RATE INCREASE SOUGHT BY PITTSBURGH WATER IN THIS PROCEEDING.

A. The following points below summarize the requested increase and other proposed changes in this proceeding.

- Pittsburgh Water seeks a multi-year total overall rate increase of $84.4 million, which is inclusive of the increase to the DSIC cap to 7.5% and expansion of the PENNVEST Charge in March 3, 2026. This includes a $63.7 million or 25.9% increase in the FPFTY (FY 2026) and $20.7 million or 6.7% in FY 2027.
- Pittsburgh Water is proposing amendments to the current arrearage forgiveness program with cost recovery in the of amount of $280,094 in the FPFTY (FY 2026) and $280,094 in FY 2027 being claimed in this rate case as a result of the amendments.
- Pittsburgh Water is proposing to take ownership of water service lines two inches and smaller from the main to the curb stop within the right-of-way.

- Pittsburgh Water is proposing to remove the minimum water and wastewater charge starting in FY 2027.
- Pittsburgh Water is proposing the expansion of the current PENNVEST Charge to recover all current and future PENNVEST loan costs through the PENNVEST Charge starting March 3, 2026 (FPFTY).

Q. CAN YOU DESCRIBE THE NEED FOR THIS RATE INCREASE?

A. Pittsburgh Water is in the midst of a massive effort to replace antiquated water, wastewater, and stormwater facilities, including remaining lead service lines, and continuing to improve service to customers. To do this, Pittsburgh Water needs sufficient capital to finance these large capital expenditures, and an adequate operating budget to pay for costs associated with these facilities upgrades. Accordingly, the main factors driving the need to file this rate case include capital costs (which includes debt service, debt service coverage, and DSIC costs), surface restoration (paving), vehicle purchases, manhole repairs, emergency water line and sewer lateral repair, expansion of operations, and continued compliance to meet financial obligations. Pittsburgh Water must also improve its financial metrics that impact its bond rating, which, in turn keeps borrowing costs down.

The details that justify the need for the additional revenues in this rate case, along with the rate structure changes proposed in this proceeding, will be fully described later in my testimony.

III. CALCULATION OF REVENUE REQUIREMENT

A. Cash Flow Ratemaking

Q. PLEASE EXPLAIN THE BASIS ON WHICH PITTSBURGH WATER HAS CALCULATED ITS REVENUE REQUIREMENT FOR THE FPFTY.

A. Pittsburgh Water is not regulated on the basis of a fair rate of return on a used and useful rate base as are investor-owned utilities; instead, its revenue requirement is established by the "Cash Flow" method.

The Commission has directed that Pittsburgh Water's revenue requirement be determined using the "Cash Flow" method, the traditional method of determining just and reasonable rates for municipal utilities such as Pittsburgh Water.[1] In Pittsburgh Water's first four rate cases,[2] Pittsburgh Water and the other parties determined its revenue requirement using the "Cash Flow" method.

It is appropriate to continue to use the "Cash Flow" method for Pittsburgh Water, since Pittsburgh Water has no shareholders and does not pay a dividend or a rate of return to its owner. With that in mind, rather than having its revenue requirement determined on the basis of a fair rate of return on a used and useful rate base, Pittsburgh Water's rates should be set by determining the levels of cash necessary to fund an operating budget that enables Pittsburgh Water to maintain the system, pay for needed capital improvements, and maintain the level of debt service coverage that meets Pittsburgh Water's bond covenant requirements, meets the additional bonds test, and also produces sufficient cash to fund all obligations and maintain access to the capital markets at reasonable rates.

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[1] *Implementation of Chapter 32 of the Public Utility Code Re Pittsburgh Water and Sewer Auth.*, Docket Nos. M-2018-2640802 and M-2018-2640803, Final Implementation Order entered March 15, 2018 at 27–28.

[2] *Pa. Pub. Util. Comm'n v. Pittsburgh Water and Sewer Auth.*, Docket Nos. R-2018-3002645 (water) and R-2018-3002647 (wastewater), Opinion and Order entered February 27, 2019.

In a 2010 Policy Statement, the Commission described the requirements of the Cash Flow Method as follows:

> (b) … Included in that requirement [of establishing just and reasonable rates] is the subsidiary obligation to provide revenue allowances from rates adequate to cover [the utility's] reasonable and prudent operating expenses, depreciation allowances and debt service, as well as sufficient margins to meet bond coverage requirements and other internally generated funds over and above its bond coverage requirements, as the Commission deems appropriate and in the public interest for purposes such as capital improvements, retirement of debt and working capital.[3]

The Commission also stated that, in determining just and reasonable rate levels under the Cash Flow method, it would consider, among other relevant factors, the following financial factors:

- Test year-end and (as a check) projected future levels of non-borrowed year-end cash;
- Available short term borrowing capacity and internal generation of funds to fund construction;
- Debt to equity ratios and financial performance of similarly situated utility enterprises; and
- Level of financial performance needed to maintain or improve the utility's bond rating thereby permitting the utility to access the capital markets at the lowest reasonable costs to customers over time.[4]

Q. PLEASE EXPLAIN HOW PITTSBURGH WATER DETERMINED ITS REVENUE REQUIREMENT IN THE FPFTY?

A. Pittsburgh Water's revenue requirement in this case was determined by calculating the level of additional revenues Pittsburgh Water needs in order to fund its capital and operating budgets and maintain financial metrics at least at (or above) its minimum requirements, considering the levels needed to maintain Pittsburgh Water's current bond rating.

[3] 52 Pa. Code § 69.2702.
[4] 52 Pa. Code § 69.2703.

IV. *PRO FORMA* FINANCIAL RESULTS

Q. HAVE YOU PREPARED A PROFORMA TEST YEAR INCOME STATEMENT, CASH FLOW, DEBT SERVICE COVERAGE STATEMENT THAT PROJECTS PITTSBURGH WATER'S STATUS IN THE CURRENT YEAR, AS WELL AS ON A PROJECTED BASIS?

A. Yes. Please see Exhibits EB-1 and EB-2.

Q. FIRST, PLEASE EXPLAIN THE TEST YEAR ON WHICH PITTSBURGH WATER'S CLAIMED REVENUE REQUIREMENT IS BASED.

A. As permitted by Act 11 of 2012, Pittsburgh Water has based its claimed revenue requirement on the fully forecasted 12 months ending December 31, 2026, referred to as the FPFTY. The FTY is calendar year 2025 (January 1, 2025 to December 31, 2025) and the HTY is calendar year 2024 (January 1, 2024 to December 31, 2024). The results at current rates is displayed in Exhibit EB-1 with proposed rates displayed in EB-2. Each page of these exhibits show data for: (1) the HTY, the 12 months ended December 31, 2024 or FY 2024; (2) the FTY, the 12 months ended December 31, 2025 or FY 2025; (3) the FPFTY, the 12 months ended December 31, 2026 or FY 2026; and (4) the Forecast Period, the 12 months ended December 31, 2027 or FY 2027.

Q. HAS PITTSBURGH WATER RELIED UPON OTHER PROVISIONS OF ACT 11 IN DEVELOPING THIS CASE?

A. Yes, as addressed in two petitions which are being filed simultaneously with the filing of its rate case package. First, Pittsburgh Water is filing a petition for consolidation of the three dockets (water, wastewater, stormwater) and for authorization to use combined water, wastewater and stormwater revenue requirements as authorized by 66 Pa. C.S. § 1311(c).[5] Granting of that petition will continue the prior accounting and ratemaking practice of Pittsburgh Water and recognize that Pittsburgh Water operates as a

[5] Alternatively, Pittsburgh Water requests a waiver pursuant to 66 Pa. C.S. § 3203(b) which permits the Commission to suspend or waive the applicability of any provision of the Public Utility Code to Pittsburgh Water.

consolidated, single entity. Second, Pittsburgh Water is simultaneously filing a Petition for Waiver of Statutory Definition of FPFTY to enable it to use a FPFTY beginning on January 1, 2026. Due to the June 4, 2025 filing date of this rate package, the application of the full suspension period will end on March 3, 2026. The purpose of Pittsburgh Water's petition is to enable it to utilize a FPFTY beginning on January 1, 2026 (rather than March 3, 2026 as would be required by the statute), which is consistent with Pittsburgh Water's budgeting processes.

Q. PLEASE DESCRIBE HOW THE DATA FOR THE HISTORIC TEST YEAR WERE DERIVED.

A. The HTY is the cash-basis results for FY 2024.

Q. PLEASE DESCRIBE HOW THE FUTURE TEST YEAR AND FULLY PROJECTED FUTURE TEST YEAR RESULTS WERE DERIVED.

A. The FTY (FY 2025) and FPFTY (FY 2026) results were derived through a comprehensive Pittsburgh Water-wide budgeting process. Pittsburgh Water uses a zero-based budgeting method to develop annual budgets. The previous year's budgets are referenced when developing the FPFTY budget, but each cost is individually considered when developing the budget. This is contrary to a traditional budgeting approach in which an escalation factor is applied for an anticipated increase in a specific type of cost. On Exhibit EB-3, I have provided additional information concerning actual and budget financial information. This Exhibit shows the Operating Budgets for FTY (FY 2025), FPFTY (FY 2026), and FY 2027.

Exhibit EB-3 provides information regarding changes in budgeted levels from the HTY (FY 2024) to the FTY (FY 2025), from the FTY (FY 2025) to the FPFTY (FY 2026), and FY 2027.

A. Impact of Inflation and Tariffs

Q. CAN YOU ELABORATE ON THE CURRENT INFLATION RATE?

A. The pace of inflation continues to be above historical norms. As demonstrated by the chart below, the average annual inflation rate has more than doubled over the past four years (FY 2021–FY 2024) by averaging 4.93%, as compared to 1.92% between FY 2017–FY 2020. Increased costs have put extreme pressure on Pittsburgh Water's operating and capital budgets, jeopardizing the ability to maintain and renew the system. Furthermore, as a not-for-profit cash-basis utility almost solely reliant on ratepayers to fund operations, the impact of increased costs on Pittsburgh Water is amplified as compared to an investor-owned utility, which can rely on profits and other cost recovery mechanisms.

Annual Inflation: 2017–2024[6]	
Year	Percentage Increase
2017	2.11%
2018	1.91%
2019	2.29%
2020	1.36%
2021	7.04%
2022	6.45%
2023	3.35%
2024	2.89%

Q. ANNUAL INFLATIONARY INCREASES SEEMS TO BE TRENDING DOWNWARD FROM THEIR HEIGHT IN 2021. IF THIS IS TRUE, CAN YOU EXPLAIN WHY INFLATION IS RELEVANT TO THIS RATE CASE?

A. Certainly. The spike in inflation during 2021 and the uncertainty that followed has continued to increase cost for Pittsburgh Water regardless of what the current inflationary rate is.

[6] U.S. Bureau of Labor Statistics (BLS Data Viewer).

The market for employee benefits continues to harden with medical rates increasing 4% in FY 2025. As it relates to salaries, the recently executed Pittsburgh Joint Collective Bargaining Committee ("PJCBC"), which makes up over 30% of the employee count, approved a 6% cost of living increase in FY 2025—further compounding the 3% increase approved within the contract agreement in FY 2026 and FY 2027. It has been well over a decade since the cost of living increase was over 3%, with the most recent large increase attributable to the inflationary environment.

Pittsburgh Water is also experiencing annual operating costs renewing well above historical patterns. From FY 2023 to FY 2024, the annual PUC assessment charge increased 18%, print and mail services for customer bills increased 7–10% (depending on the type of mailer), and external legal services have increased 5% on average. FY 2025 renewal costs are not available for these items, but large increases are expected. In addition, specific to FY 2025, electric and natural gas supply costs have increased over 20%, and auto, property, general liability, workers compensation, and cyber insurance combined premium costs increased 5%.

The point of outlining these increases, many of which are fixed costs, is not to show an exhaustive list of all increases, but rather to show that inflationary pressures have not cooled. The rate request that Pittsburgh Water is requesting for the FPFTY and FY 2027 is the minimum level that is required to pay for these increases while **also** allowing the proactive renewal of the water, wastewater, and stormwater systems.

Q. CAN YOU ELBORATE ON THE TARIFFS THAT HAVE RECENTLY BEEN IMPLEMENTED?

A. Yes. The inauguration of President Donald Trump on January 20, 2025 has ushered in a new era of trade policies that involve the use of tariffs. A wide range of tariffs have been

implemented on virtually every U.S. trading partner and triggered a worldwide trade war. Below is a list of the major U.S. tariffs that have been impacted since May 23, 2025. Note that the list excludes reciprocal tariffs against the U.S. from other countries. The point of this list is not meant to document every tariff announcement; rather, it is included to demonstrate that the current economic landscape is very uncertain, which is having a negative impact on Pittsburgh Water's budgets.

U.S. Tariffs
25% tariff on all Mexican imports and other Canadian imports* (effective March 4) *USMCA-compliant trade remains duty-free
25% tariff on all steel and aluminum imports (effective March 12); 50% announced
10% tariff on Canadian potash and energy (effective April 2)
25% tariff on all automobiles, with an exemption for US content (effective April 3)
10% minimum tariff + special "reciprocal" rates on 60 countries (effective April 2) **Reciprocal rates have been paused for 90 days (effective April 9)
US and UK reach trade deal (effective May 8) ***US reciprocal tariff rate of 10% remains in effect
145% tariff on all Chinese imports*** (various announcements) ****Phones and computers are exempt from tariffs (effective April 12, 2025) *****Temporary 90-day pause on portion of Chinese tariffs (effective May 14, 2025)

Q. WHAT CAN BE THE EXPECTED OUTCOME OF THIS TRADE WAR?

A. The U.S. tariffs will act as a tax on imports, which will be largely passed through to consumers. The resulting price increases will drive up inflation and create a supply chain shock, reminiscent of post-COVID supply-chain disruption. Many of the materials targeted by the tariffs, such as automobiles, steel, and aluminum, are necessary to execute Pittsburgh Water's Capital Improvement Plan ("CIP") and maintain operations. Any price increases resulting for the tariffs will certainly have a negative budgetary impact.

Q. DO YOU HAVE ANYTHING ELSE TO MENTION AS IT RELATES TO TARIFFS AND THE RELATED ISSUE OF INFLATION?

A. Yes. I want to be clear that inflation is currently impacting the revenue requirements with the anticipation that tariff-related inflation will exacerbate this issue. My testimony

will describe specific cost increases that justify the proposed increase. However, to some degree, inflation is the primary or secondary factor for all increases.

B. Pittsburgh Water's Budgeting Process

Q. PLEASE DESCRIBE HOW PITTSBURGH WATER'S OPERATING BUDGETS ARE CREATED.

A. Each of the fifteen departments within Pittsburgh Water prepares budget requests for the upcoming fiscal year. Those requests are reviewed by the Finance Department for accuracy and adherence to realistic expectations and/or projections. The Finance Department prepares a "roll-up" of initial funding and expense recommendations for the Chief Executive Officer and Chief Financial Officer. The Chief Executive Officer and Chief Financial Officer then may make recommendations on the initial budget requests. Any recommendations are discussed with the applicable department and, if accepted, results in a revised set of budget requests. Once satisfied, the Chief Executive Officer and Chief Financial Officer (with the assistance of the Finance Department) prepare an operating budget for review by the Board. The Board may accept or modify the operating budget. The final operating budget is approved by the Board. Typically, approval is received in November or December for the fiscal year commencing on January 1.

Q. PLEASE DESCRIBE HOW PITTSBURGH WATER'S CAPITAL IMPROVEMENT PLAN IS CREATED.

A. Pittsburgh Water updates its 5-year CIP annually by soliciting budget requests from subject matters experts within the main functional areas (water, wastewater, and stormwater). The Finance Department prepares a "roll-up" of all budget requests for the purposes of being reviewed by the CIP Committee. The CIP Committee is made up of 14 representatives from the Water Treatment Plant, Operations, Environmental Compliance,

Safety and Security, Laboratory, Engineering & Construction, Technology Services, and Finance. These 14 representatives score new projects based on weighted categories consistent with Pittsburgh Water's strategic plan to generate funding recommendations. The purpose of the CIP Committee is to ensure capital funds are invested efficiently given the needs of Pittsburgh Water, with funding recommendations ultimately being sent to the Chief Executive Officer and Chief Financial Officer for review. The Chief Executive Officer and Chief Financial Officer then may make recommendations on the initial budget requests. Any recommendations are discussed with the CIP Committee and, if accepted, results in a revised set of budget requests. Once satisfied, the Chief Executive Officer and Chief Financial Officer (with the assistance of the Finance Department) prepare a CIP for review by the Board. The Board may accept or modify the CIP. The final budget is approved by the Board. Typically, approval is received in the last quarter of the year for the fiscal year commencing on January 1.

Q. WHAT IS THE REVIEW AND APPROVAL PROCESS ASSOCIATED WITH THE OPERATING BUDGET?

A. Similar to the capital budget process, in addition to an internal review and approval process by the Pittsburgh Water executive team, Pittsburgh Water is required to obtain final approval by Pittsburgh Water's Board of Directors. The Board is the governing body of Pittsburgh Water and is responsible for providing strategic direction and oversight to the Pittsburgh Water management team, as well as adopting Pittsburgh Water's annual operating and capital budgets, approving contracts, and approving proposed rate increases (that are subject to final review and approval by the Commission). Once final, Pittsburgh Water makes its annual operating budget and CIP available to the public on its website.

Q. DOES PITTSBURGH WATER ALSO PREPARE A ONE-YEAR FORECAST OF FINANCIAL OPERATIONS (HERE REFERRED TO AS THE FORECAST PERIOD)?

A. Yes. Pittsburgh Water rolls forward its budgeted operating results using the budget year, which is the FPFTY in this case, as the base year to create a one-year forecast, taking account of any known rate or other changes that might affect the results in a particular year. For this filing, Pittsburgh Water accelerated its budgeting process for FY 2025 to establish a fully developed FPFTY as the test year in this proceeding and as a base year of its one-year forecast. Note that in this rate case, Pittsburgh Water is only requesting an increase principally for annual debt service, debt service coverage costs, and the associated DSIC increase in FY 2027. The Forecast Period results are shown on Exhibit EB-2.

C. Pittsburgh Water's Operating Needs

Q. WHAT ARE THE OPERATING REVENE REQUIREMENTS IN THE FPFTY 2026 AND FY 2027?

A. Pittsburgh Water is proposing operating (i.e., non-capital) revenue requirements of $152.1 million, or an increase of $16.6 million, in the FPFTY and no increase in FY 2027, making up about 24% of the total revenue requirement increase in the FPFTY and 19% of the total revenue requirement increase in this rate case. The expense categories of Direct Operating, Salaries, General & Administrative, and Employee Benefits are main drivers of the increase in the FPFTY given Pittsburgh Water's continued efforts to right size its operations to fit the size of the system. As explained later in my testimony, the revenue requirement increase in FY 2027 is associated with annual debt service, debt service coverage costs, and the associated DSIC increase only. The table below summarizes this request by the expense categories within the operating budget.

Expense Category	FY 2024	FY 2025	FY 2026	FY 2027
Direct Operating	$51,923,709	$58,020,421	63,784,191	63,784,191
Salaries	34,914,135	39,448,726	42,767,628	42,767,628
General & Administrative	20,915,296	21,991,916	27,809,908	27,809,908
Employee Benefits	10,201,149	11,830,581	13,100,420	13,100,420
Inventory	2,252,147	2,176,740	2,251,020	2,251,020
Net ALCOSAN	(2,521,199)	2,036,793	2,383,047	2,383,047
Total	**$117,685,237**	**135,526,742**	**152,096,214**	**152,096,214**
Difference	**-**	**17,841,504**	**16,569,472**	**-**

Q. CAN YOU EXPLAIN WHAT EXPENSES ARE INCLUDED IN THE DIRECT OPERATING EXPENSE CATEGORY?

A. Yes, as the name implies, the direct operating expense category includes expenses that are required to keep Pittsburgh Water running on a day-to-day basis, such as material purchases, surface restoration (paving), water and sewer repairs, vehicles purchases, catch basin cleaning, maintenance contracts, and water treatment chemical purchases. The direct operating expense category represents the largest of all the operating budget categories. This is a result of Pittsburgh Water's continued need to modernize and maintain its large water, sewer, and stormwater systems. Not providing Pittsburgh Water with the requested amount of funds for this expense category will put even more pressure on the already massive CIP as improvements will only be made when failures occur.

Q. WHAT ARE THE MAIN DRIVERS IN THE DIRECT OPERATING EXPENSE CATEGORY?

A. The main drivers of this category are the rapid increase in surface restoration, new vehicle purchases, manhole repair, line locating services, emergency sewer repair, emergency water line repair, and field inspection. These expenses make up over 64% of the FPFTY cost in this expense category with the total FPFTY expenses in this category

increasing $12.0 million, or 23% as compared to FY 2024, the most recent year Pittsburgh Water had a rate increase.

Q. CAN YOU ELABORATE ON THE FPFTY REVENUE REQUIREMENT FOR SURFACE RESTORATION?

A. Yes. As of April 9, 2025, Pittsburgh Water currently has a backlog of 1,022 open sites that need to be paved. This is the result of Pittsburgh Water's operations crews being proactive to replace lead lines as they are identified, as well as aged infrastructure. The rate of these replacements has outpaced the paving contractor's ability to keep up with all sites, resulting in temporary patches or fillings. The FPFTY revenue requirement of $15.0 million is enough funding to allow Pittsburgh Water to eliminate the backlog, as well as manage new sites in the future. The chart below shows this cost increase in more detail.

	FY 2024	FY 2025	FY 2026	$ Increase (FY26-FY24)	% Increase
Surface Restoration	$12,236,064	$11,629,828	$15,000,000	$2,763,936	23%

As explained in Ms. Mechler's testimony, failure to fund the full FPFTY revenue requirement will result in reputational issues for Pittsburgh Water, potentially hazardous road conditions, and a poor level of service.

Q. CAN YOU PROVIDE THE FPFTY REVENUE REQUIREMENTS FOR NEW VEHICLES?

A. Certainly. The new vehicle purchases revenue requirement for the FPFTY is $3 million. As shown below, Pittsburgh Water has neglected to invest in its fleet over the past few years due to a lack of funding. Currently, 78% of Pittsburgh Water's fleet is over 5 years of age, with 32% over 7 years of age.

	FY 2024	FY 2025	FY 2026	$ Increase (FY26–FY24)	% Increase
Vehicle Purchases	$762,342	$930,000	$3,000,000	$2,237,658	294%

Approximately $2–3 million should be the minimum amount invested annually to keep up with replacement cycles and account for the expansion of operations. The historic lack of funding has, and will continue to cause, operational issues and increase repair costs because older vehicles cost more to maintain—which is the reason it must be addressed in this rate case.

Pittsburgh Water plans to purchase 25 new vehicles in the FPFTY with this funding. The list below displays the specific vehicles that will be purchased. These new vehicles will replace older models with an average age of 10 years.

Vehicle Type	Number of Units to be Purchased
Pickup Trucks	5
¾ Ton Service Body Compressor Trucks	2
Dump Truck	1
Plumber Vans	8
F-550 Dump Truck	1
Small SUVs	5
CCTV Vans	2
Pickup with Manhole Lifter	1

Q. CAN YOU PROVIDE THE FPFTY REVENUE REQUIREMENTS FOR THE LINE LOCATING SERVICES?

A. The FPFTY revenue requirement is $1.8 million. Pittsburgh Water outsources line locating services required for PA One Call responses. This contract must be funded to respond to One Call inquiries and mark infrastructure. Failure to do so could result in fines or damaged infrastructure, creating unnecessary service interruptions for customers.

	FY 2024	FY 2025	FY 2026	$ Increase (FY26–FY24)	% Increase
Line Locating	$480,313	$1,300,000	$1,839,000	$1,358,687	283%

In FY 2024, Pittsburgh Water terminated its contract with the vendor who was providing these services due to poor performance and switched to a more qualified vendor that has adequate capacity to manage the line locating requirements. However, this switch also resulted in a more than 100% cost increase as compared to the prior vendor. Pittsburgh Water does not have the capacity to handle this function internally and will continue to utilize the new contractor given their improved performance.

Q. CAN YOU PROVIDE THE FPFTY REVENUE REQUIREMENTS FOR THE MANHOLE REPAIR CONTRACT?

A. The FPFTY revenue requirement is $3.0 million. Pittsburgh Water utilizes its manhole repair contract to outsource the repair of existing sewers, manholes, and catch basins. This contract has historically been underfunded due to a lack of funding. Pittsburgh Water has, when available, increased the funding for this contract to help right-size the maintenance of the large sewer and stormwater system. It is also anticipated that the forthcoming Wet Weather Consent Decree will require a certain level of annual funding for this contract.

	FY 2024	FY 2025	FY 2026	$ Increase (FY26–FY24)	% Increase
Manhole & Point Repair Contract	$1,615,548	$2,500,000	$3,000,000	$1,384,452	86%

Q. CAN YOU PROVIDE THE FPFTY REVENUE REQUIREMENTS FOR THE EMERGENCY WATER LINE AND SEWER MAIN REPAIR CONTRACT?

A. As shown below, the combined FPFTY revenue requirement for these emergency services is $14.8 million. Pittsburgh Water utilizes on-call contractors to address urgent water line breaks and sewer main collapses. These contracts are critical to maintaining an adequate level of service to customers. While the number of repairs can vary, urgent repairs are frequent and result from aged infrastructure that has not been addressed until

recently. It will take decades for the current aggressive infrastructure replacement cycles to reduce the number of repairs.

	FY 2024	FY 2025	FY 2026	$ Increase (FY26–FY24)	% Increase
Emergency Water	$6,022,594	$8,727,687	$7,000,000	$977,406	16%
Emergency Sewer	$6,637,545	$8,357,510	$7,800,000	$1,162,455	18%

Q. CAN YOU PROVIDE THE FPFTY REVENUE REQUIREMENTS FOR FIELD INSPECTION SERVICES?

A. The FPFTY revenue requirement is $3.1 million. Field inspections services are outsourced by Pittsburgh Water and are necessary to ensure the work being performed under the surface restoration, manhole and point repair, emergency water and sewer repair, and other like contracts are completed within all required specifications. The cost for field inspection services has dramatically increased because of inflation as well as additional demand as Pittsburgh Water completes more work under the aforementioned contracts.

	FY 2024	FY 2025	FY 2026	$ Increase (FY26–FY24)	% Increase
Field Inspection	$2,125,554	$2,806,337	$3,094,282	$968,728	46%

Q. WHY IS PITTSBURGH WATER REQUESTING A LARGE INCREASE IN THE SALARY AND EMPLOYEE BENEFITS EXPENSE CATEGORY?

A. The combined salary and benefits FPFTY revenue requirement is $55.9 million. This will support Pittsburgh Water's plan to continue to expand its workforce and to fund increases to benefits and salary costs. As of May 2025, Pittsburgh Water employed over 423 employees, with a plan to add 16 new positions in FPFTY. This staffing increase is necessary to support Pittsburgh Water's over $1.2 billion CIP, forthcoming compliance activities, and expansion of operations.

Q. CAN YOU EXPLAIN WHAT EXPENSES ARE INCLUDED IN THE GENERAL AND ADMINISTRATIVE EXPENSE CATEGORY?

A. Yes, this category includes administrative expenses such as cell phones, internet, insurance, supplies, utilities, legal services, and other consulting costs required to maintain operations. This expenses category will continue to increase as the general operations, such as the number of employees of the organization, grow.

Q. WHAT ARE THE MAIN DRIVERS IN THE GENERAL AND ADMINISTRATIVE EXPENSE CATEGORY?

A. The main drivers of this category are increases to consultants, office rent, and electricity costs.

Q. CAN YOU PROVIDE THE FPFTY REVENUE REQUIREMENT FOR CONSULTANTS?

A. The FPFTY revenue requirement is $7.3 million, excluding consulting costs for this rate case, which I will discuss later in my testimony. Consultants are utilized at Pittsburgh Water on an as-needed basis to support certain functions of the organization. The majority of the costs (about $5.4 million) are allocated to the Engineering and Construction department to for modeling and program support related to the Wet Weather Consent Decree, hydraulic modeling support, and stormwater master plan costs.

	FY 2024	FY 2025	FY 2026	$ Increase (FY26–FY24)	% Increase
Consultants	$4,584,954	$5,899,525	$7,341,919	$2,756,965	60%

Q. CAN YOU PROVIDE THE FPFTY REVENUE REQUIREMENT FOR OFFICE RENT?

A. Yes. The FPFTY revenue requirement is $2.9 million. Pittsburgh Water recently executed a lease agreement for a new operations facility that is centrally located in the City of Pittsburgh. Below is the FPFTY revenue requirement for this lease.

	FY 2026
New Operations Facility Lease	$1,778,559

The current operations facilities or "yards" do not have the space or capacity to handle the growing needs of the system. It is posing major issues as Pittsburgh Water embarks on its large CIP that requires additional staff, equipment, and vehicles. It is also becoming a safety issue. For example, due to limited space, Pittsburgh Water is forced to park many of its vehicles and equipment on the street or directly outside of its yards without any security. This has resulted in multiple overnight vehicle break-ins where bad actors have stolen equipment and caused damage. The new facility can house Pittsburgh Water's entire fleet indoors and includes a lay down yard, with ample office and meeting space for field operations employees. The FPFTY costs below reflect both the lease cost for Pittsburgh Water's headquarters location at 1200 Penn Avenue, as well as the new operations facility lease.

	FY 2024	FY 2025	FY 2026	$ Increase (FY26–FY24)	% Increase
Office Rent	$1,077,179	$1,064,122	$2,851,821	$1,774,642	165%

Q. CAN YOU PROVIDE THE FPFTY REVENUE REQUIREMENT FOR ELECTRICITY?

A. The FPFTY revenue requirement is $6.7 million. Electricity is critical to the process of treating water and pumping it throughout the distribution system. Unfortunately, there has been a substantial increase in the costs of electricity over the past few years, with electric supply costs increasing over 20% in FY 2025. In addition, starting June 2025, PJM Interconnection[7] ("PJM") capacity charges will increase 833% to $269.92/MW-day,

[7] PJM Interconnection is the independent system operator and regional transmission organization for a large portion of the eastern United States.

up from $28.92/MW-day.[8] The cost for electricity in this rate case must be recovered in full to be able to continue to provide services to customers.

	FY 2024	FY 2025	FY 2026	$ Increase (FY26–FY24)	% Increase
Electricity	$5,394,094	$6,190,000	$6,727,000	$1,332,906	25%

Q. CAN YOU DISCUSS PITTSBURGH WATER'S WATER RELIABILITY PLAN AND ITS TRANSITION FROM A CONSENT ORDER AND AGREEMENT TO CONSENT DECREE?

A. Yes, Pittsburgh Water is currently undertaking a series of large infrastructure improvements, known as the Water Reliability Plan ("WRP") projects, that will commence with the replacement of the clearwell at the water treatment plan. The WRP was previously under a Pennsylvania Department of Environmental Protection Consent Order and Agreement but has recently been transitioned to a Consent Decree. As I will explain later in my testimony, the WRP costs make up a large portion of the FPFTY and FY 2027 total capital requirements being claimed in this case. Please refer to Mr. King's testimony for more information on these projects and the recent regulatory actions.

Q. CAN YOU DISCUSS PITTSBURGH WATER'S WET WEATHER CONSENT DECREE?

A. As discussed in the testimony of Ms. Mechler, negotiations are currently ongoing between Pittsburgh Water and the United States Environmental Protection Agency for the purpose of entering into a Wet Weather Consent Decree. The goal of the decree will be to significantly reduce sanitary sewer and combined sewer overflows.

[8] https://electricityplans.com/pennsylvania-capacity-cost-increase-2025/#:~:text=In%20June%202024%2C%20the%20PJM,electricity%20supply%20bill%20in%20Pennsylvania.

Given uncertain timing, Pittsburgh Water is not requesting funds in this rate case to act on the future regulatory requirements resulting from this Consent Decree. However, once final, these costs will be included in future rate cases filed by Pittsburgh Water.

Q. WHAT IS THE ALLEGHENY COUNTY SANITARY SEWER AUTHORITY AND WHAT RELATIONSHIP DOES IT HAVE WITH PITTSBURGH WATER?

A. The Allegheny County Sanitary Sewer Authority ("ALCOSAN") is the region's wastewater treatment provider that is a separate and independent legal entity from Pittsburgh Water. All of the wastewater collected and conveyed by Pittsburgh Water's wastewater conveyance system is treated at the wastewater treatment facilities of ALCOSAN. Pittsburgh Water bills customers on behalf of ALCOSAN for wastewater treatment service via a pass-through charge on Pittsburgh Water bills. ALCOSAN rates are established by ALCOSAN, not Pittsburgh Water.

Pittsburgh Water makes ALCOSAN whole for all charges billed on their behalf, regardless of what is collected. It is for this reason that Pittsburgh Water typically carries bad debt expenses for collections related to this pass-through engagement within Pittsburgh Water's budget. Pittsburgh Water is budgeting for ALCOSAN bad debt expenses of $2.4 million in FPFTY and $2.4 million in FY 2027. It is important to note that, while ALCOSAN is increasing its rate in FY 2027, Pittsburgh Water is not increasing the ALCOSAN bad debt expense in order to only reflect increased FY 2027 cost related to debt service, debt service coverage, and the percentage increase from the DSIC.

Q. CAN YOU EXPLAIN THE RECENT IMPLEMENTATION OF THE PRIVATE WATER LINE AND SEWER LATERAL INSURANCE PROGRAM AND THE ASSOCIATED REVNEUES INCLUDED IN THIS RATE CASE?

A. Yes, Pittsburgh Water recently executed a contract with a third party to administer a private water line and sewer lateral insurance program whereby Pittsburgh Water

receives a 15% royalty on all premiums paid. This is an optional program that customers can enroll into that provides coverages for large water line or sewer lateral breaks. Pittsburgh Water anticipates receiving royalty payments of $21,728 in the FPFTY and $27,884 in FY 2027, which are included in pro forma FPFTY revenues in this rate case. Pittsburgh Water is proposing that all current and future royalty payments from this program will be a dedicated source of funding for the hardship grant fund.

Q. PITTSBURGH WATER IS CURRENTLY NEGOTIATING A NEW BULK WATER SALES AGREEMENT WITH FOX CHAPEL WATER AUTHORITY. CAN YOU EXPLAIN THE IMPACT OF THAT IN THIS RATE CASE?

A. The current bulk water sales agreement with Fox Chapel Water Authority ("Fox Chapel") expires in July 2025. In anticipation of that, Pittsburgh Water has begun negotiations for a new agreement that would graduate Fox Chapel into the wholesale tariff rate of $13.34 over a 3-year period. This equates to total estimated annual revenue of $4.6 million in FPFTY and $6.6 million in FY 2027, which have historically been about $2.8 million per year.

Q. IS THE COST OF THIS RATE CASE AND THE ANNUAL PUC ASSESSMENT FEE INCLUDED IN THE FPFTY?

A. Yes, Pittsburgh Water has budgeted approximately $1.4 million for this rate case and $1.8 million for the annual PUC assessment fee in FPFTY. With respect to rate case expenses, Pittsburgh Water is proposing to include these expenditures as projected in its revenue requirement, rather than amortizing or "normalizing" these expenditures over some period of time. As a cash flow-regulated municipal entity, Pittsburgh Water's rates reflect what it actually incurs in a year, and collecting those costs in rates over two or three years is not reasonable. Also, Pittsburgh Water has been involved in rate-related activity on an annual or semi-annual basis since coming under the jurisdiction of the Commission.

Q. ARE THERE ANY OTHER OPERATING EXPENSES THAT YOU WOULD LIKE TO DISCUSS?

A. Yes, Pittsburgh Water is proposing to pass credit card payment convenience fees on to all customer classes and to provide a credit to customers who switch to electronic billing.

Q. DID PITTSBURGH WATER PREVIOUSLY AGREE TO ELIMINATE THE ADDITIONAL FEES FOR CUSTOMERS TO MAKE INTERACTIVE VOICE RESPONSE AND ON-LINE PAYMENTS?

A. Yes. Pittsburgh Water agreed to do this as part of its 2019 rate case settlement which was negotiated during the fall of 2020 during the COVID-19 pandemic. Since then, the costs of credit card convenience fees are covered by rates for residential customers, while these same costs are paid directly by commercial customers who incur them.

Q. IS PITTSBURGH WATER PROPOSING TO REINSTITUTE THE REQUIREMENT THAT CUSTOMERS INCURRING THESE THIRD-PARTY FEES PAY FOR THEM RATHER THAN PASSING ON THE COSTS TO ALL RATEPAYERS?

A. Yes. Pittsburgh Water has decided to return to its historical policy of requiring customers incurring third-party fees to pay for them for several reasons. Requiring all customer classes to pay third-party fees is justified since it treats all customer classes the same. Also, as explained by Ms. Mechling, we also consider the return to our prior policy as a rate mitigation effort because it ensures the customers electing to incur the third-party costs pay for them rather than spreading that cost to all ratepayers and, therefore, increasing the rates to be paid by everyone and avoiding the subsidization of the convenience fees by other ratepayers. The cost to subsidize these convenience fees is approximately $500,000 per year and are not included in the FPFTY or FY 2027 revenue requirements due to the proposal to eliminate this subsidy. Returning to our historical practice of charging the ratepayer for the costs associated with paying their specific bill ensures that costs are recovered in a fair manner.

Q. PLEASE EXPLAIN THE ELECTRONIC BILL CREDIT PROPOSED IN RATE CASE?

A. Yes, to reduce postage and billings costs, Pittsburgh Water is proposing to offer a one-time $15 credit per account at the time of enrollment to incentivize customers to switch from paper billing to electronic billing. The credit would be applied to the customer's next bill after enrollment. Enrolled customers would also be prohibited from switching back to paper billing for 6 months. This would stop customers from taking advantage of the credit who would otherwise prefer to continue receiving paper bills.

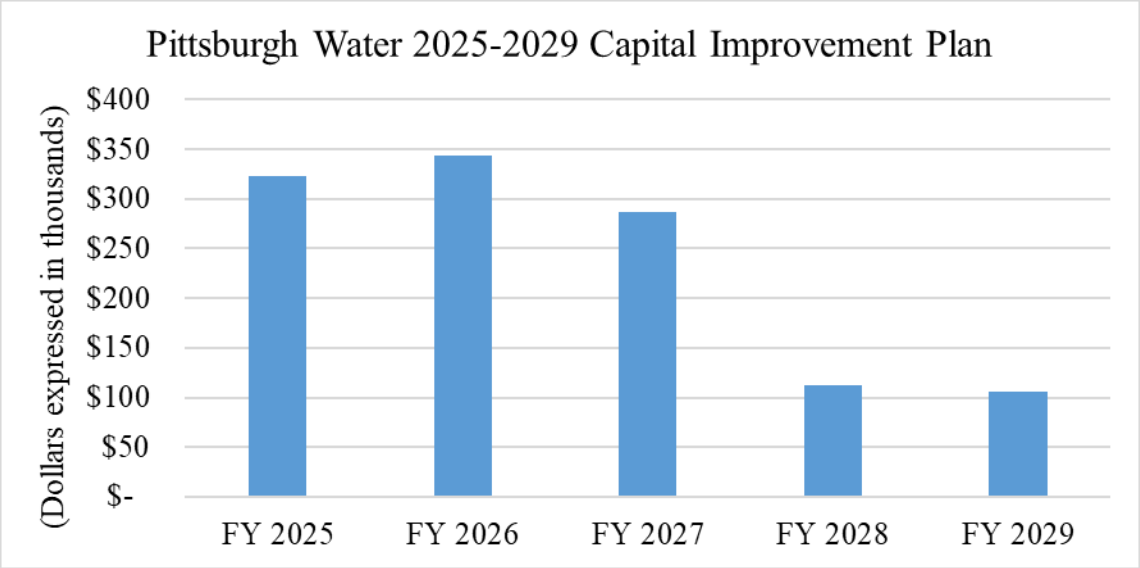
Q. IS THERE A REVENUE REQUIREMENT CLAIMED FOR THE ELECTRONIC BILL CREDIT?

A. No. It costs $2.82 on average to print and mail a single customer bill. Offering a one-time $15 credit would be paid for from the print and mail savings ($2.82 * 6 = $16.92) because customers would not be allowed to switch to paper billing for 6 months after enrollment. Additional savings would accrue if, as expected, most customers stayed on electronic billing after the initial six-month period.

D. <u>Pittsburgh Water's Capital Needs</u>

Q. PLEASE EXPLAIN PITTSBURGH WATER'S CAPITAL IMPROVEMENT PLAN.

A. The Pittsburgh Water Board of Directors approved the 2025–2029 CIP on December 20, 2024. Please see Exhibit EB-4 for a copy of the CIP. The CIP, which includes over $1.2 billion in capital improvements, is, in large part, an effort to make up for multiple decades of deferred maintenance that has resulted in regulatory mandates that must be addressed.



The CIP includes detailed information about Pittsburgh Water's construction projects related to the Water Treatment Plant, Water Pumping and Storage, Water Distribution, Wastewater, Stormwater, and Miscellaneous Projects. As discussed in Mr. King's and Ms. Mechler's testimony, the projects within the CIP must be completed in order to maintain adequate and reasonable levels of service. Delays in completing these projects could result in poor water quality, a complete failure to deliver water, or an inability to meet regulatory requirements of the consent order and agreement.

As can be observed, Pittsburgh Water's CIP drops significantly in FY 2028 and FY 2029. That is not due to a lack of capital needs. Rather, Pittsburgh Water had no choice but to significantly cut its CIP due to the unknowns of future rate increases that are needed to obtain the revenues needed to pay the debt service associated with future capital work. That has and will continue to inhibit Pittsburgh Water's ability to fund design for future projects, which ultimately slows down the rate of capital improvements and negatively impacts ratepayers. Multi-year increases would solve this issue, but the parties to our rate cases have opposed this option in Pittsburgh Water's prior rate cases. As I will describe later in my testimony, Pittsburgh Water is again proposing a multi-year increase but with:

1) the second-year increase in FY 2027 only attributable to debt service, debt service coverage costs, and associated DSIC percentage increases; and 2) a review process that will verify the requested debt service costs. If the multi-year increase requested in this rate case is not approved, Pittsburgh Water will be forced to make significant reductions to its FY 2027 CIP budget. Such a cut would be unacceptable for an entity of Pittsburgh Water's scale and would ultimately harm the same ratepayers the Commission seeks to protect.

Q. WHAT IS PITTSBURGH WATER'S FY 2025, FPFTY 2026 AND FY 2027 CAPITAL BUDGET?

A. Below is a summary of the FY 2025, FPFTY 2026 and FY 2027 capital budgets.

Capital Requirements	FY 2025	FY 2026	FY 2027	Total
Water Reliability Plan	$ 71,672,529	$ 98,867,033	$ 103,572,979	$ 274,112,541
Small Diameter Water Main Replacement	74,188,361	60,800,003	76,205,405	211,193,769
Lead Service Line Replacement	53,160,577	61,953,727	65,421,342	180,535,646
Small Diameter Sewer Rehabilitation	26,700,697	29,030,812	3,360,000	59,091,509
Wastewater	22,700,454	19,538,459	15,485,643	57,724,556
Water Distribution	17,128,301	29,387,613	10,483,065	56,998,979
Water Treatment Plant	14,090,014	20,791,716	4,559,256	39,440,986
Stormwater	29,489,958	7,580,760	1,999,779	39,070,497
Miscellaneous	12,558,165	16,250,000	6,265,500	35,073,665
Water Pumping and Storage	1,740,281	-	-	1,740,281
Total Capital Requirements	$ 323,429,337	344,200,123	287,352,969	$ 954,982,429

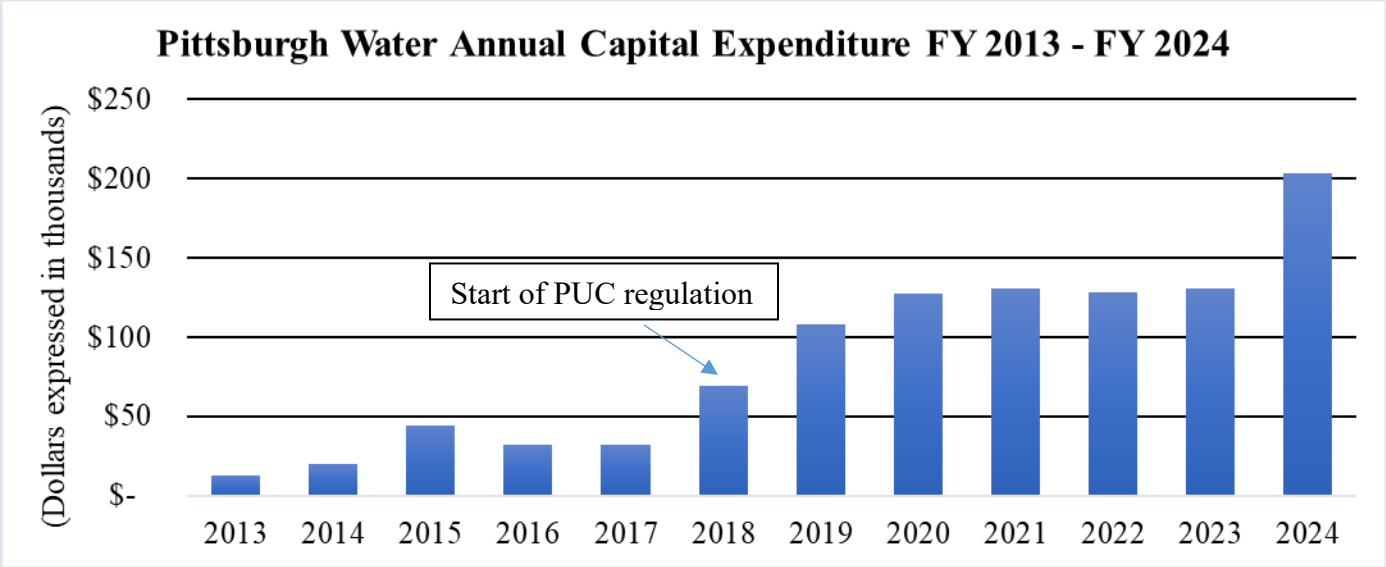
Included in the amounts above are: (1) the costs associated with the previously mentioned WRP Consent Decree projects, and unrelated water main replacement program and lead service line replacement program representing approximately $221.6 million (or 64%) of the capital requirements in FPFTY 2026; and (2) $245.2 million (or 85%) of the capital requirements in FY 2027 Forecast Period, further demonstrating the need for a multi-year rate increase. This funding must be available to comply with the Consent Decree and to continue replacing lead service lines. Failure to do so increases the risk of public health

issues as well as non-compliance with orders that could lead to fines or other disciplinary actions.

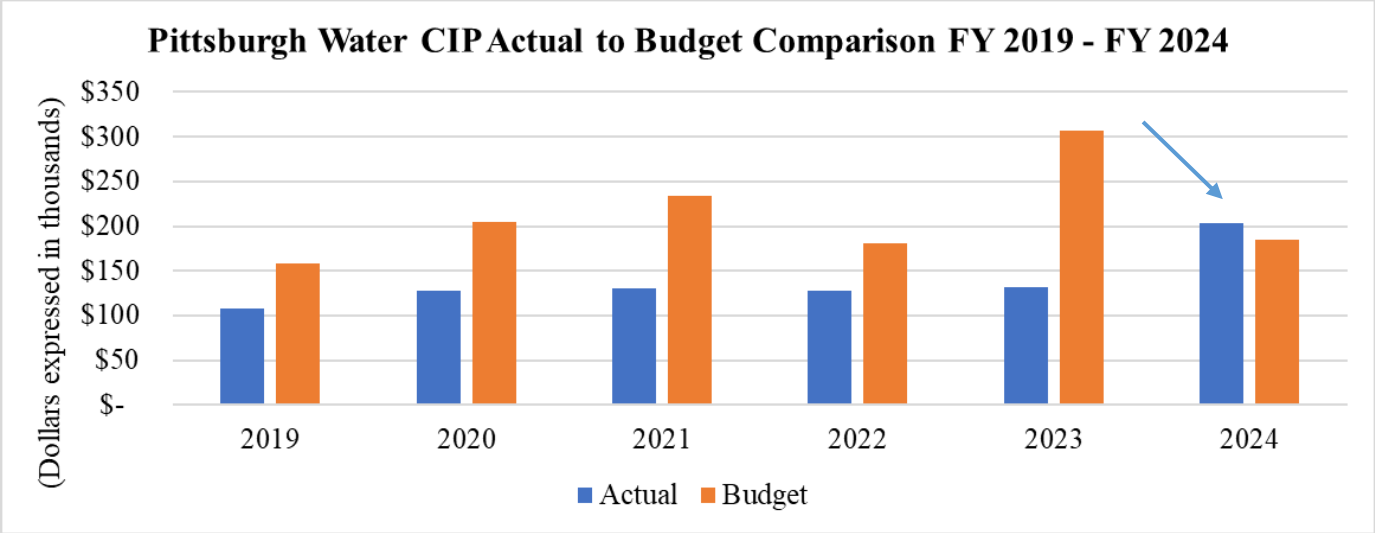
The majority of the remaining capital requirements in FPFTY 2026 and FY 2027 are barely sufficient and include minimal funding for annual replacement costs associated with meters, sewer lines, valves, hydrants, catch basins, and stormwater improvements. These projects must also be funded in order to replace aged infrastructure and implement annual asset replacement cycles.

Q. IS PITTSBURGH WATER CAPABLE OF COMPLETING THE CAPITAL BUDGET LEVEL OF INVESTMENT IN FPFTY 2026 AND FY 2027?

A. Yes, Pittsburgh Water can meet the capital budget in FPFTY 2026 and FY 2027. The ramp up in Pittsburgh Water's CIP started in FY 2018 and was the result of regulatory mandates and system failures. This required the entire organization to mature at a rapid pace by hiring qualified employees, implementing new processes and standard operating procedures, and obtaining the necessary funds to pay for the plan. The historical capital expenditure chart below shows Pittsburgh Water's recent success in this effort.



The chart above displays that Pittsburgh Water's CIP is now in full force by highlighting these facts: (1) Over $100 million in annual capital improvements have been achieved every year since FY 2019; (2) FY 2024 marked both the largest annual increase in capital improvements as well as the most ever completed in a year; and (3) the first time in recent history that Pittsburgh Water met its annual CIP budget, as displayed by the chart below. Accordingly, it would not be accurate to suggest that Pittsburgh Water's budgeted capital requirements are unrealistic.



Q. BUT WHAT IF FY 2024 WAS AN ANOMALY? HOW CAN FUTURE CAPITAL PROJECTIONS BE TRUSTED BASED OFF OF ONE YEAR OF MEETING THE ANNUAL BUDGET?

A. The momentum from FY 2024 has carried into FY 2025 with current projections showing Pittsburgh Water meeting its FY 2025 annual budget. Through May 12, 2025, $50.2 million have been spent on capital improvements, which is a $6.9 million or 16% increase over the prior year. Pittsburgh Water also recently completed the procurement process for the next phase of the WRP to construct the Aspinwall Pump Station, Bruecken Pump Station, and Clearwell By-Pass projects. These projects are the largest capital improvements in Pittsburgh Water's history to date. The construction of these

three projects will commence in August 2025 and will cost a total of $259.0 million, of which $78.4 million is projected to be spent in FPFTY and $91.5 million in FY 2027. In addition, there is also over $185 million budgeted in the CIP to replace lead service lines, of which approximately $60.8 million is budgeted in the FPFTY and $64.7 million is budgeted in FY 2027.

Q. WHAT IS THE CAPITAL REVENUE REQUIREMENTS IN THE FPFTY 2026 AND FY 2027?

A. Pittsburgh Water capital revenue requirements are made up of the DSIC, annual debt service costs, and the additional amount of revenue, as referred to as Debt Coverage Capital, needed to meet the debt service coverage ratio. The FPFTY capital revenue requirement is $151.1 million in the FPFTY and $171.9 million in FY 2027, making up about 76% of the total revenue requirement increase within this rate case.

Capital Revenue Requirements ($M) FY 2026 & FY 2027			
Description	2026 Budget	2027 Budget	Total
Annual Debt Service	$111.0	$127.8	$238.8
Debt Service Capital	$21.2	$23.8	$45.0
Internally Generated Funds (DSIC)	$18.9	$20.3	$39.2
Total	**$151.1**	**$171.9**	**$323.0**

Q. CAN YOU EXPLAIN WHAT SPECIFIC COSTS ARE INCLUDED IN THE REQUESTED CAPITAL REVENUE REQUIREMENT?

A. Yes. As a municipal authority, Pittsburgh Water has a different capital structure than investor-owned utilities, whereby the main sources available to fund capital improvements for Pittsburgh Water are debt and internally generated funds. These sources are detailed below to show the incremental costs associated with each within the overall revenue requirements of this rate case. Note that any grants received are substituted for a portion of the planned future debt issuances and therefore reduce the revenue requirement for capital costs. To be conservative, Pittsburgh Water typically

does not include grants in its financial plans unless the award is final. Pittsburgh Water is also including Debt Service Capital, which is the additional revenue required to meet the required debt service coverage ratio associated with issuing bonds. The debt service coverage subject will be covered later in my testimony.

Incremental Capital Costs ($M) FY 2026 & FY 2027			
Description	2026 Budget	2027 Budget	Total
Annual Debt Service	$17.4	$16.8	$34.2
Debt Service Capital	$21.2	$2.6	$23.8
Internally Generated Funds (DSIC)	$8.8	$1.4	$10.2
Total	**$47.4**	**$20.8**	**$68.2**

Q. CAN YOU FURTHER ELABORATE ON THE $34.2 MILLION DEBT SERVICE REVENUE REQUIREMENT INCLUDED IN THIS RATE REQUEST?

A. Yes, the chart below shows the detail of what is included within the total $34.2 million debt service revenue requirement.

Incremental Debt Service Costs Detail ($M) FY 2026 & FY 2027			
Description	2026 Budget	2027 Budget	Total
New Bond Annual Debt Service	$12.2	$10.9	$23.1
PENNVEST	$4.2	$5.9	$10.1
Capital Line of Credit	$1.0	$0.0	$1.0
Total	**$17.4**	**$16.8**	**$34.2**

The public debt service revenue requirement of $23.1 million is made up of the new debt issuances below.

Estimated Public Debt Issuance ($M) FY 2026 & FY 2027		
Description	Loan Amount ($M)	Estimated Issuance Date
Series 2026	$150.0	Spring, 2026
Series 2027	$110.0	Spring, 2027
Total	**$260.0**	

These debt issuances will be utilized to fund the capital projects within the capital improvement plan that are not funded by PENNVEST and internally generated funds (requested to be funded with the DSIC in this rate case, as explained below).

The incremental PENNVEST debt service increase of $10.1 million covers all outstanding PENNVEST loans. These debt service costs are expected to increase over the next 3–4 years as loans are drawn down, ultimately leading to full amortization. As discussed later in my testimony, Pittsburgh Water is proposing to expand the PENNVEST Charge to cover all loans, not just loans closed on and after January 1, 2025, which was the settlement terms of the last base rate case.

The capital line of credit is used to provide interim fund capital expenditures. New public debt is issued to reduce the balance when the line of credit nears capacity. Interest payments on the capital line of credit are variable, with the current interest rate environment increasing the interest costs associated with this facility, driving the need for the additional $1.0 million revenue requirement in the FPFTY. In addition to these various borrowing vehicles, Pittsburgh Water's construction funding is supplemented by internally generated funds, which is funded through the DSIC.

Q. DO YOU ANTICIPATE THE RECENT FEDERAL BUDGET CUTS TO IMPACT THE LENDING CAPACITY AT PENNVEST?

A. No. PENNVEST, like other state revolving funds, received the largest federal funding allocation in decades through the Bipartisan Infrastructure Bill that was passed in 2021. As entities around the Commonwealth repay the loans awarded from this funding, PENNVEST will be able to leverage those repayments to award future funding. Thus, providing a sustainable funding source for the near future. While at a much lower amount, it is also anticipated that the federal government will continue to provide annual

allocations to the Drinking Water State Revolving Fund and Clean Water State Revolving Fund, which will provide additional funding for PENNVEST.

However, I do anticipate federal grant funding and principal forgiveness opportunities to become limited once the Bipartisan Infrastructure Bill sunsets in FY 2026. Pittsburgh Water has, and will continue to, pursue this grant funding while it is available, specifically for lead service line replacements. Pittsburgh Water has a goal of replacing all lead in its system by FY 2027 which aligns nicely with the sunset of the Bipartisan Infrastructure Bill.

Q. PLEASE EXPLAIN INTERNALLY GENERATED FUNDING

A. Internally generated funding is a mechanism that finances capital assets with current year's revenues. Internally generated funding is often utilized in the place of long-term debt to fund capital assets that have a short useful life (less than 10 years). Capital assets financed through long term debt should have a minimum useful life no shorter than the average maturity of the debt being issued. Failure to do so would result in an "overleveraged" debt position, which would limit the ability and increase the cost to borrow and fund capital projects.

Internally generated funding should also be considered when funding capital assets with a longer useful life, as it reduces financial risks (such as default), lowers financing costs, makes Pittsburgh Water less susceptible to market vagaries, as well as providing financial flexibility within the capital program. In addition, internally generated funding is cheaper compared to debt service and required debt service coverage costs associated with long term debt when the cost of long-term borrowing is computed.

Q. WHAT SOURCE OF INTERNALLY GENERATED FUNDS ARE INCLUDED IN THIS RATE CASE?

A. Pittsburgh Water's current water and wastewater DSIC is the only source of internally generated funds in this rate case. Pittsburgh Water is requesting to increase the water and wastewater DSIC percentage from 5% to 7.5% for the purpose of generating additional revenue to fund Pittsburgh Water's long-term infrastructure improvement plan ("LTIIP"). This will help Pittsburgh Water address a massive backlog of capital improvements in the most cost-efficient manner. The expansion of the DSIC will result in approximately $10.1 million in additional revenue over two years.

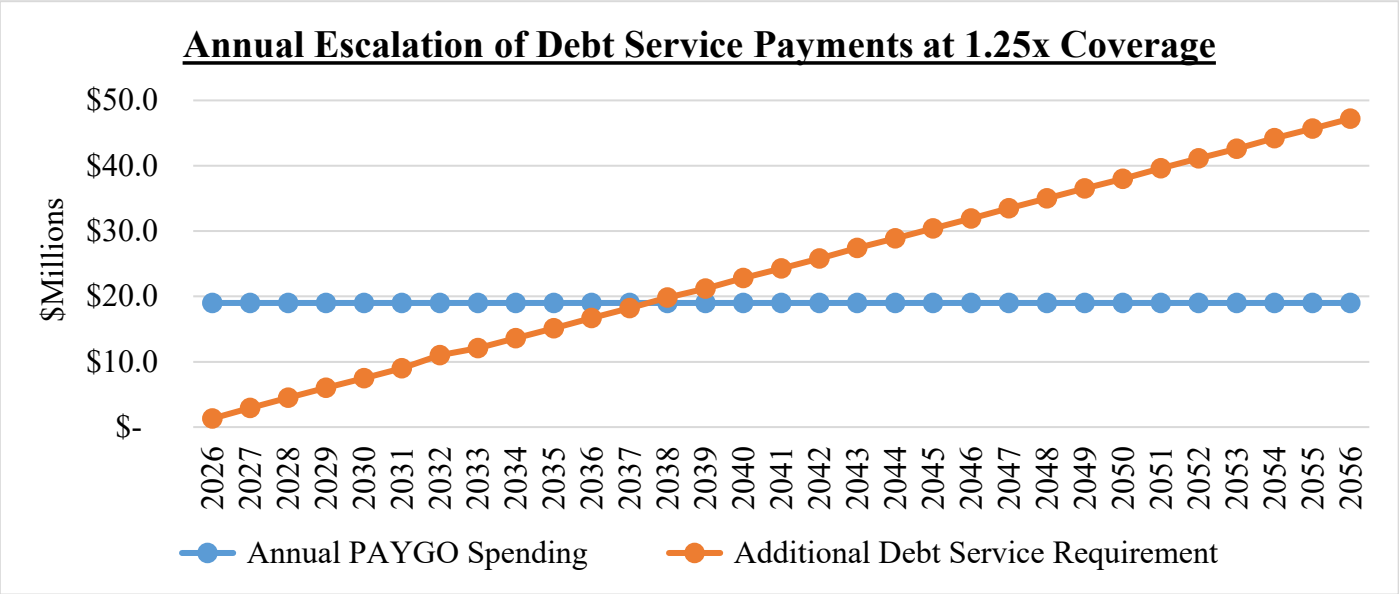
Pittsburgh Water's justification for this increase of internally generated funds is the following. First, Pittsburgh Water seeks to accelerate the rate of which projects within the LTIIP are completed. Second, the rate of inflation over the past five years has resulted in a loss of purchasing power at the current DSIC rate of 5%. Increasing the rate to 7.5% will provide the necessary infusion of cash to make up for this loss. Third, Pittsburgh Water also seeks to increase its level of internally generated funds in an effort to reduce its financial leverage or debt ratio. Pittsburgh Water's financial leverage (total liabilities divided by total assets) continues to remain high but has decreased by 12% because of the DSIC. In fact, if the DSIC increase is granted, Pittsburgh Water estimates that the debt ratio will fall below 90% by the end of FY 2026.

Debt Ratio Percentage FY 2018–2027			
Fiscal Year	Total Assets	Total Liabilities	Debt Ratio
2018	864,343	967,243	112%
2019	947,934	1,058,762	112%
2020	1,035,990	1,160,406	112%
2021[9]	1,148,020	1,228,601	107%
2022	1,283,404	1,274,911	99%
2023	1,364,660	1,331,157	98%
2024	1,525,977	1,443,762	95%
2025*	1,620,466	1,497,552	92%
2026*	1,697,064	1,465,709	86%
2027*	1,788,571	1,505,227	84%

**** Estimate***

Finally, using the DSIC as a source of internally generated funds, rather than long-term debt, is also less expensive to ratepayers over time. This is because, when Pittsburgh Water finances construction through long-term debt, it must recover in its rates both the debt service associated with the long term debt issuance together with the debt service coverage required to be maintained by Pittsburgh Water's bond indenture. The combination of the debt service and debt service coverage and the fact that Pittsburgh Water must regularly issue new debt to fund construction projects results in internally generated funds being cheaper for customers after the first several bond issuances (Pittsburgh Water is planning to use borrowed funds, either PENNVEST/WIFIA loans or publicly issued Revenue Bonds each year for the foreseeable future). This is demonstrated in the following chart (included on the next page):

[9] Implementation of the DSIC.



Q. CAN YOU EXPLAIN WHAT DEBT SERVICE CAPITAL IS?

A. Certainly. First, I need to briefly explain the concept of debt service coverage. I cover debt service coverage more in depth later in my testimony. Pittsburgh Water is required under its bond indenture to have sufficient net revenues (operating revenue minus operating expenses) available in each fiscal year equal to no less than 125% of annual senior debt service plus 110% of aggregate debt service.

Pittsburgh Water's Debt Service Capital revenue requirement in the FPFTY is $21.2 million and $23.8 million in FY 2027. The purpose of Debt Service Capital is to ensure that enough revenue is generated so that Pittsburgh Water can meet and continue to improve its debt service coverage requirements. As mentioned in Ms. Fay's testimony, simply meeting the coverage requirements is not acceptable. Pittsburgh Water's debt service coverage ratios are weak compared to other peer utilities. Improvements must be made in order to maintain financial solvency and support future bond rating upgrades. Below is more detail on the Debt Service Capital revenue requirement calculation that is claimed in this rate case.

Debt Service Capital Detail ($M) FY 2026 & FY 2027		
Description	2026 Budget	2027 Budget
Senior Debt Service	$84.9	$95.3
Debt Service Capital Requirement	25%	25%
Total	**$21.2 ($84.9 *.25)**	**$23.8 ($95.3*.25)**

Q. PLEASE SHOW THE IMPACT OF PITTSBURGH WATER'S FPFTY AND FY 2027 DEBT SERVICE COVERAGE RATIOS WITH AND WITHOUT THE DEBT SERVICE CAPITAL CLAIM.

A. As shown below, Pittsburgh Water's debt service coverage levels drop dramatically without the Debt Service Coverage claim, with the total debt service coverage level dangerously close to the minimum required level. It should be noted that the calculation without the Debt Service Capital claim assumes the remaining revenue requirements in this case are approved without any reductions. This has historically never happened. Additional reductions would decrease the debt service coverage levels beneath what is shown below almost guarantees a violation of the minimum required levels. Again, simply meeting the minimum required levels is not acceptable. Pittsburgh Water must continually improve its debt service coverage levels or risk receiving a credit rating downgrade.

Debt Service Coverage with Debt Service Capital ($M) FY 2026 & FY 2027		
Debt Service Coverage	2026 Budget	2027 Budget
Senior (1.25x minimum required)	1.85x	1.87x
Total (1.10x minimum required)	1.42x	1.39x

Debt Service Coverage without Debt Service Capital ($M) FY 2026 & FY 2027		
Debt Service Coverage	2026 Budget	2027 Budget
Senior (1.25x minimum required)	1.60x	1.62x
Total (1.10x minimum required)	1.22x	1.21x

Q. DOES PITTSBURGH WATER HAVE A BOARD APPROVED FINANCIAL POLICY WHICH ESTABLISHES AN INTERNALLY GENERATED FUNDING GOAL?

A. Yes. The Financial Management Policy included in Exhibit EB-5 requires financial performance to be evaluated on an annual basis with the goal of funding at least 10% of capital expenditures not supported by grants or intergovernmental aid from internally generated funds as measured on a five-year basis. At present rates, the internally generated funding percentage as measured on a five-year basis is 4.2%, which falls short of the Board's 10% target. However, approving the DSIC cap increase to 7.5% would increase this percentage to 8.5%, bringing Pittsburgh Water much closer to the 10% goal.

Q. CAN YOU EXPLAIN PITTSBURGH WATER'S PROPOSAL TO TAKE OWNERSHIP OF WATER SERVICE LINES TWO INCHES OR SMALLER WITHIN THE RIGHT-OF-WAY?

A. Certainly. As explained in Mr. McFaddin's testimony, Pittsburgh Water is proposing to take ownership of water service lines two inches and smaller from the main to the curb stop within the right-of-way. The average cost to replace and take ownership of these lines is approximately $18,400 per line. It is assumed that Pittsburgh Water would take ownership of roughly 15 lines per year with a total of $276,000 being claimed in both the FPFTY and FY 2027.

E. Pittsburgh Water's Debt Structure

Q. WHAT IS THE STRUCTURE OF PITTSBURGH WATER'S CURRENT DEBT PROFILE?

A. As of January 31, 2025, Pittsburgh Water currently has $1.3 billion of bonds outstanding, comprised of approximately $894.1 million (70%) issued under the Senior Lien, $137.2 million (11%) issued as Subordinate Bonds, and $240.2 million (19%) issued as Secondary Subordinate Lien. Of the bonds outstanding, $146.1 million (12%) were issued as variable rate bonds, hedged with a 70% of SOFR + 0.8014% receiver and fixed

payer interest rate swap (with the exception of $2.1 million of the Senior Lien which is unhedged). All of the outstanding variable rate debt was remarketed as a private placement with the rate of 70% of SOFR + 0.80% and a mandatory purchase date of September 1, 2028. The Debt and Swap Portfolio Summary is attached in Exhibit EB-6. In addition to the financial and other covenants required in the governing Amended and Restated Senior Indenture ("Senior Indenture"), Pittsburgh Water has a bank agreement and two swap agreements, all with separate events of default and termination events. The majority of the outstanding bonds are secured with a Surety Policy with Assured Guaranty Municipal Corp. ("AGM") to meet the debt service reserve requirement of the Senior Indenture, which is the lesser of: (1) 10% of par; (2) maximum annual debt service; or (3) 125% of average annual debt service. Pittsburgh Water has also purchased bond insurance through AGM on the majority of its outstanding issues with the Series 1998 Series B Bonds being partially insured by National Public Finance Guaranty Corporation ("NPFGC"), which has placed additional restrictions on interim borrowings against the Senior Lien. Lastly, Pittsburgh Water has also purchased swap insurance on its outstanding interest rate swap agreements, also insured by AGM, with regard to certain termination events.

Q. WHAT ARE THE RISKS AND/OR BURDENS ASSOCIATED WITH PITTSBURGH WATER'S CURRENT DEBT PROFILE?

A. Many of Pittsburgh Water's swap transactions were entered into before the late 2000's fiscal crisis and the related bank and bond insurer credit downgrades and, at that time, were viewed as cost effective. Since that time, Pittsburgh Water has had to spend significant resources in replacing bank agreements, restructuring and/or terminating swap agreements, and reaching certain side agreements with the bond insurers. The risks

inherent to the debt and swap portfolio are still significant even after these changes, especially since Pittsburgh Water has lower credit ratings compared to most large municipal utility systems and Pittsburgh Water will need to continue mitigating these risks in the future.

Since being under PUC oversight, Pittsburgh Water has made progress "de-risking" its debt and related swap portfolio. Pittsburgh Water was able to refund $103.7 million in 2019 and $72.3 million in 2023 of variable rate debt and terminated the related hedged swap agreements replacing the floating rate debt and swaps with low-cost, fixed rate bonds. Pittsburgh Water has concluded that current financial conditions and other factors make additional "de-risking" inadvisable at the present time. In addition, Pittsburgh Water's outstanding debt also has several associated rating triggers that could increase costs and/or cause a termination event. For example, all of the swap agreements have rating triggers related to the bond insurer, as well as Pittsburgh Water, that, if violated, could result in a forced termination event. As a result of Pittsburgh Water's debt being secured by Surety Policies, any refunding or restructuring requires bond insurer approval, or Pittsburgh Water would need to fund these debt service reserve funds with cash. Furthermore, the capital draw-down line of credit agreement includes automatic increased spreads (higher interest costs) if Pittsburgh Water is downgraded to certain rating levels.

Q. CAN YOU DESCRIBE THE DEBT ISSUANCE PHILOSOPHY FOR FUTURE ISSUANCES?

A. Yes. Current Pittsburgh Water management plans to be prudent with future debt issuances, with the goal of minimizing risks and keeping debt costs as low as possible for ratepayers. This is being achieved through the continued pursuit of low-cost financing

from PENNVEST. The expansion of the PENNVEST Charge as is being requested in this rate case will further support this effort.

Q. CAN YOU DISCUSS THE SUCCESS THAT PITTSBURGH WATER HAS HAD OBTAINING PENNVEST FUNDING?

A. Yes, Pittsburgh Water has obtained $714.0 million in low-interest loans and $94.5 million in grants for a total of $808.5 million from PENNVEST since 2018.

Q. IS PITTSBURGH WATER IN PROCESS OF APPLYING FOR ADDITIONAL PENNVEST FUNDING?

A. Yes, Pittsburgh Water has submitted an application for the 2025 Neighborhood Lead Service Line (B) project in the total amount of $25.5 million prior to the May 7, 2025 deadline. The estimated award date is July 16, 2025. Pittsburgh Water will also submit an application for the 2024 Small Diameter Water Main Replacement Program in the total amount of $77.7 million on or before the July 30, 2025 deadline. The estimated award date is October 15, 2025.

Q. ARE THE COSTS FOR EITHER OF THESE APPLICATIONS INCLUDED IN THE DEBT SERVICE REVENUE REQUIREMENT?

A. Yes, they are included under the PENNVEST debt service revenue requirement with the associated revenues being recovered through the PENNVEST Charge.

Q. IF ADDITIONAL PENNVEST LOANS ARE RECEIVED, WILL THE REVENUE REQUIREMENTS IN THIS RATE CASE NEED TO BE LOWERED?

A. No, because these costs will be covered under the PENNVEST Charge and therefore will be reflected in that mechanism.

F. Pittsburgh Water's Financial Metrics

Q. PLEASE EXPLAIN THE KEY FINANCIAL METRICS FOR PITTSBURGH WATER ON WHICH THIS RATE REQUEST SHOULD BE EVALUATED.

A. As a "cash flow" regulated municipal entity, Pittsburgh Water's operations are entirely funded from rates, either indirectly as a result of short-term or long-term borrowing

(which then must be paid back by ratepayers) or directly through charges to customers. Accordingly, Pittsburgh Water's most important financial metrics are:

1) Debt service coverage ratios;
2) Additional bonds test;
3) Reserves and liquidity; and
4) Bond ratings

Q. EXPLAIN THE REQUIREMENTS OF PITTSBURGH WATER'S RATE COVENANTS?

A. Pittsburgh Water is obligated to conduct an annual assessment to determine compliance with the Rate Covenant for the preceding fiscal year. The Senior Indenture states, "[Pittsburgh Water] shall fix, charge and collect such rates, fees and other charges for the use of and the services furnished by the System and shall, from time to time and as often as shall appear necessary, revise such rates, fees and other charges so as to satisfy all of the three following independent requirements:

1. Net revenues shall be sufficient in each fiscal year to pay annual senior debt service, annual total debt service, all deposits to satisfy the reserve requirement and any additional indebtedness in that fiscal year.

2. Net revenues shall not be less than 125% of annual senior debt service plus 110% of aggregate annual debt service in that fiscal year.

3. Rate covenant net revenues, excluding transfers from the rate stabilization fund, shall equal not less than 100% of aggregate annual debt service."

Pursuant to the Senior Indenture, if Pittsburgh Water "fails to comply with the Rate Covenant, [Pittsburgh Water] shall promptly request a Qualified Independent Consultant to submit a written report and recommendations with respect to increases in [Pittsburgh Water]'s rates, fees and other charges and improvements to bring the [Pittsburgh Water] into compliance with the Rate covenant." The explicit legal language identifies that Pittsburgh Water would need to file a petition to the regulatory body (i.e., the Commission) for the increases. The Senior Indenture specifies that if Pittsburgh Water

cannot establish proper rates, fees, and charges to comply with the Rate Covenant within 180 days of the filed petition to the Commission, then an event of default occurs. An event of default could lead to an acceleration of bond payments by request of bondholders where principal and interest on outstanding bonds become immediately due and payable. In addition, the event of default would cause negative impacts regarding Pittsburgh Water's current bond ratings and access to liquidity and capital markets to continue to finance the necessary improvements outlined in the CIP for the benefit of ratepayers. It is very rare that a large municipal water and sewer utility would violate its respective rate covenant. The consequences of Pittsburgh Water not meeting the annual Rate Covenant could be devastating. This is one reason why Pittsburgh Water seeks to establish consistent, higher debt service coverage levels. The negative financial consequences of lower coverage levels and/or the risk of not meeting the Rate Covenant is discussed in more detail within my testimony, as well as within Ms. Fay's testimony.

Q. WHY IS IT IMPORTANT TO MAINTAIN OR IMPROVE DEBT SERVICE COVERAGE?

A. The fundamental ratemaking philosophy for most financially stable municipal utilities is to provide safe and reliable service at rates that recover all current costs, plus a margin in excess of current costs. This margin, also referred to as coverage, is a municipal utility's only real source of cash. Coverage also provides assurance to investors that the utility will have the cash available to make timely debt service payments.

Q. PLEASE DISCUSS, AT PRESENT RATES, PITTSBURGH WATER'S DEBT SERVICE COVERAGE RATIOS IN THE FPFTY AND IN THE FORECAST PERIOD.

A. At current rates, the debt service coverage ratios decrease to 1.22x for senior debt and 0.94x for total debt in the FPFTY. For the Forecast Year 2027, coverages decline to 1.09x for senior debt and 0.81x for total debt. The debt service coverage ratios shown

below are well below the 1.25x senior and 1.10x total minimum requirement and show that Pittsburgh Water would not be able to fully pay its senior debt obligations and other financial obligations.

	FY 2026	*FY 2027*
Senior Debt Service Coverage Ratio	*1.22x*	*1.09x*
Total Debt Service Coverage	*0.94x*	*0.81x*

Q. PLEASE EXPLAIN PITTSBURGH WATER'S USE OF THE CASH GENERATED BY THE DEBT SERVICE COVERAGE RATIO REQUIREMENT IN EXCESS OF MINIMUM REQUIRED DEBT SERVICE COVERAGE.

A. As noted, Pittsburgh Water is a "cash flow" regulated municipal utility, which means that there are no profit margin goals within the organization. Any "profit" or excess of revenues over expenses is invested back into the system. This benefits the ratepayers of Pittsburgh Water because it offsets future revenue requirements that would otherwise be recovered through rates.

Specifically, Pittsburgh Water would use cash generated in excess of minimum required debt service coverage in the following ways: (1) increase funding into the Rate Stabilization Fund; (2) pay the costs associated of terminating swaps in favor of refunding current debt with long-term municipal fixed rate debt; (3) expedite material and equipment purchases; and (4) cover unexpected capital and operating budget overages.

Q. WHAT IS THE "ADDITIONAL BONDS TEST" AND WHAT IMPACT DOES THAT HAVE AN ISSUING BONDS?

A. As stated in Section 3.02 of the Senior Indenture, Pittsburgh Water must satisfy the additional bonds test prior to issuing additional bonds as outlined below:

> A certificate of an independent consultant stating [Pittsburgh Water] would have been able to meet the Rate Covenant requirements for any twelve consecutive months within the past twenty-four months taking into account:

> (i) The Maximum Annual Debt Service on the proposed series of additional bonds in the current or any future fiscal year;
>
> (ii) the additional net revenue from the rates, fees and other charges adjusted to reflect any rate increases that had not been in effect throughout the consecutive twelve months but that have been approved by and can be implemented by [Pittsburgh Water] at the time of delivery of the proposed series of additional bonds to go into effect within the following five years; and
>
> (iii) additional net revenues that [Pittsburgh Water] may realize from the addition of assets it proposes to finance through the issuance of the proposed series of additional bonds or other funding sources within the following five years or [Pittsburgh Water] has met the rate covenant, taking into account the maximum annual debt service on the proposed series of additional bonds.

In summary, the Additional Bonds Test requires Pittsburgh Water to meet its required Rate Covenant debt service coverage ratios taking into account existing and authorized rates and the maximum annual debt service of a proposed series of bonds prior to issuing additional bonds. The Senior Indenture does not allow Pittsburgh Water to factor in unauthorized future rate increases when calculating the additional bonds test. Failure to satisfy the additional bonds test would prohibit Pittsburgh Water from issuing bonds and thus would create obstacles to fund necessary improvements and new projects for ratepayers.

Q. WHY IS IT IMPORTANT THAT PITTSBURGH WATER HAVE SUFFICIENT REVENUES TO PASS THE ADDITIONAL BONDS TEST?

A. Failure to meet this test will stop the issuance of debt, and concurrently, Pittsburgh Water's capital program.

Q. DOES PITTSBURGH WATER SATISFY THE ADDITIONAL BONDS TEST FOR THE FPFTY IF NO RATE INCREASE IS GRANTED?

A. As shown in Exhibit EB-7, Pittsburgh Water fails the additional bonds test at present rates in the FPFTY, with the impact getting worse in the 2027 forecast. To be clear, this means that Pittsburgh Water cannot issue additional debt to fund its capital program

starting in FY 2026 unless the requested rate increase is approved. Ms. Fay's testimony further describes the devasting impact that this would have on Pittsburgh Water.

Q. DOES PITTSBURGH WATER SATISFY THE ADDITIONAL BONDS TEST FOR THE FPFTY AT THE REQUEST LEVEL OF THE RATE INCREASE?

A. Yes, as shown in Exhibit EB-8, Pittsburgh Water passes the additional bonds test for the FPFTY at requested rates.

Q. WHAT IS THE DAYS CASH ON HAND CALCUALTION?

A. The Days Cash on Hand ("DCOH") calculation is a liquidity measurement that estimates how much cash is on hand to pay for operations only using cash. The calculation is typically performed on an annual basis by dividing the year ending cash balance by operating expenditures, then multiplying by 365.

Q. HOW IMPORTANT IS IT FOR PITTSBURGH WATER TO CONTINUE THE PROGRESS OF INCREASING ITS DAYS CASH ON HAND?

A. It is very important. As described in Ms. Fay's testimony, the DCOH metric is heavily used by rating agencies to determine the ratings of municipal authorities.

Q. AT PRESENT RATES, WHAT LEVELS OF YEAR END CASH IS PITTSBURGH WATER PROJECTING IT WILL EXPERIENCE IN THE FPFTY?

A. At present rates, Pittsburgh Water's DCOH in the FPFTY (FY 2026) is projected to be 26 days with the DCOH metric dropping to -103 days in FY 2027.

	FY 2026	*FY 2027*
Days Cash on Hand ("DCOH")	*26 DCOH*	*-103 DCOH*

The substantial drop in DCOH, which is a result of required increases to operations and capital spending without rate relief to keep up with these additional obligations, demonstrates the imperative need for a substantial increase in rates to repair these cash levels. As described in EB-5, it also falls short of Pittsburgh Water's goal of maintaining

100 DCOH with the target of 300 DCOH over the next 5 years. Also, as mentioned in Ms. Fay's testimony, these levels are significantly below other peer utilities.

Q. DOES PITTSBURGH WATER HAVE ACCESS TO SHORT TERM BORROWING THAT IT COULD USE TO OFFSET NEGATIVE CASH BALANCES?

A. No. Pittsburgh Water does not have an Operating Cashflow Line of Credit. That being said, borrowed funds are excluded from the calculation of DCOH at year end. It is for this reason that Pittsburgh Water must focus on continuing to improve the cash balance, which will also improve the DCOH.

Q. DOES PITTSBURGH WATER HAVE ANY MONEY AVAILABLE THAT COULD PROVIDE AN ADDITIONAL SOURCE OF FUNDS TO PAY FOR UNFORESEEN CIRCUMSTANCES TO MEET THE REQUIRED DEBT SERVICE COVERAGE RATIO?

A. Yes. It has a Rate Stabilization Fund ("RSF"), which is currently funded at approximately $24.7 million. Pittsburgh Water's Rate Stabilization Fund Policy (Exhibit EB-9) calls for the balance to be evaluated annually with the goal of increasing the balance to not less than 10%, with a goal of 15%, of operating revenues (excluding ALCOSAN revenues). The minimum percentage of 10% and goal of 15% were decided upon after reviewing the negative revenue impacts of the COVID-19 pandemic. Pittsburgh Water feels that these levels are adequate to maintain financial solvency during an unforeseen event like the recent pandemic. At proposed rates, the balance is projected to be 8.9% in the FPFTY and 9.2% in FY 2027, both years still falling short of the policy goals. The RSF is a standard feature of municipal ratemaking. It is designed to provide flexibility to a municipal utility to meet minimum debt service coverage ratios as well as to demonstrate to the financial community that it is financially stable.

Q. IS PITTSBURGH WATER PROPOSING TO PROVIDE ADDITIONAL RESOURCES FOR THE RSF AS PART OF THIS RATE REQUEST?

A. Yes. We are proposing to allocate $6.0 million in total, $3.0 million in the FPFTY, and $3.0 million in FY 2027—which is only 6.7% of the total revenue requirement increase in this rate case.

Q. PLEASE DESCRIBE PITTSBURGH WATER'S CURRENT BOND RATINGS?

A. The ratings from the two rating agencies that rate Pittsburgh Water's Revenue Bonds are listed below. The credit rating reports are included as exhibits in Ms. Fay's testimony.

S&P A+ (Stable Outlook)
Moody's A2 (Stable Outlook)

Q. WHY IS IT IMPORTANT FOR PITTSBURGH WATER TO MAINTAIN ITS CURRENT BOND RATINGS?

A. Credit ratings are important because Pittsburgh Water, like most utilities, is required to make significant capital infrastructure improvements each year for new and replacement assets. Credit ratings are a critical component in determining the cost of debt as the ratings signal Pittsburgh Water's ability and willingness to meet financial obligations in full and on time. A downgrade of the credit ratings for Pittsburgh Water's Bonds would result in an increase in Pittsburgh Water's borrowing costs and necessitate higher rate increases over time.

Q. WHAT EVENTS, OTHER THAN DEFAULTING ON THE BOND COVENANTS, COULD RESULT IN A DOWNGRADING OF THESE BOND RATINGS?

A. The downgrading of Pittsburgh Water's bond ratings is something that should be strongly avoided. Ultimately, it increases costs to the ratepayer because it increases the cost of financing due to the perception of increased borrowing risk. In addition, the downgrade of bond ratings can limit the number of investors willing to lend to Pittsburgh Water within the capital markets, which will result in: (1) the reduction of funds needed to fund

capital project; (2) a reduction in the level of service due to a lack of capital investments; (3) decreased financial flexibility; and (4) decreased public trust.

G. Financial Results at Present Rates for FPFTY and Forecast Period

Q. WHAT ARE YOUR CONCLUSIONS BASED ON THE FINANCIAL RESULTS AT PRESENT RATES FOR THE FPFTY AND THE FORECAST PERIOD?

A. The operating results at present rates show that it is crucially important that Pittsburgh Water obtain rate relief in order to repair these financial indicators to meet the minimums required by the bond covenant, as well as to have sufficient cash in order to prudently operate Pittsburgh Water at the budgeted levels. A failure to improve these results with additional revenues would prevent Pittsburgh Water from issuing additional bonds in FY 2026, for failure to meet the Additional Bonds Test, and almost certainly result in a bond rating downgrade. It could also result in a default, which would raise the costs of borrowing and limit Pittsburgh Water's access to capital markets, probably for many years. Moreover, a failure to approve the level of rate relief requested would threaten Pittsburgh Water's ability to pay its bills when due.

Q. WHAT LEVEL OF RATE RELIEF DOES PITTSBURGH WATER REQUIRE TO MAINTAIN ITS FINANCIAL INDICATORS AT THE APPROPRIATE LEVELS AND HAVE SUFFICIENT CASH TO PRUDENTLY OPERATE?

A. Pittsburgh Water has determined that an increase of $84.4 million over two years, $63.7 million in the FPFTY and $20.7 million in FY 2027, would barely be sufficient additional revenues to enable it to maintain its financial metrics at adequate levels and would likely maintain its existing bond rating. Without any rate increase, Pittsburgh Water would be forced to stop all operations in the hopes that enough money would be remaining to stay solvent. This most certainly would result in a poor level of service for ratepayers.

Q. HAVE YOU CALCULATED PITTSBURGH WATER'S FINANCIAL RESULTS IN THE FPFTY AS WELL AS IN THE FORECAST PERIOD IF ITS PROPOSED $85.0 MILLION RATE INCREASE IS GRANTED?

A. Yes, those results are shown on Exhibit EB-2. Pittsburgh Water's total rate request of $84.4 million, with $63.7 million in the FPFTY and $20.7 million in FY 2027, would result in the following debt service coverage ratios.

	FY 2026	*FY 2027*
Senior Debt Service Coverage Ratio	*1.85x*	*1.87x*
Total Debt Service Coverage	*1.42x*	*1.39x*

As Pittsburgh Water's financial advisor, Ms. Fay, testifies that these coverage levels at proposed rates are just minimally adequate and well below the levels that bond rating agencies expect for a credit such as Pittsburgh Water. Even though our financial metrics following the requested rate increase are barely sufficient to meet the legally required coverage levels we hope to maintain our existing credit ratings based on the plan to improve our financial performance in future years.

The proposed rate increase would also result in 118 DCOH, in the FPFTY (FY 2026) and 116 DCOH in FY 2027. As explained by Ms. Fay, the levels produced by the requested rate increase are below the median levels of similarly rated municipal utilities as calculated by rating agencies.

V. RATE STRUCTURE CHANGES AND NEW CHARGES

Q. IS PITTSBURGH WATER PROPOSING A MULTI-YEAR RATE INCREASE WITHIN THIS RATE CASE?

A. Yes, as noted above, Pittsburgh Water is proposing a two-year rate increase which would increase revenues by $63.7 million in FPFTY (FY 2026) and $20.7 million in FY 2027.

The 2027 increase is for annual debt service, debt service coverage costs, and the incremental DSIC percentage increase only.

Q. PLEASE DISCUSS THE LEGAL AND POLICY SUPPORT FOR PITTSBURGH WATER'S MULTI-YEAR RATE INCREASE REQUEST.

A. It is well established that the Commission is authorized to approve an application by a utility to establish alternative rate mechanisms in the context of a base rate case. Section 1330 of the Public Utility Code, added to the Code in 2018, authorizes the Commission to approve an application by a utility to establish alterative rate mechanisms in the context of a base rate case. Section 1330(b) specifically states that:

> [T]he commission may approve an application by a utility in a base rate proceeding to establish alternative rates and rate mechanisms, including, but not limited to, the following mechanisms:
>
> (i) decoupling mechanisms;
>
> (ii) performance-based rates;
>
> (iii) formula rates;
>
> (iv) multiyear rate plans; or
>
> (v) rates based on a combination of more than one of the mechanisms.[10]

Therefore, Pittsburgh Water's request for a multi-year rate plan is specifically authorized by Section 1330.

Subsequent to the addition of Section 1330 to the Public Utility Code, the Commission issued a Policy Statement that set out issues the Commission will consider when judging whether an alternative ratemaking proposal is just, reasonable, and in the public interest. The answers to those questions, to the extent they are relevant to a multi-year rate plan such as that which Pittsburgh Water is proposing, support the approval of the multi-year request. These questions and answers are set forth in Exhibit EB-10.

[10] 66 Pa. C.S. § 1330(b).

Q. WHY IS PITTSBURGH WATER PROPOSING A MULTI-YEAR RATE INCREASE?

A. As I have set out in other parts of this Testimony, Pittsburgh Water is a municipal water/wastewater/stormwater utility that has no shareholders and is regulated using the "cash flow" method, which, generally, sets Pittsburgh Water's rates to allow it to recover its operating expenses, debt costs, and capital expenditures funded by cash—and nothing more. Also, Pittsburgh Water is in the midst of a massive CIP, spending tens of millions of dollars every year to modernize Pittsburgh Water's facilities to keep its water and wastewater services safe and adequate, as well as to take steps to mitigate the effects of stormwater runoff. Consequently, Pittsburgh Water's cost of service increases every year. For this reason, setting rates using a "test year" concept—with the assumption that the revenue requirement in the test year will reflect what Pittsburgh Water will experience not only in that year but in subsequent years to give an investor-owned utility just the "opportunity," not a guarantee, of earning its Commission-allowed rate of return—is just not valid for a cash flow-regulated utility. Moreover, Pittsburgh Water is very much in a "building" mode, in which Pittsburgh Water's operating expenses, total debt, and debt service costs have and will continue to go up every year. Therefore, it is a certainty that the revenue requirement determined from FPFTY data will be deficient in the years after the FPFTY. Using a multi-year concept would help to address this issue.

Q. PLEASE DESCRIBE THE ADMINISTRATIVE EFFICIENCIES OF A MULTI-YEAR RATE INCREASE.

A. The main reason for proposing a multi-year rate plan is to provide the ability of Pittsburgh Water to break the cycle of having to file a rate increase every 2–3 years in order to recover increased costs. Because of the many and varied commitments to which Pittsburgh Water is subject, its planned capital budget increases are a certainty. Also

certain is that Pittsburgh Water will have to issue additional debt to pay for this additional construction. Unlike investor-owned utilities, Pittsburgh Water does not have alternative sources of funding, such as shareholder equity on which it can rely to cover the increases in debt and debt costs in between rate cases.

Moreover, the approval of rate increases to cover future debt costs will give Pittsburgh Water the assurance to fully commit to undertake their planned construction. Many of Pittsburgh Water's most important capital improvements are multi-year. Currently, Pittsburgh Water must carefully stage the project so that it does not overcommit its approved revenues, since it cannot be certain that it will be able to obtain the rate levels it needs to support future debt issuances. To the extent that this causes delays in construction, this only leads to additional costs for ratepayers. In today's environment, prices for materials and equipment are only going up. It is in everyone's best interest to complete capital projects as expeditiously as possible.

Q. IS THERE ANYTHING ELSE THAT SUPPORTS THE APPROVAL OF A MULTI-YEAR INCREASE FOR PITTSBURGH WATER?

A. Yes. As Pittsburgh Water witness Harold Smith explains in more detail, multi-year increases are a standard tool for municipal utilities in other jurisdictions. And, prior to Pittsburgh Water coming under the jurisdiction of the Commission, it was a common practice for Pittsburgh Water as well. The common use of multi-year rate increases by municipal utilities is likely for the reasons I have articulated: (1) their revenue requirement is made up of an operating budget and the cost of borrowing and an increase in these factors from year to year is almost a certainly; (2) there are no other sources of funds to offset these certain rate increases; and (3) to fail to accommodate these future

year rate increases simply condemns the municipality to always having less revenue than it needs to fund its operating and capital budgets.

Q. HAS THE COMMISSION APPROVED A MULTI-YEAR INCREASE FOR PITTSBURGH WATER IN PRIOR RATE CASES?

A. Pittsburgh Water has requested multi-year rate increases in two prior rate cases, but the request was withdrawn as part of the settlement of those cases. Specifically, in Pittsburgh Water's last rate case filed in 2023, the arguments that the opposing parties made against approving a multi-year increase included the inability to fully expend the requested funds beyond the FPFTY, unreliable budget projections, no customer benefits, uncertainty of future events, the need for more regulatory oversight, and the lack of an annual reconciliation mechanism.

Q. CAN YOU PROVIDE RESPONSES TO THOSE CONCERNS?

A. Yes. I submit that the concern that Pittsburgh Water's budget projections and the observation that, in the past, Pittsburgh Water has not been able to expend its entire budget in some limited cases, is addressed by limiting the second-year rate increase solely to increased debt costs. Debt costs are related to Pittsburgh Water's Capital Budget, which is known and certain. However, I am also recommending that a review be conducted prior to the second-year increase going into effect where the justification for the year two increase can be demonstrated.

Q. HOW DO YOU ADDRESS THE CRITICISM THAT THE MULTI-YEAR RATE INCREASE ALLEGEDLY DOES NOT BENEFIT CONSUMERS?

A. Actually, it does. As a municipal utility, Pittsburgh Water has no shareholders and earns no profit margin. Therefore, if Pittsburgh Water fails to recover all of the costs it incurs to provide reasonable and adequate service, it will be forced to reduce needed expenditures, file for yet another rate increase, or both. Either of these possibilities hurt

customers because they result in diminished or reduced levels of service or additional costs. On the other hand, if the actual level of debt costs turn out to be lower than that used for the multi-year increase, 100% of that excess will benefit customers in the form of higher DCOH and debt service coverage, which, in turn will reduce the need and level of future rate increases.

Q. ARE THERE EVENTS IN THE FUTURE THAT COULD AFFECT PITTSBURGH WATER'S OPERATIONS BUT THE EFFECTS OF WHICH ARE UNCERTAIN?

A. While I cannot specify any at the moment, I'm sure there could be some. But that is not a basis for opposing a multi-year rate increase. It is the very nature of a multi-year rate increase that rates are being set for a future period. If this were a valid criticism, multi-year rate increases would always be inappropriate, and the General Assembly would not have so clearly authorized them. Here, this concern should be minimized since Pittsburgh Water has limited its increase to debt costs only, a cost item that can be reasonably initially projected and the costs can be revised closer to the time that the second-year increase will go into effect.

Q. WHAT ABOUT THE CONCERN THAT THE MULTI-YEAR INCREASE IS NOT "RECONCILABLE"?

A. I would point out that if the General Assembly believed that a multi-year rate increase was only reasonable if it had a reconciliation mechanism as part of the plan, it would have required such a mechanism. This is a mechanism to restate base rates to reflect additional costs that a utility incurs beyond the FPFTY. Base rates, by their nature are not reconcilable. However, the mechanism could be structured to refund to customers any excess collected (verses actual debt costs). If so, however, the clause would have to be modified so that Pittsburgh Water could also collect any under collection.

Q. CAN YOU EXPLAIN THE DETAILS OF THE MULTI-YEAR INCREASE REQUESTED IN THIS RATE CASE?

A. Yes. While I do not agree with the previous arguments against a multi-year increase, I am willing to find a solution that works for both Pittsburgh Water and the Commission. Pittsburgh Water is requesting additional rates in FY 2027 to solely fund additional debt service costs. This will bring more certainty to the capital budgeting process, expediting the ability to complete needed infrastructure improvements. Pittsburgh Water is also proposing a pre-rate increase "mini-proceeding" that will allow the Commission to review and comment on the FY 2027 rate increase before it is becomes effective. By taking this approach, Pittsburgh Water is simplifying the multi-year request by only requesting debt service and debt service costs in the second year (FY 2027).

Q. CAN YOU EXPLAIN THE PROPOSED REVIEW PROCESS FOR THE INCREASE IN FY 2027?

A. Yes. At the time Pittsburgh Water submits the Securities Certificate for the new debt issuance, the "mini review proceeding" will also be filed separately with the Commission. The "mini review proceeding" will include a copy of the Cost-of-Service Model with the estimated debt service, debt service coverage costs, and the not-to-exceed revenue amount that is approved in this rate case for FY 2027. The Commission will have 60 days upon receipt of the reconciliation to review and ask questions about the proposed debt issuance. Pittsburgh Water will be authorized to proceed with the debt issuance after the 60-day period is over (and the Securities Certificate is received). Within 30 days after closing on the new debt issuance, Pittsburgh Water will be required to submit the Cost-of-Service Model to the Commission that includes both the final debt costs and rate increase amounts needed to support the debt. Note that Pittsburgh Water is proposing that it would have the ability to increase rates in FY 2027 up to, but not above,

the level approved in this rate case. In his testimony, Mr. Smith provides additional support for and details regarding Pittsburgh Water's proposal and describes how the multi-year rate change process I am recommending is modeled after that which is used in Rhode Island.

Q. ARE YOU SUBMITTING ANYTHING ELSE IN SUPPORT OF PITTSBURGH WATER'S REQUESTED MULTI-YEAR INCREASE?

A. Yes. The Commission directed that when a utility requests approval of an alternative ratemaking mechanism, it submits responses to a series of questions. Attached as Exhibit EB-10 to my testimony are Pittsburgh Water's responses to those questions providing additional support to the reasonableness of Pittsburgh Water's multi-year request.

VI. PENNVEST Charge

Q. WOULD YOU PLEASE EXPLAIN PITTSBURGH WATER'S EXISTING PENNVEST CHARGE.

A. As part of the settlement of Pittsburgh Water's last base rate case, the Parties agreed that Pittsburgh Water could implement a PENNVEST Charge pursuant to the Commission's Policy Statement at 52 Pa Code § 69.363. In accordance with that provision of the settlement, Pittsburgh Water included a provision setting forth a PENNVEST Surcharge in its Water and Wastewater Tariff (Water - Page 8B; Wastewater – Page 9B). While the Tariff provision is currently in effect, Pittsburgh Water has not, as of this submission, requested that any amounts be collected through the existing Charge.

Q. IS PITTSBURGH WATER PROPOSING MODIFICATIONS TO EXISTING PENNVEST CHARGE?

A. Yes, Pittsburgh Water is proposing to expand its existing Charge to include both existing and new PENNVEST loans effective March 3, 2026. It also proposes to revise the current tariff language so that it is clear that the surcharge permits the recovery of interest

and/or interest and principal that is charged by PENNVEST prior to the completion of a PENNVEST-loan financed project.

Q. PLEASE EXPLAIN WHY PITTSBURGH WATER IS REQUESTING THAT THE PENNVEST CHARGE COVER EXISTING AS WELL AS NEW PENNVEST LOANS?

A. The Commission have endorsed the concept of a PENNVEST Charge as a reasonable means of permitting a utility to recover in rates the costs of its PENNVEST loans. In accordance with that policy, the parties to Pittsburgh Water's prior rate case agreed, and the Commission approved the creation of a PENNVEST Charge by which Pittsburgh Water can recover the debt service of new PENNVEST loans. But Pittsburgh Water has a significant amount of existing PENNVEST loans, the costs (debt service) of which are currently being recovered in base rates. Currently, Pittsburgh Water's revenue requirement contains $17.6 million in the FPFTY and $23.5 million in FY 2027 for the payment of principal and/or interest associated with PENNVEST loans. Pittsburgh Water believes it would be better to recover these amounts in the PENNVEST Charge as well.

Q. WHAT DOES THE COMMISSION'S CURRENT POLICY STATEMENT REGARDING THE PENNVEST CHARGE SAY ABOUT RECOVERING THE COSTS OF EXISTING PENNVEST LOANS (IN ADDITION TO ANY FUTURE LOANS) IN THE PVC?

A. The current Policy Statement states that a PENNVEST Charge can include "outstanding PENNVEST obligations that have not been reflected in rates."[11] However, the Policy Statement does not preclude including existing loans and Pittsburgh Water believes that including all PENNVEST existing obligations (as well as its present authority to include new loans) would be better for Pittsburgh Water and its customers. Notably, if this proposal is approved, Pittsburgh Water would remove from existing rates the revenue

[11] 52 Pa. Code § 69.363(a).

requirement associated with existing PENNVEST loans and proceed to recover that revenue requirement in the PENNVEST Charge.

Q. WHY WOULD IT BE BETTER FOR PITTSBURGH WATER CUSTOMER'S AND PITTSBURGH WATER TO RECOVER ITS EXISTING PENNVEST CHARGE AMOUNTS IN THE PENNVEST CHARGE?

A. Transferring these costs to the PENNVEST Charge will provide assurance that Pittsburgh Water will always have the funds to make the payment on these government obligations. Currently, if Pittsburgh Water suffered a real reduction in revenues as a result of economic conditions or for other reasons, Pittsburgh Water would have to use its revenues reserved to cover operating expenses to continue to meet its PENNVEST obligations. Missing a payment or defaulting on these loans is not an option. PENNVEST is an extremely low-cost financing mechanism. If Pittsburgh Water lost the ability to use PENNVEST as a financing mechanism, it would result in Pittsburgh Water ratepayers paying millions of dollars in additional financing costs because it would have to try to replace that financing by issuing general obligation bonds, with much higher costs. This would also put additional pressure on its ability to use the private bond market. For these reasons, expanding the PVC mechanism to include existing PENNVEST loans is very reasonable.

Q. CAN YOU EXPLAIN THE MECHANICS OF MOVING PITTSBURGH WATER'S EXISTING PENNVEST LOANS INTO THE CHARGE?

A. Yes. Pittsburgh Water's current revenue requirement contains $14.3 million in the FPFTY and $14.8 million in FY 2027 representing the payment of interest and/or principal on its current PENNVEST loans. As required for PENNVEST loans closed on or after January 1, 2025 that are covered under the PVC, Pittsburgh Water would also submit quarterly and semi-annual reconciliation reports for current PENNVEST loans

closed prior to January 1, 2025. Pittsburgh Water proposes that, on March 3, 2026, it will transfer this existing PENNVEST loan revenue requirement from base rates to the Charge. PENNVEST's Charge would increase by that amount and Pittsburgh Water's base rates would be reduced, which is reflect in this rate case as well as the Cost-of-Service Model.

Q. PLEASE EXPLAIN THE CHANGE TO THE PENNVEST SURCHARGE TARIFF LANGUAGE THAT PITTSBURGH WATER IS PROPOSING.

A. PENNVEST does not require a borrower to start paying back the principal and interest on the loan until the facilities that are being financed by the loan are in service or after 36 months (typically). Payments made after the PENNVEST-financed project is completed are clearly recoverable in the existing Surcharge. However, prior to the facilities being placed into service, PENNVEST requires the borrower to pay interest on the borrowed amount. Moreover, PENNVEST's current loan provisions require a borrower to begin repayment of both principal and interest after a period of time set out in the loan agreement, usually 36 months. Pittsburgh Water intends to recover those payments in the Surcharge as well.

Q. IS THERE A PROVISION IN THE CURRENT PENNVEST SURCHARGE TARIFF THAT WOULD PREVENT RECOVERY OF PENNVEST CHARGES PRIOR TO THE PROJECT GOING INTO SERVICE?

A. Yes. There is a provision that currently states that the PENNVEST loan may not be included in the Surcharge until the facilities financed by the loan are "used and useful."

Q. IS IT REASONABLE TO REMOVE THE "USED AND USEFUL" REQUIREMENT AS THE TRIGGER FOR WHEN PENNVEST CHARGES CAN BEGIN TO BE RECOVERED IN THE SURCHARGE?

A. Yes. As I understand it, the requirement that a facility cannot be included in a utility's rates until it is used and useful is a product of the rate of return/rate base model used by investor-owned utilities. It prevents an investor-owned utility from beginning to earn a

profit on an investment until the investment is actually serving customers. As the Commission is aware, however, Pittsburgh Water is a cash flow-regulated company and has no "used and useful" requirement. It receives no profit allowance and its revenue requirement is based in part on the debt service and coverage associated with long term bonds, whether or not the construction being funded by the bonds has actually gone into service. The recovery of PENNVEST costs in the Surcharge should be treated no differently. Accordingly, we are proposing that we make a slight modification in the Tariff language to remove the "used and useful" requirement.

VII. INCREASE DSIC CAP TO 7.5%

Q. PLEASE EXPLAIN PITTSBURGH WATER'S PROPOSAL TO INCREASE ITS EXISTING 5% DSIC CAP TO 7.5%.

A. Pittsburgh Water is proposing to increase its existing 5% DSIC cap to 7.5% for both the water DSIC and wastewater DSIC. This would result in water DSIC revenues of $13.9 million in the FPFTY and $14.9 million in FY 2027 and, for the wastewater DSIC revenues, $5.0 million in FPFTY and $5.4 million in FY 2027. DSIC revenues in the FPFTY at present rates are projected to be $7.4 million for water and $2.7 million for wastewater.

Q. WHY IS PITTSBURGH WATER REQUESTING THIS INCREASE?

A. The main reason is to increase the pace at which infrastructure is replaced for projects that are identified within the LTIIP. This increase would provide Pittsburgh Water with additional revenue of $8.8 million in the FPFTY and $1.4 million in FY 2027 which would be used to support capital improvements. The increase in the DSIC cap would also provide cost savings to ratepayers as well as get Pittsburgh Water closer to its goal of funding at least 10% of capital improvements with internally generated funds, as measured on a five-year basis.

Q. WHY IS IT NECESSARY TO INCREASE THE AMOUNT BILLED THROUGH THE DSIC TO ACHIEVE THIS ACCELERATION?

A. This increase is necessary to ensure Pittsburgh Water can provide adequate, efficient, safe, and reliable services to its customers. This will be achieved by using the additional DSIC revenues to expedite the rate of infrastructure replacement.

Q. WHAT SUPPORTS PITTSBURGH WATER'S REQUEST FOR A DSIC CAP INCREASE?

A. As set forth in our separate Petition that is being filed along with this rate case, there are several justifications for increasing the DSIC cap.

First, as I have noted above, the increase will permit Pittsburgh Water to accelerate the replacement of antiquated distribution facilities. Increasing the water DSIC cap to 7.5% will generate an additional $6.5 million in the FPFTY and $986,051 in FY 2027 that can be used to increase the amount of work completed under it currently planned projects. This could result in an additional 5,400 linear feet of small diameter water main replaced in FPFTY and 820 linear feet of small diameter water main replaced in FY2027.

Increasing the DSIC cap to 7.5% for the sewer utility will generate an additional $2.3 million in the FPFTY and $386,485 in FY 2027 of internally generated funds that can be used to increase the amount of work completed under these projects. This could result in an additional 13,300 of linear feet of sewer main rehabilitated in FPFTY and 2,250 linear feet of sewer main rehabilitated in FY2027.

Second, The increase in the DSIC cap would also provide cost savings to ratepayers since, as I have previously demonstrated, it is actually cheaper for ratepayers to fund capital improvements from PAY-GO (i.e., cash from rates) than from long-term bonds.[12]

[12] See, pgs 16-17, supra..

This will also move Pittsburgh Water closer to its goal of funding at least 10% of capital improvements with internally generated funds, as measured on a five-year basis.

Third, the rate of inflation over the past several years has resulted in the loss of purchasing power at the current DSIC rate of 5%. Increasing the rate to 7.5% will provide the necessary infusion of cash to make up for this loss.

Fourth, Pittsburgh Water also seeks to increase its level of internally generated funds in an effort to reduce its financial leverage or debt ratio. Pittsburgh Water's financial leverage (liabilities divided by assets) continues to remain high with the percentage being 86% at the end of 2026. However, the chart that I presented above shows the implementation of the DSIC starting in 2021 has helped to reduce this ratio by 12%. In fact, if the DSIC increase is granted, Pittsburgh Water estimates that the debt ratio will fall below 85% by the end of FY 2027.

Fifth, increasing the DSIC cap will result in a greater percentage of dollars being recovered through the DSIC—a reconcilable surcharge. Because the DSIC is reconcilable, it assures that Pittsburgh Water will collect in rates only those amounts that it actually expends for the portions of its DSIC-eligible projects set forth in the LTIIP. To the extent that Pittsburgh Water does not actually expend the dollars billed in the DSIC, it will refund the unexpended amounts in the next year. This is fair and reasonable to both Pittsburgh Water and its ratepayers.

Finally, permitting Pittsburgh Water to slightly increase its DSIC billings will mean that more of its capital improvement program will be covered by its LTIIP. This will give the Commission and the Parties more insight and more opportunities to review and comment

upon Pittsburgh Water's capital addition plans, something that some parties have raised as a positive development in the past.

VIII. ELIMINATION OF THE MINIMUM CHARGE

Q. CAN YOU EXPLAIN PITTSBURGH WATER'S PROPOSAL TO ELIMINATE THE MINIMUM WATER AND WASTEWATER CHARGE STARTING IN FY 2027?

A. As previously stated, Pittsburgh Water is proposing to eliminate the minimum water and wastewater charges and shift the recovery of those costs to volumetric rates starting in FY 2027. Pittsburgh Water is making this proposal in order to comply with a settlement item from the prior rate case.

Q. WHAT ARE PITTSBURGH WATER'S REQUIREMENTS IN ORDER TO REMOVE THE WATER AND WASTEWATER MINIMUM CHARGES?

A. Pittsburgh Water will agree to remove the minimum water and wastewater charges if it can do so in FY 2027. Removing the water and wastewater minimum charges will overhaul Pittsburgh Water's entire rate structure. A change of this magnitude will require Pittsburgh Water to perform public outreach in FY 2026 to inform customers of what the change is, when it will become effective, why it is being implemented, and the potential benefits (such as water conservation and improved customer control over the bill). Forcing Pittsburgh Water to eliminate the minimum charges effective in FY 2026 will leave virtually no time for any outreach and will cause unnecessary confusion from the customer base.

In addition, removing the minimum charges in FY 2027 will provide Pittsburgh Water with time to implement the change correctly by doing additional testing within its billing system. Forcing these changes to take effect in FY 2026 greatly increases the risk of a billing failure, which would negatively impact Pittsburgh Water's reputation, increases customer frustration, and disrupt financial performance for absolutely no reason.

Pittsburgh Water is committed to removing the minimum charges in this rate case so long as the Commission understands the level of effort necessary to make this change.

IX. PRIOR SETTLEMENT COMMITMENTS

A. Arrearage Forgiveness Program

Q. WHAT CHANGES DID PITTSBURGH WATER AGREE TO PROPOSE REGARDING ITS ARREARAGE FORGIVENESS PROGRAM ("AFP") AS PART OF THE LAST RATE CASE SETTLEMENT?

A. Pittsburgh Water agreed to propose to implement a change to the AFP that would allow then existing and all future participants to receive arrearage forgiveness over no longer than a 36-month period and will not require AFP participants to make a co-payment towards the pre-program frozen arrears.

Q. CAN YOU EXPLAIN PITTSBURGH WATER'S PROPOSED AMENDMENT TO THE AFP AND THE REVENUE REQUIREMENTS RELATED TO IT?

A. Yes. Pittsburgh Water is proposing an amendment to the AFP that would allow all existing and future participants to receive arrearage forgiveness over a period of 24 months. Participants are not required to make a co-payment towards the pre-program frozen arrears, but they are required to stay current on future bills or payment plans. The failure to remain current would pause any forgiveness of past due balances. These amendments would cost Pittsburgh Water $280,094 in the FPFTY and $291,828 in FY 2027. However, in an effort to only recover debt service, debt service coverage costs, and associated DSIC percentage increase in FY 2027, Pittsburgh Water is claiming an annual revenue requirement of $280,094 in both the FPFTY and FY 2027.

Pittsburgh Water calculated this revenue requirement by first analyzing the total arrearage balances in the current AFP program and assuming those balances would be forgiven over a period of 24 months. Next, Pittsburgh Water analyzed the customer

balances who were enrolled in the bill discount program, but not in the AFP, to estimate the impact of future enrollments into the amended AFP program.

X. CONCLUSION

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes. I do reserve the right to supplement this testimony as may be appropriate.

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VERIFICATION

I, Edward Barca, hereby state that: (1) I am the Director of Finance for The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water; (2) the facts set forth in my testimony are true and correct (or are true and correct to the best of my knowledge, information and belief); and, (3) I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: 6/4/25

DocuSigned by:
Edward Barca
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Edward Barca
Director of Finance
The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

TESTIMONY OF

CHRISTINE M. FAY

ON BEHALF OF
THE PITTSBURGH WATER
AND SEWER AUTHORITY d/b/a Pittsburgh Water

Docket Nos.
R-2025-3055010 (Water)
R-2025-3055011 (Wastewater)
R-2025-3055012 (Stormwater)

Topics:
Support for Proposed Rate Increase
Financial Policies and Goals
Capital Markets and Rating Consideration
Peer Review of Financial Metrics
Impact of Multi-Year Rate Increase

June 4, 2025

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A. Christine M. Fay. I am a Senior Managing Director and Partner with Public Resources Advisory Group, Inc. ("PRAG"). The business address is 39 Broadway, Suite 1210, New York, New York, 10006.

Q. PLEASE DESCRIBE PRAG.

A. PRAG is a national independent financial advisory firm, wholly owned and managed by its employees that provides independent and in-depth financial capital markets advice to state and local governments, authorities and their agencies and has continuously served governments that access the municipal finance market for the past 40 years. PRAG is a Municipal Advisor, registered with the Municipal Securities Rulemaking Board ("MSRB") (MSRB ID K0133) and the Securities and Exchange Commission ("SEC") (Municipal Advisor Registration Number 867-00146) and an Investment Adviser registered with the State of New York, with additional registrations in the states of California and Florida and the Commonwealth of Pennsylvania (CRD# 113338). PRAG provides independent financial advice to public sector clients with respect to issuance of municipal bonds, credit rating strategy, capital planning, debt portfolio management, debt capacity analysis, swaps and derivative instruments, financing options, refunding approaches and techniques, bond structure and pricing, and bond proceeds investment strategies. PRAG is one of the leading municipal advisors in the country and has been ranked by Thomson Reuters as either the top one, two or three firm by volume over the past 22 years. Our water and wastewater experience includes some of the largest and most active issuers in the country, including Washington Suburban Sanitation District, The Metropolitan Water

District of Southern California, Miami Dade County Water and Sewer Department and the City of Los Angeles Wastewater System.

Q. SUMMARIZE YOUR PROFESSIONAL QUALIFICATIONS AND EXPERIENCE.

A. I joined PRAG's Media, Pennsylvania office in 2008 and was promoted to Senior Managing Director in 2018 and Partner in 2019. At PRAG, I work with my colleagues and manage financial advisory engagements, working with a broad range of municipal clients located throughout the East and Midwest regions of the U.S.

My background includes 25 years as an independent financial advisor and as a municipal finance executive. Since joining PRAG, I have worked with similar water and sewer clients over the years, including The Bethlehem Authority (PA), Capital Region Water (formerly The Harrisburg Authority; PA), City of Chicago Department of Water Management (IL), Miami-Dade County Water and Sewer Department (FL), the City of Orlando (FL) Wastewater, the Washington Suburban Sanitary Commission (MD) and the West Virginia Water Development Authority. I have served as a financial advisor to The Pittsburgh Water & Sewer Authority ("Pittsburgh Water") since 2019.

Q. DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. I graduated Cum Laude from the University of Pennsylvania with a Bachelor of Arts degree in Economics and an MBA from UCLA Anderson School of Business. I am a registered Municipal Advisor Representative with a Series 50.

Q. HAVE YOU EVER TESTIFIED BEFORE ANY REGULATORY AGENCIES OR IN LEGAL PROCEEDINGS?

A. Yes. I provided Direct, Supplemental Direct and Rebuttal testimony in support of Pittsburgh Water's most recent base rate case at Docket Numbers R-2023-3039920 (Water), R-2023-3039921 (Wastewater) and R-2023-3039919 (Stormwater). I have also

assisted in the drafting and development of the Direct, Supplemental Direct and Rebuttal testimony in support of Pittsburgh Water's prior base rate cases at Docket Numbers R-2021-3024773 (Water), R-2021-3024774 (Wastewater) and R-2021-3024779 (Stormwater) and at Docket Numbers R-2020-3017951 (Water) and R-2020-3017970 (Wastewater). In addition, I have assisted in the preparation of various securities certificates related to the issuance of Pittsburgh Water debt for the Pennsylvania Utility Commission ("PUC")'s consideration.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to:

1) Provide expert witness testimony with respect to the credit rating agencies' criteria for evaluating public water and sewer entities including Pittsburgh Water, the rating agencies' outlooks for the water and wastewater sector especially given tariff-driven inflationary pressures, market uncertainty and sharply higher borrowing rates, the risk that Congress or the Trump administration will reduce the amount of federal capital drinking water and clean water grants that PENNVEST will receive in future, and the implications for the Authority's credit ratings both with and without the proposed rate increases;

2) Provide expert witness testimony with respect to the importance of Pittsburgh Water's credit ratings in the context of current capital market conditions, borrowing rates, and Pittsburgh Water's ability to access the capital markets to advance its capital improvement plan;

3) Discuss the Authority's credit profile and key financial metrics compared to Pittsburgh Water's peer group of large urban mid-Atlantic and Midwestern water and wastewater public utilities; and

4) Emphasize the importance of the proposed rate increases to the Authority's ability to secure additional financing to complete its substantial capital improvement plan, especially with respect to meeting its Additional Bonds Test (ABT), and the immediate and severe implications for its credit ratings, finances and operations if it is unable to do so.

This testimony will focus on setting rates at a level in which Pittsburgh Water can successfully access the capital market and achieve efficient financings at a reasonable cost of capital to fund its capital plan and maintain its existing bond ratings. This

objective has become increasingly more challenging since Pittsburgh Water's prior base rate case, since municipal market borrowing costs have remained significantly elevated post-pandemic and have sharply increased recently primarily as a result of tariff-driven uncertainty. Also, the rating agencies are increasingly more concerned about the economy and recessionary pressures and municipal utilities' ability to fund critical capital programs amid rising costs spurred by inflation and exacerbated by increased borrowing costs. In 2022, Pittsburgh Water needed to downsize its planned 2022 bond issuance from $100 million to $45 million due to affordability concerns stemming from rising borrowing costs and operating costs. The rating agencies consider access to capital markets and ability to fund capital as critical components of their rating assessment, so it is imperative Pittsburgh Water receive all or a substantial portion of the requested rate increase to avoid the need to downsize or delay planned bond issuances and access to capital markets.

Pittsburgh Water has a complex debt profile which includes several bank and swap agreements with rating-related cost increases and termination triggers which would result in significantly escalated borrowing costs in the event of rating downgrades. It is necessary for Pittsburgh Water to receive its requested rate increase to meet its annual Rate Covenant and its Additional Bonds Test and demonstrate to the rating agencies capacity to fund its capital needs and avoid rating downgrades which would result in additional costs to the rate payers.

Further, the financial metrics based on the Pittsburgh Water's proposed rates will be discussed in comparison to peer utility systems and water and sewer industry type rating criteria. I will discuss the importance of the financial metrics and the need for the

requested rate increase in order to maintain these metrics in the fully projected future test year ("FPFTY") comprised of the period from January 1, 2026 through December 31, 2026, as well as period from January 1, 2027 through December 31, 2027 (the "Forecast Period") at levels that will allow Pittsburgh Water to maintain its current credit profile. Pittsburgh Water's current financial metrics are on the low side of peer utility systems and industry standards and need to be bolstered to be more in line with its peer utility systems in order to maintain and improve its credit profile which will reduce its financial risks as described later in this testimony.

In this testimony, I have relied on my professional experience in working with similar issuers and credits entering the capital markets, as well as the experience of PRAG's other utility advisory professionals. I have also examined materials, documents, and information produced in this matter, including the testimony of other Pittsburgh Water witnesses, Pittsburgh Water bond disclosure statements, Pittsburgh Water financial statements, Pittsburgh Water bank and swap agreements and rating agency publications related to Pittsburgh Water, as well as industry and peer-related rating reports.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. Yes. I am sponsoring the following exhibits:

- **Exh. CF-1:** Exhibit CF-1 contains a summary of Pittsburgh Water's Rate Covenant and Flow of Funds from the Amended and Restated Indenture.
- **Exh. CF-2:** Exhibit CF-2 contains Peer Ratings and Comparative Financial Information
- **Exh. CF-3:** Exhibit CF-3 contains Moody's Investors Service, 21 October 2024: Water and Sewer Utilities – US Medians – Net revenues grow, supporting improved liquidity and stable coverage
- **Exh. CF-4:** Exhibit CF-4 contains Moody's Investors Service, 11 December 2024: Water and Sewer Utilities - US 2025 Outlook –Stable as higher costs will be absorbed by rate increases

- **Exh. CF-5:** Exhibit CF-5 contains S&P Global Ratings, January 15, 2025: U.S. Not-For-Profit Utilities 2025 Outlook: Rough Water Likely Will Underscore Credit Trends
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- **Exh. CF-11:** Exhibit CF-11 contains S&P Global Ratings, November 5, 2024: U.S. Municipal Water and Sewer Utilities Navigate a New Environment as Performance Drops
- **Exh. CF-12:** Moody's Rating Scorecard for Pittsburgh Water - CORRECTED
- **Exh. CF-13:** S&P Rating Scorecard for Pittsburgh Water - CORRECTED

II. FINANCIAL POLICIES AND GOALS

Q. PLEASE SUMMARIZE THE CREDIT AGENCIES' VIEW OF THE PITTSBURGH WATER'S DEBT PROFILE.

A. The rating agencies recognize that Pittsburgh Water's debt profile is large and complex, consisting of senior, subordinate and third liens, publicly issued bonds, federal Water Infrastructure Finance and Innovation Act (WIFIA) and Pennsylvania Infrastructure Investment Authority (PENNVEST) loans, a Capital Line of Credit, variable rate bonds and interest rate swaps. A summary of Pittsburgh Water's debt portfolio is provided in Mr. Barca's testimony as Pittsburgh Water Exhibit EB-6, and Pittsburgh Water Exhibit CF-8 & CF-9 and CF-10 provide the most recent ratings reports from Moody's Investors Service ("Moody's") and S&P Global Ratings ("S&P"), the two rating agencies that rate Pittsburgh Water's Revenue Bonds.

In addition to the overall complex nature of the debt portfolio, Pittsburgh Water is also highly leveraged compared to other systems. As stated in Exhibit CF-10, S&P's

most recent rating report dated December 19, 2024, Pittsburgh Water's "rating is limited by extremely high leverage, with $1.17 billion in capital commitments identified through fiscal 2029 that are likely to continue to pressure the financial profile." Likewise, Moody's in its credit report of May 29, 2023, Exhibit CF-8, states "credit challenges persist and high leverage will be a continued headwind for Pittsburgh Water going forward," and lists among Pittsburgh Water credit challenges both "Substantial debt burden; debt ratio is 96% and will continue to grow," and "Projected $1.8 billion in capital needs over the next five years, to be primarily funded with debt." Pittsburgh Water's debt also amortizes slowly, with debt service payments extending through 2060. This is a result of many years of structuring bond financings with deferred principal in order to minimize the then current year rate increases. The slow principal amortization combined with the structure of Pittsburgh Water's currently outstanding debt (ascending through FY2032 and generally level thereafter through FY 2040) will mean an increase of annual debt service each year as Pittsburgh Water issues additional debt for capital projects.

Q. PLEASE DESCRIBE THE RATING AGENCIES' CHARACTERIZATION OF THE PUC'S REGULATORY OVERSIGHT OF PITTSBURGH WATER.

A. Both Moody's and S&P view the PUC's regulatory oversight favorably, however they also emphasize that Pittsburgh Water's continued progress is contingent upon regular rate increases to implement its capital improvement plan. Moody's described this constructive relationship in its rating report dated May 29, 2023, Exhibit CF-8, stating "The additional operational oversight by the PUC is expected to be a credit positive going forward. Whereas the Pittsburgh Water had used capital deferment as a tool to maintain satisfactory finances and rate increases were heavily influenced by local politics in the

past, the PUC has ensured that rate increases are less politicized." In its rating report dated December 16, 2024, Exhibit CF-9, Moody's alluded to both the PUC's positive relationship vis-à-vis Pittsburgh Water and the need for continued rate increases, stating, "Servicing this [Pittsburgh Water's] capital spending *will require aggressive rate increases* (emphasis added), and the state's Public Utility Commission's role in approving rates and overseeing the utility is an important strength for this rating." In its rating report dated December 19, 2024, Exhibit CF-10, S&P similarly states "The [Pittsburgh Water's A+ rating] stable outlook reflects our expectation that when Pittsburgh Water does need to propose a rate case to PaPUC, there will generally be a credit-supportive relationship, observed by both the timing and magnitude of rate adjustments that Pittsburgh Water is likely to request…"

Q. IS THERE A RISK THAT THE RATING AGENCIES FAVORABLE VIEW OF PUC OVERSIGHT OF PITTSBURGH WATER COULD CHANGE IF NEEDED RATE INCREASES ARE NOT APPROVED?

A. Yes, I believe that failure to approve rate increases necessary to sustain Pittsburgh Water's continued operation, while also enabling continued borrowing to implement its capital plan and maintain its financial metrics would change the rating agencies view of PUC oversight to a negative credit factor and likely apply downward scoring and notching in the scorecards Exhibit CF-12 and Exhibit CF-13 resulting in rating downgrades. In Exhibit CF-9, Moody's lists among factors that could lead to a rating downgrade "Indication that the state PUC may not improve the rate increases necessary for the authority to service its needs." Likewise, in Exhibit CF-10, S&P states that given the size of Pittsburgh Water's capital improvement plan, "it is important for (credit) rating maintenance that future rate cases be approved at or near the requested levels for fiscal years 2026-2028."

Q. PLEASE DESCRIBE THE KEY FINANCIAL METRICS THAT WILL DRIVE THE REVENUE REQUIREMENT AND THE RESULTING IMPACT ON PITTSBURGH WATER'S CREDIT RATINGS.

A. Currently, Pittsburgh Water's senior debt is rated "A2" by Moody's with a "Stable" outlook. This rating represents an upgrade from "A3" since the last rate case, and according to Moody's recognized Pittsburgh Water's significantly improved coverage and liquidity, and the key importance of Pittsburgh Water good governance. In the most recent Moody's full Credit Opinion report for Pittsburgh Water in May 2023, Exhibit CF-8, the agency specifically mentions that "high leverage will be a continued headwind for Pittsburgh Water going forward. Pittsburgh Water's current debt burden is significant, and material additional debt is expected as Pittsburgh Water progresses on its capital improvement plan." With Pittsburgh Water's requested rate increase, we are hoping to mitigate these concerns by demonstrating an ability to access the capital markets and maintain debt service coverage given the ascending nature of Pittsburgh Water's existing debt service and need to issue additional debt.

Pittsburgh Water's senior debt currently is rated "A+" by S&P with a "Stable" outlook. S&P also mentioned the complex nature of Pittsburgh Water's debt and makes it clear that contingent risks are mitigated in part by the assumption of continued improvement in management, decreased exposure to interest rate risks and maintaining certain financial metrics, such as debt service coverage and strong liquidity. S&P also notes Pittsburgh Water's large capital improvement plan and the need for significant amount of debt to fund the plan in addition to what they view as an already highly leveraged system.

Q. PLEASE DESCRIBE PITTSBURGH WATER'S FINANCIAL MANAGEMENT POLICY.

A. Critical to the revenue requirement is Pittsburgh Water's Financial Management Policy, which is provided as Pittsburgh Water Exhibit EB-5, and was established in 2018. The Financial Management Policy provides a framework to maintain Pittsburgh Water's financial integrity, while serving the long-term interests of its customers and other constituencies. The Financial Management Policy applies to all financial practices within Pittsburgh Water and provides guidance to policy makers, staff and stakeholders as Pittsburgh Water seeks to maintain and improve its financial position. The scope of the guidance includes many of the key metrics that the rating agencies and other credit analysts use to evaluate Pittsburgh Water's creditworthiness, including minimum and targeted debt service coverage levels, minimum and targeted levels of liquidity and reserve funds as measured by days cash on hand, and the ability to manage future debt capacity by funding a portion of the capital program with internally generated funds and asset preservation. Both Moody's and S&P reference certain financial metrics that are key in order to maintain Pittsburgh Water's current credit profile.

Debt Service Coverage Ratio

The first important metric is the debt service coverage ratio (Net Revenue to Annual Debt Service) as it is the primary metric considered by the rating agencies. As discussed in Mr. Barca's testimony, Pittsburgh Water's Amended and Restated Trust Indenture includes a Rate Covenant with Pittsburgh Water's bondholders that requires Pittsburgh Water to maintain an annual debt service coverage ratio at 1.25 times Senior Lien debt service and 1.10 times for total debt service. Pittsburgh Water has covenanted with its bondholders

that it will establish rates for each fiscal year to at least achieve these levels. See Exhibit CF-1 for a summary of Pittsburgh Water's Rate Covenant and Flow of Funds provisions. Pittsburgh Water's Financial Management Policy is more stringent than the legal rate covenant and states that if the five year average senior lien debt service coverage is to be less than 1.35 times or less than 1.15 times on total debt service coverage basis, the Board will implement a plan which could include increasing rates, reducing expenses or other means to achieve a 1.35 times senior debt service coverage level and 1.15 times total debt service coverage level, "taking into consideration approved and pending rate increases with the Pennsylvania Public Utilit[y] Commission." It is important to note that while Pittsburgh Water's financial management debt service coverages are higher than the legal requirements, the overall municipal water and sewer utility sector wide debt service coverage is closer to 2.3 times (using Moody's most recent median report, dated October 21, 2024, which is included as Exhibit CF-3) for combined water and sewer governmental systems. While peer and rating comparisons will be discussed later in this testimony, it is clear that Pittsburgh Water's debt service coverage ratio target is still significantly below industry standards. Therefore, the 1.35 times level should not be viewed as a goal, but a minimum.

Debt Coverage Capital

Another important concept described at some length in Mr. Barca's testimony in Pittsburgh Water Statement No. 2 is Debt Coverage Capital, which is the additional amount of revenue required to meet the debt service coverage ratio. I agree with Mr. Barca's assessment that without the requested Debt Coverage Capital amount, Pittsburgh

Water's total debt service coverage level would become dangerously low and risk one or more rating downgrades.

Q. ARE THERE ADDITIONAL REASONS WHY PITTSBURGH WATER SHOULD INCREASE ITS DEBT SERVICE COVERAGE.

A. Yes, there are. It is also important to note that if Pittsburgh Water is able to increase its debt service coverage over time, it will be able to grow its financial resources to fund targeted internally generated funding capital levels with less reliance on using debt. Without increased coverage levels, Pittsburgh Water will have to continue its over reliance on debt, further leveraging an already over-leveraged system. In addition to providing internally generated funding resources, adequate debt service coverage creates critical financial resources that are needed to address potential economic and operational challenges without dipping into Pittsburgh Water's modest reserves. Lastly, Pittsburgh Water has annual obligation payments to the City of Pittsburgh pursuant to a Cooperation Agreement that are subordinate to the Senior Lien and Subordinate Lien, which are also funded from internally generated funds (debt service coverage monies).

It is extremely important to establish rates that also generate coverage at a level to protect against any unforeseen additional expenses or decreases in expected revenues, particularly in the current environment of heightened uncertainty due to tariffs and softening economy. Setting coverage at just the minimum legal requirement puts Pittsburgh Water at significant risk of violating the covenant and risking adverse action from the rating agencies. Furthermore, the ability to issue additional debt under the bond documents requires Pittsburgh Water to pass an Additional Bonds Test, remain in compliance with the rate covenant and have sufficient revenues to comply with the covenant taking into account the additional debt service. In the absence of a rate increase,

Pittsburgh Water will not be able to pass its Additional Bonds Test and be precluded from accessing the capital markets which will result in rating downgrades and deferring the funding of its Capital Plan which will escalate future costs, as later discussed in my testimony.

Q. PLEASE DESCRIBE PITTSBURGH WATER'S CURRENT AND PROJECTED FINANCIAL METRICS.

A. Although Pittsburgh Water did have a rate increase for FY 2024, the agreed to rate increase was less than the amount requested and was largely absorbed by escalating operational costs spurred by increased inflation. Thus the requested rate increase is critical to avoid breaching rate covenants debt service coverage requirements and meeting the Additional Bonds Test. Provided below is a summary table of debt service coverage levels based on existing rates. Budgeted FY 2025 figures of net revenue 1.57 times over senior lien debt service and 1.22 times over total debt service are above Pittsburgh Water's Financial Management Plan target, but projected debt service for FY 2026 (FPFTY) and 2027 Forecast Year are at levels that would violate Pittsburgh Water's rate covenant.

	FY 2024	*FY 2025*	*FY 2026 (FPFTY)*	*FY 2027*
Senior Debt Service Coverage Ratio	*1.82x*	*1.57x*	*1.22x*	*1.09x*
Total Debt Service Coverage	*1.40x*	*1.22x*	*0.94x*	*0.81x*

As described in Pittsburgh Water Exhibit EB-2, after accounting for the $84.4 million proposed rate increase, the FPFTY (FY 2026) projected debt service coverage and FY 2027 Forecast Year exceeds the minimum coverage requirements set forth in Pittsburgh

Water's bond covenants, and are improvements on the coverage levels compared to the budgeted FY 2025 figures.

	FY 2024	*FY 2025*	*FY 2026 (FPFTY)*	*FY 2027*
Senior Debt Service Coverage Ratio	*1.82x*	*1.57x*	*1.85x*	*1.87x*
Total Debt Service Coverage	*1.40x*	*1.22x*	*1.42x*	*1.39x*

While the requested rate increase results in debt service coverage higher than Pittsburgh Water's Financial Management Policy for both the senior lien debt and total debt, Pittsburgh Water must continue to improve financially to anticipate changes in capital needs and operations and meet its Additional Bonds Test (as discussed later in my testimony) and achieve metrics that are reflective of those realized by entities with similar bond ratings. In fact, on this basis, Pittsburgh Water could justify a rate increase that would produce much higher debt service coverage ratios.

Q. PLEASE DESCRIBE PITTSBURGH WATER'S CURRENT AND PROJECTED LEVELS OF RESERVES AND LIQUIDITY AND EXPLAIN THEIR RELEVANCE.

A. Certainly. The second critical metric is cash reserves and liquidity, often measured as days cash on hand (DCOH), which is calculated by taking unrestricted cash and investments times 365 divided by total annual operating and maintenance expenses. This statistic is used by both Moody's and S&P to measure liquid financial resources available for a utility to survive temporary revenue disruptions and unexpected expenses. This metric is fundamental in analyzing the financial strength of a municipal utility. Moody's has commented on Pittsburgh Water's liquidity in its most recent rating report. Moody's report asserts that "While Pittsburgh Water's management has done good work in

stabilizing the utility's financial position at an adequate level, the authority is likely to report narrow coverage and hold weaker liquidity than peers for the foreseeable future." Moody's most recent report quantifies both the positive and negative thresholds for days cash on hand, listing "Liquidity consistently exceeding 200 days" among "Factors that could lead to an upgrade," and "Liquidity below 100 days" among "Factors that could lead to a downgrade." Without improvement in Pittsburgh Water's DCOH, Pittsburgh Water will continue to be rated A2 and pay higher borrowing costs.

Pittsburgh Water's Financial Management Policy is to "[m]aintain cash reserves, including the operating reserves, rate stabilization fund, and revenue fund at a level of 100 days cash on hand with the goal of increasing to over 300 days over the next five (5) years." This goal has been communicated to the rating agencies and the agencies annually request an update on progress made towards meeting these goals.

As described in Exhibit EB-1 to Mr. Barca's testimony, Pittsburgh Water's DCOH based on existing rates is projected to drop off significantly from budgeted FY 2025 levels to 26 days in FPFTY (FY 2026) and -103 days in FY 2027, as summarized in the table below which will cause significant concerns with the rating agencies and result in rating downgrades.

	FY 2024	*FY 2025*	*FY 2026 (FPFTY)*	*FY 2027*
Days Cash on Hand ("DCOH")	*136 DCOH*	*130 DCOH*	*26 DCOH*	*-103 DCOH*

It is important to know that the Capital Line of Credit is a federally tax-exempt facility, which means that it can only be used for capital purposes and therefore is not available for operating liquidity support, i.e., it cannot be included toward DCOH.

As shown in Pittsburgh Water Exhibit EB-2, after accounting for the requested rate increase, the days cash on hand is projected to be 118 days for FPFTY (FY 2026) and 116 days for FY 2027, which is still a deterioration from the FY 2025 budgeted level and is lower than Pittsburgh Water's Financial Policy target, rating agencies medians (as discussed previously), and the majority of peer utilities (as discussed later in my testimony).

	FY 2024	*FY 2025*	*FY 2026 (FPFTY)*	*FY 2027*
Days Cash on Hand ("DCOH")	*136 DCOH*	*130 DCOH*	*118 DCOH*	*116 DCOH*

Q. PLEASE EXPLAIN THE IMPORTANCE OF THE RATE STABILIZATION FUND.

A. Certainly. In my professional opinion, given the significant uncertainty in the economic outlook with the application of tariffs and potential impact to operating and capital costs it is increasingly important for municipal utilities to bolster reserves to protect against such future uncertainties. The Rate Stabilization Fund's ("RSF") current balance and requested contributions of $6 million, with $3 million in the FPFTY and another $3 million in FY 2027, will provide a nominal level of protection against such uncertainties and assist in maintaining Pittsburgh Water's credit ratings.

Q. PLEASE DESCRIBE THE FRAMEWORK THE RATING AGENCIES USE TO ASSESS PITTSBURGH WATER'S OVERALL CREDIT RATING.

A. Both Moody's and S&P publish rating criteria for water and sewer utilities, the most recent publications of which are included as Exhibit CF-6 and Exhibit CF-7, respectively. In addition to their rating criteria, both agencies have over the past several years implemented the use of a "scorecard" approach to their respective methodologies. While the methodologies are unique to each rating agency, they are similar in approach in

measuring certain financial information and ratios for numerous factors grouped into larger categories, with assigned weights to each factor and/or category to calculate an overall score that corresponds to a specific credit rating. The rating agencies can also employ qualitative judgement to determine certain factor scores and adjust, or "notch," credit ratings up or down. PRAG's estimates of Moody's and S&P's scorecards for Pittsburgh Water, both as of FY2024, and prospectively for FY2027 both with and without Pittsburgh Water's proposed rate increase, are included as Exhibit CF-12 and Exhibit CF-13, respectively. PRAG's estimated scorecard ratings for Pittsburgh Water as of FY2024 match Pittsburgh Water's current ratings of A2 using Moody's rating methodology and A+ using S&P's rating methodology. It is important to note that since the rating agencies can apply qualitative judgment in determining certain factor scores and applying notching it is possible that the rating agencies scorecard outcomes may defer slightly from PRAG's estimated scorecard outcomes but we have used our extensive professional experience in this area in preparing the scorecards.

Q. PLEASE DESCRIBE HOW PITTSBURGH WATER'S SCORECARD INDICATED RATINGS ARE EXPECTED TO CHANGE IF PITTSBURGH WATER'S PROPOSED RATE INCREASE IS APPROVED OR DENIED.

A. Assuming PUC approves Pittsburgh Water's rate increase, given the projected modest improvement in total Debt Service Coverage and moderate decline in Days Cash on Hand, coupled with no expected changes to other scorecard factors, PRAG estimates that Pittsburgh Water's ratings from Moody's would remain unchanged at A2, and for S&P would be either A+ or a one-notch lower A rating. Alternatively, if Pittsburgh Water's proposed rate increase is denied, then PRAG estimates that the corresponding sharp declines in both total Debt Service Coverage and Days Cash on Hand, as well as deteriorating assessments of rate management and oversight, would cause Pittsburgh

Water's scorecard ratings to drop five (5) notches by Moody's, from A2 to Ba1, and six (6) or seven (7) notches by S&P, from A+ to BB+ or BB, by FY 2027; in all cases these ending ratings are considered below investment grade or speculative grade. These rating scorecard outcomes are illustrated in Exhibit CF-12 for Moody's, and Exhibit CF-13 for S&P.

Q. PLEASE DESCRIBE HOW THE CREDIT RATING AGENCIES VIEW TO THE OUTLOOK FOR WATER AND SEWER UTILITIES GENERALLY.

A. At the end of 2024 and beginning of 2025, Moody's and S&P published their respective annual outlook reports the water and/or sewer sector (provided as Exhibit CF-4, Exhibit CF-5 and Exhibit CF-11). Moody's maintains a stable outlook on the water and sewer utilities sector, citing the biggest credit risk being a decline in liquidity of greater than 10%. S&P's outlook is more pessimistic, with a negative sector outlook with capital and operating costs outpacing the general level of inflation, and rating downgrades exceeding rating upgrades for the sector.

Q. PLEASE DESCRIBE HOW THE CREDIT RATING AGENCIES VIEW PITTSBURGH WATER'S PROPOSED PENNVEST CHARGE (PVC) EXPANSION.

A. I believe the credit rating agencies would view the expansion of the PENNVEST Charge (PVC) as a credit positive. To date, the rating agencies have viewed the PUC and Pittsburgh Water relationship as positive to neutral to Pittsburgh Water's credit rating and this view has been predicated on the agencies understanding of the PUC approving rates sufficient for Pittsburgh Water to fund operations and continue to finance its capital plan. The PUC granting approval to Pittsburgh Water to expand the reconcilable charge to pass through the costs of opportunities of securing low-cost PENNVEST loans over the next two year period without the need to file rate cases will be further demonstration to

the rating agencies of the PUC supporting Pittsburgh Water's pursuits in funding its capital plan. S&P in its most recent reports states "The stable outlook reflects our expectation that when Pittsburgh Water does need to propose a rate case to the PUC, there will generally be a credit-supportive relationship, observed by both the timing and magnitude of rate adjustments that Pittsburgh Water is likely to request, versus what the PUC ultimately grants." The proposed expansion of the PVC is consistent with what is important to S&P--this type of reconcilable cost recovery mechanism that can be used to pass through actual costs without filing a rate case is both timely and consistent with debt service expense. In addition, the proposed expansion of the PVC is consistent with the rating agencies' positive view of preapproved rate increases (as discussed later in this testimony). S&P's criteria states that "compelling factors that would likely preserve credit quality include ***preapproved rate adjustments multiple years into the future*** *(emphasis added)*, or an existing debt service schedule that allows for the new debt to be layered on in a manner that we believe is unlikely to worsen financial performance."

Q. HAVE YOU SEEN ANY TRENDS AMONG WATER AND SEWER UTILITIES TO DECREASES LEVERAGE?

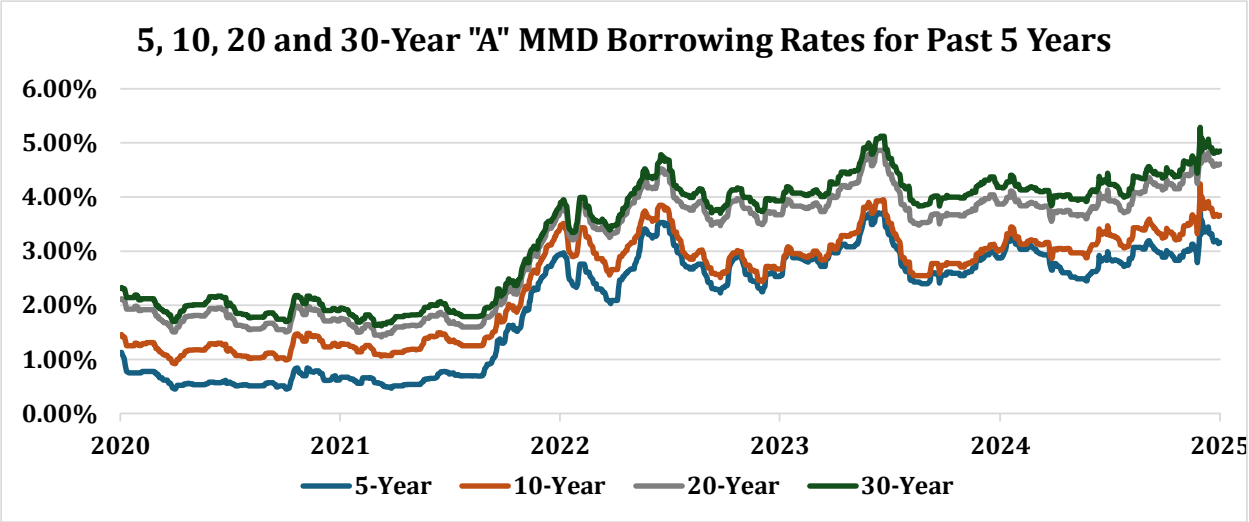
A. Yes, many water and sewer utilities are increasing the use of internally generated funds for capital to reduce reliance on debt, save interest expense and improve financial metrics. For example, the District of Columbia Water and Sewer Authority ("DC Water") is funding 33.3% of its FY2026 capital improvement plan with internally generated or "pay-as-you-go" funds, while Dallas Water targets 20% and Washington Suburban Sanitation Commission has proposed almost 20% "pay-as-you-go" funding for FY2026.

This trend of increased use of internally generated funds is consistent with Pittsburgh's Water's component of the proposed request rate increase to also increase its Distribution System Infrastructure Charge (DSIC) from 5.0% to 7.5% of revenues, as discussed in Mr. Barca's testimony in Pittsburgh Water Statement No. 2. This is projected to bring Pittsburgh Water's percentage of internally generated funding for capital from the current 4.2% to 8.5%, much closer to Pittsburgh Water's Financial Management Policy goal of 10%.

III. CAPITAL MARKETS CONSIDERATIONS

Q. WHAT IS THE IMPACT ON PITTSBURGH WATER OF INCREASED BORROWING COSTS.

A. Municipal market borrowing costs, which are indexed to the Municipal Market Data ("MMD"), have risen sharply since the beginning of 2022 with the 5, 10, 20 and 30-year borrowing rates for "A" rated municipal issuers, such as Pittsburgh Water, increasing between 270 basis points ("bps") and 320 bps, more than doubling Pittsburgh Water's borrowing costs since the beginning of 2022. This contributed to Pittsburgh Water downsizing its 2022 bond issue from $100 million to $45 million due to affordability concerns and significantly impacted its subsequent borrowings in 2023 and 2025. Subsequent to the current Administration's tariff wars, as discussed more fully on pages 12 and 13 of Mr. Barca's Testimony, Pittsburgh Water St. No. 2, municipal borrowing rates have become extremely volatile and remain at the highest levels of the past five years. Should these high-rate levels and volatility persist for the foreseeable future, this can be expected to significantly increase the costs of Pittsburgh Water's planned 2026 and 2027 revenue bond issues.



*Municipal Market Data (MMD) is the standard index for municipal bonds. MMD publishes various yield curves (1 to 30 years) for different credits/rating categories.

Q. PLEASE EXPLAIN THE IMMEDIATE CONSEQUENCES IF ALL OR A SUBSTANTIAL PORTION OF THE PROPOSED RATE INCREASE IS NOT APPROVED.

A. As outlined in Pittsburgh Water Exhibit EB-1, which is a part of Mr. Barca's testimony, if the current rates remain in place, Pittsburgh Water will violate its covenant with bondholders, and it will be unable to meet its Additional Bonds Test, which will halt its Capital Improvement Plan starting in FY 2026 due to lack of financing.

As described previously, in order to comply with its legally required bond covenants, Pittsburgh Water must generate net revenues in an amount that exceeds senior debt service of at least 1.25 times and total debt service of at least 1.1 times and is adequate to pay all financial obligations. Without a rate increase, the debt service coverage in the FPFTY (FY 2026) is projected to be 1.22 times for senior debt service (1.25 times is the legal covenant for senior debt) and 0.94 times for total debt service (1.10 times is the legal covenant), and in FY 2027 is projected to be 1.09 times for senior debt service (1.25 times is the legal covenant) and 0.81 for total debt service (1.10 times is the legal covenant). This would cause Pittsburgh Water to be in non-compliance with its rate

covenant in FY 2026 and 2027 as well as having insufficient funds to pay its debt service obligations in both years.

If Pittsburgh Water fails to comply with the rate covenant, Pittsburgh Water is legally required to engage a consultant to prepare a report to remedy the failure and to make recommendations. Pittsburgh Water has 180 days after the tested fiscal year to revise rates, fees and charges or to petition the PUC to establish the necessary rates, fees and charges to address the rate covenant failure. If, after this time period, Pittsburgh Water continues to fail the rate covenant, then an Event of Default under the Trust Agreement will have occurred. An event of default results in certain remedies available to bond holders, including acceleration of principal. An event of default would likely result in an emergency request to the PUC to allow Pittsburgh Water to raise rates and would likely lead to a downgrade of Pittsburgh Water's credit ratings, making future borrowing more problematic and costly and requiring increased rate revenue to cover Pittsburgh Water's higher cost of borrowing. In terms of days cash on hand, without a rate increase, days cash on hand falls to 26 days in FPFTY (FY 2026) and to -103 days in FY 2027.

Q. WHAT WOULD BE THE EFFECT ON THE "ADDITIONAL BONDS TEST" OF THE FAILURE TO APPROVE A RATE INCREASE.

A. As explained in Mr. Barca's testimony, prior to issuing additional senior or subordinate lien debt under the Indenture Pittsburgh Water needs to pass an Additional Bonds Test ("ABT") which is a three-part test of senior lien coverage at 1.25x, subordinate coverage at 1.1x and total coverage at 1x. As Financial Advisor to Pittsburgh Water, and a third-party consultant as required by the Indenture, PRAG is tasked with preparing the ABT test prior to closing on Pittsburgh Water's senior and subordinate bond issuance. For purposes of providing this certification we need to provide an analysis demonstrating that

there are sufficient revenues (including rate increases previously authorized by the Authority Board and approved by the PUC) to fund operations, make debt service payments and satisfy legal debt service coverage requirements on the existing and proposed debt. Failure to pass ABT would preclude Pittsburgh Water from securing additional financing and halt its capital improvement plan. As included in Exhibits EB-7 and EB-8 and summarized in the table below, without the requested rate increase Pittsburgh Water is failing the second prong of the ABT on the subordinate lien by almost $20 million in FY 2026 and almost $39 million in FY 2027. The subordinate lien test is a key determining factor for purposes of Pittsburgh Water's ABT given the significant amount of subordinate PENNVEST and WIFIA debt service that is not included in the senior test. With the requested rate increase, Pittsburgh Water passes its ABT on the subordinate lien in FY 2026 and FY 2027. I cannot emphasize enough the importance of Pittsburgh Water receiving a substantial amount of the requested rate increase to be in a position to pass its ABT to issue bonds to fund its critical capital projects. Without a rate increase in FPFTY (FY 2026) Pittsburgh Water's ability to finance its capital plan will halt due to an inability to access the capital markets, and correspondingly be unable to maintain and improve its assets or comply with consent decrees would be of immediate and serious concern to the rating agencies, and likely result in either or both multiple ratings downgrades and/or withdrawal or suspension of ratings, only further increasing Pittsburgh Water's potential cost of financing and exacerbating its operating challenges.

Additional Bonds Test Surplus/(Deficit) Forecasts		
Pittsburgh Water's Projected Additional Bonds Test Coverage with Rate Increase		
	FY 2026	FY 2027
First Lien (1.25x) Net Surplus/(Deficit)	$59.9M	$67.6M

First Plus Subordinate Lien (1.10x) Net Surplus/(Deficit)	$33.8M	$35.1M
Total Debt Service (1.00x) Surplus/(Deficit)	$55.0M	$58.9M
Pittsburgh Water's Projected Additional Bonds Test Coverage w/o Rate Increase		
	FY 2026	FY 2027
First Lien (1.25x) Net Surplus/(Deficit)	$6.4M	**-$6.6M**
First Plus Subordinate Lien (1.10x) Net Surplus/(Deficit)	**-$19.8M**	**-$39.1M**
Total Debt Service (1.00x) Surplus/(Deficit)	**$1.5M**	**-$15.3M**

Q. WHAT ARE THE LIKELY CONSEQUENCES IF PITTSBURGH WATER FAILS TO MEET ITS BOND COVERAGE TARGETS OR FAILS TO MAINTAIN ADEQUATE CASH ON HAND?

A. The failure to maintain adequate debt service coverage levels and/or a notable deterioration in days of cash on hand would likely cause a downgrade in Pittsburgh Water's credit ratings. Credit ratings are an important component in determining the cost of debt as the ratings signal Pittsburgh Water's ability and willingness to meet financial obligations in full and on time. A downgrade of the credit ratings for Pittsburgh Water would result in an increase in Pittsburgh Water's borrowing costs and necessitate higher rate increases over time.

There are also the consequences for failure to comply with the debt service coverage requirement (rate covenant). As I explained, if there is an event of default, there are certain remedies available to bond holders, including acceleration of principal. Pittsburgh Water would have to use its cash reserves to pay its FPFTY (FY 2026) debt service and other long-term financial obligations. This would create an obligation that Pittsburgh Water could not possibly meet without extraordinary rate relief or an infusion of cash from some other sources. Additional information is provided later in my testimony regarding risks of the PUC not approving a substantial amount of the requested rate increase, including rating downgrades and the possible collateral consequences.

Failure to maintain sufficient available cash could result in a rating downgrade, and thus, increase Pittsburgh Water's borrowing costs. If sufficient revenue is not generated to cover all of Pittsburgh Water's costs and obligations, as well as not having sufficient reserves to have the cash to fully cover operating expenses, debt service and other could result in financial failure. Additionally, Pittsburgh Water could experience bondholder lawsuits related to its failure to raise sufficient rates to meet its rate covenant. With the requested rate increase, Pittsburgh Water will have higher annual coverages but still slightly declining days cash on hand for FY 2026 and FY 2027. Without the request, Pittsburgh Water will not be able to reach minimum coverages on Senior or Total Debt Service. If awarded the proposed rate increase, Pittsburgh Water can better manage its obligations, add to its RSF to be better positioned to for potential future cost pressures and perhaps even receive a rating upgrade. Thus, I strongly believe Pittsburgh Water should be granted a substantial amount of the proposed rate adjustment in order to permit the Pittsburgh Water to reach total coverage closer to the median of other single-A rated municipal water utilities and add to reserves. Pittsburgh Water's historical and projected debt service coverage and days cash on hand with and without the proposed rate increase is provided in the table below. Pittsburgh Water's Rate Covenant Requirement for coverages and Pittsburgh Water's Financial

Management Policy related to debt service coverages and Liquidity (measured in days cash on hand) are provided below:

Pittsburgh Water's Historical and Projected Financial Metrics with Rate Increase				
	FY 2024	FY 2025	FY 2026	FY 2027
Senior Debt Service Coverage	1.82	1.57	1.85	1.87
Total Debt Service Coverage	1.40	1.22	1.42	1.39
Days Cash on Hand	136	130	118	116
Pittsburgh Water's Historical and Projected Financial Metrics without Rate Increase				
	FY 2024	FY 2025	FY 2026	FY 2027
Senior Debt Service Coverage	1.82	1.57	**1.22**	**1.09**
Total Debt Service Coverage	1.40	1.22	**0.94**	**0.81**
Days Cash on Hand	136	130	26	-103
Bond Indenture -- Rate Covenant Coverage Requirement				
	FY 2024	FY 2025	FY 2026	FY 2027
Senior Debt Service Coverage	1.25	1.25	1.25	1.25
Total Debt Service Coverage	1.10	1.10	1.10	1.10
Pittsburgh Water's Financial Management Policy				
	FY 2024	FY 2025	FY 2026	FY 2027
Senior Debt Service Coverage	1.35	1.35	1.35	1.35
Total Debt Service Coverage	1.15	1.15	1.15	1.15
Days Cash on Hand	100-300	100-300	100-300	100-300

As shown in table above, with the proposed rate increase, the debt service coverage metrics improve in FY 2026 and FY 2027 putting Pittsburgh Water on more stable ground. The proposed rates will permit Pittsburgh Water to have the funds it needs throughout the Forecast Period to satisfy all of its financial obligations. Projected Total Debt Service coverage in FY 2025 is 1.22, just above the legal, required coverage is 1.10 times, with rate increases Pittsburgh Water moves coverages positively away from the legal limit.

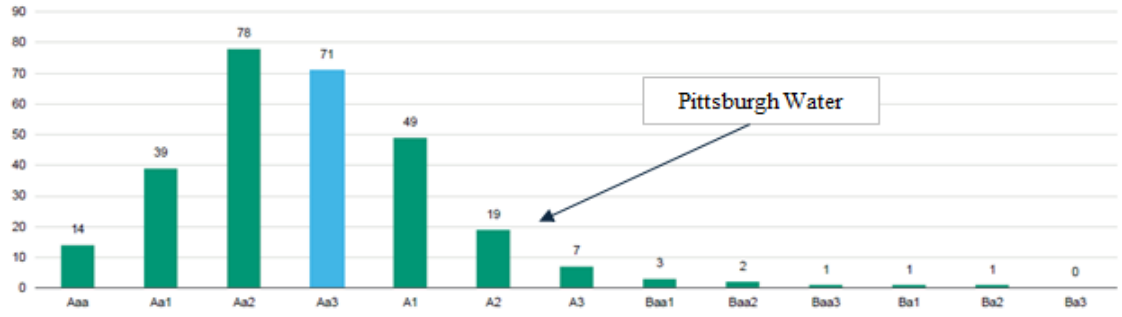
IV. PEER REVIEW OF FINANCIAL METRICS

Q. DISCUSS PITTSBURGH WATER'S CREDIT PROFILE IN COMPARISON TO OTHER PEER UTILITIES.

A. Pittsburgh Water's senior lien credit ratings are "A2" and "A+", from Moody's and S&P respectively. As can be seen within Exhibit CF-3, as well as in the graphic below, in terms of other US municipal water and sewer systems, Pittsburgh Water, with its A2 rating, is in the bottom 12 percent of all governmental water and sewer utilities that are rated by Moody's.

Distribution of Moody's Ratings for Combined Municipal Water and Sewer Issuers

(Median is Shown in Blue)



Blue highlighted bar represents median combined water and sewer utility rating.
Source: Moody's Ratings

US municipal water and sewer credits are generally well received by the investor community with rating agencies viewing the industry overall with a stable to negative outlook. Rating agencies have been reviewing and updating methodologies with a view towards transparency and a more quantitative approach. Both Moody's and S&P have published credit scorecards which identify certain rating factors, as well as assigning certain factor weighting. Both credit scorecards include some level of qualitative analysis, as well as above and below-the-line notching. While the approach is slightly different, the factors considered both include debt service coverage and liquidity measures as critical components of any credit review.

Moody's – Moody's identifies broad factors for consideration and further provides sub-factors in the scorecard. The broad categories include system characteristics (asset condition, service area and system size), financial strength (debt service coverage, days cash on hand, debt to operating revenues), management (rate management, regulatory compliance and capital plans) and legal provisions (rate covenant, debt service reserve requirements). In general, Moody's reports that the median coverage for all Moody's rated credits (using 2022 data) is 2.3x for combined water and sewer systems, 2.1x for water systems and 2.1x for sewer systems. The Moody's median for days cash on hand are 511 days for combined systems, 506 days cash on hand for water systems and 685 days cash on hand for sewer systems.

Below are Pittsburgh Water's key ratios from the most recent Moody's Median report dated October 21, 2024 (which uses 2022 data) included as Exhibit CF-3 compared to median peers for the "Aa," "A" and "Baa" rating categories that illustrates that Pittsburgh Water is below each median indicator. Increasing rates to provide cash flow available to fund an increasing number of projects on an internally generated funded basis will help mitigate Pittsburgh Water's relative position.

Moody's Key Indicators	Pittsburgh Water (2023) *	Aa Rated Medians	A Rated Medians	Baa Rated Medians
Debt Service Coverage	**1.2x**	2.4x	2.1x	1.5x
Days Cash on Hand	**118**	612	363	226

Source: Moody's Water and Sewer Median Report dated October 21, 2024
*Moody's calculations. Pittsburgh Water metrics based on FY 2023 audited financials.

Standard & Poor's – S&P has also developed a credit scorecard to provide a qualitative analysis of a systems credit profile. S&P measures credit through an enterprise risk profile (economic fundamentals, industry risk, market position and operational management assessment) and a financial risk profile ("all in" coverage, liquidity and

reserves, debt and liabilities and financial management assessment). They also provide notch adjustments for certain factors. When reviewing assessment scores for S&P "A+" rated water and sewer credits, debt service coverage averaged 1.7 times and liquidity measures averaged approximately 564 days cash on hand.

Below is a summary of Pittsburgh Water's most recent rating recent reports, full reports are included in CF-8, and CF-9 and CF-10, outlining the strengths, challenges and viewpoints of the credit agencies.

Moody's Investors Service **A2 (Stable)**	Standard & Poor's Ratings Services **A+ (Stable)**
Credit Strengths	
■ Stable service area in regionally significant economy ■ Much-improved governance ■ Strong financial management, including long-range planning ■	■ Employment base that has reinvented itself from previously relying on manufacturing and industrial jobs ■ View operational management assessment (OMA) as "good" ■ Strong on-balance sheet liquidity
Credit Challenges	
■ Coverage and liquidity lower than peers ■ History of deferred investment Significant capital plan implies increasing debt going forward	■ Extremely high leverage with $1.17 billion in capital commitments ■ Outsized risks related to each of our environmental, social, and governance factors ■ Rates for service that have been pressured over the past decade by the unfunded mandates

Regulatory Oversight: Both Moody's and S&P have stated in recent reports that PUC oversight has contributed to their stable outlooks for Pittsburgh Water. Moody's noted that the PUC oversight "brings improvement and controls," and that "the PUC has helped to ensure timely system maintenance and routine capital investment, in line with broad industry standards." S&P notes "our stable outlook reflects our expectation that when Pittsburgh Water does need to propose a rate case to PaPUC, there will generally be a credit-supportive relationship." However, as discussed previously, should PUC not approve sufficient rates increases as deemed necessary by the credit rating agencies there is a risk they can change their view of the PUC's oversight role negatively and an

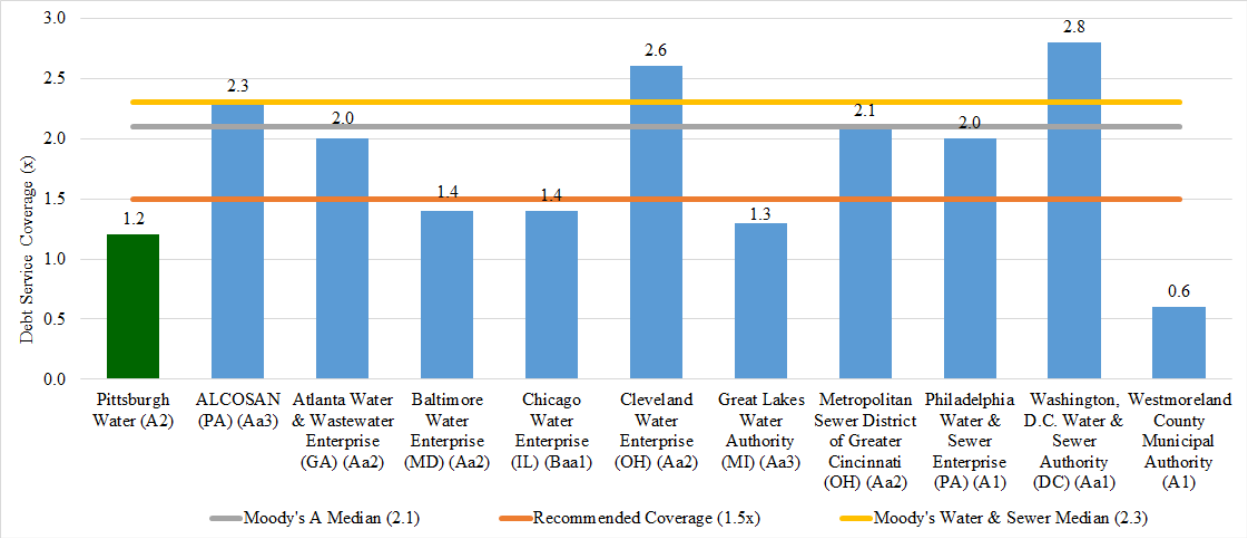
impediment to needed rate increases. As demonstrated in the scorecards as Exhibit CF-12 and Exhibit CF-13 such assessment could result in multiple notch downgrades by the rating agencies, possibly to below investment grade or speculative grade.

Peer Utilities: Pittsburgh Water has selected certain large city municipal peer systems to provide important benchmarking critical to organizational best practices. While systems have their own characteristics based on regions, size, and service area, the selected peers are of similar size, service areas of industrial urban centers and are located largely in the mid-Atlantic and Midwestern regions of the country. Peer comparisons and benchmarking performance indicators are a component of best practices and have been incorporated into Pittsburgh Water's financial policies. Data gathered on peer systems is provided by recent Moody's Credit Opinion reports for each respective peer.

Below are charts which indicate that Pittsburgh Water, as compared to its peers, remains on the weaker side of certain key financial metrics. It is important to note that viewing data for peer systems should be used to provide a general perspective, since each system has its own characteristics. Please see Exhibit CF-2 for additional financial data on the peer systems.

Provided below is a peer comparison chart of debt service coverage levels that compares Pittsburgh Water to other large city water and sewer entities. Higher debt service coverage levels are looked upon more favorably by the rating agencies because it indicates a better ability to pay debt service and issue further debt while maintaining a strong financial position. Pittsburgh Water's debt service coverage levels at the end of 2023 are among the lowest of its peer utilities and also compared unfavorably to Moody's overall and "A" and "Aa" rated utility medians.

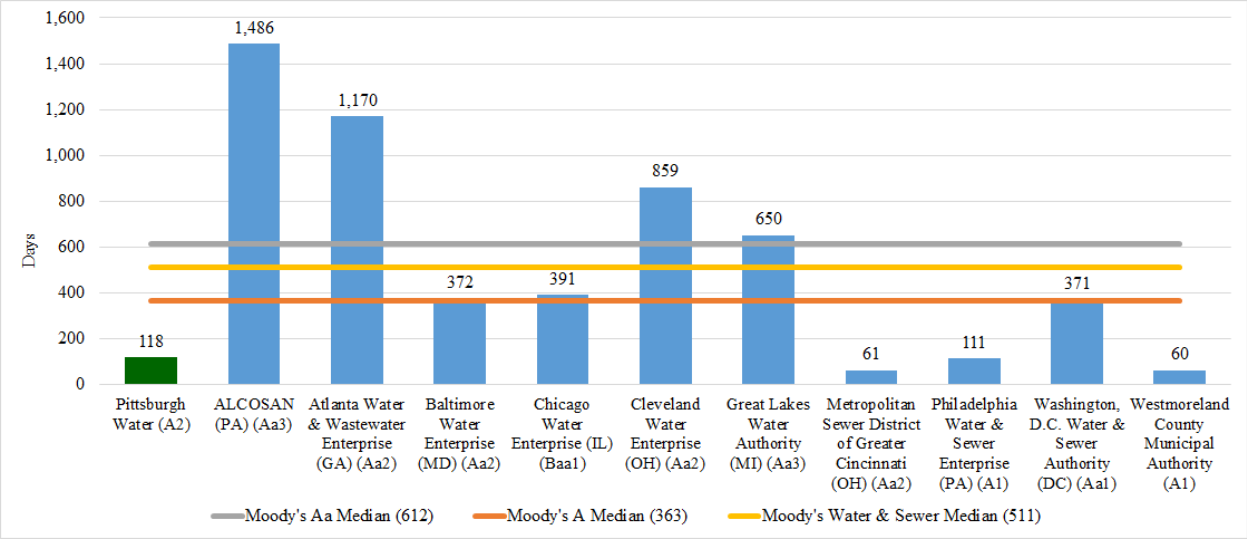
DEBT SERVICE COVERAGE*
(net revenue divided by debt service, expressed as a multiple)



*** As of 12/31/2023, except Baltimore (6/30/2023), Westmoreland (3/31/2024), Atlanta, Great Lakes and Philadelphia (6/30/2024), and Washington, D.C. (9/30/2024). (**Source: Moody's Financial Ratio Analysis (MFRA).

Provided below is a peer comparison chart of days cash on hand that compares Pittsburgh Water to other large city water and sewer entities. The rating agencies like to see more days cash on hand because it shows a better liquidity position and therefore, more financial flexibility. As previously mentioned in this testimony, the Moody's rating analyst cited Pittsburgh Water's weak DCOH as an impediment to being further upgraded. As of the end of 2023, Pittsburgh Water had 118 days cash on hand which ranked Pittsburgh Water as the fourth lowest liquidity of its peer utilities and also compared very unfavorably to Moody's overall and "A" and "Aa" rated utility medians.

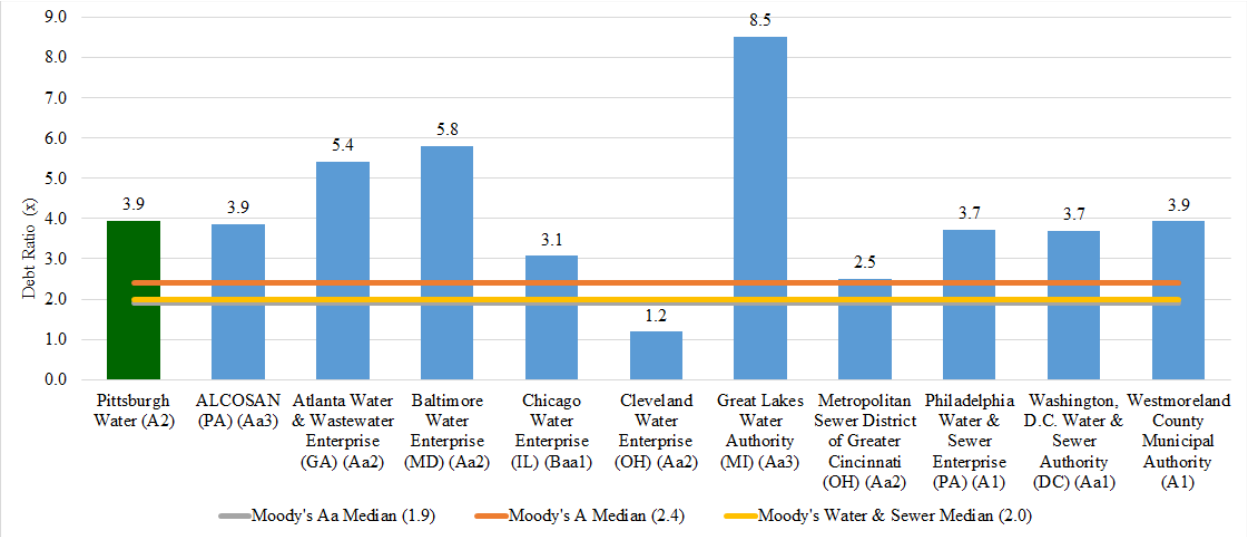
DAYS CASH ON HAND*
(unrestricted cash and liquid investments times 365 divided by operating and maintenance expenses, expressed in days)



*** As of 12/31/2023, except Baltimore (6/30/2023), Westmoreland (3/31/2024), Atlanta, Great Lakes and Philadelphia (6/30/2024), and Washington, D.C. (9/30/2024).**
Source: Moody's Financial Ratio Analysis (MFRA).

Provided below is a peer comparison chart of debt ratios that compares Pittsburgh Water to other large city water and sewer entities. The rating agencies would like to see a low debt ratio since that would indicate that the entity is not overextended in debt obligations. At the end of 2023, Pittsburgh Water ranked in the bottom half of utilities for its debt ratio compared to its peer utilities and also compared unfavorably to Moody's overall and "A" and "Aa" rated utility medians.

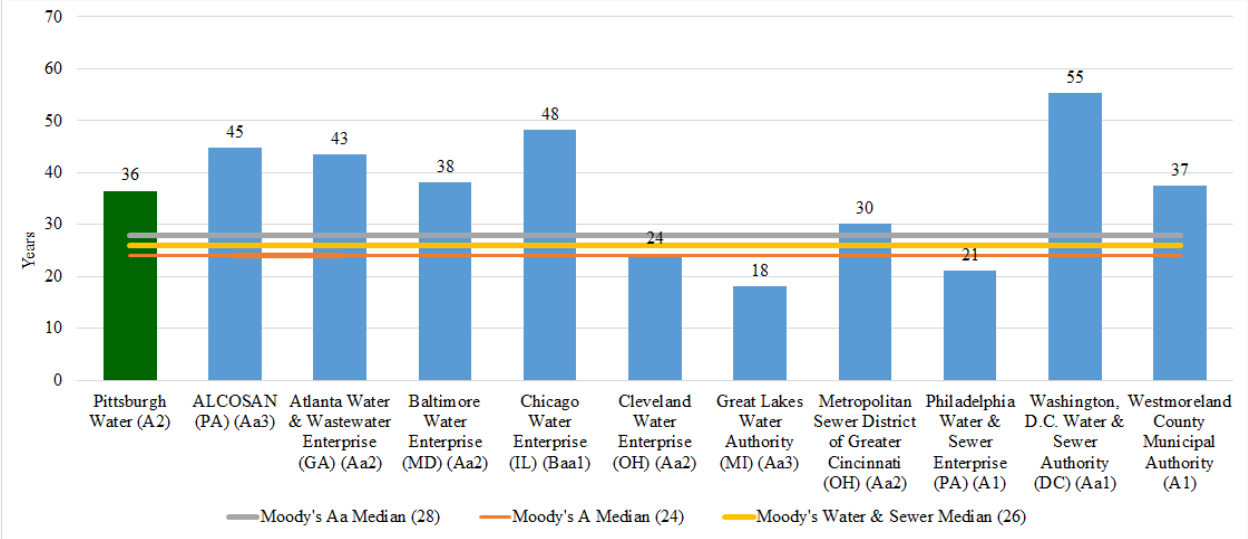
DEBT RATIO*
(net debt divided by operating revenues, expressed as a multiple)



*** As of 12/31/2023, except Baltimore (6/30/2023), Westmoreland (3/31/2024), Atlanta, Great Lakes and Philadelphia (6/30/2024), and Washington, D.C. (9/30/2024).**
Source: Moody's Financial Ratio Analysis (MFRA).

Provided below is a peer comparison chart of asset condition in years that compares Pittsburgh Water to other large city water and sewer entities. A low number indicates that the assets of an entity are nearing their end of useful life and can indicate that large maintenance and/or replacement costs are on the horizon. At the end of 2023, Pittsburgh Water compared favorably to Moody's overall and "A" and "Aa" rated utility medians in Asset Condition, however it was ranked in the bottom half compared to its peer utilities.

ASSET CONDITION*
(net fixed assets divided by depreciation, expressed in years)



*** As of 12/31/2023, except Baltimore (6/30/2023), Westmoreland (3/31/2024), Atlanta, Great Lakes and Philadelphia (6/30/2024), and Washington, D.C. (9/30/2024).** Source: Moody's Financial Ratio Analysis (MFRA).

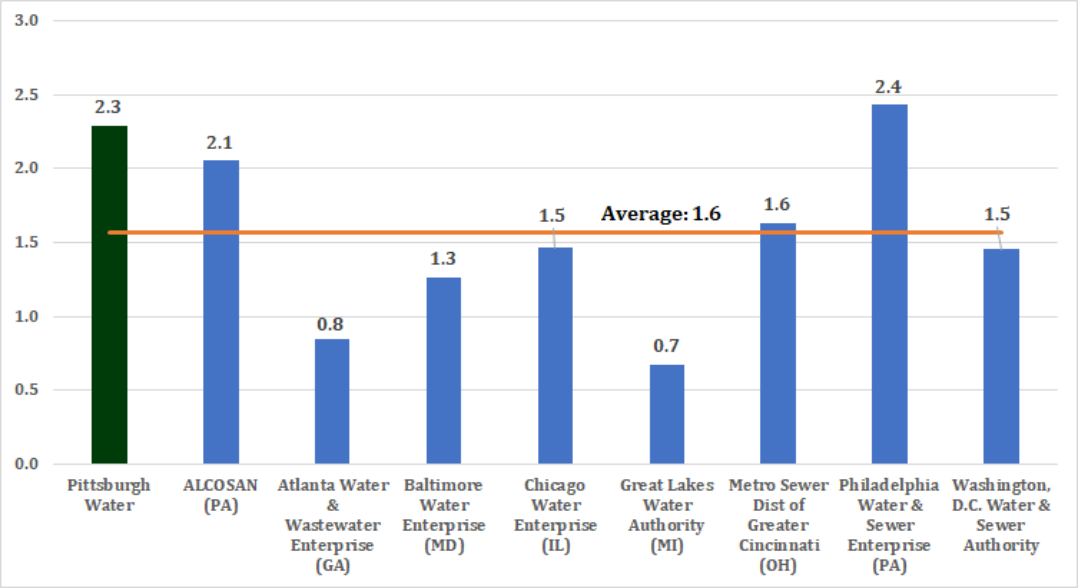
Q. DISCUSS PITTSBURGH WATER'S CAPITAL IMPROVEMENT PLAN IN COMPARISON TO OTHER PEER UTILITIES.

A. Pittsburgh Water's capital improvement plan (CIP) of approximately $1.17 billion over the five years from FY 2025 to FY 2029 is among the largest and most intensive of its peers when adjusted for both Pittsburgh Water's relative size and its financial capacity to meet this plan.

	Capital Plan (in $ 000s)	Capital Plan (# of Years)	Net Revenues (in $ 000s)	Average Annual Capital Plan to Revenues Ratio
Pittsburgh Water	**1,170,000**	**5**	**102,154**	**2.3**
ALCOSAN (PA)	4,000,000	12	162,108	2.1
Atlanta Water & Wastewater Enterprise (GA)	1,500,000	4	443,462	0.8
Baltimore Water Enterprise (MD)	709,000	5	112,086	1.3
Chicago Water Enterprise (IL)	2,625,000	5	358,764	1.5
Great Lakes Water Authority (MI)	2,400,000	6	591,679	0.7
Metro Sewer Dist of Greater Cincinnati (OH)	1,200,000	5	147,135	1.6
Philadelphia Water & Sewer Enterprise (PA)	4,800,000	6	329,102	2.4
Washington, D.C. Water & Sewer Authority	7,740,000	10	533,000	1.5

Source: Moody's rating reports for entities' capital plan dollar amounts and length in years, and net revenues

While Pittsburgh Water's CIP is not the largest of its peers, when considering the CIP's relatively short 5-year timeframe and Pittsburgh Water's relatively constrained net revenues, the CIP is significantly more intensive than almost all of its peers. To quantify this intensity, the below chart shows the ratio of average annual capital plan (dollar amount divided by years) divided by net revenues. By this measure, Pittsburgh Water's CIP is the second-highest, and almost 50% more intensive than those of its peer entities.



Q. DESCRIBE THE RISKS OF NOT APPROVING THE REQUESTED REVENUE INCREASE.

A. As I have described above, there are several risks that occur if the PUC does not approve a substantial portion of the requested rate increase. They include: the violations of Pittsburgh Water's Rate Covenant and inability to pass its ABT and issue additional debt to finance its capital program.

As mentioned in Mr. Barca's testimony, there is $68.2 million of increased debt service cost is associated with both existing debt service new debt service to fund capital improvements. If Pittsburgh Water was left without sufficient revenue to cover these costs, I understand that Pittsburgh Water would necessarily have to slow or cancel capital programs and reduce its operating budget.

Pittsburgh Water could also suffer a rating downgrade(s), which, in turn, could lead to a myriad of issues for Pittsburgh Water. Specifically, the cost of fixed-rate borrowing for infrastructure would increase, as well as rates/costs impacts to Pittsburgh Water for their current line(s) of credit and outstanding swaps. In addition, Pittsburgh Water could see a lack of options for the required regular refinancing of its existing variable bonds, which would likely lead to higher interest and support costs. Also, as Pittsburgh Water experienced in the past with its Moody's downgrade in 2018, once a ratings agency downgrades a credit rating it is reluctant to increase a credit rating for a period of time until it is assured that the factors that led to the downgrade do not persist anymore. If Pittsburgh Water was to get downgraded because it did not receive a rate increase sufficient to make its debt service requirements and required bond covenants and/or meet its ABT test the rating agencies would begin to see the PUC oversight as a credit negative

and would likely downgrade Pittsburgh Water's rating and be a factor that would prevent rating upgrades in the future.

Q. WHAT EFFECT WOULD INADEQUATE RATE RELIEF HAVE ON PITTSBURGH WATER'S COST OF CAPITAL

A. First, let me reiterate that Pittsburgh Water's rating has a direct impact on the cost of capital. This has an impact on the cost of annual debt service, as well as the cost to Pittsburgh Water of alternative financing options, such as capital lines of credit, bank loans, and implementing a commercial paper program. Higher rated credits enjoy a range of options in financing increasing Capital Improvement Programs and these short term, variable rate options can be even more advantageous in a rising rate environment. A higher credit-driven cost of capital only compounds the challenges arising from a higher interest rate environment generally which we have experienced since the end of 2021. Below is a historical representation of the range in interest rates for "A" and "Baa" rated credits provided by MMD, which corresponds to the magnitude of rating downgrades PRAG estimates that Pittsburgh Water would incur if the PUC does not approve an adequate level of rate increase. Based on data from the last five years, the average between "A" and "Baa" rates of yield curves ranged from 0.27% to 53% in the 5-year, 10-year, 20-year and 30-year timeframes.

	5-Year Rate			10-Year Rate			20-Year Rate			30-Year Rate		
Time Period	"A" MMD	"Baa" MMD	Rate Difference	"A" MMD	"Baa" MMD	Rate Difference	"A" MMD	"Baa" MMD	Rate Difference	"A" MMD	"Baa" MMD	Rate Difference
April 30, 2025	3.22%	3.61%	0.39%	3.69%	4.17%	0.48%	4.59%	5.03%	0.44%	4.83%	5.28%	0.45%
Prior 5 Year Average	2.04%	2.45%	0.42%	2.43%	2.96%	0.53%	3.10%	3.59%	0.49%	3.33%	3.82%	0.49%
Prior 5 Year Minimum	0.45%	0.72%	0.27%	0.92%	1.43%	0.51%	1.42%	1.75%	0.33%	1.42%	1.95%	0.53%
Prior 5 Year Maximum	3.79%	4.18%	0.39%	4.24%	4.72%	0.48%	4.24%	5.54%	1.30%	5.10%	5.74%	0.64%

Source: Municipal Market Data.

Pittsburgh Water expects to issue $260 million in additional revenue bond debt in FPFTY 2026 and FTY 2027. For every 0.50% increase, which is the 5-year average difference of

the 10-year borrowing rate between an A and a Baa credit, Pittsburgh Water and ultimately rate payers could expect to pay an additional $846,000 in average annual debt service or more than $26.3 million over the life of the bond issue. This increase adds up and can place additional stress on debt service coverage requirements.

Market Volatility

The Trump administration's tariff policies negatively affected the municipal market with a substantial volatility and higher base interest rates. Higher base interest rates will mean the cost of debt service will be higher, or Pittsburgh Water will have to scale back its capital program in order meet its annual rate covenant or additional bonds test.

Q. WOULD INADEQUATE RATE RELIEF HAVE AN EFFECT UPON THE COSTS OF PITTSBURGH WATER'S REVOLVING CAPITAL LINE OF CREDIT.

A. Yes. The revolving capital line of credit agreement that Pittsburgh Water executed with PNC Bank, NA, has legal language that sets the applicable spread regarding the cost of the line of credit based upon several factors, including both the number and level of Pittsburgh Water's current credit ratings as follows:

Level	Borrower Rating Moody's/S&P/Fitch	Revolving Credit SIFMA Spread (Applicable Margin)
I	A3/A-/A- or above	0.39%
II	Baa1/BBB+/BBB+	0.46%
III	Baa2/BBB/BBB	0.56%
IV	Baa3/BB-/BB- or below	Default Rate

Pittsburgh Water is currently paying the SIFMA variable-rate municipal bond index + 0.39%, based on the lower of Pittsburgh Water's current ratings of A2 from Moody's. However, if Pittsburgh Water were to be downgraded in the future to Baa1 or BBB+ by

Moody's or S&P, respectively, then Pittsburgh Water would be paying a spread to SIFMA of 0.46%, and to Baa2 or BBB a spread of 0.56%. Should Pittsburgh Water be downgraded further, or maintain only one or no credit ratings, then Pittsburgh Water would pay a Default Rate, which is the greater of the Overnight Bank Funding Rate (OBFR) plus 0.5% or the Prime Rate plus 3.00%. For reference, as of May 9, 2025 the OBFR was 4.33% and the Prime Rate was 7.50%, so the corresponding Default Rate would be 10.50%.

Q. PLEASE EXPLAIN HOW INADEQUATE RATE RELIEF WOULD AFFECT PITTSBURGH WATER'S EXISTING SWAP AGREEMENTS.

A. Pittsburgh Water's amended swap agreements for the outstanding 2017C Bonds do not have variable rate or fixed rate triggers related to credit ratings downgrades. Nevertheless, there is legal language relating to an Authority's credit rating regarding downgrades constituting an additional termination event if Pittsburgh Water's credit rating should be downgraded to Baa3 or BBB- by Moody's and/or S&P, respectively. As of April 30, 2025, the swap termination net present value for the swaps related to the 2017C Bonds was almost $16.7 million, which is quite substantial.

V. IMPACT OF MULTI-YEAR RATE ADJUSTMENT AND FUTURE RATE INCREASES

Q. HOW WILL PITTSBURGH WATER'S CREDIT PROFILE BE IMPACTED IF THE PUC APPROVES A MULTI-YEAR RATE ADJUSTMENT?

A. I believe that the Rating Agencies will react positively. Moody's scorecard has a rate management sub-factor under the management factor that is worth 10% of the overall score. According to Moody's methodology, since rates are typically the primary mechanism to pay for a utility's operations, ideally their rate would increase steadily. Management's track record at setting rates appropriately and increasing them when

necessary drives this score. Moody's also takes into account the length of time required to implement a rate increase, especially when the utility must seek approval from the Commission. The requested multi-year increase will favorably affect this factor.

S&P also uses a scorecard approach for their water and sewer rating methodology and values. "Rate Setting Practices" is 40% of the Operational Management Assessment score. Authorizing a rate increase to cover certain debt service costs in 2027 will almost certainly be viewed positively by S&P and contribute to a very positive score for "Rate Setting Practices."

In addition, multi-year planning and rate adjustments contribute to municipal utilities' stable financial performance. The table below summarizes the historical debt service coverages and days cash on hand for Pittsburgh Water and peer utilities. The peer agencies generally have stable financial metrics. In cases where metrics have deteriorated sharply for respective peers, such as the City of Baltimore in FY 2016 and Pittsburgh Water in 2017, bond ratings have been lowered following the reported results. On the contrary, when metrics increase for peers, such as Allegheny County Sanitary Sewer Authority ("ALCOSAN") or the Great Lakes Water Authority, bond ratings have been upgraded. The absence of annual rate increases has caused substantial volatility in Pittsburgh Water's financial metrics in the past and it is imperative that annual rate increases occur with an appropriate adjustment to keep or increase the financial metrics of Pittsburgh Water. Neither bond investors nor the rating agencies will look favorably on consistently deteriorating financial metrics or the variability of sporadic rate increases and/or inadequate adjustments, as these characteristics are inconsistent with highly rated municipal utilities.

Historical and Project Financial Metrics of PWSA Compared to Historical Financial Metrics of Peers

Debt Service Coverage*

	Pittsburgh Water (A2)	ALCOSAN (PA) (Aa3)	Atlanta Water & Wastewater Enterprise (GA) (Aa2)	Baltimore Water Enterprise (MD) (Aa2)	Chicago Water Enterprise (IL) (Baa1)	Cleveland Water Enterprise (OH) (Aa2)	Great Lakes Water Authority (MI) (Aa3)	Metropolitan Sewer District of Greater Cincinnati (OH) (Aa2)	Philadelphia Water & Sewer Enterprise (PA) (A1)	Washington, D.C. Water & Sewer Authority (DC) (Aa1)	Westmoreland County Municipal Authority (A1)
2015	1.1	1.6	2.1	1.8	2.5	2.2	1.3	1.5	1.5	1.8	1.2
2016	0.9	1.6	1.8	1.1	2.6	2.0	1.6	1.7	1.4	2.0	1.0
2017	0.8	2.2	1.9	0.9	2.3	1.7	1.6	1.5	1.7	2.1	1.5
2018	1.4	2.1	2.0	1.4	2.2	1.9	1.6	2.0	1.5	2.1	1.6
2019	1.7	2.0	2.6	1.4	1.8	2.0	1.5	1.9	1.8	2.0	1.3
2020	1.2	2.0	1.8	1.2	1.8	2.3	1.5	1.9	1.5	2.1	1.1
2021	1.3	2.1	1.7	2.0		2.8	1.4	2.0	1.8	2.1	1.0
2022	1.5	2.2	1.9	2.3			1.4	1.9	1.5	2.3	1.0
2023	1.2	2.3	2.0	1.4			1.4		1.8	2.4	0.9
2024	1.4									2.4[2]	
2025	1.2										
2026	1.4										
2027	1.4										

Days' Cash on Hand*

	Pittsburgh Water (A2)	ALCOSAN (PA) (Aa3)	Atlanta Water & Wastewater Enterprise (GA) (Aa2)	Baltimore Water Enterprise (MD) (Aa2)	Chicago Water Enterprise (IL) (Baa1)	Cleveland Water Enterprise (OH) (Aa2)	Great Lakes Water Authority (MI) (A1)	Metropolitan Sewer District of Greater Cincinnati (OH) (Aa2)	Philadelphia Water & Sewer Enterprise (PA) (A1)	Washington, D.C. Water & Sewer Authority (DC) (Aa1)	Westmoreland County Municipal Authority (A1)
2015	78	424	1,313	205	462	469	266	448	78	244	90
2016	53	450	1,243	113	591	781	391	564	79	268	75
2017	26	620	1,364	58	598	848	670	32	88	250	98
2018	112	684	1,232	258	480	796	912	64	88	261	115
2019	143	830	1,357	199	417	759	937	60	92	281	157
2020	130	960	1,165	233	391	781	956	68	104	349	162
2021	155	1065	1,098	460		777	920	70	151	342	175
2022	165	1145	1,291	596			602	60[1]	136	320	190
2023	118	1486	1,185	372			519		133	326	140
2024	115									321[2]	
2025	124										
2026	118										
2027	116										

*Sources: Moody's Investors Service Reports for years 2015 through 2024.
[1]Greater Cincinnati restricted accounts increase cash position to more than 700 days cash on hand
[2]Data reflects Washington, D.C. financial plan adopted March 1, 2024
Notes: Yellow shaded cells represent rating Moody's downgrades. Green shaded cells represent rating Moody's upgrade. Orange shaded cells represent years when Pittsburgh Water rate adjustment is scheduled.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes; however, I do reserve the right to supplement this testimony as may be appropriate.

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VERIFICATION

I, Christine Fay hereby state that: (1) I am Senior Managing Director and Partner with Public Resources Advisory Group, Inc.; (2) I have been retained by The Pittsburgh Water and Sewer Authority and am authorized to present testimony on its behalf; (3) the facts set forth in my testimony are true and correct (or are true and correct to the best of my knowledge, information and belief); and (4) I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C .S. § 4904 (relating to unsworn falsification to authorities).

6/4/25

Signed by:
Christine Fay
E1C03447089F49E...

Dated

Christine Fay, Senior Managing Director and Partner
Public Resources Advisory Group, Inc.

Consultant to:
The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water

Appendix A

Firm Overview. PRAG is an independent financial advisory firm organized as a subchapter S corporation wholly-owned and managed by its employees. The firm was founded in 1985 to provide in-depth financing, investment and derivative advice to state and local governments, authorities and agencies and has continuously served governmental entities for the 40 years that our firm has been in business. PRAG's only business is providing independent financial and investment advisory services to municipal clients. Today, PRAG has five offices around the country, including our New York City headquarters, and in suburban Philadelphia, Los Angeles, Oakland, CA and Tampa, FL.

National Experience. PRAG has been consistently ranked among the top three financial advisors in the nation since 2010 for all long-term municipal issuance, as illustrated in the table below. Our success is built on a history of providing comprehensive, high-quality, and independent advice to public sector issuers with respect to capital planning, debt portfolio management, debt capacity, swaps and derivative instruments, financing options, refunding approaches and techniques, bond structure and pricing, and bond proceeds investment strategies.

PRAG's Financial Advisory Rankings (2010 –First Quarter 2025)

	Long-Term Municipal Issuance Rankings		Competitive Sale Rankings		Negotiated Sale Rankings	
Year	Total Amount*	Rank	Total Amount*	Rank	Total Amount*	Rank
1Q 2025	$11.5	2	***$5.1***	***1***	$6.4	2
2024	$53.1	2	***$11.6***	***1***	$41.5	2
2023	$34.7	2	$7.6	2	$27.1	2
2022	$35.2	2	$10.5	2	$24.7	2
2021	$44.5	2	***$17.1***	***1***	$27.4	2
2020	$43.4	2	***$13.5***	***1***	$29.9	2
2019	$40.6	2	***$19.4***	***1***	$21.2	3
2018	$36.1	2	***$17.4***	***1***	$18.7	2
2017	$52.4	2	***$20.2***	***1***	$32.2	2
2016	$33.4	3	$12.6	2	$20.8	3
2015	$30.9	3	$12.4	2	$18.5	3
2014	$27.9	2	***$11.4***	***1***	$16.4	3
2013	$31.0	2	$9.9	2	$21.1	2
2012	$26.5	2	$8.2	2	$18.2	3
2011	$20.9	2	$8.1	2	$12.8	3
2010	$31.1	2	$6.7	2	$24.4	2

**$'s in billions.* *Source: LSEG.*

Water and Wastewater Experience. Since 2000, PRAG has advised water and wastewater authorities and agencies on their complex needs, including over $50.8 billion in financings through 2024. Our water and wastewater transactions include fixed and variable rate bonds, negotiated transactions, public sales and private placements, new money and refundings. In addition to our water and wastewater transaction experience, we also have ample experience with general financial advisory services, such as review of feasibility studies, credit rating strategies, long-term financial plans, debt affordability studies, advising in an IRMA role, monitoring legislation and more. Provided below is a list of selected water and wastewater clients. PRAG has also advised a number of its water and wastewater clients on executing WIFIA loans.

PRAG has advised the Pittsburgh Water and Sewer Authority ("PWSA") on twelve (12) bond, loan and credit transactions totaling almost $1.2 billion in par amount since 2019.

Most recently, PRAG acted as financial advisor for PWSA's $129.22 million Water and Sewer System First Lien Revenue Bonds, Series A of 2025 and $12.825 million Water and Sewer System Subordinate Revenue

Bonds, Series B of 2025 the proceeds of which paid down a portion of principal on PWSA's 2022 Capital Line Note, and funded certain capital improvements to PWSA's facilities.

PRAG is also currently assisting PWSA in in competitively soliciting, negotiating and executing a 3-year renewal of a $150 million line of credit that is expected to close by June 2025.

Provided below is a list of select water and wastewater clients.

Summary of PRAG's Water and Wastewater Experience	Bond Issuance	Innovative Debt Products	Structuring & Restructuring	Long-Term Financial Plan	Investments	Swaps & Derivatives	Credit Rating Strategy	Special Studies & Reports	Financial Policies	Inter-Agency Agreements	WIFIA Loan
Jefferson County	✓	✓	✓	✓			✓	✓	✓		
Anne Arundel County	✓		✓	✓			✓		✓		
Baltimore County	✓		✓	✓			✓	✓	✓		
Bethlehem Authority	✓		✓	✓	✓	✓	✓	✓	✓	✓	
Beverly Hills Water & Wastewater	✓		✓		✓		✓	✓			
Broward County	✓	✓	✓				✓				
Capital Region Water (Harrisburg)	✓		✓	✓	✓		✓	✓	✓	✓	
City of Chicago Department of Water	✓		✓	✓			✓				
City of Los Angeles	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
City of Millbrae Wastewater	✓		✓		✓		✓				
City of Richmond Wastewater	✓	✓	✓	✓	✓	✓	✓				
City of San Diego Water	✓		✓		✓		✓				
City of San Jose Wastewater	✓	✓	✓	✓	✓		✓				
Hillsborough County	✓						✓		✓		
LA Dept. of Water & Power	✓	✓	✓		✓	✓	✓	✓	✓	✓	
Metropolitan Water District of Southern California	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Miami-Dade County Water & Sewer	✓	✓	✓	✓		✓	✓		✓	✓	✓
Orange County Sanitation District	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Pasadena Water & Power	✓	✓	✓	✓	✓		✓	✓	✓	✓	
Pinellas County	✓	✓	✓				✓				
Pittsburgh Water and Sewer Authority	✓		✓			✓	✓				✓
San Francisco Public Utilities Commission	✓		✓	✓	✓		✓		✓		
San Jose / Santa Clara Clean Water Financing Authority	✓	✓	✓		✓		✓				
Santa Clara Valley Water District	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Santa Monica Water and Wastewater Systems	✓		✓		✓		✓	✓			✓
Washington Suburban Sanitation District	✓		✓	✓			✓		✓		
West Basin Municipal Water District	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
West Virginia Water Development Authority	✓						✓				

Christine Fay
Senior Managing Director
cfay@pragadvisors.com



PRAG
PUBLIC RESOURCES ADVISORY GROUP
Christine Fay
SENIOR MANAGING DIRECTOR
10 West Front Street, Suite 3R
TEL: 610-565-5990 | FAX: 670-565-4188
cfay@pragadvisors.com | www.pragadvisors.com

Ms. Fay brings twenty-five years of municipal finance experience to the engagement. Ms. Fay provides overall project management and quantitative analysis for various state and local issuers, including several municipalities and water and sewer issuers. She has serves as the Project Manager for the Pittsburgh Water and Sewer Authority, as well as the states of Illinois, Michigan, Minnesota, Vermont and West Virginia and the City of Detroit. Her role includes advising clients on structuring debt consistent with statute and long-term objectives of clients, the debt issuance process on both competitive and negotiated transactions, document drafting and review, rating agency strategy and credit support, market outreach and research, evaluations of various requests for proposals and overall day to day project management.

Ms. Fay has worked with a variety of PRAG clients on water, sewer and storm water financings including serving as Project Manager to Pittsburgh Water and Sewer Authority on its financings since 2019 and is currently assisting the Authority on renewing its $150 million line of credit. Additionally, Ms. Fay has also worked with the Bethlehem Authority, Capital Regional Water (formerly The Harrisburg Authority), City of Chicago Department of Water Management, the Metropolitan Council (MN), Miami-Dade County, New Castle County (DE), the Washington Suburban Sanitary Commission (MD) and the West Virginia Water Development Authority. In addition to her water and sewer clients, as previously noted, Ms. Fay serves as the day-to-day Project Manager for the states of Illinois, Michigan, Minnesota, Vermont and West Virginia. Ms. Fay has worked with the State of West Virginia since 2009. She has advised on the issuance of general obligation bonds, lease revenues bonds, lottery backed revenue bonds, moral obligation bonds, revenue bonds, and GARVEE notes. Ms. Fay has been advising the State of Illinois since 2009. She has worked on both competitive and negotiated transactions, bidding escrow securities for a refunding transaction, advised on credit approach, structuring and marketing the bonds and assisted in preparing investor materials. In addition, Ms. Fay advised the State of Illinois on its $6 billion of general obligation bonds to reduce the State's backlog of unpaid bills. Ms. Fay has worked on all bond issuances that PRAG has advised the State of Minnesota on since 2009. She has sized the State's Various Purpose, Trunk Highway and Refunding bonds consistent with the State's constitution and capital guidelines and was involved in all aspects of the financings.

Prior to joining PRAG, Ms. Fay served as the Debt Finance Manager at the County of San Diego, where she oversaw a $2.4 billion debt portfolio, managed the County's debt issuance process, was on the capital planning committee, and served as the point of contact to the rating agencies. As the Debt Finance Manager at the County of San Diego, Ms. Fay successfully managed lease revenue transactions, conduit financings, formed the County's first special tax district, and was instrumental in the County getting upgraded to AAA by Standard and Poor's.

Ms. Fay received her MBA from UCLA Anderson School of Business and a Bachelor of Arts degree in Economics from the University of Pennsylvania. *Certifications/Licenses: Series 50, Municipal Advisor Representative.*

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

REBUTTAL TESTIMONY OF

WILLIAM J. PICKERING

ON BEHALF OF
THE PITTSBURGH WATER AND SEWER AUTHORITY D/B/A PITTSBURGH WATER

Docket Nos.
R-2025-3055010 Water
R-2025-3055011 Wastewater
R-2025-3055012 Stormwater

TOPICS:
General Observations
Corrections/Revisions to Responses to Filing Requirements, As Filed Direct Testimony and Exhibits

September 30, 2025

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TABLE OF EXHIBITS

WJP-1(Rev)	Rate Case Tables (Revised)
WJP-2	Corrected Responses to Initially Filed Filing Requirements

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND CURRENT POSITION.

A. My name is William J. Pickering. My position with the Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water ("Pittsburgh Water") is Chief Executive Officer.

Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS PROCEEDING?

A. Yes. I submitted Direct Testimony on June 4, 2025 as Pittsburgh Water St. No. 1, which accompanied the rate filing package.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. Yes. I am sponsoring Pittsburgh Water Exhibit WJP-1 (Revised), which consists of Revised Rate Case Tables. I am also sponsoring Pittsburgh Water Exhibit WJP-2 which includes corrected responses to Pittsburgh Water's Filing Requirements which were filed on June 4, 2025.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to provide a high-level response to the other parties' direct testimony, present the updated rate case tables generated based on the Rebuttal Class Cost of Service Study ("Rebuttal CCOSS model) which are addressed by Pittsburgh Water Witness Harold Smith and based on supporting information discussed by Pittsburgh Water Witnesses Edward Barca and Christine Fay. I am also sponsoring a set of corrections made to our responses to the Filing Requirements as included in Volume I of our June 4, 2025 filed rate package on June 4, 2025. These corrections were made as a result of the discovery process and, to the extent needed, any changes to our initial proposals are incorporated in the Rebuttal CCOSS model.

Q. DOES YOUR LACK OF RESPONSE TO ANY PARTICULAR ISSUE RAISED BY THE OTHER PARTIES INDICATE PITTSBURGH WATER'S ACCEPTANCE OF THEIR POSITIONS?

A. No, my testimony is an overview of Pittsburgh Water's response to the direct testimony of the other parties. Our other witnesses are providing more detail and supporting evidence for our positions.

II. GENERAL OBSERVATIONS

Q. DO YOU HAVE ANY GENERAL OBSERVATIONS ABOUT THE OTHER PARTIES' DIRECT TESTIMONY?

A. Yes. When the various recommendations of the other parties are viewed together, there is a noticeable imbalance between the proposals, on one hand, to significantly reduce Pittsburgh Water's overall revenue requirements and our capital improvement program, and the proposals, on the other hand, to require Pittsburgh Water to enhance customer service, increase low-income customer assistance programs and implement quality of service improvements. Pittsburgh Water has made tremendous strides in recent years in each of these areas. Dating back to 2018 when Pittsburgh Water first came under the Commission's jurisdiction, we have been clear as to our focus on the future and the importance of modernizing our water, wastewater conveyance, and stormwater systems, not only to provide excellent service to our customers but also to achieve and remain in compliance with the many regulatory requirements imposed on the Pittsburgh Water.

As I explained in my direct testimony (Pittsburgh Water St. No. 1), Pittsburgh Water is continuing its once in a generation effort to replace its antiquated water, wastewater conveyance, and stormwater systems. Pittsburgh Water needs sufficient capital to finance these large capital expenditures and an operating budget sufficient to pay the costs for much needed upgrades and maintenance to these facilities. Additional

funds are needed to cover increased costs of these projects and to continue meeting financial and regulatory obligations. As a cash flow entity, the rate increase is also necessary for Pittsburgh Water to maintain or improve its bond rating, which keeps borrowing costs down. While the parties understandably want Pittsburgh Water to continue along the path of improving the system, they are inexplicably not willing to provide the necessary resources for Pittsburgh Water to get this done.

It is critical for Pittsburgh Water – and the Commission – to remain focused on the future and ensure that Pittsburgh Water has the funds that it needs to support the safe, reliable and adequate operation of its water, wastewater conveyance and stormwater systems. Pittsburgh Water's capital budget for Fiscal Year 2026, as approved by the Authority's Board, is $344,200,123. A review of the Capital Improvement Plan ("CIP") for 2025-2029 shows that these projects would not simply be "nice to have," but rather are critical to regulatory compliance, quality of service, operating efficiency, safety and reliability of Pittsburgh Water's operations. Of note, a criticism of the other parties regarding Pittsburgh Water's CIP is how our expenditures in recent years have fallen below budgeted amounts. Although Mr. Barca and King's Rebuttal Testimonies address this issue in detail, I note that Pittsburgh Water is in a bit of a "Catch-22" here. If the Commission does not authorize the proposed spending levels in this proceeding, Pittsburgh Water will not receive the funding that is necessary to complete its planned construction projects, continue quality operations and provide our low-income customer assistance programs. With less revenue, Pittsburgh Water will need to make difficult decisions about where to focus its available financial resources and open itself again to criticism in future cases that its expenditures did not match its budgeted amounts.

A major flaw in the other parties' recommendations is the failure to be forward-thinking. For example, the construction of necessary infrastructure projects requires extensive planning and spans, in some cases, many years. Therefore, arbitrarily proposing to significantly reduce Pittsburgh Water's capital budget ignores the realities of designing, bidding out and constructing these projects. Construction is not a process that can be looked at one year at a time and be intermittently stopped and started depending upon the availability of funds.

Another significant issue that the other parties overlook is the extent to which Pittsburgh Water's costs, particular for its CIP, are necessary due to regulatory commitments set forth in consent and administrative orders and agreements in matters initiated by regulators and government agencies like the Pennsylvania Department of Environmental Protection ("DEP") and Environmental Protection Agency ("EPA"). For example, costs associated with the Water Reliability Plan Consent Decree, water main replacement program and lead service line replacement program alone make up approximately 64% of Pittsburgh Water's capital requirements in FY 2026. As Mr. Barca explained in his direct testimony, a failure to comply with these requirements both increases risks to public health and could lead to fines or other disciplinary actions, which will also increase costs to Pittsburgh Water's ratepayers.

I also note that many of the recommendations in the areas of customer service, low-income customer assistance programs and quality of service are offered by the witnesses for other parties as measures that they would like to see implemented without presenting any evidence or even providing a description of an underlying problem that needs to be rectified. They also either completely discount the financial consequences of

their recommendations in terms of implementation and customer education costs or downplay the negative impact of increasing Pittsburgh Water's lost revenue. As a cash flow entity without shareholders, all of these additional factors negatively impact the ability of Pittsburgh Water to have sufficient funds available to operate. Pittsburgh Water Witnesses Rocky Craley and Julie Mechling more fully detail issues facing Pittsburgh Water in terms of balancing affordability and sufficient revenue flow.

Overall, if the Commission adopts the proposed reductions to revenue requirements and spending for capital projects that have been advanced by the parties, that means that Pittsburgh Water's efforts to complete necessary improvements to modernize the system and comply with various regulatory mandates could be delayed or halted. It could also result in non-compliance with the DEP Consent Decree due to delays of critical projects under the Water Reliability Plan, and any related penalties.

Q. HOW DO YOU RESPOND TO CUSTOMER CONCERNS ABOUT CONTINUING RATE INCREASES?

A. Pittsburgh Water appreciates the concerns raised by customers in public input testimony about the frequency of rate increases. Pittsburgh Water understands the impact that rate increases have on customers and any proposed rate increase is carefully considered before filing with the Commission. However, Pittsburgh Water is a municipal utility with no shareholders, and our rate increase requests only reflect the amounts necessary to fund our operating budget. Pittsburgh Water makes every effort to secure other funding sources to eliminate or reduce costs to its ratepayer. For example, Pittsburgh Water has been very successful in securing hundreds of millions of dollars in low-interest loans or grants from PENNVEST which significantly reduce costs to ratepayers. (See Pittsburgh Water St. No. 2 at 43.) But Pittsburgh Water also faces rising costs and the need to

complete once in a generation improvements to its systems after decades of deferred maintenance. It would be undeniably irresponsible for Pittsburgh Water to return to its previous infrastructure investment approach of "fix as it fails." This lack of long-term vision will only result in risks to public health, widespread service interruptions, and more costly emergency repairs of failing assets.

I would also note that Pittsburgh Water has detailed information about the proposed rate increase, capital projects, and more available on its website.[1] This provides significant transparency into the specifics of why Pittsburgh Water is requesting a rate increase and the projects that the rate increase is funding.

III. RESPONSES TO OTHER PARTIES' DIRECT TESTIMONY

A. Corrections and Revisions to Pittsburgh Water's Direct Testimony and Exhibits

Q. IS PITTSBURGH WATER MAKING ANY CORRECTIONS TO ITS DIRECT TESTIMONY?

A. Yes. Pittsburgh Water is making certain corrections to the following testimony. These corrections are further discussed in the rebuttal testimony of Mr. Barca and Ms. Fay:

- Direct Testimony of Edward Barca (Pittsburgh Water St. No. 2):

Page	Description
Page 48	line 13 should be changed to "26 days with the DCOH metric dropping to -103 days in FY 2027."
Page 48	line 13 - The chart should be changed to reflect 26 DCOH in FY 2026 and -103 DCOH in FY 2027
Page 60	The amount of total PENNVEST Surcharge revenue in FY 2026 should reflect $17.6 million (**not $14.3 million)** and $23.5 million in FY 2027 (**not $14.8 million**). The financial model and all exhibits are correct. This typo is singular only to Mr. Barca's testimony.

[1] Pittsburgh Water's website is available at https://www.pgh2o.com/. As an example, the "Our Water Future" page of Pittsburgh Water's website provides detailed information on capital projects, regulation by the Commission, the current rate filing materials, customer assistance programs, and bill impacts of the proposed rate increase. https://www.pgh2o.com/residential-commercial-customers/rates/our-water-future

- Direct Testimony of Christine Fay (Pittsburgh Water St. No. 7):

Reference	Description
Exh. CF-12	Moody's Rating Scorecard for Pittsburgh Water
Exh. CF-13	S&P Rating Scorecard for Pittsburgh Water
Page 15, line 15	Changed to "2025 levels to 26 days in FPFTY (FY 2026) and 103 days in FY 2027, as summarized in…"
Page 15, line 17	Chart updated to reflect 136 DCOH in FY 2024, 130 DCOH in FY 2025, 26 DCOH in FY 2026, and -103 DCOH in FY 2027.
Page 16, line 6	Chart updated to reflect 136 DCOH in FY 2024 and 130 DCOH in FY 2025.
Page 18, lines 1-4	Corrects scorecard ratings drop as included on Corrected Exh. CF-12 and CF-13.
Page 22, line 15	Changed to "cash on hand falls to 26 days in FPFTY (FY 2026) and to 103 days in FY 2027."
Page 26, line 2	The chart with a rate increase should reflect Days Cash on Hand of 136 DCOH in FY 2024 and 130 DCOH in FY 2025.
Page 26, line 2 2	The chart without a rate increase should reflect 136 DCOH in FY 2024, 130 DCOH in FY 2025, 26 DCOH in FY 2026, and -103 DCOH in FY 2027.
Page 30, lines 2-3	Add "multiple" and "possibly to below investment grade or speculative grade."

Q. WHY IS PITTSBURGH WATER MAKING THESE CORRECTIONS NOW?

A. Pittsburgh Water is submitting these corrections to its direct testimony now, rather than at the evidentiary hearing, in order to give the parties and the ALJs sufficient notice of these corrections. A number of these corrections were identified through the discovery process. Additionally, Pittsburgh Water may be relying on these corrections in its rebuttal testimony.

B. Corrections to Filing Requirements

Q. HAS PITTSBURGH WATER CORRECTED VARIOUS RESPONSES TO THE FILING REQUIREMENTS THAT WERE FILED ON JUNE 4, 2024?

A. Yes, I have included these corrected responses as Pittsburgh Water Exhibit WJP-2 and they are described below. Most of these corrected responses were filed with Pittsburgh Water's responses to TUS data requests (as noted).

Page	Description	Reference
Response to FR 53.52(b)(3)	Corrects two errors regarding calculated wholesale revenue that make up difference between the two total numbers (expected revenue was drawing from the incorrect year in another section of the cost of service model).	See TUS Water Set 1, Q. 5 (filed)
Response to FR II.10 Operating Revenues	Updates total of fire hydrants and locations served	See TUS Water Set 1, Q. 7 (filed)
Response to FR XI.6 Other Data	Updates fire hydrant information	See TUS Water Set 1, Q. 7 (filed)
Response to FR II.1 Summary of Operating Revenues	Adds Stormwater	TUS Set 2, No. 1 (filed)
Response to FR II.9 Historical Projected Billing Units	Adds Stormwater	TUS Set 2, No. 1 (filed)
Response to FR III.9	Data Entry error for 2023 Public Health and Safety Category increasing it by $8,102.25.	See OCA Set 9, Q. 24

C. Rebuttal Class Cost of Service Study Model and Revised Exhibits

Q. HAS PITTSBURGH WATER PREPARED A REBUTTAL CLASS COST OF SERVICE STUDY MODEL?

A. Yes. Pittsburgh Water is provided a rebuttal version of the Class Cost of Service Study Model ("Rebuttal CCOSS Model") which includes modifications resulting from issues identified during discovery and corrections to the direct testimony as discussed above. Pittsburgh Water Witness Harold Smith discusses the specific modifications and exhibits from our direct testimony that are being revised will be noted with the appropriate witness.

Q. DOES THE REBUTTAL CCOSS MODEL RESULT IN REVISIONS TO EXHIBIT WJP-1?

A. Yes. Included with this testimony is Exhibit WJP-1(Rev) which was updated to maintain consistency with the Rebuttal CCOSS Model. There were no structural or formatting changes to WJP-1. The only changes made to WJP-1 were to update the sheet's orange-highlighted input cells with the new results from the Rebuttal CCOSS Model for Revenue at Current Rates and Revenue at Proposed Rates for the FPFTY of FY 2026 and FY 2027. These include minor changes to revenues (including those from Base Rates, Wholesale, the PENNVEST Surcharge, and DSIC), revenue requirements (including O&M, Debt Service, DSIC Capital, Debt Coverage Capital, and Reserve Contributions), miscellaneous revenues, and the expected beginning fund balance. The overall changes are small, as total revenue and rev

IV. CONCLUSION

Q. DO YOU HAVE ANY CONCLUDING REMARKS?

A. As I stressed in my direct testimony, Pittsburgh Water has made the most of the prior rate relief approved by the Commission. The combination of Pittsburgh Water's commitments to excellence, and the steady revenue stream afforded by the Commission's approvals, have placed Pittsburgh Water on a trajectory toward becoming "best in class" in terms of providing excellent customer service, implementing a robust construction program, replacing lead service lines throughout Pittsburgh and continuing to excel in all areas of its operations. Pittsburgh Water has completed a number of construction projects designed to provide more reliable service to customers, meet stricter water quality standards, reduce unaccounted for water and improve water quality and stormwater management. While Pittsburgh Water has made significant achievements, we need to

continue these efforts so that we are a utility of the future that delivers the highest possible quality of services to our customers. It is absolutely essential that Pittsburgh Water be afforded the rate relief necessary to update its antiquated water, wastewater conveyance and stormwater systems in order to provide safe and adequate service to customers, meet applicable regulatory requirements, and ensure high quality service to the Pittsburgh regions for decades to come.

Q. DOES THAT COMPLETE YOUR REBUTTAL TESTIMONY?

A. Yes; however, I do reserve the right to supplement this testimony as may be appropriate.

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VERIFICATION

I, William J. Pickering, hereby state that: (1) I am the Chief Executive Officer for The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water; (2) the facts set forth in my testimony are true and correct (or are true and correct to the best of my knowledge, information and belief); and, (3) I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: 9/30/25

DocuSigned by:
William J. Pickering
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William J. Pickering
Chief Executive Officer
The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water

Exhibit WJP-1 (Rev)

TABLE I
Pittsburgh Water and Sewer Authority
FPFTY 2026-2027 INCOME SUMMARY
Docket Nos.:R-2025-3055010; R-2025-3055011; R-2025-3055012

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
	FPFTY 2026					2027 Rate Year			
	PWSA	PWSA	PWSA	ALJ / Parties	ALJ / Parties	PWSA	PWSA	ALJ / Parties	ALJ / Parties
	Revenue at Current Rates	Rate Increase to Meet Revenue Requirements	Revenue At Proposed Rates	Adjustments	Revenue At Adjusted Rates	Rate Increase to Meet Revenue Requirements	Revenue At Proposed Rates	Adjustments	Revenue At Adjusted Rates
INCOME SUMMARY	$	$	$	$	$	$	$	$	$
Beginning Unrestricted Cash	**84,061,488**		**84,061,488**	**0**	**84,061,488**		**84,128,083**	**0**	**84,128,083**
Revenues:									
User Charge Revenues	235,876,667	37,040,607	272,917,274	0	272,917,274	13,415,163	286,332,436	0	286,332,436
Pennvest Surcharge	0	17,579,103	17,579,103	0	17,579,103	5,937,798	23,516,901	0	23,516,901
DSIC Revenues	10,135,778	8,758,401	18,894,178	0	18,894,178	1,373,754	20,267,932	(0)	20,267,932
Other Misc. Revenues	4,327,687	0	4,327,687	0	4,327,687	92,275	4,419,962	0	4,419,962
Subtotal: Total Revenues	250,340,131		313,718,242		313,718,242		334,537,232		334,537,232
Less: Uncollectible Revenues	(4,823,236)	(1,374,424)	(6,197,660)	0	(6,197,660)	0	(6,197,660)	0	(6,197,660)
Less: Stormwater Credit Program Cost	(288,016)	0	(288,016)	0	(288,016)	0	(288,016)	0	(288,016)
Total Revenues Net of Uncollectible	245,228,879	62,003,687	307,232,567	0	307,232,567	20,818,990	328,051,557	(0)	328,051,557
Revenue Requirements:									
O & M Expense	152,096,214		152,096,214	0	152,096,214	0	152,096,214	0	152,096,214
Senior Lien Debt Service (2)	84,368,436		84,368,436	0	84,368,436	10,343,489	94,711,925	0	94,711,925
All Other Debt Service (2)	26,098,253		26,098,253	0	26,098,253	6,432,798	32,531,051	0	32,531,051
Debt Coverage Capital (5)	21,092,109		21,092,109	0	21,092,109	2,585,872	23,677,981	0	23,677,981
Cash-Financed Capital (DSIC)	18,898,544		18,898,544	0	18,898,544	1,372,590	20,271,134	(0)	20,271,134
Restricted Reserve Contributions	3,670,000		3,670,000	0	3,670,000	0	3,670,000	0	3,670,000
Operating Reserve Contribution	0		0	0	0	0	0	0	0
Other Expenses (3)									
Water and Wastewater Leak Credit	662,322		662,322	0	662,322	0	662,322	0	662,322
Arrearage Funding	280,094		280,094	0	280,094	0	280,094	0	280,094
Total Revenue Requirements	307,165,972		307,165,972	0	307,165,972	20,734,749	327,900,722	(0)	327,900,722
Revenue Surplus / (Deficit)	**(61,937,093)**		**66,594**	**0**	**66,594**		**150,835**		**150,835**
Fund Balance Transactions from Surplus									
Contributions (to)/from Operations	0		66,594	0	66,594		150,835	0	150,835
Contributions (to)/from Rate Stabilization Fund	0		0	0	0		0	0	0
Contributions (to)/from Operating Reserve	0		0	0	0		0	0	0
Ending Unrestricted Cash Balance	**22,124,395**		**84,128,083**		**84,128,083**		**84,278,918**		**84,278,918**
KEY FINANCIAL METRICS									
			PWSA Filing		PWSA Filing		PWSA Filing		ALJ Adjusted
Debt Service Coverage									
Senior (1.25 Requirement)	**1.12**		**1.86**		**1.86**		**1.87**		**1.87**
Total (1.10 Requirement)	**0.86**		**1.42**		**1.42**		**1.39**		**1.39**
Days Cash on Hand (4)	**53.9**		**205.1**		**205.1**		**205.5**		**205.5**
Days Cash on Hand with ALCOSAN (4)	**31.19**		**118.6**		**118.6**		**116.4**		**116.4**

(1) Company Main Brief
(2) Includes Principal and Interest payments on existing and proposed debt.
(3) Several programs funded, including assistance with sewer laterals and components of the customer assistance program.
(4) Calculated using Operating & Maintenance Expenses (excludes non-operating expenses).

TABLE I(A)
Pittsburgh Water and Sewer Authority
FPFTY 2026-2027 KEY RATIOS
Docket Nos.:R-2025-3055010; R-2025-3055011; R-2025-3055012

	(A)	(B)	(C)	(D)	(E)
	FPFTY 2026			2027 Rate Year	
	PWSA	PWSA	ALJ	PWSA	PWSA
Key Ratio Breakdown	Revenue at Current Rates $	Revenue At Proposed Rates $	Revenue At Adjusted Rates $	Revenue At Proposed Rates $	Revenue At Adjusted Rates $
Debt Service Coverage					
Operating Revenues	250,340,131	313,718,242	313,718,242	334,537,232	334,537,232
Less:					
Bad Debt Expenses	(5,111,252)	(6,485,675)	(6,485,675)	(6,485,675)	(6,485,675)
Net Collected Revenues	245,228,879	307,232,567	307,232,567	328,051,557	328,051,557
Less:					
Current Expenses	(152,096,214)	(152,096,214)	(152,096,214)	(152,096,214)	(152,096,214)
Adjustments:					
City Services	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000
Other Transfers to Reserves	(3,670,000)	(3,670,000)	(3,670,000)	(3,670,000)	(3,670,000)
Water and Wastewater Leak Credit	(662,322)	(662,322)	(662,322)	(662,322)	(662,322)
Arrearage Funding	(280,094)	(280,094)	(280,094)	(280,094)	(280,094)
Revenues Available for Debt Service	94,520,249	156,523,937	156,523,937	177,342,927	177,342,927
Senior Lien Debt Service	84,368,436	84,368,436	84,368,436	94,711,925	94,711,925
All Other Debt Service	26,098,253	26,098,253	26,098,253	32,531,051	32,531,051
Total Debt Service	110,466,689	110,466,689	110,466,689	127,242,976	127,242,976
Senior Lien Debt Service Coverage	**1.12**	**1.86**	**1.86**	**1.87**	**1.87**
Total Debt Service Coverage	**0.86**	**1.42**	**1.42**	**1.39**	**1.39**
Days Cash on Hand					
Ending Cash Balance	22,124,395	84,128,083	84,128,083	84,278,918	84,278,918
Operating Expenses	152,096,214	152,096,214	152,096,214	152,096,214	152,096,214
Adjustments:					
(Loss) / Gain on ALCOSAN Billings	(2,383,047)	(2,383,047)	(2,383,047)	(2,383,047)	(2,383,047)
Add: Adjustments to ALCOSAN Placeholder	0	0	0	0	0
Net Operating Expenses	149,713,166	149,713,166	149,713,166	149,713,166	149,713,166
Days Cash on Hand (x 365)	**54**	**205**	**205**	**205**	**205**
Including ALCOSAN					
Add: ALCOSAN Charges	109,172,088	109,172,088	109,172,088	114,630,692	114,630,692
Days Cash on Hand (x 365)	**31**	**119**	**119**	**116**	**116**

(1) Company Main Brief
(2) Revenue adjusted to meet to Revenue Requirements.

TABLE II
Pittsburgh Water and Sewer Authority
RATE FILING REVENUE DETAIL
Docket Nos.:R-2025-3055010; R-2025-3055011; R-2025-3055012

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
	FPFTY 2026					2027 Rate Year			
	PWSA	PWSA	PWSA	ALJ / Parties	ALJ / Parties	PWSA	PWSA	ALJ / Parties	ALJ / Parties
Description	Revenue at Current Rates	Rate Increase to Meet Revenue Requirements	Revenue At Proposed Rates	Adjustments	Revenue At Adjusted Rates	Rate Increase to Meet Revenue Requirements	Revenue At Proposed Rates	Adjustments	Revenue At Adjusted Rates
	$	$	$	$	$	$	$	$	$
Retail User Charge Revenues									
Water	146,412,253	21,978,416	168,390,670	0	168,390,670	6,990,209	175,380,879	0	175,380,879
Water - Public Hydrants	1,875,259	782,189	2,657,448	0	2,657,448	190,336	2,847,783	0	2,847,783
Wholesale/Contract Revenues	1,048,333	109,671	1,158,004	0	1,158,004	57,327	1,215,331	0	1,215,331
Converted Wholesale Customer	3,802,209	775,339	4,577,548	0	4,577,548	1,983,235	6,560,783	0	6,560,783
Sewer	54,402,195	6,972,861	61,375,056	0	61,375,056	3,405,481	64,780,537	0	64,780,537
Stormwater	25,041,365	5,675,340	30,716,706	0	30,716,706	696,863	31,413,569	0	31,413,569
Stormwater Only	3,295,052	746,791	4,041,844	0	4,041,844	91,711	4,133,555	0	4,133,555
Subtotal: Retail User Charge Revenues	235,876,667	37,040,607	272,917,274	0	272,917,274	13,415,163	286,332,436	0	286,332,436
Pennvest Surcharge									
Water	0	12,305,372	12,305,372	0	12,305,372	4,156,458	16,461,831	0	16,461,831
Sewer	0	5,273,731	5,273,731	0	5,273,731	1,781,339	7,055,070	0	7,055,070
Stormwater	0	0	0	0	0	0	0	0	0
Subtotal: Pennvest Surcharge	0	17,579,103	17,579,103	0	17,579,103	5,937,798	23,516,901	0	23,516,901
DSIC Revenues	PWSA		PWSA		ALJ		PWSA		ALJ
Water	5.0%		7.5%		7.5%		7.5%		7.5%
Sewer	5.0%		7.5%		7.5%		7.5%		7.5%
Stormwater (NSWO)	0.0%		0.0%		0.0%		0.0%		0.0%
Stormwater Only	0.0%		0.0%		0.0%		0.0%		0.0%
Water	7,415,668	6,479,851	13,895,519	0	13,895,519	984,743	14,880,262	0	14,880,262
Sewer	2,720,110	2,278,549	4,998,659	0	4,998,659	389,012	5,387,671	(0)	5,387,671
Stormwater (NSWO)	0	0	0	0	0	0	0	0	0
Stormwater Only	0	0	0	0	0	0	0	0	0
Subtotal: DSIC Revenues	10,135,778	8,758,401	18,894,178	0	18,894,178	1,373,754	20,267,932	(0)	20,267,932
Other System Revenues									
Other Operating & Non-Operating Revenues	4,327,687	0	4,327,687	0	4,327,687	92,275	4,419,962	0	4,419,962
Subtotal: Other System Revenues	4,327,687	0	4,327,687	0	4,327,687	92,275	4,419,962	0	4,419,962
Subtotal: Total Revenues before Uncollectible	250,340,131		313,718,242		313,718,242		334,537,232		334,537,232
Less: Uncollectible Revenues	(4,139,104)	(1,179,474)	(5,318,578)	0	(5,318,578)	0	(5,318,578)	0	(5,318,578)
Less: Uncollectible Revenues (SW Only)	(684,132)	(194,949)	(879,081)	0	(879,081)	0	(879,081)	0	(879,081)
Less: Stormwater Credit Program	(288,016)	0	(288,016)	0	(288,016)	0	(288,016)	0	(288,016)
Subtotal: Less: Uncollectible Revenues	(5,111,252)	(1,374,424)	(6,485,675)	0	(6,485,675)	0	(6,485,675)	0	(6,485,675)
Total Revenues Net of Uncollectible	245,228,879	62,003,687	307,232,567	0	307,232,567	20,818,990	328,051,557	(0)	328,051,557
Summary									
Revenue from Base Rates			37,040,607		37,040,607		13,415,163		13,415,163
Revenue from New Reconcilable Charges			17,579,103		17,579,103		5,937,798		5,937,798
Revenue from DSIC			8,758,401		8,758,401		1,373,754		1,373,754
Revenue from Other System Revenues			0		0		92,275		92,275
Total Revenue Increase before Uncollectible			63,378,111		63,378,111		20,818,990		20,818,990
Change in Uncollectible Revenues			(1,374,424)		(1,374,424)		0		0
Total Revenue Increase with Uncollectible			62,003,687		62,003,687		20,818,990		20,818,990

(1) Company Main Brief

PITTSBURGH WATER
EXHIBIT WJP-2

Corrected Responses to Initially Filed Filing Requirements

Page	Description	Reference
Response to FR 53.52(b)(3)	Corrects two errors regarding calculated wholesale revenue that make up difference between the two total numbers (expected revenue was drawing from the incorrect year in another section of the cost of service model).	See TUS Water Set 1, Q. 5 (filed)
Response to FR II.10 Operating Revenues	Updates total of fire hydrants and locations served	See TUS Water Set 1, Q. 7 (filed)
Response to FR XI.6 Other Data	Updates fire hydrant information	See TUS Water Set 1, Q. 7 (filed)
Response to FR II.1 Summary of Operating Revenues	Adds Stormwater	TUS Set 2, No. 1 (filed)
Response to FR II.9 Historical Projected Billing Units	Adds Stormwater	TUS Set 2, No. 1 (filed)
Response to FR III.9	Data Entry error for 2023 Public Health and Safety Category increasing it by $8,102.25.	See OCA Set 9, Q. 24

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Water Revenue Proof

	2026 Revenue @ Existing Rates			2026 Revenue @ COS Rates			2026 Revenue @ Proposed Rates		
	Units	Rates	Revenue	Units	Rates	Revenue	Units	Rates	Revenue
Base Rate Revenues									
Minimum Charges									
Residential									
5/8"	715,644	$ 31.54	$ 22,571,412	715,644	$ 28.84	$ 20,637,213	715,644	$ 34.34	$ 24,575,215
3/4"	30,876	55.26	1,706,208	30,876	50.39	1,555,957	30,876	58.65	1,810,877
1"	29,376	121.38	3,565,659	29,376	110.69	3,251,675	29,376	124.45	3,655,843
1 1/2"	732	240.01	175,687	732	218.47	159,923	732	246.00	180,072
2"	156	401.04	62,562	156	365.00	56,940	156	409.03	63,809
Unmetered	3,996	80.68	322,397	3,996	28.84	115,234	3,996	92.60	370,030
Subtotal: Residential	780,780		$ 28,403,925	780,780		$ 25,776,941	780,780		$ 30,655,846
Residential - CAP and CAP - 50FPL									
5/8"	58,896	$ -	$ -	58,896	$ 28.84	$ 1,698,399	58,896	$ -	$ -
3/4"	636	-	-	636	50.39	32,050	636	-	-
1"	408	-	-	408	110.69	45,162	408	-	-
Unmetered	12	49.14	590	12	28.84	346	12	58.26	699
Subtotal: Residential - CAP and CAP - 5	59,952		$ 590	59,952		$ 1,775,958	59,952		$ 699
Commercial									
5/8"	33,960	$ 31.54	$ 1,071,098	33,960	$ 28.84	$ 979,313	33,960	$ 34.34	$ 1,166,186
3/4"	8,484	55.26	468,826	8,484	50.39	427,540	8,484	58.65	497,587
1"	17,532	121.38	2,128,034	17,532	110.69	1,940,644	17,532	124.45	2,181,857
1 1/2"	9,960	240.01	2,390,500	9,960	218.47	2,176,000	9,960	246.00	2,450,160
2"	9,840	401.04	3,946,234	9,840	365.00	3,591,577	9,840	409.03	4,024,855
3"	3,120	911.28	2,843,194	3,120	830.20	2,590,209	3,120	918.26	2,864,971
4"	2,412	1,562.27	3,768,195	2,412	1,424.43	3,435,725	2,412	1,562.04	3,767,640
6"	1,056	3,774.85	3,986,242	1,056	3,447.42	3,640,476	1,056	3,722.63	3,931,097
8"	108	6,877.76	742,798	108	6,287.44	679,044	108	6,727.79	726,601
10" & Above	-	11,393.44	-	-	10,425.68	-	-	11,058.67	-
Unmetered	12	97.86	1,174	12	28.84	346	12	116.26	1,395
Subtotal: Commercial	86,484		$ 21,346,294	86,484		$ 19,460,875	86,484		$ 21,612,351
Industrial									
5/8"	72	$ 31.54	$ 2,271	72	$ 28.84	$ 2,076	72	$ 34.34	$ 2,472
3/4"	12	55.26	663	12	50.39	605	12	58.65	704
1"	72	121.38	8,739	72	110.69	7,970	72	124.45	8,960
1 1/2"	-	240.01	-	-	218.47	-	-	246.00	-
2"	60	401.04	24,062	60	365.00	21,900	60	409.03	24,542
3"	36	911.28	32,806	36	830.20	29,887	36	918.26	33,057
4"	72	1,562.27	112,483	72	1,424.43	102,559	72	1,562.04	112,467
6"	24	3,774.85	90,596	24	3,447.42	82,738	24	3,722.63	89,343
8"	24	6,877.76	165,066	24	6,287.44	150,899	24	6,727.79	161,467
10" & Above	24	11,393.44	273,443	24	10,425.68	250,216	24	11,058.67	265,408
Subtotal: Industrial	396		$ 710,130	396		$ 648,850	396		$ 698,421
Health or Education									
5/8"	336	$ 31.54	$ 10,597	336	$ 28.84	$ 9,689	336	$ 34.34	$ 11,538
3/4"	84	55.26	4,642	84	50.39	4,233	84	58.65	4,927
1"	228	121.38	27,675	228	110.69	25,238	228	124.45	28,375
1 1/2"	744	240.01	178,567	744	218.47	162,545	744	246.00	183,024
2"	1,560	401.04	625,622	1,560	365.00	569,396	1,560	409.03	638,087
3"	1,068	911.28	973,247	1,068	830.20	886,648	1,068	918.26	980,702
4"	792	1,562.27	1,237,318	792	1,424.43	1,128,148	792	1,562.04	1,237,136
6"	408	3,774.85	1,540,139	408	3,447.42	1,406,547	408	3,722.63	1,518,833
8"	36	6,877.76	247,599	36	6,287.44	226,348	36	6,727.79	242,200
10" & Above	24	11,393.44	273,443	24	10,425.68	250,216	24	11,058.67	265,408
Subtotal: Health or Education	5,280		$ 5,118,849	5,280		$ 4,669,010	5,280		$ 5,110,229
Municipal - Residential									
5/8"	1,728	$ 31.54	$ 54,501	1,728	$ 28.84	$ 49,831	1,728	$ 34.34	$ 59,340
3/4"	24	55.26	1,326	24	50.39	1,209	24	58.65	1,408
1"	-	121.38	-	-	110.69	-	-	124.45	-
1 1/2"	-	240.01	-	-	218.47	-	-	246.00	-
Subtotal: Municipal - Residential	1,752		$ 55,827	1,752		$ 51,040	1,752		$ 60,747
Municipal - Commercial									
5/8"	372	$ 31.54	$ 11,733	372	$ 28.84	$ 10,727	372	$ 34.34	$ 12,774
3/4"	36	55.26	1,989	36	50.39	1,814	36	58.65	2,111
1"	240	121.38	29,131	240	110.69	26,566	240	124.45	29,868
1 1/2"	168	240.01	40,322	168	218.47	36,704	168	246.00	41,328
2"	264	401.04	105,875	264	365.00	96,359	264	409.03	107,984
3"	60	911.28	54,677	60	830.20	49,812	60	918.26	55,096
4"	12	1,562.27	18,747	12	1,424.43	17,093	12	1,562.04	18,744
6"	24	3,774.85	90,596	24	3,447.42	82,738	24	3,722.63	89,343
8"	-	6,877.76	-	-	6,287.44	-	-	6,727.79	-
10" & Above	-	11,393.44	-	-	10,425.68	-	-	11,058.67	-
Subtotal: Municipal - Commercial	1,176		$ 353,070	1,176		$ 321,814	1,176		$ 357,249
Subtotal: Minimum Charges	935,820		$ 55,988,687	935,820		$ 52,704,486	935,820		$ 58,495,542

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Water Revenue Proof

	2026 Revenue @ Existing Rates			2026 Revenue @ COS Rates			2026 Revenue @ Proposed Rates		
	Units	Rates	Revenue	Units	Rates	Revenue	Units	Rates	Revenue
Fire Protection Charges									
Public (per Hydrant)	90,636	$ 20.69	$ 1,875,259	90,636	$ 117.36	$ 10,636,627	90,636	$ 29.34	$ 2,659,260
Private									
1" or Less	16,596	$ 31.39	$ 520,948	16,596	$ 25.82	$ 428,536	16,596	$ 41.31	$ 685,581
1 1/2"-3"	288	97.60	28,109	288	79.38	22,862	288	127.01	36,579
4"	36	314.87	11,335	36	261.89	9,428	36	419.03	15,085
6" or Greater	204	654.54	133,526	204	557.43	113,715	204	891.88	181,944
Subtotal: Fire Protection Charges			$ 2,569,178			$ 11,211,168			$ 3,578,448
Pennvest Volume Charge									
Residential	1,691,339	$ -	$ -	1,691,339	$ -	$ -	1,691,339	$ 2.13	$ 3,599,437
Residential - CAP	89,556	-	-	89,556	-	-	89,556	1.06	95,295
Residential - CAP - 50FPL	31,670	-	-	31,670	-	-	31,670	1.06	33,699
Commercial	2,239,593	-	-	2,239,593	-	-	2,239,593	2.13	4,766,207
Industrial	170,445	-	-	170,445	-	-	170,445	2.13	362,733
Health or Education	888,132	-	-	888,132	-	-	888,132	2.13	1,890,086
Private Fire System	7,364	-	-	7,364	-	-	7,364	2.13	15,671
Municipal - Residential	562	-	-	562	-	-	562	2.13	1,197
Municipal - Commercial	109,356	-	-	109,356	-	-	109,356	2.13	232,727
Wholesale - Fox Chapel	614,766	-	-	614,766	-	-	614,766	2.13	1,308,319
Subtotal: Pennvest Volume Charge	5,842,783		$ -	5,842,783		$ -	5,842,783		$ 12,305,372
Volume Charge									
Residential	1,691,339	$ 16.38	$ 27,704,132	1,691,339	$ 20.30	$ 34,334,181	1,691,339	$ 19.42	$ 32,845,803
Residential - CAP	89,556	16.38	1,466,931	89,556	23.35	2,091,139	89,556	19.42	1,739,182
Residential - CAP - 50FPL	31,670	6.55	207,501	31,670	21.16	670,135	31,670	7.77	246,012
Commercial	2,239,593	16.58	37,132,444	2,239,593	21.16	47,389,778	2,239,593	20.48	45,866,855
Industrial	170,445	16.50	2,812,337	170,445	24.14	4,114,534	170,445	22.37	3,812,847
Health or Education	888,132	20.70	18,384,339	888,132	22.37	19,867,520	888,132	24.85	22,070,088
Private Fire System	7,364	27.11	199,629	7,364	35.79	263,546	7,364	33.51	246,756
Municipal - Residential	562	16.38	9,211	562	(31.67)	(17,809)	562	19.42	10,921
Municipal - Commercial	109,356	16.58	1,813,122	109,356	21.76	2,379,587	109,356	20.48	2,239,611
Subtotal: Volume Charge	5,228,017		$ 89,729,648	5,228,017		$ 111,092,610	5,228,017		$ 109,078,076
Wholesale									
Fox Chapel	614,766	$ 7.78	$ 3,510,055	614,766	$ 14.10	$ 8,668,201	614,766	$ 7.45	$ 4,577,548
All Others (Set by Contract)	158,390		1,016,048	158,390	14.10	2,233,299	158,390		1,119,482
Subtotal: Wholesale	773,156		$ 6,548,065	773,156		$ 10,901,500	773,156		$ 5,697,030
Total: Base Rate Revenues			$ 152,813,615			$ 185,909,764			$ 189,154,468
DSIC Revenues									
Residential		5.0%	$ 2,805,403			$ 4,508,334			$ 5,032,581
Residential - CAP		5.0%	83,751			290,032			158,617
Commercial		5.0%	2,923,937			5,013,799			5,418,406
Industrial		5.0%	176,123			357,254			365,550
Health or Education		5.0%	1,175,159			1,840,240			2,180,280
Private Fire System		5.0%	44,677			62,856			88,621
Municipal - Residential		5.0%	3,252			3,220			5,465
Municipal - Commercial		5.0%	108,310			205,263			212,219
Public Fire		5.0%	-			-			-
Wholesale (Fox Chapel)		5.0%	175,503			-			441,440
Total: DSIC Revenues			$ 7,496,115			$ 12,280,998			$ 13,903,179
Other Revenues									
Other Revenues			2,212,168			2,212,168			2,212,168
Total: System Revenues			**$ 162,521,898**			**$ 200,402,930**			**$ 205,269,815**
FPFTY Water System Revenue Requirements						**$ 205,238,073**			**$ 205,238,073**
Difference (1)						**$ (4,835,143)**			**$ 31,742**

(1) Note difference in COS rates is due to bad debt and different DSIC revenue recovery on COS rates.

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Sewer Revenue Proof

	2026 Revenue @ Existing Rates			2026 Revenue @ COS Rates			2026 Revenue @ Proposed Rates		
	Units	Rates	Revenue	Units	Rates	Revenue	Units	Rates	Revenue
Base Rate Revenues									
Minimum Charges									
Residential									
5/8"	1,000,620	$ 8.25	$ 8,255,115	1,000,620	$ 8.37	$ 8,379,131	1,000,620	$ 8.37	$ 8,375,189
3/4"	31,296	13.19	412,794	31,296	13.55	424,086	31,296	13.55	424,061
1"	29,640	27.35	810,654	29,640	28.60	847,806	29,640	28.60	847,704
1 1/2"	732	52.06	38,108	732	54.49	39,885	732	54.49	39,887
2"	168	85.98	14,445	168	90.25	15,162	168	90.25	15,162
Unmetered	3,996	28.29	113,047	3,996	8.37	33,462	3,996	31.44	125,634
Subtotal: Residential	1,066,452		$ 9,644,163	1,066,452		$ 9,739,532	1,066,452		$ 9,827,637
Residential - CAP and CAP - 50FPL									
5/8"	85,488	$ -	$ -	85,488	$ 8.37	$ 715,871	85,488	$ -	$ -
3/4"	636	-	-	636	13.55	8,618	636	-	-
1"	432	-	-	432	28.60	12,357	432	-	-
Unmetered	12	20.04	240	12	-	-	12	23.07	277
Subtotal: Residential - CAP and CAP - 5	86,568		$ 240	86,568		$ 736,846	86,568		$ 277
Commercial									
5/8"	47,712	$ 8.25	$ 393,624	47,712	$ 8.37	$ 399,537	47,712	$ 8.37	$ 399,349
3/4"	9,900	13.19	130,581	9,900	13.55	134,153	9,900	13.55	134,145
1"	20,664	27.35	565,160	20,664	28.60	591,062	20,664	28.60	590,990
1 1/2"	10,332	52.06	537,884	10,332	54.49	562,967	10,332	54.49	562,991
2"	10,776	85.98	926,520	10,776	90.25	972,511	10,776	90.25	972,534
3"	3,120	195.00	608,400	3,120	205.97	642,627	3,120	205.97	642,626
4"	2,424	335.31	812,791	2,424	355.54	861,831	2,424	355.54	861,829
6"	1,236	817.77	1,010,764	1,236	872.82	1,078,812	1,236	872.82	1,078,806
8"	108	1,499.45	161,941	108	1,606.34	173,485	108	1,606.34	173,485
10" & Above	-	2,500.18	-	-	2,687.66	-	-	2,687.66	-
Unmetered	12	32.01	384	12	8.37	100	12	36.49	438
Subtotal: Commercial	106,284		$ 5,148,050	106,284		$ 5,417,085	106,284		$ 5,417,193
Industrial									
5/8"	72	$ 8.25	$ 594	72	$ 8.37	$ 603	72	$ 8.37	$ 603
3/4"	12	13.19	158	12	13.55	163	12	13.55	163
1"	72	27.35	1,969	72	28.60	2,059	72	28.60	2,059
1 1/2"	-	52.06	-	-	54.49	-	-	54.49	-
2"	84	85.98	7,222	84	90.25	7,581	84	90.25	7,581
3"	36	195.00	7,020	36	205.97	7,415	36	205.97	7,415
4"	84	335.31	28,166	84	355.54	29,865	84	355.54	29,865
6"	24	817.77	19,626	24	872.82	20,948	24	872.82	20,948
8"	24	1,499.45	35,987	24	1,606.34	38,552	24	1,606.34	38,552
10" & Above	24	2,500.18	60,004	24	2,687.66	64,504	24	2,687.66	64,504
Subtotal: Industrial	432		$ 160,747	432		$ 171,690	432		$ 171,689
Health or Education									
5/8"	336	$ 8.25	$ 2,772	336	$ 8.37	$ 2,814	336	$ 8.37	$ 2,812
3/4"	84	13.19	1,108	84	13.55	1,138	84	13.55	1,138
1"	228	27.35	6,236	228	28.60	6,522	228	28.60	6,521
1 1/2"	744	52.06	38,733	744	54.49	40,539	744	54.49	40,541
2"	1,560	85.98	134,129	1,560	90.25	140,787	1,560	90.25	140,790
3"	1,068	195.00	208,260	1,068	205.97	219,976	1,068	205.97	219,976
4"	792	335.31	265,566	792	355.54	281,588	792	355.54	281,588
6"	408	817.77	333,650	408	872.82	356,113	408	872.82	356,111
8"	36	1,499.45	53,980	36	1,606.34	57,828	36	1,606.34	57,828
10" & Above	24	2,500.18	60,004	24	2,687.66	64,504	24	2,687.66	64,504
Subtotal: Health or Education	5,280		$ 1,104,437	5,280		$ 1,171,808	5,280		$ 1,171,808
Municipal - Residential									
5/8"	1,728	$ 8.25	$ 14,256	1,728	$ 8.37	$ 14,470	1,728	$ 8.37	$ 14,463
3/4"	24	13.19	317	24	13.55	325	24	13.55	325
1"	-	27.35	-	-	28.60	-	-	28.60	-
1 1/2"	-	52.06	-	-	54.49	-	-	54.49	-
2"	-	85.98	-	-	90.25	-	-	90.25	-
3"	-	195.00	-	-	205.97	-	-	205.97	-
4"	-	335.31	-	-	355.54	-	-	355.54	-
6"	-	817.77	-	-	872.82	-	-	872.82	-
8"	-	1,499.45	-	-	1,606.34	-	-	1,606.34	-
10" & Above	-	2,500.18	-	-	2,687.66	-	-	2,687.66	-
Subtotal: Municipal - Residential	1,752		$ 14,573	1,752		$ 14,795	1,752		$ 14,789
Municipal - Commercial									
5/8"	372	$ 8.25	$ 3,069	372	$ 8.37	$ 3,115	372	$ 8.37	$ 3,114
3/4"	36	13.19	475	36	13.55	488	36	13.55	488
1"	240	27.35	6,564	240	28.60	6,865	240	28.60	6,864
1 1/2"	168	52.06	8,746	168	54.49	9,154	168	54.49	9,154
2"	264	85.98	22,699	264	90.25	23,825	264	90.25	23,826
3"	60	195.00	11,700	60	205.97	12,358	60	205.97	12,358
4"	12	335.31	4,024	12	355.54	4,266	12	355.54	4,266
6"	24	817.77	19,626	24	872.82	20,948	24	872.82	20,948
8"	-	1,499.45	-	-	1,606.34	-	-	1,606.34	-
10" & Above	-	2,500.18	-	-	2,687.66	-	-	2,687.66	-
Subtotal: Municipal - Commercial	1,176		$ 76,903	1,176		$ 81,020	1,176		$ 81,018
Subtotal: Minimum Charges	1,267,944		$ 16,149,113	1,267,944		$ 17,332,776	1,267,944		$ 16,684,411

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Sewer Revenue Proof

	2026 Revenue @ Existing Rates			2026 Revenue @ COS Rates			2026 Revenue @ Proposed Rates		
	Units	**Rates**	**Revenue**	**Units**	**Rates**	**Revenue**	**Units**	**Rates**	**Revenue**
Pennvest Volume Charge									
Residential	2,174,044	$ -	$ -	2,174,044	$ -	$ -	2,174,044	$ 0.88	$ 1,922,488
Residential - CAP	130,947	-	-	130,947	-	-	130,947	0.44	57,898
Residential - CAP - 50FPL	44,633	-	-	44,633	-	-	44,633	0.44	19,734
Commercial	2,526,258	-	-	2,526,258	-	-	2,526,258	0.88	2,233,949
Industrial	177,423	-	-	177,423	-	-	177,423	0.88	156,894
Health or Education	888,611	-	-	888,611	-	-	888,611	0.88	785,791
Municipal - Residential	620	-	-	620	-	-	620	0.88	549
Municipal - Commercial	109,046	-	-	109,046	-	-	109,046	0.88	96,428
Subtotal: Pennvest Volume Charge	6,051,583		$ -	6,051,583		$ -	6,051,583		$ 5,273,731
Volume Charge									
Residential	2,174,044	$ 6.68	$ 14,522,613	2,174,044	$ 7.26	$ 15,783,558	2,174,044	$ 7.69	$ 16,718,397
Residential - CAP	130,947	6.68	874,726	130,947	7.99	1,046,267	130,947	7.69	1,006,983
Residential - CAP - 50FPL	44,633	2.67	119,260	44,633	6.75	301,275	44,633	3.08	137,292
Commercial	2,526,258	5.94	15,005,974	2,526,258	6.75	17,052,243	2,526,258	7.03	17,759,596
Industrial	177,423	6.09	1,080,506	177,423	6.31	1,119,539	177,423	7.05	1,250,832
Health or Education	888,611	6.75	5,998,124	888,611	6.77	6,015,896	888,611	7.88	7,002,255
Municipal - Residential	620	6.68	4,145	620	(5.98)	(3,710)	620	7.69	4,771
Municipal - Commercial	109,046	5.94	647,733	109,046	6.80	741,513	109,046	7.03	766,593
Subtotal: Volume Charge	6,051,583		$ 38,253,082	6,051,583		$ 42,056,582	6,051,583		$ 44,646,719
Wholesale and Contract Revenues			$ -			$ -			$ -
Total: Base Rate Revenues			$ 54,402,195			$ 59,389,358			$ 66,604,861
DSIC Revenues									
Residential		5.0%	1,208,339			$ 1,914,232			$ 2,135,139
Residential - CAP		5.0%	49,711			133,733			91,664
Commercial		5.0%	1,007,701			1,685,200			1,905,805
Industrial		5.0%	62,063			96,842			118,456
Health or Education		5.0%	355,128			539,078			671,989
Municipal - Residential		5.0%	936			831			1,508
Municipal - Commercial		5.0%	36,232			61,690			70,803
Total: DSIC Revenues			$ 2,720,110			$ 4,431,606			$ 4,995,365
Other Revenues									
Other Revenues			1,064,777			1,064,777			1,064,777
Total: System Revenues			**$ 58,187,081**			**$ 64,885,740**			**$ 72,665,003**
FPFTY Wastewater Conveyance Revenue Requirements						**$ 71,429,178**			**$ 72,631,084**
Difference						**$ (6,543,437)**			**$ 33,919**

(1) Note difference in COS rates is combination of bad debt, DSIC, and Stormwater gradualism.

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Stormwater Revenue Proof

	2026 Revenue @ Existing Rates			2026 Revenue @ COS Rates			2026 Revenue @ Proposed Rates		
	Units	**Rates**	**Revenue**	**Units**	**Rates**	**Revenue**	**Units**	**Rates**	**Revenue**
Base Rate Revenue									
Non-Stormwater Only									
Residential									
Tier 1	11,474	$ 5.03	$ 692,571	11,474	$ 6.69	$ 920,618	11,474	$ 6.17	$ 849,535
Tier 2	59,084	10.06	7,132,620	59,084	13.37	9,481,224	59,084	12.34	8,749,159
Tier 3	13,087	20.12	3,159,725	13,087	26.75	4,200,148	13,087	24.68	3,875,846
Other	6	10.06	724	6	13.37	963	6	12.34	888
Subtotal: Residential	83,651		$ 10,985,641	83,651		$ 14,602,953	83,651		$ 13,475,428
Residential - CAP									
Tier 1	1,342	$ 0.75	$ 12,078	1,342	$ 6.69	$ 107,676	1,342	$ 0.93	$ 14,977
Tier 2	6,099	1.51	110,514	6,099	13.37	978,708	6,099	1.85	135,398
Tier 3	696	3.02	25,205	696	26.75	223,214	696	3.70	30,880
Other	1	1.51	18	1	13.37	160	1	1.85	22
Subtotal: Residential - CAP	8,138		$ 147,815	8,138		$ 1,309,758	8,138		$ 181,277
Non-Residential									
Commercial	71,775	$ 10.06	$ 8,664,678	71,775	$ 13.37	$ 11,517,752	71,775	$ 12.34	$ 10,628,442
Industrial	1,405	10.06	169,612	1,405	13.37	225,461	1,405	12.34	208,052
Health or Education	10,526	10.06	1,270,699	10,526	13.37	1,689,110	10,526	12.34	1,558,690
Municipal	5,790	10.06	698,969	5,790	13.37	929,123	5,790	12.34	857,383
Other	25,712	10.06	3,103,953	25,712	13.37	4,126,011	25,712	12.34	3,807,433
Subtotal: Non-Residential	115,208		$ 13,907,910			$ 18,487,456	115,208		$ 17,060,001
Subtotal: Non-Stormwater Only			$ 25,041,365			$ 34,400,166			$ 30,716,706
Stormwater Only									
Residential - SW Only									
Tier 1	228	$ 5.03	$ 13,762	228	$ 6.69	$ 18,294	228	$ 6.17	$ 16,881
Tier 2	378	10.06	45,632	378	13.37	60,658	378	12.34	55,974
Tier 3	128	20.12	30,784	128	26.75	40,920	128	24.68	37,760
Other	-	10.06	-	-	13.37	-	-	12.34	-
Subtotal: Residential - SW Only	734		$ 90,178	734		$ 119,871	734		$ 110,616
Non-Residential	26,548	10.06	3,204,875	26,548	13.37	4,260,164	26,548	12.34	3,931,228
Subtotal: Stormwater Only	27,282		$ 3,295,052	27,282		$ 4,380,035	27,282		$ 4,041,844
Stormwater User Charge Revenue	234,278		$ 28,336,418	234,278		$ 38,780,202	234,278		$ 34,758,549
DSIC Revenues									
Residential			$ -			$ -			$ -
Non-Residential			-			-			-
Subtotal: DSIC Revenues			$ -			$ -			$ -
Other Revenues									
Other Revenues			1,050,743			1,050,743			1,050,743
Total: System Revenues			**$ 29,387,161**			**$ 39,830,944**			**$ 35,809,292**
FPFTY Stormwater Revenue Requirements						**$ 39,830,944**			**$ 35,812,903**
Difference						**$ -**			**$ (3,611)**

II. OPERATING REVENUES

II.10. Provide a breakdown of the number and size of private fire services according to the general water service class of customers.

a. Provide a listing of all public fire protection customers at historic test year-end and the pro forma billing of current rates for each customer.

RESPONSE:

Please see the table below. Private fire protection customers have been grouped by their existing rate classifications.

Line Size	HTY 2024 Actual	FTY 2025 Projected	FPFTY 2026 Projected
1" or Less	1,383	1,383	1,383
1 1/2"-3"	24	24	24
4"	3	3	3
6" or Greater	17	17	17

a. Please see below.

Municipality	**No. of Hydrants**
City of Pittsburgh	7553
Millvale	105
Sharpsburg	4
Aspinwall	8
O'Hara	5
Total	**7675**

XI. OTHER DATA

XI.6. Provide a corporate history (include the dates of original incorporation, subsequent mergers, or acquisitions, or both). Indicate all counties and cities and other governmental subdivisions to which service is provided, including service areas outside the state, and the total population in the area served.

RESPONSE:

Please see below.

Pittsburgh Water Corporate History

Pittsburgh Water is a body corporate and politic organized and existing under the Act pursuant to Resolution No. 36 of the Council of the City of Pittsburgh (the "City"), duly enacted on February 6, 1984, approved by the Mayor on February 8, 1984, and effective February 16, 1984. The Secretary of the Commonwealth of Pennsylvania approved Pittsburgh Water's Articles of Incorporation and issued a Certificate of Incorporation on February 17, 1984. Articles of Amendment were approved and a Certificate of Amendment was issued by the Pennsylvania Department of State on December 11, 1989, to include, among authorized projects, low head dams and facilities for generating surplus electric power. Articles of Amendment were approved and a Certificate of Amendment was issued by the Pennsylvania Department of State on May 9, 2008, to extend the term of existence of Pittsburgh Water to May 21, 2045. Articles of Amendment were approved and a Certificate of Amendment was issued by the Pennsylvania Department of State on March 19, 2020, to extend the term of existence of Pittsburgh Water to March 19, 2070 and to include storm water systems.

Under its Articles of Incorporation, Pittsburgh Water is specifically authorized to acquire, hold, construct, finance, improve, maintain, operate, own and lease, either as lessor or lessee, projects of the following kinds and character: sewers, sewer systems or parts thereof, waterworks, water supply works, and water distribution systems, storm water systems, low head dams and facilities for generating surplus power.

The System provides water to approximately 80,000 customers or 84% of the total population in the geographic boundaries of the City. Pittsburgh Water provides wastewater collection and transmission service to almost the entire City, estimated at 304,000 residents. The System does not include wastewater treatment facilities; such facilities are the responsibility of Allegheny County Sanitary Authority ("ALCOSAN"), a separate and distinct legal entity.

Pittsburgh Water operates and maintains a 100 million gallon per day (MGD) rapid sand type water treatment plant, approximately 965 miles of water mains, over 32,000 valves and fire hydrants (7,553 hydrants in the City of Pittsburgh, 105 in the Borough of Millvale, 4 in the Borough of Sharpsburg, 8 in the Borough of Aspinwall, and 5 in the Township of O'Hara), 1 raw

XI. OTHER DATA

water pump station, 10 finished water pump stations, 4 in-ground reservoirs, 11 storage tanks, approximately 1,242 miles of sanitary, storm and combined sewers, 30,297 manholes, 25,000 catch basins and inlets, 99 combined sewer overflow outfalls, 146 combined sewer overflow outfalls co-permitted with several other authorities, 35 solely owned combined sewer overflow outfall structures maintained by Pittsburgh Water and 46 structures co-permitted with ALCOSAN, 254 separate storm sewer outfalls in the Municipal Separate Storm Sewer System (MS4), and four wastewater pump stations.

Pittsburgh Water
Summary of Operating Revenues

	Water					Wastewater Conveyance				
	12 Months Ended 12/31/2022	12 Months Ended 12/31/2023	12 Months Ended 12/31/2024	12 Months Ended 12/31/2025	12 Months Ended 12/31/2026	12 Months Ended 12/31/2022	12 Months Ended 12/31/2023	12 Months Ended 12/31/2024	13 Months Ended 12/31/2025	14 Months Ended 12/31/2026
a. Operating Revenues										
(i) Number of Customers										
Residential	63,173	65,979	65,065	65,065	65,065	85,792	90,205	88,871	88,871	88,871
Residential - CAP	3,098	3,471	3,858	3,858	3,858	4,120	4,855	5,542	5,542	5,542
Commercial	6,987	7,202	7,207	7,207	7,207	8,513	8,860	8,857	8,857	8,857
Industrial	31	33	33	33	33	34	36	36	36	36
Health or Education	439	444	440	440	440	439	444	440	440	440
Municipal	212	40	98	98	98	228	40	98	98	98
Fire System	1,389	1,411	1,427	1,427	1,427	-	-	-	-	-
Wholesale and Contract	11	12	13	14	15	1	1	1	1	1
Total	75,340	78,592	78,141	78,142	78,143	99,126	104,441	103,845	103,845	103,845
(ii) Gallons Billed (kgals)										
Residential	1,766,983	1,690,452	1,616,582	1,691,339	1,691,339	2,303,751	2,156,593	2,061,787	2,174,044	2,174,044
Residential - CAP	80,155	90,674	97,840	89,556	89,556	114,137	130,983	147,721	130,947	130,947
Commercial	2,073,132	2,260,754	2,384,892	2,239,593	2,239,593	2,308,112	2,579,844	2,690,819	2,526,258	2,526,258
Industrial	103,883	147,953	259,498	170,445	170,445	110,428	153,371	268,470	177,423	177,423
Health or Education	831,073	885,442	947,882	888,132	888,132	832,509	885,442	947,882	888,611	888,611
Municipal	209,870	40,170	78,028	109,356	109,356	208,940	40,170	78,028	109,046	109,046
Fire System	6,856	7,410	7,825	7,364	7,364	-	1	2	3	4
Wholesale and Contract	880,627	783,707	773,156	773,156	773,156	15,794	47,012	47,012	-	-
Total	5,952,578	5,906,562	6,165,703	5,968,940	5,968,940	5,893,672	5,993,416	6,241,721	6,006,332	6,006,333
(iii) Revenues										
Residential	$ 46,068,603	$ 48,940,048	$ 54,883,538	$ 56,108,058	$ 67,101,086	$ 25,462,107	$ 21,204,091	$ 23,416,900	$24,166,775	$ 28,468,523
Residential - CAP	1,222,572	1,558,282	1,908,524	1,675,022	2,114,888	909,669	896,698	1,171,829	994,227	1,222,184
Commercial	41,243,136	48,901,077	60,887,804	58,478,739	72,245,414	20,806,019	18,125,654	21,131,515	20,154,024	25,410,737
Industrial	1,451,743	2,391,917	4,991,847	3,522,467	4,874,001	770,080	917,157	1,795,730	1,241,254	1,579,415
Health or Education	16,595,807	18,720,344	24,740,007	23,503,188	29,070,404	7,853,194	6,627,202	7,502,641	7,102,562	8,959,854
Municipal - Residential	17,928	15,543	56,859	65,038	72,864	9,916	4,350	14,993	18,717	20,109
Municipal - Commercial	2,016,601	554,693	1,646,774	2,166,193	2,829,587	958,118	195,183	540,389	724,636	944,040
Private Fire Systems	739,004	627,596	906,054	893,548	1,181,616	-	-	-	-	-
Public Fire	849,441	1,330,536	1,875,259	1,875,259	2,659,260	-	-	-	-	-
Wholesale and Contract	3,505,052	3,396,523	3,452,964	4,526,103	7,005,349	60,175	64,755	64,755	-	-
DSIC	5,467,770	6,085,475	7,501,070	7,408,364	13,903,179	2,838,455	2,398,517	2,778,700	2,720,110	4,995,365
Total Water Sales	$ 119,177,656	$ 132,522,034	$ 162,850,702	$ 160,221,979	$ 203,057,647	$ 59,667,734	$ 50,433,607	$ 58,417,451	$57,122,305	$ 71,600,226

Pittsburgh Water & Sewer Authority
Summary of Operating Revenues

	12 Months Ended 12/31/2022	12 Months Ended 12/31/2023	12 Months Ended 12/31/2024	12 Months Ended 12/31/2025	12 Months Ended 12/31/2026
b. Customer Penalties & Misc. Revenues					
Certified Mail Fees	$ 5,967	$ 70,608	$ 125,526	$ 121,941	$ 124,380
Dye Testing	173,055	143,567	124,670	121,109	123,532
Final Bill Fees	35,748	96,524	91,520	88,906	90,684
Hydrant Line Use	80,048	74,620	75,440	73,285	74,751
History Fees	975	2,282	1,415	1,375	1,402
Hydrant Sales	6,200	-	-	-	-
Map Fees	4,360	190	190	185	188
Backflow Fees	146,900	(50,780)	44,250	42,986	43,846
Meter Sales	63,761	45,080	35,720	34,700	35,394
Meter Test Fees	3,211	1,910	2,260	2,195	2,239
NSF Fees	13,593	20	-	-	-
Permit Fees	84,919	525,979	284,370	276,249	281,774
Shut Fees	54,337	39,068	73,977	71,864	73,302
Tap Fees	3,018,400	-	-	-	-
Lien Satisfaction Fees	-	-	-	-	-
Lien Filing Fees	19,656	20,358	18,798	18,261	18,626
Miscellaneous Fees	1,628,418	1,127,185	1,428,338	1,387,545	1,415,296
Penalty & Interest	1,526,321	1,659,317	1,768,573	-	1,713,945
Restoration Fees	-	13,750	19,650	19,089	19,471
Interest Income NT	-	156,695	289,775	281,499	287,129
Line Insurance Royalties	-	-	-	-	21,728
Total	6,865,870	3,926,372	4,384,472	2,541,190	4,327,687

Pittsburgh Water & Sewer Authority
Summary of Operating Revenues

	Stormwater				
	12 Months Ended 12/31/2022	**12 Months Ended 12/31/2023**	**12 Months Ended 12/31/2024**	**12 Months Ended 12/31/2025**	**12 Months Ended 12/31/2026**
Stormwater ERUs					
Non-Stormwater Only					
Residential					
Tier 1	6,335	5,832	5,826	5,737	5,737
Tier 2	57,273	60,219	61,161	59,083	59,084
Tier 3	27,008	25,962	26,769	26,174	26,174
Other	10,145	-	14	6	6
Subtotal: Residential	100,761	92,013	93,770	91,000	91,001
Residential - CAP					
Tier 1	316	512	536	671	671
Tier 2	2,636	3,976	3,911	6,099	6,099
Tier 3	598	940	770	1,391	1,391
Other	142	-	-	1	1
Subtotal: Residential	3,692	5,428	5,217	8,162	8,162
Commercial	85,560	71,110	64,980	71,775	71,775
Industrial	1,568	1,512	1,398	1,405	1,405
Health or Education	11,739	11,595	9,398	10,526	10,526
Municipal	5,784	6,021	4,776	5,790	5,790
Other	11,588	28,126	24,199	25,712	25,712
Subtotal: Non-Stormwater Only	116,240	118,364	104,751	115,208	115,208
Stormwater Only					
Residential					
Tier 1	153	204	195	114	114
Tier 2	561	599	599	378	378
Tier 3	276	242	312	255	255
Other	3	-	-	-	-
Subtotal: Residential	993	1,045	1,106	747	747
Non-Residential	29,816	32,026	39,696	26,548	26,548
Subtotal: Stormwater Only	30,809	33,071	40,802	27,295	27,295
Non-Billable ERUs					
PW Operations	-	-	2,363	-	-
Subtotal: Non-Billable ERUs	-	-	2,363	-	-
Total: Stormwater ERUs	**251,500**	**248,876**	**242,176**	**241,665**	**241,666**

Pittsburgh Water & Sewer Authority
Summary of Operating Revenues

	Stormwater				
	12 Months Ended 12/31/2022	**12 Months Ended 12/31/2023**	**12 Months Ended 12/31/2024**	**12 Months Ended 12/31/2025**	**12 Months Ended 12/31/2026**
Revenues					
Non-Stormwater Only					
Residential					
Tier 1	$ 453,043	$ 557,073	$ 703,315	$ 692,571	$ 849,535
Tier 2	4,096,165	5,744,893	7,383,356	7,132,559	8,749,159
Tier 3	1,931,612	2,476,775	3,231,554	3,159,718	3,875,846
Other	725,570	-	1,630	664	888
Subtotal: Residential	$ 7,206,391	$ 8,778,740	$ 11,319,854	$ 10,985,512	$ 13,475,428
Residential - CAP					
Tier 1	$ 3,407	$ 7,373	$ 9,648	$ 12,074	$ 14,977
Tier 2	28,469	57,254	70,867	110,520	135,398
Tier 3	6,458	13,536	13,952	25,206	30,880
Other	1,534	-	-	18	22
Subtotal: Residential	$ 39,868	$ 78,163	$ 94,468	$ 147,817	$ 181,277
Commercial	$ 6,119,249	$ 6,783,894	$ 7,844,386	$ 8,664,729	$ 10,628,442
Industrial	112,109	144,245	168,767	169,606	208,052
Health or Education	839,598	1,106,163	1,134,527	1,270,657	1,558,690
Municipal	413,692	574,403	576,559	698,983	857,383
Other	828,807	2,683,220	2,921,303	3,103,970	3,807,433
Subtotal: Non-Stormwater Only	$ 8,313,454	$ 11,291,926	$ 12,645,541	$ 13,907,946	$ 17,060,001
Stormwater Only					
Residential					
Tier 1	$ 10,907	$ 19,438	$ 23,480	$ 13,792	$ 16,881
Tier 2	40,123	57,145	72,311	45,592	55,974
Tier 3	19,740	23,087	37,665	30,784	37,760
Other	215	-	-	-	-
Subtotal: Residential	$ 70,984	$ 99,670	$ 133,456	$ 90,168	$ 110,616
Non-Residential	$ 2,132,440	$ 3,055,280	$ 4,792,101	$ 3,204,879	$ 3,931,228
Subtotal: Stormwater Only	$ 2,132,440	$ 3,055,280	$ 4,792,101	$ 3,204,879	$ 3,931,228
Total: Stormwater Sales	**$ 17,763,137**	**$ 23,303,779**	**$ 28,985,420**	**$ 28,336,323**	**$ 34,758,549**

Pittsburgh Water
Historical & Projected Billing Units

Water	12 Months Ended 12/31/2022	12 Months Ended 12/31/2023	HTY 12 Months Ended 12/31/2024	FTY 12 Months Ended 12/31/2025	FPFTY 12 Months Ended 12/31/2026
Billed Accounts					
Residential	63,173	65,979	65,065	65,065	65,065
Residential - CAP	3,098	3,471	3,858	3,858	3,858
Residential - CAP - 50FPL	860	994	1,138	1,138	1,138
Commercial	6,987	7,202	7,207	7,207	7,207
Industrial	31	33	33	33	33
Health or Education	439	444	440	440	440
Private Fire System	1,389	1,411	1,427	1,427	1,427
Municipal - Residential	20	58	146	146	146
Municipal - Commercial	212	40	98	98	98
Total	76,210	79,632	79,412	79,412	79,412
Number of Bills					
Residential	758,074	791,748	780,780	780,780	780,780
Residential - CAP	37,174	41,652	46,296	46,296	46,296
Residential - CAP - 50FPL	10,324	11,928	13,656	13,656	13,656
Commercial	83,843	86,424	86,484	86,484	86,484
Industrial	371	396	396	396	396
Health or Education	5,266	5,328	5,280	5,280	5,280
Private Fire System	16,671	16,932	17,124	17,124	17,124
Municipal - Residential	243	696	1,752	1,752	1,752
Municipal - Commercial	2,549	480	1,176	1,176	1,176
Total	914,515	955,584	952,944	952,944	952,944
Billable Consumption (Kgal)					
Residential	1,766,983	1,690,452	1,616,582	1,691,339	1,691,339
Residential - CAP	80,155	90,674	97,840	89,556	89,556
Residential - CAP - 50FPL	26,271	31,460	37,279	31,670	31,670
Commercial	2,073,132	2,260,754	2,384,892	2,239,593	2,239,593
Industrial	103,883	147,953	259,498	170,445	170,445
Health or Education	831,073	885,442	947,882	888,132	888,132
Private Fire System	6,856	7,410	7,825	7,364	7,364
Municipal - Residential	1,574	50	63	562	562
Municipal - Commercial	209,870	40,170	78,028	109,356	109,356
Total	5,099,796	5,154,365	5,429,889	5,228,017	5,228,017

Pittsburgh Water
Historical & Projected Billing Units

Wastewater	12 Months Ended 12/31/2022	12 Months Ended 12/31/2023	HTY 12 Months Ended 12/31/2024	FTY 12 Months Ended 12/31/2025	FPFTY 12 Months Ended 12/31/2026
Billed Accounts					
Residential	85,792	90,205	88,871	88,871	88,871
Residential - CAP	4,120	4,855	5,542	5,542	5,542
Residential - CAP - 50FPL	1,252	1,444	1,672	1,672	1,672
Commercial	8,513	8,860	8,857	8,857	8,857
Industrial	34	36	36	36	36
Health or Education	439	444	440	440	440
Municipal - Residential	33	58	146	146	146
Municipal - Commercial	228	40	98	98	98
Total	100,410	105,942	105,662	105,662	105,662
Number of Bills					
Residential	1,029,504	1,082,460	1,066,452	1,066,452	1,066,452
Residential - CAP	49,434	58,260	66,504	66,504	66,504
Residential - CAP - 50FPL	15,018	17,328	20,064	20,064	20,064
Commercial	102,150	106,320	106,284	106,284	106,284
Industrial	408	432	432	432	432
Health or Education	5,269	5,328	5,280	5,280	5,280
Municipal - Residential	399	696	1,752	1,752	1,752
Municipal - Commercial	2,736	480	1,176	1,176	1,176
Total	1,204,918	1,271,304	1,267,944	1,267,944	1,267,944
Billable Consumption (Kgal)					
Residential	2,303,751	2,156,593	2,061,787	2,174,044	2,174,044
Residential - CAP	114,137	130,983	147,721	130,947	130,947
Residential - CAP - 50FPL	31,931	46,636	55,333	44,633	44,633
Commercial	2,308,112	2,579,844	2,690,819	2,526,258	2,526,258
Industrial	110,428	153,371	268,470	177,423	177,423
Health or Education	832,509	885,442	947,882	888,611	888,611
Municipal - Residential	1,748	50	63	620	620
Municipal - Commercial	208,940	40,170	78,028	109,046	109,046
Total	5,911,557	5,993,089	6,250,103	6,051,583	6,051,583

Pittsburgh Water
Historical & Projected Billing Units

Stormwater	**12 Months Ended 12/31/2022**	**12 Months Ended 12/31/2023**	**HTY 12 Months Ended 12/31/2024**	**FTY 12 Months Ended 12/31/2025**	**FPFTY 12 Months Ended 12/31/2026**
Number of Bills					
Residential	1,135,176	1,031,892	1,048,260	1,012,604	1,012,614
Residential - CAP	44,496	65,640	64,416	97,648	97,650
Commercial	1,026,720	853,320	779,760	861,305	861,300
Industrial	18,810	18,144	16,776	16,859	16,860
Health or Education	140,872	139,140	112,776	126,308	126,312
Municipal	69,411	72,252	57,312	69,481	69,480
Other	496,854	721,824	738,384	627,122	627,120
Total	2,932,339	2,902,212	2,817,684	2,811,328	2,811,336
Billable ERUs					
Residential	101,753	93,058	94,875	91,747	91,748
Residential - CAP	3,692	5,428	5,217	8,162	8,162
Commercial	85,560	71,110	64,980	71,775	71,775
Industrial	1,568	1,512	1,398	1,405	1,405
Health or Education	11,739	11,595	9,398	10,526	10,526
Municipal	5,784	6,021	4,776	5,790	5,790
Other	41,404	60,152	61,532	52,260	52,260
Total	251,500	248,876	242,176	241,665	241,666

Pittsburgh Water Base Rate Filing

III. OPERATING EXPENSE

III.9. Submit details of expenditures for advertising (national, institutional and local media). Provide a schedule of advertising expense by media categories for the historic test year and the prior two comparable years with respect to:

a. Public health and safety.

b. Conservation of energy.

c. Explanation of billing practices, rates, rules and regulations.

d. Provision of factual and objective data programs in educational institutions.

e. Other advertising programs.

f. Total advertising expense.

RESPONSE:

Advertising is done through different mediums such as online publications, local newspapers, and mailings. Advertising for the above items is also communicated monthly on our bill onserts and e-mail campaigns. Below costs are for advertising not communicated through our billing vendor Kubra monthly.

Advertising	**2022**	**2023**	**HTY 2024**
Public Health & Safety	$ 32,662	$ 29,933	$ 17,616
Conservation of Energy	-	$ 2,305	$ 2,004
Explanation of Billing, Rates	-	$ 29,057	$ 24,775
Data Programs Educational Instituitions	-	$ -	$ -
Other Advertising	8,238	$ 8,815	$ 97,553
Total	**$ 40,900**	**$ 70,110**	**$ 141,948**

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

REBUTTAL TESTIMONY OF

EDWARD BARCA

ON BEHALF OF
THE PITTSBURGH WATER
AND SEWER AUTHORITY

Docket Nos.
R-2025-3055010 (Water)
R-2025-3055011 (Wastewater)
R-2025-3055012 (Stormwater)

TOPICS:

Revenue Requirement Calculation
Additional Bonds Test
Debt Service Coverage
Days Cash on Hand
Rate Stabilization Fund
Capital Budget; Debt Service
Operating Budget
Normalization and Adjustments of OCA and I&E
Unaccounted for Water
DSIC: Increase
Multi-Year Rate Plan
PENNVEST Charge
Wholesale Rate Contract Termination
Uncollectible Expense
Increased Customer Service Expenses

September 30, 2025

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Exhibit EB-13	Corrected Exhibit EB-2
Exhibit EB-14	Pittsburgh Water's responses to TUS-I-R-1 through TUS-I-R-4 (Water)
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Exhibit EB-16	Modified Version of OCA Exhibit DM-21 (Cash Flow)
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Exhibit EB-21	Detailed responses to OCA Exhibit MWD-1
Exhibit EB-22	Pittsburgh Water's referenced discovery responses

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND POSITION FOR THE RECORD.

A. My name is Edward Barca and I am the Director of Finance for the Pittsburgh Water and Sewer Authority ("Pittsburgh Water" or "Authority").

Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS PROCEEDING?

A. Yes. I submitted Direct Testimony (Pittsburgh Water St. No. 2) together with accompanying exhibits EB-1 to EB-10 on June 4, 2025.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. My rebuttal testimony responds to the various recommendations including financial metrics, revenue, and expense recommendations contained in certain portions of the direct testimony submitted by the Bureau of Investigation and Enforcement ("I&E"), the Office of Consumer Advocate ("OCA"), the Office of Small Business Advocate ("OSBA"), and Pittsburgh United's Our Water Table ("OWT") (together, "the Opposing Parties").

I have attempted to respond to the specific statements and recommendations made by the other parties' witnesses. In the event that an issue is not addressed, this should not be viewed as my acceptance of their testimony. Rather it reflects my belief that a further response in this rebuttal testimony is not warranted, either because it was adequately addressed in my direct testimony, is being addressed by other rebuttal testimony, or because it is a legal matter that is better addressed by counsel in briefs or other pleadings.

Q. DO YOU HAVE ANY CORRECTIONS OR UPDATES TO YOUR DIRECT TESTIMONY?

A. Yes. Please see Exhibits EB-11 through EB-13, which contain corrections and updates to my direct testimony at page 48 and page 60, as well as corrections and updates to Exhibits EB-1 and EB-2.

Q. PLEASE EXPLAIN THOSE CORRECTIONS TO YOUR DIRECT TESTIMONY.

A. As provided in response to interrogatory OCA-XXII-5,[1] there was a discrepancy in the days cash on hand ("DCOH") calculation in my direct testimony and Exhibits EB-1 and EB-2, where the years impacted were FY 2024, FY 2025, and FY 2026 (at present rates). This discrepancy did not impact Pittsburgh Water's DCOH calculation at *proposed* rates (FY 2026 and FY 2027). I have reflected these corrections to my testimony and exhibits in Exhibits EB 11 through EB 13, and the changes are further discussed in the testimony of Pittsburgh Water's Witness Fay and corrections to her testimony that flowed from the above.

Q. DO ANY OF YOUR CORRECTIONS CHANGE ANY OPINIONS OR PITTSBURGH WATER'S NEED FOR THE RATE INCREASE YOU DISCUSSED?

A. No, my corrections do not change any of my opinions stated in my direct or rebuttal testimony.

Q. DID YOU MAKE ANY OTHER REVISIONS TO PITTSBURGH WATER'S CLAIM AS PRESENTED IN DIRECT TESTIMONY?

A. I have. On the recommendation of Pittsburgh Water's financial consultant Christine Fay, I revised down the interest rate for prospective bond issuances during the FPFTY to 6.5% given the general decrease in interest rates since my direct testimony.

[1] See Exhibit EB-22

Q. DOES THIS REVISION CHANGE ANY OF YOUR RECOMMENDATIONS?

A. No, the revision does not change our overall claim. While markets and rates continue to be subject to change, the reduction from 7% to 6.5% borrowing costs has a minimal impact on Pittsburgh Water's borrowing costs and, in turn, its revenue requirement. However, in my view, it is not appropriate to reduce Pittsburgh Water's revenue requirement claim because the limited reduction in revenue requirement should be offset by the need for cash to meet our financial metrics. For that reason, we have added back the slight reduction in revenue requirement as additional cash needed to maintain minimally adequate cash balances. Those adjustments are explained in Mr. Smith's testimony and reflected in a rebuttal class cost of service study ("Revised COSS") model.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. Yes. I am sponsoring the following exhibits:

Exhibit EB-11	Corrections to Barca Direct Testimony, St. No. 2, Page 48
Exhibit EB-12	Corrected Exhibit EB-1
Exhibit EB-13	Corrected Exhibit EB-2
Exhibit EB-14	Pittsburgh Water's responses to TUS-I-R-1 through TUS-I-R-4 (Water)
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II. REVENUE REQUIREMENT CALCULATION

Q. DID ANY OF THE OTHER PARTIES MAKE RECOMMENDATIONS REGARDING PITTSBURGH WATER'S REVENUE REQUIREMENT?

A. Yes. The direct testimonies of I&E, OCA, and the OSBA recommend revenue and/or expense adjustments and propose alternative revenue requirement and rate increases.

Q. PLEASE SUMMARIZE THEIR OVERALL RECOMMENDATION REGARDING REVENUE REQUIREMENT.

A. I&E's FPFTY revenue recommendation net of uncollectible is $259,069,715 with a revenue requirement recommendation of $259,007,666. This revenue recommendation represents an increase of $17,247,098 from Pittsburgh Water's current rates. No revenue requirement recommendation was provided for FY 2027 due to I&E's rejection of Pittsburgh Water's proposed multi-year rate increase.

OCA's FPFTY revenue recommendation net of uncollectible is $260,233,335 ($266,720,361 less $6,487,026[2]) with a revenue requirement recommendation of $283,604,317. This revenue recommendation represents an increase of $18,498,565 from Pittsburgh Water's current rates. However, due to a mathematical error in OCA's analysis, its DCOH position did not correctly align FPFTY 2026 starting and ending cash with their FPFTY deficit adjustment (DM-1, cell H18 v. DM-21, cell F8), and did not account for an error in OCA's calculation of FPFTY DCOH of over $16 million for FY 2026. *See* OCA Exhibit DM-1, DM-21. Therefore, the actual increase from Pittsburgh Water's current rates from the OCA would be $35,382,521 ($18,498,565 plus $16,883,956) to account for and eliminate the error made in OCA's recommendations and to align the rate increase with the OCA's recommended DCOH levels. No revenue requirement recommendation was provided for FY 2027 due to the rejection by OCA of Pittsburgh Water's proposed multi-year rate increase.

It is my understanding that the OSBA did not provide total recommended revenue requirements. However, OSBA did offer conclusions and recommendations to Pittsburgh

[2] Pittsburgh Water Exhibit WJP-1 shows uncollectible revenues of $6,199,010 and stormwater credit program costs of $288,016. The same amounts are used by I&E to calculate revenues net of uncollectibles. I&E Exhibit No. 1, Schedule.

Water's proposed revenue requirement specific to wholesale water revenue, number of customers, uncollectible expense, the PENNVEST Surcharge, Distribution System Improvement Charge ("DSIC"), and the 2025 Cost of Service Study used in this rate proceeding. The following table shows these recommendations:

Recommended Revenue Requirement and Claimed Financial Metrics			
FPFTY	**Pittsburgh Water**	**I&E**	**OCA**
Recommended Rate Increase	$65.43 M	$17.25 M	$18.50 M
Surplus (Deficit)	$0.06205 M	$0.06205 M	**($ 16.88 M)**
Senior (1.25x requirement)	1.85	1.86	1.57
Total (1.1x requirement)	1.42	1.37	1.20
DCOH	204.3	244.7	186.2[3]
DCOH with ALCOSAN	118.1	130.6	102.6[2]

However, the financial metrics claimed to be produced by the Opposing Parties' recommendations are inflated due to their use of "normalization" and other adjustments that artificially lower Pittsburgh Water's expected levels of operating expenses and debt service in the FPFTY by using historical and average levels of "normalized" expenses, or even the expenses that Pittsburgh Water is budgeting for 2025. As I discuss further below, both I&E's and OCA's approach of normalizing expenses creates results not aligned with Pittsburgh Water's actual costs—specifically where 2025 year-to-date actual expenses (when annualized) categorically shows I&E's and OCA's backwards-looking

[3] The calculation of DCOH in OCA Exhibit DM-21 does not include the operating deficit created by OCA's recommendations. That deficit is shown on OCA Exhibit DM-1. Exhibit DM-21 shows the beginning balance for unrestricted cash. That balance would be reduced by the operating deficit of $16,883,956 leaving only $66,845,936 as the ending balance for unrestricted cash, which would reduce the days of cash that would be produced by OCA's recommendation. This table shows Pittsburgh Water recalculation of OCA's DCOH based using $66,845,936, as shown on Exhibit EB-16 which is a modified version of OCA Exhibit DM-21.

normalization approach creates results that do not meet Pittsburgh Water's actual, real expenses and is an unreasonable and illogical way to set Pittsburgh Water's revenue requirement. In reality, the financial metrics produced by these recommendations are as follows:

Opposing Parties Financial Metrics W/O Normalization			
FPFTY	**Pittsburgh Water**	**I&E**	**OCA[4]**
Recommended Rate Increase	$64.43 M	$17.25 M	$18.50 M
Surplus (Deficit)	$0.06205 M	$0.06205 M	**($ 38.95 M)**
Senior (1.25x requirement)	1.65	1.28	1.34
Total (1.1x requirement)[5]	1.21	0.98	1.02
DCOH	247.6	86.8	109.1
DCOH with ALCOSAN	145.0	50.2	63.7

Q. DO YOU HAVE AN OVERALL RESPONSE TO THESE RECOMMENDATIONS?

A. Yes. The rate increase recommendations provided by I&E and OCA will not produce the financial metrics that they claim as proven against Pittsburgh Water's year-to-date actuals. The use of normalization to determine rates used by I&E and OCA in their testimony is fundamentally flawed as what they are advocating for is to nullify the FPFTY—the methodology enacted by the legislature—where the "P" (projected) is substituted for historic average to force Pittsburgh Water's revenues with no respect for projected needs of the company in the FPFTY. This backwards-looking approach will not provide Pittsburgh Water with the necessary resources to achieve its mission especially where for reference, Pittsburgh Water's 2025 year-to-date actual expenses

[4] See Exhibit EB-17 for breakdown.
[5] Excluding PENNVEST.

align with the Authority's FPFTY—NOT average past performance. Pittsburgh Water must support the Pittsburgh region by protecting public health and the environment through the delivery of safe and reliable water services with a commitment to future generations. In fact, the impact of the backwards averaging recommendations of OCA and I&E would be so severe that Pittsburgh Water would need to contemplate whether to defer planned maintenance, cancel capital projects, and/or freeze the expansion of operations to stay financially solvent. The Commission should not force such a dire situation upon Pittsburgh Water through an arbitrary, backwards-looking normalization theory of setting rates. I am hopeful that I&E and OCA will reconsider their revenue recommendations once they have an opportunity to review Pittsburgh Water's responsive testimony, but in any event, the Commission should not consider accepting their flawed and counterproductive recommendations.

III. ADDITIONAL BONDS TEST

Q. DO YOU HAVE A GENERAL COMMENT IN RESPONSE TO THE REVENUE RECOMMENDATIONS OF THE OPPOSING PARTIES?

A. Yes, Pittsburgh Water would in-theory pass the Additional Bonds Test if the recommendations from I&E and OCA are implemented based on their backwards-looking normalizing approach. **However**, this is only achieved by "pretending" that Pittsburgh Water will experience expense levels at (and therefore restricted by) historic and average levels and, therefore, does not need the full amount of the requested FPFTY revenue requirement. These are not realistic assumptions. Pittsburgh Water is positioned to spend the full amount of the requested FPFTY revenue requirements, which, as I will demonstrate below, would not allow Pittsburgh Water to pass the Additional Bonds Test

under either I&E or OCA's positions. That would halt the Capital Improvement Plan because new revenue bonds could not be issued.

Q. WHAT IS THE "ADDITIONAL BONDS TEST" AND WHAT IMPACT DOES THAT HAVE ON ISSUING BONDS?

A. As defined in Section 3.02 of the Amended and Restated Trust Indenture ("Indenture"), Pittsburgh Water must satisfy the following additional bonds test prior to issuing additional bonds:

- A certificate of (A) a Qualified Independent Consultant, stating that based on the Authority's financial records for a Test Period, the Authority would have been able to meet the Rate Covenant in Section 7.01, taking into account
    - (i) the maximum Annual Debt Service on the proposed Series of Additional Bonds in the current or any future Fiscal Year,
    - (ii) the additional Net Revenue from the rates, fees and other charges adjusted to reflect any rate increases that had not been in effect throughout the Test Period but that have been approved by and can be implemented by the Authority at the time of delivery of the proposed Series of Additional Bonds to go into effect within the following five years; and
    - (iii) additional Net Revenues that the Authority may realize from the addition to the System of the assets it proposes to finance through the issuance of the proposed Series of Additional Bonds or other funding sources within the following five years or (B) the Authorized Representative of the Authority stating that based on the Authority's financial records for a Test Period, the Authority has met the Rate Covenant in Section 7.01, taking into account the maximum Annual Debt Service on the proposed Series of Additional Bonds. In making the certifications required under this paragraph, the Authorized Representative of the Authority or the Qualified Independent Consultant, as applicable, shall determine and utilize the Additional Indebtedness Test Net Revenues in place of the Rate Covenant Net Revenues in determining whether the Authority would have been able to meet the Rate Covenant in Section 7.01.

In summary, the Additional Bonds Test requires that Pittsburgh Water meet its required debt service coverage ratios (i.e. Rate Covenant) taking into account current rates and the maximum annual debt service of a proposed series of bonds prior to issuing additional bonds. The Indenture does not allow Pittsburgh Water to factor in unauthorized future rate increases when calculating the additional bonds test. **Failure to satisfy the Additional Bonds Test prohibits Pittsburgh Water from issuing bonds. I would note that the Commission is required to set rates for Pittsburgh Water that will permit it to comply with its bond covenants, one of which is the Additional Bonds Test**.[6]

Q. DOES I&E'S FPFTY REVENUE REQUIREMENT RECOMMENDATION PROPERLY ACCOUNT FOR PITTSBURGH WATER'S FUTURE DEBT SERVICE COSTS?

A. No. I&E Statement No. 1 at 14 states that I&E does not accept Pittsburgh Water's FPFTY senior lien debt service expense claim of $11,241,803 and debt service coverage capital claim of $2,810,451 relating to the proposed $150,000,000 senior lien bond issue due to historical capital expenditures underspending.

Q. DO YOU AGREE WITH THIS?

A. No. The underlying premise of Mr. Patel's adjustment is that, because of alleged historical shortfalls in capital spending versus budget, it is likely that Pittsburgh Water will not need most of the bond proceeds because it will not spend the funds due to budget variances. However, virtually all of the contemplated 2026 bond issuance is ***already*** spent. I will explain the mechanics of the capital line of credit later in my testimony.

[6] (c) Securities of authority.--Notwithstanding any provision in this title to the contrary: (1) The commission shall permit an authority to impose, charge or collect rates or charges as necessary to permit the authority to comply with its covenants to the holders of any bonds or other financial obligations. 52 Pa. Code § 3208 (c)(1).

However, the capital line of credit is used in the interim to fund capital expenses until a bond can be issued to refund the outstanding amount. As of September 15, 2025, capital expenses eligible to be funded with the line of credit were $109,765,305 with Pittsburgh Water projecting to reach the full $150,000,000 credit limit by the end of FY 2025. The proposed FPFTY issuance of $150,000,000 will be used to refund the line of credit and continue the capital improvement plan. So, there is no basis for suggesting that Pittsburgh Water will not need the funds to be produced by the 2026 issuance and therefore, no basis for the adjustment.

Q. DOES PITTSBURGH WATER PASS THE ADDITIONAL BONDS TEST IF THE FPFTY REVENUE REQUIREMENT RECOMMENDATIONS OF I&E WERE ADOPTED?

A. No. Pittsburgh Water would only pass the additional bonds test in theory if I&E's FPFTY expense adjustments and revenue requirement recommendations are accepted in their entirety, which they should not be. As previously stated, I&E's position pretends that Pittsburgh Water does not need the full requested FPFTY revenue requirement by claiming that its 2026 expenses will reflect merely a historical average of expenses, rather than anything close to our actual budget or tied to real numbers such as Pittsburgh Water's 2025 year-to-date and annualized expenses. I've outlined the issues in three scenarios below:

Scenario 1 below displays the additional bonds test using I&E's proposed FPFTY expense adjustments and revenue requirement recommendation. This scenario shows that Pittsburgh Water would theoretically pass the Additional Bonds Test by having net revenues less 125% of senior and 110% of subordinate debt service of $25,994,606 and net revenues less 100% of senior and subordinate debt service of $44,416,077.

Scenario 2 displays the Additional Bonds Test using I&E's FPFTY revenue requirement and properly adjusting the operating expenses, existing debt service, and future debt service requirements to match what Pittsburgh Water proposed for the FPFTY. The **deficit of $12,797,334** represents the real impact of I&E's revenue requirement recommendation.

Pittsburgh Water
Additional Bonds Test - Rebuttal Testimony

	I&E - Scenario #1 FPFTY FY 2026 COS	I&E - Scenario #2 FPFTY FY 2026 COS
Operating Revenues	$ 265,556,741	$ 265,556,741
Total: Operating Revenues	$ 265,556,741	$ 265,556,741
Operating Expenses	$ 121,356,528	$ 146,096,214
Total: Operating Expenses	$ 121,356,528	$ 146,096,214
Additional Indebtedness Test Net Revenues	**$ 144,200,213**	**$ 119,460,527**
Existing Annual Debt Service		
125% Senior Debt	$ 92,107,354	$ 92,107,354
110% Subordinate Debt	$ 26,098,253	$ 26,098,253
100% Senior and Subordinate Debt Service	$ 99,784,136	$ 99,784,136
Series A of 2026 Bonds Maximum Annual Debt Service		
125% of Series A of 2026	$ -	$ 14,052,254
100% Series A of 2026	$ -	$ 11,241,803
Total: Debt Service	$ 99,784,136	$ 111,025,939
Net Revenues less 125% of Senior and 110% of Subordinate Debt Service:	**$ 25,994,606**	**$ (12,797,334)**
Net Revenues less 100% of Senior and Subordinate Debt Service:	**$ 44,416,077**	**$ 8,434,588**

Q. WHAT CAN YOU CONCLUDE ABOUT I&E FPFTY REVENUE REQUIREMENT RECOMMENDATION AS IT RELATES TO ADDITIONAL BONDS TEST?

A. I&E's FPFTY revenue requirement recommendation would result in the real world reduction of revenues strikingly below an adequate level, stopping all future borrowing

for Pittsburgh Water's Capital Improvement Plan resulting from the failure to pass the Additional Bonds Test. Recommending revenues that would lead to this type of failure clearly is not reasonable and that I&E's proposed FPFTY revenue requirement cannot be relied upon.

Q. DOES PITTSBURGH WATER PASS THE ADDITIONAL BONDS TEST IF THE FPFTY REVENUE REQUIREMENT RECOMMENDATIONS OF OCA WERE ADOPTED?

A. Yes, again only theoretically as shown below as scenario 1. However, this was achieved through reducing Pittsburgh Water's proposed operating expenses by the amount of OCA's proposed revenue reduction, which effectively results in the same rate covenant net revenues to pay debt service that was proposed by Pittsburgh Water. The problem with his approach is that it "artificially" shows that Pittsburgh Water would be in compliance with the additional bonds test by arbitrarily assuming that Pittsburgh Water's operating expenses are going to be much lower than projected. If the Commission were to adopt the OCA's recommendation Pittsburgh Water would have no choice but to reduce its operations so that its operating expenses were consistent with OCA's perceived "normalized" amount. This would seriously threaten Pittsburgh Water's ability to continue to provide safe and reliable service to its customers. At the very least, many important initiatives and projects would have to be slowed or eliminated. These include but are not limited to: 1) freezing hiring and potentially laying off staff; 2) reducing project funding for regulatory obligations; and 3) reducing plant and building repairs at Pittsburgh Water's Water Treatment Plant. This would put the safety and security of Pittsburgh Water's employees and customers in jeopardy while also costing more to fix on an emergency basis.

Scenario 2 displays OCA's proposed revenues with Pittsburgh Water's revenue requirement, which shows the true impact of OCA's recommendation. **$11,633,714 would need to be added to OCA's recommendation solely to meet the Additional Bonds Test.**

Pittsburgh Water
Additional Bonds Test - Rebuttal Testimony

	OCA - Scenario #1 FPFTY FY 2026 COS	OCA - Scenario #2 FPFTY FY 2026 COS
Operating Revenues	$ 266,720,361	$ 266,720,361
Total: Operating Revenues	$ 266,720,361	$ 266,720,361
Operating Expenses	$ 127,405,373	$ 146,096,214
Total: Operating Expenses	$ 127,405,373	$ 146,096,214
Additional Indebtedness Test Net Revenues	**$ 139,314,988**	**$ 120,624,147**
Existing Annual Debt Service		
125% Senior Debt	$ 92,107,354	$ 92,107,354
110% Subordinate Debt	$ 26,098,253	$ 26,098,253
100% Senior and Subordinate Debt Service	$ 99,784,136	$ 99,784,136
Series A of 2026 Bonds Maximum Annual Debt Service		
125% of Series A of 2026	$ 11,812,165	$ 14,052,254
100% Series A of 2026	$ 9,449,732	$ 11,241,803
Total: Debt Service	$ 109,233,868	$ 111,025,939
Net Revenues less 125% of Senior and 110% of Subordinate Debt Service:	**$ 9,297,216**	**$ (11,633,714)**
Net Revenues less 100% of Senior and Subordinate Debt Service:	**$ 30,081,120**	**$ 9,598,208**

IV. DEBT SERVICE COVERAGE RATIO

Q. PLEASE SUMMARIZE THE POSITIONS OF THE OTHER PARTIES ON THE DEBT SERVICE COVERAGE RATIO.

A. I&E claims that its proposed rates in the FPFTY would result in the Debt Service Coverage Ratio (DSCR) of 1.86x for senior debt service and 1.37x for total debt service.

OCA is recommending a DSCR of 1.57x for senior debt service and 1.20x for total debt service.

Q. PLEASE RESPOND TO I&E'S & OCA'S RECOMMENDED FPFTY DEBT SERVICE COVERAGE RATIOS.

A. Pittsburgh Water does not agree with either of the recommended FPFTY debt service coverage ratios recommended by I&E and OCA. First, I&E's claimed senior and total debt service, as with the OCA, are arrived at by pretending that Pittsburgh Water will incur operating expenses on a "normalized" level rather than on the level projected in Pittsburgh Water's approved operating budget. In reality, I&E's recommendation would result in a senior debt service coverage of 1.28x and a catastrophic 0.98x total debt service. Likewise, OCA's recommendation actually results in a senior debt service coverage of 1.34x and an equally catastrophic 1.02x total debt service. Debt service coverage ratios at these levels would be a disaster for Pittsburgh Water and cause multiple bond covenant defaults. Pittsburgh Water's legal requirement for senior debt is 1.25x and 1.10x for total debt (excluding PENNVEST, which is 1.0x). However, these legal requirements should not be the levels at which Pittsburgh Water's revenue requirement are set.

As further discussed in Ms. Fay's testimony, the levels recommended by I&E and OCA are not acceptable. Pittsburgh Water needs to strive for much higher coverage levels, as supported by guidance released by S&P Global Ratings and Moody's as well as actual performance of peer utilities.

Q. DID THE OCA REVENUE REQUIREMENT MAKE ANOTHER ADJUSTMENT BASED ON DEBT SERVICE COVERAGE THAT FURTHER, UNREASONABLY REDUCES ITS RECOMMENDED RATE INCREASE?

A. Yes, in addition to all the unreasonable "normalization" adjustments, the OCA also made an adjustment recommended by Mr. Walters to further reduce its recommended revenue requirement by $16 million so as to reduce Pittsburgh Water's total debt service coverage still more, to 1.20x. Mr. Walters claims, without support, that this level is all that would be reasonable since it exceeds the "minimum" level of total debt service coverage by ten basis points. This adjustment is profoundly incorrect for several reasons. First, as I explain above, the 1.20x coverage that he says we would produce at the rate increase recommended by OCA is really an illusion since it is based on assuming that Pittsburgh Water's 2026 expenses will be no higher than historic averages. Second, a 1.20x total coverage is not consistent with investor expectations or reflective of levels earned by comparable utilities. Lastly, targeting a total debt service coverage so close to the minimum level is extremely dangerous. If the Authority experiences some unforeseen issue or significant drop in revenues, it would have very little cushion to avoid dropping below the required minimum and defaulting on its bonds.

Q. WOULD THE OCA'S ADJUSTMENT HAVE A MATERIAL IMPACT ON PITTSBURGH WATER'S ABILITY TO MAINTAIN DEBT SERVICE COVERAGE LEVELS?

A. Yes, OCA's $16 million reduction would be very detrimental to Pittsburgh Water's and our levels of debt service coverage we must maintain. Pittsburgh Water is a cashflow utility, so the only way for it to make up for the OCA's adjustment if accepted would be to reduce expenditures and system improvements by the same amount – we have no equity or shareholders to recoup this in order to maintain our debt service coverage requirements.

V. DAYS CASH ON HAND

Q. PLEASE SUMMARIZE THE DAYS CASH ON HAND FPFTY RECOMMENDATION OF I&E AND OCA.

A. I&E claims that its proposed rates in the FPFTY would result in days cash on hand (DCOH) of 244.7 days without including ALCOSAN and 130.6 days including ALCOSAN. OCA recommends DCOH of 233.3 days without including ALCOSAN billing and 128.5 days including ALCOSAN billing. However, that recommendation does not reflect the cash deficit created by OCA's recommendations. Correcting this error, OCA's recommendations creates DCOH of 186.2 days without including ALCOSAN billing and 102.6 days including ALCOSAN billing. See Exhibit EB-16.

Q. PLEASE RESPOND TO I&E'S & OCA'S FPFTY DAYS CASH ON HAND RECOMMENDATION.

A. Pittsburgh Water does not agree with either of the days cash on hand levels proposed by I&E and OCA. As previously mentioned, both parties are pretending that Pittsburgh Water will incur operating expenses on a "normalized" level rather than on the level projected in Pittsburgh Water's approved operating budget. I&E's recommendations actually result in 86.8 days of cash on hand without ALCOSAN and 50.2 days with ALCOSAN. Likewise, OCA's recommendations result in 109.1 days of cash on hand without ALCOSAN and 63.7 days with ALCOSAN. See Exhibit EB-17.

As described by Ms. Fay, these proposed levels are not acceptable as they inhibit Pittsburgh Water's ability to continue to grow its reserves to levels that are comparable to its peers as well as to levels that the rating agencies view as favorable in their scoring methodologies. To stress the importance of this issue, I would like to note that Pittsburgh Water was downgraded by Moody's in 2018, mainly as a result of its extremely low level of cash. The days cash on hand metric is heavily monitored by the rating agencies. Any

sign that it will not continue to improve could have a negative impact on Pittsburgh Water's credit ratings.

VI. RATE STABILIZATION FUND

Q. DID ANY OF THE PARTIES PROPOSE REDUCTIONS TO PITTSBURGH WATER'S CLAIM FOR THE RATE STABILIZATION FUND IN THE FPFTY AND FY 2027?

A. Yes. I&E recommended reducing the entire $3 million FPFTY and $3 million FY 2027 Rate Stabilization Fund (RSF) transfer. I&E St. No. 1 at 37 & 38. I&E witness Patel states the reason for this reduction includes: 1) the current RSF balance is 9.33% of I&E's recommended total operating revenues and, 2) the projected FPFTY beginning unrestricted balance of approximately $83.7 million can be used to support debt service coverage deficiencies, fund capital projects, and assist with unexpected increase in operating expenses.

Q. DOES PITTSBURGH WATER AGREE WITH I&E'S RECOMMENDATION?

A. No. I disagree with I&E's recommendation for two reasons. First, I&E's claims that the current RSF balance is 9.33% of their recommended total FPFTY operating revenues at I&E St. No. 1 at 37. This is deceiving because I&E's recommended FPFTY operating revenues are artificially low due to normalizing operating costs. However, even if I&E's recommendation was reasonable (and it is not), it still falls short of Pittsburgh Water's minimum goal of establishing a RSF balance equal to 10% of operating revenues with the goal of growing that balance to 15%. Second, I&E's claim that unrestricted cash (i.e., the RSF) can be used to support debt service coverage is factually incorrect. Pittsburgh Water's indenture does not allow the use of unrestricted cash when calculating the debt service coverage ratios.

VII. CAPITAL BUDGET; DEBT SERVICE

Q. PLEASE EXPLAIN MR. SAKAYA'S FPFTY CAPITAL BUDGET RECOMMENDATION.

A. I&E St. No. 3 at 6 recommends an allowance of $222,903,999 for the FPFTY capital improvement plan or a reduction of $121,296,123 to Pittsburgh Water's claim based on historic average underspending of 35.24%. I&E St. No. 3 at 5 and 6 also states that Pittsburgh Water recovers the total cost of its FPFTY capital investments through customer rates via debt financing and internally generated funds, which risks setting these rate requirements too high if capital budgets are consistently overstated relative to actual results.

Q. PLEASE EXPLAIN MR. PATEL'S FPFTY DEBT SERVICE RECOMMENDATION.

A. I&E St. No. 1 at 14 and 15 rejects the entire proposed $150,000,000 FPFTY senior lien bond issue and states Pittsburgh Water would not require the additional borrowing because it is not supported by the historical capital budget underspending that I&E's Mr. Sakaya claims.

Q. PLEASE RESPOND TO I&E'S CAPITAL BUDGET AND DEBT SERVICE RECOMMENDATION.

A. Certainly. Pittsburgh Water's FPFTY capital revenue requirement is the cost associated with the new bond needed to fund the capital budget, not the proposed budget amounts within the budget. Pittsburgh Water has demonstrated that $110,000,000 in capital costs have already been incurred on the capital line of credit with the expectation that line will reach the max $150,000,000 capacity by the end of FY 2025. So, by the end of 2025, Pittsburgh Water will have expended the full $150 million and will need the 2026 bond to retire that short term debt. Therefore, I&E's underspending capital budget argument is

irrelevant, and their debt service recommendation is not correct. The reality is capital projects funded by Pittsburgh Water debt will need to be paused or further projects canceled if the debt service costs associated with paying down the line of credit is not approved and Pittsburgh Water does not have the revenues to cover the debt service and debt service coverage associated with the 2026 issuance.

Q. HOW DOES PITTSBURGH WATER FUND ITS CAPITAL BUDGET?

A. In order of rank, Pittsburgh Water's main capital funding sources in the FPFTY include: 1) PENNVEST, 2) line of credit/municipal bonds, 3) DSIC, and 4) WIFIA. A large portion of Pittsburgh Water's capital improvement plan is funded by a line of credit, with bond issuances strategically planned to refund the entire line of credit balance as it nears capacity.

Q. CAN YOU ELABORATE ON THE FUNCTIONALITY OF THE CAPITAL LINE OF CREDIT AND HOW IT IS USED BY PITTSBURGH WATER?

A. Pittsburgh Water utilizes a capital line of credit to interim fund all project costs not funded by PENNVEST, WIFIA, or the DSIC. Municipal bonds then must be issued as the $150 million credit limit nears capacity.

Q. WHAT HAPPENS TO THE FUNDS PRODUCED BY A BOND ISSUANCE IF PITTSBURGH WATER FOR SOME REASON IS NOT ABLE TO SPEND ALL THE PROCEEDS FOR CAPITAL PROJECTS IN A PARTICULAR YEAR.

A. To benefit Pittsburgh Water's ratepayers, Pittsburgh Water issues bonds to pay down the capital line of credit for capital expenses that have already been incurred. This means that all funds produced by a bond issuance will be used to fund capital projects by first taking out any line of credit balance that exists. This invalidates Mr. Sakaya's arguments related to capital budget underspending and rates being too high as a result of the capital budget consistently being overstated. Pittsburgh Water's revenue requirement, therefore only

covers the financing of capital improvements that are actually done, and does not fund a "budgeted" amount.

Q. IS THE CAPITAL LINE OF CREDIT BALANCE NEARING ITS $150 MILLION CAPACITY?

A. Yes. As I mentioned, as of September 1, 2025, there is $15 million outstanding on the line of credit with Pittsburgh Water currently floating $95 million of capital expenses with cash that are eligible to be funded with the line of credit, effectively making the total balance $110 million. It is projected that the line of credit will reach its capacity limit ($150 million) by the end of FY 2025.

It should be noted that Pittsburgh Water floats capital expenses with cash throughout the year and draws on the line of credit as necessary at year-end. This strategy saves ratepayers interest costs associated with the line of credit.

Q. IS MR. PATEL'S FPFTY DEBT SERVICE RECOMMENDATION VALID?

A. No. The outstanding balance on the line of credit provides sufficient justification that the senior lien bond issuance of $150 million is reasonable and necessary. The proposed FPFTY senior lien debt service expense claim of $11,241,803 and associated debt service coverage capital claim of $2,810,451 should be added to I&E's revenue requirement recommendation to repay the capital line of credit which, in turn, will ensure that Pittsburgh Water can continue to fund its capital improvement plan. Failure to do so would be catastrophic for both Pittsburgh Water and its ratepayers.

VIII. OPERATING BUDGET

Q. PLEASE SUMMARIZE THE OPERATING EXPENSE RECOMMENDATIONS OF THE OTHER PARTIES.

A. I&E and OCA make recommendations regarding Pittsburgh Water's expense claims.

I&E recommends that Pittsburgh Water's expenses for the FPFTY be reduced by about $24,739,686 (Exhibit R-2025-3055010 I&E Overall Position - Rate Case Tables WJP-1 – Patel) with a total operating budget requirement of $127,356,528. I&E's expenses adjustments fall into the twenty one categories: employee-related expenses, computer & peripherals, lab equipment, vehicles, manhole & point repair, emergency sewer repairs, emergency water repairs, field inspections, concrete repairs, membership fees, consultants, construction management, consulting engineers, legal – lobbying expense, payroll services, water liens, uniforms, TE training, fines and penalties, electric, and water treatment chemicals.

OCA recommends that Pittsburgh Water's expenses for the FPFTY be reduced by about $18,690,840 (Exhibit DM-1) with a total operating budget requirement of $133,405,373. OCA's expenses adjustments impact the departments of the Executive Office, Customer Service, Technology Services, Finance, Human Resources, Legal, Safety & Security, Public Affairs, Warehouse, Laboratory, Water Treatment Plant, Water Plant Operations, Sewer Operations, Environmental Compliance, Engineering & Construction, as well as what OCA defines as "other adjustments".

Q. BOTH I&E AND OCA EXPRESSED CONCERN ABOUT VARIANCES BETWEEN BUDGETED AND ACTUAL EXPENSES. PLEASE RESPOND.

A. The concerns from I&E and OCA are not valid. Pittsburgh Water has incurred $79,895,479 in Operating Budget expenses through August 31, 2025. This represents a $4,881,932 or 6.5% increase through the same period in the prior year. The projected

year-end Operating Budget total is $136,793,915, which $1,267,173 or 0.9% **higher** than the approved budget for FY 2025.

Furthermore, I would like to point out that I&E's and OCA's respective FPFTY operating budget recommendations are $9,437,387 and $3,388,542 *lower* than Pittsburgh Water's *FY 2025* Operating Budget annualized through August 31, 2025. See the chart below for more information.

FY 2025 Budget	FY 2025 Annualized	I&E FPFTY Recommendation	OCA FPFTY Recommendation
$ 135,526,742	136,793,915	127,356,528	133,405,373

Adopting either of these FPFTY operating budget recommendations would be setting Pittsburgh Water up for failure. Pittsburgh Water would be forced to cancel active contracts, layoff staff, and pause future initiatives just to keep the business financially solvent. This would cause massive reputational damage and almost guarantee a downgrade from the rating agencies.

Q. DO YOU AGREE WITH I&E'S OR OCA'S FPFTY OPERATING BUDGET REVENUE REQUIREMENT?

A. No, I do not agree with recommendations from either I&E or OCA for the reasons that I stated above.

IX. NORMALIZATION AND ADJUSTMENTS OF OCA AND I&E

Q. DID ANY OF THE PARTIES RECOMMEND NORMALIZATION OF PITTSBURGH WATER'S EXPENSES?

A. Yes. OCA and I&E both recommend the normalization of numerous expenses. The normalization proposal of OCA results in a $14,955,084 reduction in the FPFTY and I&E's results in $14,018,421 reduction.

Q. DOES PITTSBURGH WATER AGREE WITH I&E'S AND OCA'S RECOMMENDED NORMALIZATION ADJUSTMENTS?

A. No, I reject all of I&E's and OCA's recommended normalization adjustments. This approach may be reasonable when it is applied to an investor-owned utility that is regulated on a rate of return/rate base basis but, for several reasons, is not reasonable for Pittsburgh Water.

First, Pittsburgh Water continues to grow its operations to a sufficient size to renew, maintain, and operate its large water, wastewater, and stormwater systems. Using historical data to condemn future projections is self-defeating and amounts to a repudiation of Pittsburgh Water's efforts to repair and neglect and inadequacies of the past. If Pittsburgh Water is held to historic spending for ratemaking purposes, it will be forced to reduce its level of expenditures to those levels. In turn it will not be able to accomplish the myriad of projects and initiatives it has determined are necessary or has been ordered to do by regulators.

To help illustrate how these normalizations produce unreasonable results, the exercise by OCA and I&E actually could provide Pittsburgh Water with more revenue than it needs. To provide one specific example, OCA recommends increasing the FPFTY claim for security guards (GL 5375) from $300,000 to $468,743 to align with historical spending patterns and its "normalization" methodology. The reason the FPFTY claim for the

security guards was requested at a lower level than prior years was because Pittsburgh Water started to bring this function in-house and is no longer relying only on external guards for security. OCA also recommends increases to travel and training, inventory, and consultants GL accounts for various departments that Pittsburgh Water did not request because the projections of the department heads in these areas did not justify an increase. These examples show that simply relying on a mathematical formula to normalize costs is not an accurate way to determine the true needs of a utility.

Second, it is important to note that, unlike investor-owned utilities, Pittsburgh Water has asked for no material increment above revenues it needs to fund its Operating Budget to be able to attain financial indicators that would be consistent with its peer utilities. As such, Pittsburgh Water has no "cushion" (such as that produced by a rate on equity allowance) to be able to fund its Operating Budget if it does not receive the revenues it needs to provide that funding.

Third, unlike an investor-owned utility, if Pittsburgh Water does encounter unforeseen circumstances and is unable to expend all of its FY 2026 Budget funding provided in rates, 100% of the revenues Pittsburgh Water collects from customers will be retained by Pittsburgh Water and will be used to support the continued system operation in a safe and reasonable manner; it will not go to shareholders or an owner. Pittsburgh Water would, in fact commit to using any FY 2026 excess revenues net of expenses in subsequent years to reduce its cost of service by paying down debt or other borrowing, adding the amount to its cash on hand (which then will be used to pay for operating expenses or debt service), or crediting its Reserve Fund. Any of these steps will reduce its revenue requirement—and needed rate relief—in future years.

Moreover, the explicit or implicit alleged justification for using historic averages rather that Pittsburgh Water's projections for FY 2026 expenses is that Pittsburgh Water did not sufficiently justify or "prove" that its claimed expense levels for FY 2026 were reasonable. First, both Parties are demanding a level of "proof" that is virtually impossible when projecting expenditures many months out.[7] Second, Pittsburgh Water *did* provide extensive support for its FY 2026 projections, which, was simply brushed aside by these witnesses as insufficient. Indeed, Pittsburgh Water provided significant discovery responses to the parties, most of which were not referenced that discussed projected expenditures.

Last, I will note that I&E's normalization adjustments are based on two year averages from FY 2023- FY 2024 or three-year averages from FY 2022 to FY 2024. I do not agree with any of the normalization adjustments. However, the proper way to do it would be to include FY 2025 or the FTY in the normalization adjustments. It is not reasonable to consider costs that are from two and three years and ignore the FTY to provide a recommendation for the FPFTY.

That said, I will discuss some of I&E's and OCA's most egregious normalization adjustments below, but my failure to address any specific normalized adjustment should not be construed as an acceptance of the approach. Again, Normalization is simply not reasonable or produces reasonable results for Pittsburgh Water's expenses and should be rejected in its entirety.

[7] *See, e.g.*, OCA St. No. 2 at 17; I&E St. No. 2 at 15, 18, 19, 25, 27, 30

X. SALARY AND BENEFITS EXPENSES

Q. CAN YOU EXPLAIN I&E'S NORMALIZED EMPLOYEE VACANCY LEVEL ADJUSTMENT OF 8.59%?

A. Yes, I&E calculated Pittsburgh Water's normalized vacancy level of 8.59% by dividing FY 2024 average vacancies of 38 by the budgeted headcount of 446. I&E then applies this percentage to the salary and benefits in the FPFTY to make the corresponding reductions.

Q. CAN YOU EXPLAIN OCA'S NORMALIZED VACANCY LEVEL ADJUSTMENT OF 6.41% FOR EACH PITTSBURGH WATER DEPARTMENT?

A. Yes, OCA calculated Pittsburgh Water's normalized vacancy level of 6.41% by dividing the 3-year vacancy average between FY 2023 – FY 2025 of 27 by the 3-year total employee average of 421 through that same time frame (27/421 = 6.41). OCA then applies this percentage to the salary and benefit FPFTY claim for each department and make the corresponding reductions.

Q. DO YOU AGREE WITH I&E'S OR OCA'S METHODOLOGY?

A. No, I disagree with both methodologies. I&E recommends an FPFTY salary amount of $39,093,889 and OCA recommends $39,985,244. Pittsburgh Water's FPFTY salary claim was $42,767,628 to fund 464 positions, which averages an employee salary cost of $92,172. The average FPFTY salary amount of $92,172 would only fund 424 positions ($39,093,889 / $92,172) under I&E's proposal and 434 positions ($39,985,244 / $92,172) under OCA's. As of September 22, 2025, Pittsburgh Water's current headcount was 415, which is only slightly less than the headcount that both I&E and OCA are claiming Pittsburgh Water will have more than a year from now.

Pittsburgh Water's current headcount figures invalidate the FPFTY salary recommendations from both parties. The recommendation from both parties is not

prudent because it does not provide Pittsburgh Water with the necessary funds to expand the headcount to the 464 planned for in the FPFTY to continue to advance Pittsburgh Water's mission. Notably, neither Party presented any analysis of Pittsburgh Water's projections to refute our determination of the need for this many employees in FY 2026. These figures clearly demonstrate that both I&E's and OCA's FPFTY recommendations should be rejected because they do not provide Pittsburgh Water with enough revenue to recover increased expenses for additional employees in the FPFTY and fund cost of living adjustments for employees, which are nondiscretionary for union employees per the collective bargaining agreements.

XI. NON-SALARY AND BENEFITS EXPENSES

Q. DID I&E RECOMMEND ADDITIONAL FPFTY NON-SALARY AND BENEFITS EXPENSE REDUCTION?

A. Yes. In addition to the FPFTY salary and benefit reductions, I&E also recommended FPFTY non-salary and benefits reductions for certain line items that equate to a decrease in the amount of $19,940,621 or 29.6% as compared to Pittsburgh Water's proposed FPFTY for those same line items.

	Pittsburgh Water FPFTY Claim	I&E FPFTY Adjustments	I&E FPFTY Allowance
Computers	$ 721,500	(400,000)	321,500
Lab Equipment	168,000	(72,000)	96,000
Vehicles	3,000,000	(1,575,654)	1,424,346
Annual Sewer Contract	7,800,000	(979,812)	6,820,188
Emergency Waterline Repair	7,000,000	(1,840,785)	5,159,215
Manhole & Point Repair	3,000,000	(1,424,776)	1,575,224
Field Inspection	3,094,282	(703,706)	2,390,576
Concrete Repairs	15,000,000	(3,892,185)	11,107,815
Membership Fees	149,038	(43,000)	106,038
Consultants	7,646,744	(2,282,406)	5,364,338
Construction Management	1,923,254	(360,454)	1,562,800
Consulting Engineers	196,684	(113,545)	83,139
Legal	2,417,700	(88,200)	2,329,500
Payroll Services	243,000	(93,372)	149,628
Water Liens	105,000	(28,629)	76,371
Uniforms	243,500	(89,201)	154,299
TE Training	303,985	(161,896)	142,089
Fines and Penalities	20,000	(20,000)	-
Electric	6,727,000	(2,763,267)	3,963,733
Water Treatment Chemicals	7,542,912	(3,007,733)	4,535,179
Total	**$ 67,302,599**	**(19,940,621)**	**47,361,978**

Q. DID OCA RECOMMEND ADDITIONAL FPFTY NON-SALARY AND BENEFITS EXPENSE REDUCTION?

A. Yes. In addition to the FPFTY salary and benefit reductions, OCA also recommends FPFTY non-salary and benefits reductions in the amount of $15,063,979 or 16.1% as compared to Pittsburgh Water's proposed FPFTY non-salary and benefits revenue requirement.

Department		Pittsburgh Water FPFTY Non-Salary and Benefits Budget	OCA FPFTY Adjustments	OCA FPFTY Non-Salary and Benefits Budget Recommendation
Chief Executive Office	$	2,156,255	(448,600)	1,707,655
Customer Service		3,991,162	(95,233)	3,895,929
Technology Services		6,277,559	(1,477,294)	4,800,265
Finance		13,734,832	(1,840,872)	11,893,960
Human Resources		798,230	(423,720)	374,510
Legal		3,289,275	(829,646)	2,459,629
Safety & Security		921,323	(110,722)	810,601
Public Affairs		631,279	25,027	656,306
Environmental Compliance		2,906,949	(312,083)	2,594,866
Warehouse		30,950	(153)	30,797
Laboratory		1,077,287	(137,076)	940,211
Water Treatment Plant		17,922,779	(129,165)	17,793,614
Sewer Operations		2,444,215	(783,135)	1,661,080
Water Operations		4,970,838	(521,797)	4,449,041
Engineering & Construction		32,692,185	(7,979,510)	24,712,675
Total	**$**	**93,845,118**	**(15,063,979)**	**78,781,139**

Q. DO YOU AGREE WITH I&E'S AND OCA'S NON-SALARY AND BENEFITS FPFTY REVENUE REQUIREMENT RECOMMENDATION?

A. No, I do not agree with either recommendation. I have previously demonstrated that Pittsburgh Water is positioned to meet or exceed its FY 2025 Operating Budget, which further justifies the requested FPFTY claim. I&E's and OCA's respective $19,940,621 and $15,063,979 cuts to non-salary and benefit budget items are not realistic. It also does not consider the additional salary and benefits reductions that I have previously discussed, further invaliding the recommendations of both parties. Reductions this dramatic are counterproductive and do not provide Pittsburgh Water with the revenues to adequately maintain the system and provide ratepayers with safe and reliable services.

XII. PERFORMANCE BONUS

Q. OCA ST. NO. 2 AT 24 RECOMMENDS DISALLOWING THE FPFTY PERFORMANCE BONUS CLAIM OF $43,785 FOR THE CHIEF EXECUTIVE OFFICER GIVEN THE ALLEGED LACK OF INFORMATION ON THE PERFORMANCE GOALS. PLEASE RESPOND.

A. I do not agree with this recommendation. Pittsburgh Water provided the performance goals within the discovery request OCA Set 9 question 13. To reiterate what was provided, the Pittsburgh Water Board of Directors determines the CEO's annual performance bonus of up to 15% of their salary and based on the following:

1. CEO drafts strategic specific, measurable, attainable, relevant, and time-bound (SMART) goals for the upcoming year for Board consideration and approval.
2. Board amends and approves goals in January of the evaluation year.
3. CEO performs a self-assessment against the established goals in December of evaluation year for Board consideration.
4. Board develops a 1-5 scale rating based upon performance against the goals and overall organizational and individual performance.
5. The rating is used to determine bonus amount (Rated 1 through 5)
6. The general categories of goals and objectives are:
    a. Environmental and legal compliance
    b. Operations and water treatment plant
    c. Finance, revenue and customer service
    d. Key stakeholder relationships
    e. Engineering and construction

In addition, these criteria are included in the CEO's employment contract with Pittsburgh Water and must be funded like other contract obligations.

XIII. REBRANDING COSTS

Q. OCA ST. NO. 2 AT 24 RECOMMENDS DISALLOWING THE FPFTY REBRANDING COSTS OF $50,000 BECAUSE THESE TYPES OF COSTS ALLEGEDLY DO NOT PROVIDE ANY BENEFITS TO RATEPAYERS. PLEASE RESPOND.

A. I do not agree with this recommendation. Pittsburgh Water's rebranding "sets the tone" throughout the organization by highlighting the commitment to public health, safety, ethics and integrity, stewardship, and accountability by reaffirming Pittsburgh Water's Mission, Vision, and Core Values. This has a positive impact on business practices, which ultimately benefits Pittsburgh Water's ratepayers.

XIV. WATER CONSERVATION PROGRAM

Q. OCA ST. NO. 2 AT 26 RECOMMENDS ADDING $150,000 IN THE FPFTY FOR WATER CONSERVATION PROGRAM COSTS. PLEASE RESPOND.

A. In addition to the $150,000 Pittsburgh Water included in the FPFTY as part of its recommendation to make the Water Conservation Program permanent, OCA, per its witness Mr. Colton, proposed to add an additional $150,000 to the program for a total funding of $300,000 (OCA St. No. 6 at 72). Ms. Mechling discusses these recommendations in her rebuttal testimony, *see* Pittsburgh Water St. No. 6R, and encourages that the Commission accept Pittsburgh Water's proposal.

XV. LOBBYING EXPENSE

Q. OCA ST. NO. 2 AT 49 RECOMMENDS DISALLOWING $88,200 IN THE FPFTY FOR LOBBYING. PLEASE RESPOND

A. While I understand and acknowledge the Commission's general rule with respect to lobbying expense, I respectfully submit that these amounts are reasonable for Pittsburgh Water. Pittsburgh Water is a municipal authority and has an obligation to maintain lines of communication with other parts of government. Moreover, I understand that

Pittsburgh Water's government relations professional assist in obtaining information and appropriate low interest or grant funding from PENNVEST of the federal government. Accordingly, these expenditures are not so much "lobbying" but government relations expense. These efforts directly benefit customers. In fact, since Pittsburgh Water has no shareholders, all of Pittsburgh Water's government relations efforts accrue to the benefit of customers. Under these circumstances, I believe that "lobbying" expense should be deemed a reasonable pro forma expense for Pittsburgh Water. It would, therefore, be inappropriate to exclude Pittsburgh Water's claim for lobbying expense in its entity and OCA's proposed adjustment should be rejected.

XVI. VEHICLES

Q. DOES PITTSBURGH WATER AGREE WITH OCA'S AND I&E'S RECOMMENDED ADJUSTMENTS TO NORMALIZE THE COST OF VEHICLE FINANCING (COST CENTER 103) AND VEHICLES (GL ACCOUNT 5190) (OCA ST. NO. 2 AT 29–30); (I&E ST. NO. 2 AT 15)?

A. No. OCA proposes to reduce Pittsburgh Water's FPFTY claim of $3,000,000 by $1,789,426 to $1,210,574 by normalizing the costs over a three-year period (FY 2023 – FY 2025). I&E proposes to reduce Pittsburgh Water's FPFTY claim of $3,000,000 by $1,575,654 to $1,424,346 and states that Pittsburgh Water has not explained why the development of a five-year fleet acquisition plan was deemed necessary rather than continuing with its current level of vehicle replacement (I&E St. No. 2 at 15).

I would like to point out that Pittsburgh Water did address why a five-year fleet acquisition plan is necessary by stating in my direct testimony at Pittsburgh Water St. No. 2 at 17–18: "Currently, 78% of Pittsburgh Water's fleet is over 5 years of age, with 32% over 7 years of age. Approximately $2–3 million should be the minimum amount invested annually to keep up with replacement cycles and account for expansion of

operations." I then provide in my direct testimony the specific vehicles that will be purchased with the FPFTY claim. Pittsburgh Water clearly demonstrated the need for the FPFTY claim, which is relevant in this rate case, while also providing future revenue requirements via the five-year fleet acquisition plan, which shows that Pittsburgh Water is trying to proactively renew its fleet. In addition, in response to I&E-RE-21,[8] Pittsburgh Water provided the requested five-year fleet acquisition plan as well as the useful life of each vehicle. I&E clearly ignored this information and decided to normalize the cost anyway.

I do not agree with the normalization adjustments of both OCA and I&E. Pittsburgh Water must be granted the full amount of its FPFTY claim or else it will be forced to fall behind on replacing vehicles as they reach the end of their useful life.

XVII. LINE LOCATING

Q. DOES PITTSBURGH WATER AGREE WITH OCA'S RECOMMENDED NORMALIZATION OF THE SEWER (COST CENTER 300) AND WATER OPERATIONS (COST CENTER 202) LINE LOCATING (GL ACCOUNT 5380) EXPENSE PROJECTIONS (OCA ST. NO. 2 AT 44–45)?

A. No. OCA proposes reducing Pittsburgh Water's FPFTY claim of $1,839,000 by $919,500 to $919,500 based on a two-year average and attempts to justify their argument by saying that the contract expires in November 2025 and it is uncertain what the future costs will be (OCA St. No. 2 at 42). OCA's argument is flawed because it is not typical for contract renewal pricing to decrease. It generally stays the same or increases, further invalidating OCA's recommendation to reduce the FPFTY claim by half or 50%. To further invalidate OCA's claim, I have attached **EXHIBIT EB-18** that represents the

[8] See Exhibit EB-22.

recently executed FY 2026 agreement for line locating services. The full FPFTY claim must be funded to meet contractual obligations.

XVIII. MANHOLE REPAIR

Q. DOES PITTSBURGH WATER AGREE WITH OCA'S AND I&E'S RECOMMENDED NORMALIZATION OF THE ENGINEERING & CONSTRUCTION (COST CENTER 109) MANHOLE REPAIR (GL ACCOUNT 5343) EXPENSE CLAIMS (OCA ST. NO. 2 AT 48–49); (I&E ST. NO. 2, AT 20–21)?

A. No. OCA proposes reducing Pittsburgh Water's FPFTY claim of $3,000,000 by $1,500,000 to $1,500,000 based on a two-year average and attempts to justify their argument by stating that $523,369 has been incurred through July 2025 and the FY 2026 solicitation outcome is uncertain (OCA St. No. 2 at 47). I&E proposes reducing Pittsburgh Water's FPFTY claim of $3,000,000 by $1,424,776 to $1,575,224 based on a two-year average (I&E St. No. 2 at 20–21).

In response to I&E-RE-23,[9] Pittsburgh Water provided the current FY 2025 Manhole Repair contract as well as the FPFTY projection of $1,232,672 for the FY 2025 contract and $1,767,328 for the FY 2026 contract. Both parties ignored this information and made the determination that the FPFTY claim should be normalized. OCA is only providing Pittsburgh Water with $267,328 ($1,500,000 minus $1,232,672) for the FY 2026 contract, with I&E providing $342,552. This dramatic reduction does not make any sense when you consider Pittsburgh Water already spent $1,154,044 on one contract through the first nine months of FY 2025. In addition, Pittsburgh Water provided sufficient explanation for the FY 2026 projected level in direct and rebuttal. It is for these reasons that the recommendations from both parties should be rejected.

[9] See Exhibit EB-22.

XIX. FIELD INSPECTION

Q. DOES PITTSBURGH WATER AGREE WITH OCA'S RECOMMENDED NORMALIZATION OF THE ENGINEERING & CONSTRUCTION (COST CENTER 109) AND ENGINEER INSPECTION (GL ACCOUNT 5347) EXPENSE CLAIMS (OCA ST. NO. 2 AT 48–49)?

A. No. OCA proposes reducing Pittsburgh Water's FPFTY claim of $3,094,282 by $1,547,141 to $1,547,141 based on a two-year average and attempts to justify their argument by stating that $901,628 has been incurred through July 2025 and it is speculative that the proposed balance will come to fruition.

In response to I&E-RE-25,[10] which OCA had access to, Pittsburgh Water provided the 11 active field inspection contracts and associated amendments as well the FY 2026 projection for those active contracts. The projection shows that, of the FPFTY claim, $1,380,067 is related to active contracts. Based on OCA's recommendation, Pittsburgh Water would only have $167,074 to support the urgent sewer, urgent water, manhole repair, and surface restoration construction contracts. Furthermore, the construction inspection contract amounts are typically 10–15% of the associated construction contract that it is supporting. OCA did not consider this when making its recommendation which supports my claim that their adjustments should be rejected. Pittsburgh Water's full FPFTY recommendation should be granted because OCA's FPFTY recommendation is not representative of the true cost that will be incurred.

[10] See Exhibit EB-22

XX. CONSTRUCTION MANAGEMENT

Q. DOES PITTSBURGH WATER AGREE WITH I&E'S RECOMMENDED NORMALIZATION OF THE ENGINEERING & CONSTRUCTION (COST CENTER 109) CONSTRUCTION MANAGEMENT (GL ACCOUNT 7330) EXPENSE CLAIM (I&E ST. NO. 2 AT 28–29)?

A. No. I&E proposes reducing Pittsburgh Water's FPFTY claim of $1,923,254 by $360,454 to $1,562,800 based on a two-year average and claims that no documentation or calculations were provided to support the FPFTY claim. This is not correct.

In response to I&E-RE-45,[11] Pittsburgh Water provided an explanation along with an excel spreadsheet showing the construction management increase from FY 2025 to FY 2026. I&E could have requested additional information if they wanted additional justification. It is unclear what information could have been provided to resolve its claim that no documentation or calculations were provided. In addition, construction management contract amounts are typically 5–10% of the associated construction contract that it is supporting. I&E did not consider this when making their recommendation which supports my claim that their adjustments should be rejected. Pittsburgh Water's full FPFTY recommendation should be granted because I&E's FPFTY recommendation is not representative of the true cost that will be incurred.

[11] See Exhibit EB-22

XXI. SURFACE RESTORATION

Q. DOES PITTSBURGH WATER AGREE WITH OCA'S AND I&E'S RECOMMENDED NORMALIZATION OF THE ENGINEERING & CONSTRUCTION (COST CENTER 109) SURFACE RESTORATION (GL ACCOUNT 5413) EXPENSE PROJECTION(OCA ST. NO. 2 AT 48–49); (I&E ST. NO. 2 AT 23–25)?

A. No. OCA proposes reducing Pittsburgh Water's FPFTY claim of $15,000,000 by $2,818,752 to $12,181,248. I&E proposes reducing Pittsburgh Water's FPFTY claim of $15,000,000 by $3,892,185 to $11,107,815.

OCA normalizes the Surface Restoration cost over a three-year period without any additional information. Within the response to I&E-RE-20,[12] Pittsburgh Water provided a detailed basis and calculation for the FPFTY claim. OCA simply ignored this information and normalized the cost anyway. This shows that OCA does not understand Pittsburgh Water's needs and their recommendation should be rejected.

I&E makes two statements that I would like to address. First, at I&E St. No. 2 at 24, the I&E witness cites Pittsburgh Water's statement that an additional $19,000,000 above the $15,000,000 FPFTY claim is needed to address the backlog of paving sites. I&E then states that this admits the requested $15,000,000 FPFTY claim does not reduce the number of backlog sites. This is not correct. The reason Pittsburgh Water made this statement was to show that we are cognizant of the affordability impacts of requesting the full $34,000,000 needed to eliminate the backlog and are proposing to remove the backlog over a number of years and not all at once. It is disappointing that I&E would use this argument against Pittsburgh Water as it is not a reasonable basis to deny the FPFTY claim. I&E's proposed reduction of the $15,000,000 FPFTY claim makes the

[12] See Exhibit EB-22

backlog issues worse, not better. Second, at I&E St. No. 2 at 25, it is stated that an increase in funding does not address this issue because there was a decrease in the expense from the HTY to the FTY. This argument is also not valid. Per the **Exhibit EB-19**, Pittsburgh Water recently added an additional $2,800,000 to the FY 2025 surface restoration budget to continue to address the backlog of sites. I&E's recommendation is clearly not reasonable and should be rejected.

XXII. PERMITS

Q. DOES PITTSBURGH WATER AGREE WITH OCA'S RECOMMENDED NORMALIZATION OF THE ENGINEERING & CONSTRUCTION (COST CENTER 109) PERMITS (GL ACCOUNT 7015) EXPENSE CLAIM (OCA ST. NO. 2 AT 48–49)?

A. No. OCA proposes reducing Pittsburgh Water's FPFTY claim of $4,000,000 by $2,000,000 to $2,000,000. As an explanation for the FPFTY claim, Pittsburgh Water responded in I&E-RE-43[13] that "Pittsburgh Water's adopted Capital Improvement Plan requires additional right-of-way permits from the City of Pittsburgh's Department of Mobility and Infrastructure. These expenses are levied by the City of Pittsburgh using the annual fee schedule adopted by Pittsburgh City Council as part of the annual budgeting process. We also are forecasting the pricing for permits to increase. Much of this increase is offset with a corresponding negative amount within Capital Asset Reclass general ledger account (7710)." OCA states that no other information was provided by Pittsburgh Water and then decided to normalize the cost over a two-year period. The OCA witness does not explain why this explanation was not sufficient. Moreover, OCA

[13] See Exhibit EB-22

had the chance to ask for additional information but failed to do so. OCA's FPFTY claim should be rejected as it does not align with the actual needs of Pittsburgh Water.

XXIII. ANNUAL SEWER CONTRACT

Q. DOES PITTSBURGH WATER AGREE WITH I&E'S RECOMMENDED NORMALIZATION OF THE ENGINEERING & CONSTRUCTION (COST CENTER 109) ANNUAL SEWER CONTRACT (GL ACCOUNT 5305) EXPENSE CLAIM (I&E ST. NO. 2 AT 17)?

A. No. I&E proposes reducing Pittsburgh Water's FPFTY claim of $7,800,000 by $979,812 to $6,820,188. It is stated at I&E St. No. 2 at 18 that a three-year historic average was used because Pittsburgh Water allegedly did not provide any support for the increase. On the contrary, Pittsburgh Water provided the FY 2024 and FY 2025 annual sewer contracts as well as a detailed projected for FY 2026 within the response to I&E-RE-24.[14] I&E choose to ignore the information that was provided and use a simple normalization formula for their FPFTY claim. Their recommendation should be rejected as I&E's adjustment fails to consider the actual costs that will be incurred.

XXIV. EMERGENCY WATERLINE REPAIRS

Q. DOES PITTSBURGH WATER AGREE WITH I&E'S RECOMMENDED NORMALIZATION OF THE ENGINEERING & CONSTRUCTION (COST CENTER 109) EMERGENCY WATER CONTRACT (GL ACCOUNT 5342) EXPENSE CLAIM (I&E ST. NO. 2 AT 19)?

A. No. I&E proposes reducing Pittsburgh Water's FPFTY claim of $7,000,000 by $1,840,785 to $5,159,215. It is stated at I&E St. No. 2 at 19 that a three-year historic average was used because Pittsburgh Water did not provide any support for the increase. Pittsburgh Water provided the FY 2024 and FY 2025 emergency water contracts as well as a detailed projected cost for FY 2026 within the response to I&E-RE-24.[15] I&E chose

[14] See Exhibit EB-22
[15] See Exhibit EB-22

to ignore the information that was provided and use a simple normalization formula for their FPFTY claim. Their recommendation should be rejected.

XXV. CONSULTANTS

Q. DOES PITTSBURGH WATER AGREE WITH I&E'S RECOMMENDED NORMALIZATION OF THE ENGINEERING & CONSTRUCTION (COST CENTER 109) CONSULTANTS (GL ACCOUNT 7323) EXPENSE CLAIM (I&E ST. NO. 2 AT 26–27)?

A. No. I&E proposes reducing Pittsburgh Water's FPFTY claim of $7,646,744 by $2,282,406 to $5,364,338. Per response to I&E-RE-26,[16] Pittsburgh Water provided sufficient justification of the contracts and expenses that make up the FPFTY claim. I&E ignored this information, did not request additional information from Pittsburgh, and simply applied a three-year normalization average reduction from FY 2022 to FY 2024 to Pittsburgh Water's FPFTY claim.

XXVI. CAPITAL ASSET RECLASS

Q. CAN YOU EXPLAIN THE PURPOSE OF THE CAPITAL ASSET RECLASS 7710 GL?

A. Yes. Pittsburgh Water uses the Capital Asset Reclass 7710 GL to reimburse the operating budget for capital eligible items that are funded through the operating budget. One example of this would be using the emergency waterline contract to repair a broken main but the situation on the ground called for a full line replacement due to the age of the line. The repair would qualify as an operating expense and the full line replacement would qualify as a capital expense.

[16] See Exhibit EB-22

Q. WHICH DEPARTMENT AND GL ACCOUNTS ARE IMPACTED BY THE CAPITAL ASSET RECLASS?

A. The Capital Asset Reclass is associated with the following accounts within the Engineering and Construction department: Annual Sewer Contract (5305), Emergency Waterline Contract (5342), Manhole Repair (5343), Engineering Inspection (5347), Construction Management (7330), and Permits (7015).

Q. CAN YOU EXPLAIN THE CAPITAL ASSET RECLASS PROCESS?

A. Yes. Pittsburgh Water budgets the full contract costs in the Operating Budget for the Annual Sewer Contract, Emergency Waterline Contract, Manhole Repair, Engineering Inspection, Construction Management, and Permits under their respective GL accounts because it is unknown how much will be capital eligible.

The Capital Asset Reclass is included in the budget as a negative amount and assumes that 50% of the Annual Sewer Contract, Emergency Waterline Contract, Manhole Repair, Engineering Inspection, and Construction Management costs will be capital eligible and 100% of the permit costs will be capital eligible.

Q. CAN YOU EXPLAIN WHY THIS MATTERS?

A. Yes. This matters because both I&E and OCA made adjustments to reduce the allowance for a number of expense accounts that are tied to the Capital Asset Reclass. Both Parties should have also reduced the Capital Asset Reclass GL 7710 negative adjustment to correspond with the adjustments they recommended for the Annual Sewer Contract, Emergency Waterline Contract, Manhole Repair, Engineering Inspection, Construction Management, and Permit expenses.

Q. PLEASE SHOW THE IMPACT OF I&E'S AND OCA'S ADJUSTMENTS?

A. Certainly. Please see below. I&E would need to increase their FPFTY revenue requirement recommendation by $2,654,766 ($15,408,768 minus $12,754,002) because that is the amount that the Capital Asset Reclass deduction would change based on I&E's other adjustments that impact GL 7710. Similarly, OCA would need to increase its FPFTY revenue requirement by $3,523,570 to account for their reduction in Pittsburgh Water's expense claims that impact GL 7710.

	Pittsburgh Water FPFTY Claim	I&E FPFTY Claim	OCA FPFTY Claim
Annual Sewer Contract	$ (7,800,000)	(6,820,188)	(7,800,000)
Emergency Waterline Contract	(7,000,000)	(5,159,215)	(7,000,000)
Manhole Repair	(3,000,000)	(1,575,224)	(1,500,000)
Engineering Inspection	(3,094,282)	(2,390,576)	(1,547,141)
Construction Management	(1,923,254)	(1,562,800)	(1,923,254)
Permits	(4,000,000)	(4,000,000)	(2,000,000)
Total - GL 7710	$ (15,408,768)	(12,754,002)	(11,885,198)

XXVII. UNACCOUNTED FOR WATER

Q. WHAT DOES MR. SAKAYA STATE REGARDING UNACCOUNTED FOR WATER?

A. Mr. Sakaya references the Commission's policy statement on water conservation that states unaccounted for water levels above 20% are deemed excessive by the Commission (I&E St. No. 3 at 11). He then states that he reviewed Pittsburgh Water's FY 2022, FY 2023, and FY 2024 water audits and determined that the average percentage of unaccounted for water over those three years was 51.7% (I&E St. No. 3 at 13–14).

Q. DOES MR. SAKAYA RECOMMEND AND ADJUSTMENT FOR PITTSBURGH WATER'S UNACCOUNTED FOR WATER PERCENTAGE?

A. Yes, he recommends an expense reduction to power, purification, and materials and supplies of $5,771,000 (27,861,230,225 gallons x $0.207134 per thousand gallons) (I&E St. No. 3 at 14).

Q. HOW DOES MR. SAKAYA DETERMINE THE $0.207134 PER THOUSAND GALLONS COST TO PURCHASE OR PRODUCE WATER?

A. He states that he divided total water production by Pittsburgh Water FY 2024 electrical and chemicals cost (I&E St. No. 3, at 14). The image below from Mr. Sakaya's Schedule No. 3 demonstrates this calculation:

I&E Exhibit No. 3
Schedule No. 3

Pittsburgh Sewer and Water
Water Division
R-2025-3055010 (Water), R-2025-3055011(WW), R-2025-3055012 (SW)
Unaccounted For Water related Expenses

Line No.	(A)	(B)	(D)	(E)
		** Electric	**Chemicals	TOTAL
1	Expense*	$6,727,000	$7,322,137	$14,049,137
2	Total Send Out	67,826,410,000	67,826,410,000	67,826,410,000
3	Cost Per Thousand	$0.099180	$0.107954	$0.207134
4	Excess UFW	-27,861,230,225	-27,861,230,225	-27,861,230,225
5	UFW Adjustment	**-$2,763,267**	**-$3,007,733**	**-$5,771,000**

* Electric-PWSA St. No. 2, 23

** Response to I&E-RB-3

Q. WHAT IS YOUR RESPONSE TO MR. SAKAYA UNACCOUNTED FOR WATER ADJUSTMENT?

A. Mr. Sakaya's position is unreasonable, flawed and should be rejected. First, Mr. Sakaya states that the electric and chemical figures used in the unaccounted-for water calculation were from FY 2024. However, FY 2025 budget figures were used in the calculation (see B1 and D1 in the image above). There is also an error in the FY 2025 budget figures that Mr. Sakaya used. The FY 2025 chemical costs that were used in Schedule No. 3 were $7,322,137 but the budget amount is $7,312,137. Second, the basis for many of the proposed I&E reductions is that Pittsburgh Water's budgets are overinflated. If that were the case, it is not logical or consistent in his model for Mr. Sakaya to use budget figures for the unaccounted-for water calculation to generate a larger adjustment. Third, I am advised by counsel that the Commission's policy statement on unaccounted for water is guidance and not a performance mandate that should be used to arbitrarily penalize Pittsburgh Water to limit the rate relief needed. Indeed, the Commission's Policy Statement actually directs that unaccounted for water should be kept within "reasonable" amounts. As Pittsburgh Water witness McFaddin explains, the level of unaccounted for water is heavily affected by the nature and age of Pittsburgh Water's system. Moreover, Pittsburgh Water has undertaken a wide variety of steps to address the situation, which is what is in line with the Policy Statement. Fourth, I&E's total FPFTY reductions are self-fulfilling and do not help solve this problem. Rather, they will make the situation worse by robbing Pittsburgh Water of both the operating expenses required to produce water and the capital funds to address unaccounted for water. There is no simple overnight fix that can be employed to avoid I&E's (improper) position to reduce rate relief based on a policy statement.

XXVIII. DSIC; INCREASE

Q. PLEASE SUMMARIZE THE OPPOSING PARTIES' TESTIMONY REGARDING PITTSBURGH WATER'S PROPOSAL TO INCREASE ITS DSIC CAP – NOW 5% – TO 7.5%

A. Both I&E witness Patel and OCA witness Deupree opposed Pittsburgh Water's proposal to increase the present cap on its water and wastewater DSIC to 7.5%. Mr. Kubas, for OSBA, supported Pittsburgh Water's proposal to increase its DSIC cap, but recommended that Pittsburgh Water exclude any revenue from its PENNVEST Surcharge from the calculation of the 7.5% cap.

Q. I&E WITNESS PATEL OPPOSES PITTSBURGH WATER'S PROPOSAL TO INCREASE ITS DSIC CAP FROM 5% TO 7.5%. WHAT REASONS DID MR. PATEL GIVE FOR HIS POSITION?

A. He states that, instead of increasing the cap, Pittsburgh Water should use lower cost PENNVEST funding rather than increase its DSIC and that Additionally, Pittsburgh Water has a capital line of credit of $150,000,000 for funding urgent and critical repairs as well as for interim capital improvement expenses, and as of June 30, 2025, the outstanding (borrowing) balance was $15,000,000. He also claims that Pittsburgh Water is attempting to include in its operating budget recovery of an amount for shorter life capital equipment over the anticipated equipment life and that this claim (the level of which another I&E witness opposes) "invalidates" the need for an increase in Pittsburgh Water's DSIC cap (I&E St. No. 1 at 17–18). Finally, Mr. Patel objects to the DSIC cap increase because of, what he claims, is the speculative nature of any projected expenditures that Pittsburgh Water might include in the DSIC if the cap were to increase (*Id.*). I&E witness Sakaya made this same contention in his testimony.[17]

[17] I&E St. No. 3 at 10.

Q. CAN YOU RESPOND?

A. Yes. First, I must point out that, on advice of counsel, I am informed that the Public Utility Code already authorizes a DSIC at 7.5% for water companies.[18] Counsel informs me that, at least for Pittsburgh Water's water operation it has a legal right to DSIC at 7.5% without having to justify that level (since the Legislature has already made that determination) and it is up to parties opposing it to show some extraordinary reason why the DSIC for water operations should **not** be increased to that level.

Q. WHY IS PITTSBURGH WATER'S CURRENT DSIC FOR WATER OPERATIONS NOT AT 7.5.%?

A. Pittsburgh Water initially agreed to a 5% DSIC for its water operations as part of a settlement and to gain experience with the DSIC's requirements before moving to a 7.5% cap.

Q. WHAT DO YOU UNDERSTAND TO BE THE STANDARD FOR INCREASING THE DSIC CAP FOR PITTSBURGH WATER'S WASTEWATER OPERATIONS?

A. Counsel informs me that the standard for increasing the DSIC cap is simply whether the increase will " ensure and maintain adequate, efficient, safe, reliable and reasonable service."[19] In my Direct Testimony, I submitted testimony demonstrating that the increase in the DSIC cap would enable Pittsburgh Water to expedite and advance the installation of new distribution facilities which are crucially necessary to maintain and improve Pittsburgh Water's service. Mr. King and Ms. Mechler's rebuttal testimony will provide more detail on this point. In my view, the arguments raised by Mr. Patel—listing

[18] 66 Pa. C.S. § 1358(a)(2).
[19] *Id.* § 1358(a)(1).

alternatives to increasing the DSIC cap—are not relevant, even if they were in fact legitimate funding alternatives to a DSIC cap raise.

Q. PLEASE EXPLAIN WHY THE ALTERNATIVES RAISED BY MR. PATEL ARE NOT VIABLE ALTERNATIVES TO FUNDING THE PROPOSED ACCELERATION OF NECESSARY DISTRIBUTION SYSTEM CAPITAL PROJECTS.

A. Certainly. First, obtaining more PENNVEST loans is not a realistic alternative to increasing the DSIC cap (I&E St. No. 1 at 18). The fact that Pittsburgh Water currently applies for and receives loans does not mean that Pittsburgh Water will receive any loans or grants from PENNVEST in the future. Pittsburgh Water can only request loans from PENNVEST. Pittsburgh Water does not have discretion on whether loans or grants will be approved by PENNVEST. Moreover, there is no assurance that PENNVEST will have sufficient funds to make such loans. My understanding is that the amount that PENNVEST has to grant or loan each year will vary and PENNVEST generally allocates those funds to all qualifying projects. Nor does Pittsburgh Water have discretion on the amount it will receive under loans or grants from PENNVEST. The ultimate decision-making lies with PENNVEST. I understand that PENNVEST makes the best offer that they can provide in accordance with its program limitations and available funding.[20]. Typically, there is more demand for funding from PENNVEST than is available from PENNVEST, so competition for loans and grants is fierce. Accordingly, there would be no way that Pittsburgh Water could assume that it was going to receive additional PENNVEST funding so as to justify including additional projects in its budget. Finally, as Ms. Fay's testimony shows, for a cash flow regulated company, it is actually cheaper

[20] PENNVEST Overview Webinar https://www.pa.gov/agencies/pennvest/resources-tools-and-training/training-center

to fund capital improvements year over year using cash from rates than by borrowing, either via general obligation bonds or even low-interest PENNVEST loans whether examined on a nominal or discounted basis. Therefore, having a portion of Pittsburgh Water's capital financing come from pay-go not only helps to reduce reliance on long term debt but it actually lowers the cost to ratepayers over time.

Second, while Mr. Patel is correct that Pittsburgh Water has in place a capital line of credit of $150,000,000 for funding urgent and critical repairs as well as for interim capital improvement expenses, that line of credit, by its terms, must be refinanced by long term debt. It is not an independent financing source and is already being utilized and accounted for within Pittsburgh Water's capital improvement plan. Moreover, the balance of project expenses eligible to be funded with this line of credit is currently at $110 million and is expected to increase to $150 million at the time that Pittsburgh Water issues its next long-term bond, which is what Pittsburgh Water's proposed FPFTY senior lien bond proceeds will be used for. This is no replacement for additional funds from the DSIC.

Q. MR. PATEL ALSO CLAIMED THAT NORMALIZATION OF EQUIPMENT COSTS FOR SHORTER LIFE CAPITAL EQUIPMENT OVER THE ANTICIPATED EQUIPMENT LIFE ALSO PROVIDES AN ONGOING LEVEL OF FUNDING IN BASE RATES THAT IS INTENDED TO FUND THESE NEEDS PROSPECTIVELY, THEREBY "INVALIDATING" THE NEED FOR AN INCREASE IN DSIC RATE (I&E ST. NO. 1 AT 18). DO YOU HAVE A RESPONSE.

A. The reason Pittsburgh Water made a claim for the "equipment" that Mr. Patel refers to (computers, lab equipment and vehicles) is that they are relatively short lived and the cost of those items are part of Pittsburgh Water's Operating Budget, not its capital budget. Moreover, they do not fit the definition of "eligible property" in the Public Utility Code

and therefore could not be included in the DSIC.[21] Therefore, these expense allowances cannot be a substitute for additional DSIC spending.

Q. FINALLY, MR. PATEL ASSERTS THAT THE FACT THAT PITTSBURGH WATER HAS HAD INSTANCES IN WHICH IT HAS NOT SPENT 100% OF ITS ANNUAL CAPITAL IMPROVEMENT BUDGET IS A REASON TO REJECT ITS PROPOSAL TO INCREASE ITS DSIC CAP. IS THAT A VALID REASON IN YOUR OPINION?

A. No it is not. While I have discussed the valid reasons why there have been variances between actual spends and budgeted amounts in the last several years, the fact is that if Pittsburgh Water experiences such a shortfall in DSIC spending verses DSIC billings the reconciliation mechanism in the DSIC will ensure that ratepayers will be billed only for the amounts Pittsburgh Water actually spent in the relevant year and the Authority will have to refund to customers any unspent dollars with interest. If the Commission is concerned about Pittsburgh Water's variances between budget and actual, then the best way to protect customers from under spending is for the costs of the project to be billed through a reconcilable surcharge, like the DSIC.

Q. ON WHAT BASIS DOES MR. DEUPREE OPPOSE PITTSBURGH WATER'S PROPOSAL TO INCREASE ITS DSIC CAP FROM 5% TO 7.5%?

A. Mr. Deupree claims that Pittsburgh Water has not shown that it has been unable to fund its capital budget at the existing, 5% DSIC cap (OCA St. No. 1 at 30). Curiously, his other criticisms attack the fact that Pittsburgh Water's current DSIC permits the financing of capital improvements using cash generated from the DSIC, sometimes called "pay-go" financing. Mr. Deupree claims that pay-go financing raises "intergenerational equity" concerns and is "not necessarily" cheaper for ratepayers (*Id*. at 31–32). He also claims that bond financing is cheaper for ratepayers because the interest rate on bonds is lower

[21] See 66 Pa. C.S. § 1351.

than a ratepayer's discount rate, which he suggests is the interest rate on a credit card. Finally, he raises questions about the legal authority of Pittsburgh Water to employ pay-go" financing via its DSIC.

Q. CAN YOU RESPOND?

A. Yes. First, to the extent that Mr. Deupree's criticism focuses on the pay-go method of financing as being somehow inappropriate I would point out that this DSIC structure was already approved by the Commission in its 2020 rate case via a settlement in which the OCA was a signatory. It is also the same construct that is used by the only other cash flow regulated utility, Philadelphia Gas Works ("PGW"). Mr. Deupree does not explain how his criticisms are consistent with OCA's previous acceptance of pay-go financing via the DSIC. I respectfully suggest that any disagreement Mr. Deupree has for Pittsburgh Water existing funding for the DSIC is not relevant to whether Pittsburgh Water's DSIC cap should be increased from 5% to 7.5%. But even considered on their merits, Mr. Deupree's allegations fail to consider that pay-go financing is and should be an important part of Pittsburgh Water's financing strategy over time. From that perspective, there is no intergenerational inequity because each generation of customers are being asked to pay a constant mixture of pay-go and long-term bonds, both PENNVEST and general obligation bonds.

In terms of cost, over time, pay-go is demonstrably cheaper for ratepayers. Ms. Fay's testimony presents clear evidence of this. She shows that a fair comparison of the two funding sources must consider, first, that the cost of revenue bonds includes not only the debt service but also a debt service coverage requirement of 1.25x, and, second, that, without pay-go, Pittsburgh Water would have to issue a new bond *each year* in order to maintain the same funds it is now obtaining from the DSIC. While the bond option

would admittedly be cheaper for ratepayers in the first few years, the breakeven point will be in about year 2038, and from then on, the pay-go option is actually cheaper for ratepayers. Ms. Fay's analysis shows that pay-go is cheaper for ratepayers than bonds whether considered on a nominal or discounted basis. Using a different interest rate (and an argument can be made for very low discount rates for consumers, reflecting the interest they receive on their savings accounts) will only change the timing of when bond financing will be more expensive than pay-go financing.

Q. MR. DEUPREE STATES THAT IT IS "UNCLEAR" WHETHER PITTSBURGH WATER HAS THE AUTHORITY TO STRUCTURE ITS DSIC SO THAT IT FINANCES DISTRIBUTION IMPROVEMENTS ON A PAYGO BASIS. CAN YOU RESPOND?

A. It is only "unclear" if one has done no investigation or review of Pittsburgh Water's DSIC and the orders that have approved it. Pittsburgh Water's pay-go DSIC was approved in its 2020 rate proceeding.[22] The approval of the DSIC was part of a Settlement with all parties, including the OCA. The relevant term of the Settlement states as follows:

> Initially, PWSA will utilize DSIC revenue only for PAYGO funding of DSIC-eligible projects. PWSA may also utilize DSIC revenue to recover amounts associated with bond funding of DSIC-eligible projects provided that, prior to using DSIC for this purposes, PWSA will meet with the parties to the Settlement to discuss the parameters and procedures and will provide notice to the Commission of its intent to use DSIC revenue to recover bond related funding. All parties reserve the right to reevaluate the use of DSIC revenue for PAYGO or bond related funding as part of a future base rate proceeding.[23]

[22] See Docket No. R-2020-3017951 *et al.*

[23] See Docket No. R-2020-3017951, P-2020-3019019, Joint Petition for Settlement, III.A.2.(e) (emphasis added). Pittsburgh Water's Petition requesting permission to implement a DSIC was actually entitled "Petition of Pittsburgh Water and Sewer Authority For Waiver of Provisions of Act 11 to Increase The DSIC CAP, to Permit Levelization of DSIC Charges, and to Authorize the Pay-As-You-Go Method of Financing."

The Commission approved the Settlement, without modification, on December 3, 2020. Pittsburgh Water has been employing a DSIC that bills customers at an annualized 5% rate since that case. I am informed by counsel that the Commission may not legally approve a Settlement term that violates the Public Utility Code or that is otherwise illegal.

Q. BUT MR. DEUPREE POINTS OUT THAT SECTION 1358 OF THE CODE, ON ITS FACE, DOES NOT APPEAR TO AUTHORIZE THE USE OF "PAY-GO" FOR A UTILITY OTHER THAN PGW. IS HE CORRECT?

A. The statute on its face does state that recovery for entities other than PGW (a city natural gas distribution operation) is for a return of and on investment plus any closing costs. That language does not apply to Pittsburgh Water. But the Code permits the Commission to alter or amend any provision of the Public Utility Code if necessary to make them fair to Pittsburgh Water.[24] It was by the use of this section that the Commission was able to alter Section 1358 of the Code, which authorizes pay-go to be used by PGW, to be applied to Pittsburgh Water.

Q. MR. DEUPREE MAINTAINS THAT A REASON TO REJECT PITTSBURGH WATER'S REQUEST FOR AN INCREASE IN ITS DSIC CAP IS THAT "THE AUTHORITY PROVIDES NO EVIDENCE IN THE CURRENT PROCEEDING THAT IT CANNOT MAINTAIN HEALTHY FINANCIAL MARGINS EVEN WITHOUT THE PROPOSED INCREASE IN DSIC CAPS (OCA ST. NO. 1 AT 36). CAN YOU RESPOND?

A. Pittsburgh Water did not propose increasing its DSIC cap to help it "maintain healthy financial margins." It proposed the DSIC cap in order to be able to accelerate the replacement and modernization of its distribution system beyond what it is planning now. To do this, Pittsburgh Water must be able to obtain additional capital to do so. An ancillary benefit is that funding additional funding with pay-go via the DSIC will reduce

[24] 66 Pa. C.S. s 3202(b).

the overall cost of financing its CIP and also reduce its reliance on long term debt, improving its debt-to-equity ratio, which, in turn, helps its financial profile. All of these are positive for Pittsburgh Water and its ratepayers.

Q. IN RESPONSE TO THE TESTIMONY IN YOUR DIRECT THAT INCREASING THE DSIC CAPS WOULD BENEFIT RATEPAYERS BY ALLOWING ADDITIONAL RECONCILIATIONS AND INCREASED TRANSPARENCY, MR. DEUPREE CALLED THIS A "RED HERRING" BECAUSE, HE CLAIMED, "RATEPAYERS ONLY BENEFIT FROM RECONCILIATIONS UNDER THE DSIC DUE TO THE HISTORIC OVER PROJECTION OF AUTHORITY CAPITAL INVESTMENTS" (OCA ST. NO. 1 AT 37). IS THIS TRUE?

A. No, this is factually incorrect. Pittsburgh Water's DSIC allows it to recover only for actual expenditures for improvements set out in its Long Term Infrastructure Improvement Plan ("LTIIP"). Since the DSIC is fully reconcilable, any "over projection of capital investment" would be returned to ratepayers in the reconciliation clause of the DSIC. But, even if Pittsburgh Water spends 100% of what it was projecting to spend and recover in its DSIC, the undercollection mechanism can still protect ratepayers by ensuring that if Pittsburgh Water's sales are greater than projected, and it bills more than 7.5% of pro forma revenues, it will return the excess to ratepayers. The reconciliation mechanism also protects Pittsburgh Water as well by permitting it to bill customers for expenditures for which it was not able to bill because of a reduction in revenues compared to projected levels. Protections like this do not exist for expenditures that are recovered in base rates.

Q. IN YOUR DIRECT TESTIMONY (PITTSBURGH WATER ST. NO. 2 AT 66) YOU STATED THAT INCREASING THE DSIC CAP WOULD HELP PITTSBURGH WATER COMBAT THE DIMINISHED PURCHASING POWER THAT HAS RESULTED FROM RECENT INFLATION, INCREASES THAT ARE LIKELY TO CONTINUE. MR. DEUPREE RESPONDED BY CLAIMING THAT INFLATION AFFECTING UTILITIES HAS RETURNED TO "NORMAL" RANGES, AND THAT "THE DSIC IS ONLY USED TO RECOVER THE COSTS OF CAPITAL OF INVESTMENTS MADE BETWEEN RATE CASES [AND THAT] LONG-TERM ESCALATION IN COSTS WILL BE INCORPORATED INTO BASE RATES THROUGH RATE INCREASES (OCA ST. NO. 1 AT 35). PLEASE RESPOND.

A. Mr. Deupree's fundamental error is that he incorrectly states how Pittsburgh Water's DSIC works. Our DSIC, unlike those for investor-owned utilities with which, presumably, he is more familiar, is not designed to recover the cost of capital or depreciation of investments in between rate cases. It is a permanent funding source that is not zeroed out when new base rates are set. Therefore, Pittsburgh Water will have no opportunity to "incorporate into base rates" any loss in purchasing power that Pittsburgh Water experiences when it uses DSIC funding for distribution system improvements. Pittsburgh Water's point here is that a dollar of DSIC spending today finances materially less actual capital improvement than it did only five years ago. For Pittsburgh Water to continue to be able to accelerate its modernization improvements through its DSIC at the same pace as when the DSIC was put in place in 2020 the 2.5% increase in the cap is imperative.

Q. WHAT POSITION DID OSBA WITNESS KUBAS TAKE WITH RESPECT TO PITTSBURGH WATER'S REQUEST TO INCREASE ITS DSIC CAP?

A. Mr. Kubas supported our request for a DSIC Cap increase but recommended that, in calculating the cap, revenues billed under Pittsburgh Water's PENNVEST Surcharge be excluded.

Q. DO YOU AGREE WITH HIS RECOMMENDATIONS?

A. I certainly agree and appreciate Mr. Kubas' support for our proposal to increase our DSIC cap. However, excluding PENNVEST revenues from the calculation of the cap is, first inconsistent with our present Tariff (e.g., Water Tariff page 62) which states that "The DSIC is capped at 5.0% of the amount billed to customers for distribution service (including all applicable clauses and riders)." Mr. Kubas has presented no facts or argument that would overcome the presumption that our present Tariff is just and reasonable. The PENNVEST Surcharge was approved by the Commission as part of the settlement of Pittsburgh Water's last base rate case.[25] The Settlement did not change this Tariff language. Therefore, it is reasonable to assume that there was no contemplation that PENNVEST Surcharge revenues would be excluded from the calculation of the DSIC cap.[26]

In fact, the suggestion that revenues from the PENNVEST surcharge should not be counted when calculating the cap fails to recognize that, without the surcharge, these revenues would be included in Pittsburgh Water's base rates and would be part of the denominator when calculating the (now) 5% limitation. To exclude them just because they will now be collected in a surcharge, which is part of distribution rates, would not be reasonable.

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25 Docket No. R-2023-3039920, *et. al*, Order entered January 18, 2024.

26 Mr. Kubas suggests that this Tariff provision should not be viewed as operative because, presently, this provision "is not being utilized" by Pittsburgh Water (OSBA St. No. 1 at 16–17). But this is because Pittsburgh Water did not have any new PENNVEST loans the costs of which qualified for recovery through the PENNVEST surcharge under the existing rules. Pittsburgh Water has proposed two modifications that will result in all of its existing and future PENNVEST loans being included in the Surcharge. If this substantial amount of revenue were to be excluded from the calculation of the DSIC cap it would materially lower the amount that Pittsburgh Water would be able to bill via the DSIC and eviscerate the DSIC as an important funding source for modernization improvements of the water/wastewater system.

Q. IS IT TRUE THAT APPLYING A SURCHARGE ON SURCHARGE REVENUES IS CONTRARY TO PUC POLICY OR LAW OR THE PRACTICE OF OTHER UTILITIES?

A. No. I am advised by counsel that there is no law, regulation or policy that precludes applying the DSIC surcharge to revenues that are billed via a distribution rate surcharge. In fact, the applicable law states that the cap should be calculated on "the amount billed to customers," for a water company and the "amount billed to customers under the applicable rates of the wastewater utility or distribution rates of the electric distribution company, natural gas distribution company or city natural gas distribution operation."[27] This is why gas company purchased gas adjustment revenues are not included; gas costs are not part of gas company distribution rates.

Moreover, applying the DSIC to revenues that include a distribution surcharge appears to be the standard procedure for all utilities. For example, in PGW's current base rate case, the Parties agreed with an I&E proposal to calculate PGW's DSIC cap on the basis of its distribution revenues, which are defined as: "the amount billed to customers for distribution service (including all applicable clauses and riders)"[28] including PGW's Weather Normalization Adjustment clause, which is a distribution surcharge. Moreover, every major utility to my knowledge has language in its DSIC tariff provision that states that that utility's DSIC Cap will be calculated on distribution revenues "including all surcharges" or comparable language. I've included as **Exhibit EB-20** a compilation of all those utilities.

[27] 66 Pa. C.S.¶ 1358(a)(1)–(2).

[28] R-2025-3053112, Joint Petition for Settlement, ¶ II.C.2 (pg. 6), approved without modification, RD issued September 3, 2025.

XXIX. MULTI-YEAR RATE PLAN

Q. PLEASE EXPLAIN PITTSBURGH WATER'S PROPOSAL FOR A MULTI-YEAR RATE PLAN (MYRP) AND THE POSITION OF THE PARTIES WITH RESPECT THERETO.

A. As set forth in considerable detail in my Direct Testimony, Pittsburgh Water is seeking a multi-year total overall rate increase of $84.4 million (inclusive of DSIC increases) that includes a $20.7 million or 6.7% in FY 2027. This 2027 increase would cover only debt service, debt service coverage costs, cost of issuance, ALCOSAN bad debt increase, and associated DSIC percentage increases. Pittsburgh Water also proposed a review process prior to the implementation of the 2027 rate increase to verify the requested debt service costs and assure that the rate increase that would go into effect to recover these amounts were correctly calculated.

Q. PLEASE SUMMARIZE THE RESPONSE OF THE OPPOSING PARTIES TO PITTSBURGH WATER'S PROPOSAL.

A. Yes. Three of I&E's witnesses, Messrs, Patel, Cline and Sakaya all opposed the MYRP proposal. OCA witnesses Deupree, Alexander and Mugrace opposed the MYRP proposal, and OWT witness Cicero opposed the MYRP proposal.

Q. BEFORE DISCUSSING THE OBJECTIONS OF THE VARIOUS PARTIES DO YOU HAVE AN OVERALL RESPONSE YOU WOULD LIKE TO MAKE?

A. Yes. Pittsburgh Water structured its MYRP proposal to be as simple and non-controversial as possible; yet virtually every Party, nonetheless opposed it. An underlying reason seems to be the Parties' preference to subject Pittsburgh Water to frequent rate cases because a rate case gives Parties the opportunity to easily delve into every aspect of Pittsburgh Water's operations and policies, an opportunity that, I believe, they fear they will lose (or will be curtailed) if a MYRP was approved.

However, these Parties seemingly refuse to acknowledge that the Pennsylvania General

Assembly has already decided whether utilities will be required to be subjected to constant rate cases in order to maintain their financial health and to have the revenues they need to continue to provide adequate and reasonable service. Section 1330 of the Public Utility Code specifically directs the PUC to approve a variety of alternative rate mechanisms, including a MYRP.[29] A multi-year rate plan is defined as:

> A rate mechanism under which the commission sets base rates and revenue requirements for a multiyear plan period and authorizes periodic changes in base rates, including, but not limited to, adjustments to account for inflation and capital investments without the necessity for base rate proceedings during the approved plan period.[30]

Pittsburgh Water's proposal seems to be exactly what the General Assembly had in mind when it enacted the law. Yet all the Parties continue to oppose it, and many of the objections can be reduced to an argument that forcing Pittsburgh Water to file for a base rate increase to recover the subject costs is, in their view, a better course. I would respectfully contend however, that this choice has already been made by the Legislature. The Commission should not let the Parties' remove these options from the Code, simply because the intervening parties find forcing utilities to file constant rate cases is better for them.

Q. SEVERAL OF THE PARTIES HAVE ALSO OPPOSED THE PROPOSED MYRP ON THE GROUND THAT THE PROCESS FOR REVIEWING AND APPROVING THE 2027 RATE CASE WAS NOT SET OUT IN THE DETAIL, OR WITH THE PROVISIONS THAT THEY CLAIMED WERE REQUIRED. CAN YOU COMMENT.

A. In my view, this is a red herring. Pittsburgh Water made it clear that it is willing to work with the Parties to arrive at a mutually satisfactory review/approval process for the

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[29] "[T]he commission may approve an application by a utility in a base rate proceeding to establish alternative rates and rate mechanisms [including MYRPs], 66 Pa. C.S. § 1330(b).

[30] *Id*. § 1330(f).

MYRP. To be clear, Pittsburgh Water is amenable to a procedure that includes the following items:

1. The proposed MYRP should be filed with enough time for the Parties and the Commission to review the proposed increase and the proposed increase or change in rates for all affected classes (in this instance, the proposed rates would also reflect the elimination of the minimum water and wastewater charges, as discussed by Mr. Smith). Pittsburgh Water suggests a filing on or before November 1, 2026 with a proposed effective date for the MYRP rate increase of January 1. 2027. This will provide a 60-day period in which to review whether proposed rate increase is accurate and satisfies any requirements established by the Commission.
2. On the filing date, Pittsburgh Water will provide a copy of its Cost-of-Service Model with current projections for both the size of the bond issuance and the relevant cost inputs (interest rate, premium, term, etc.) as well as actual results (as available) for 2025 and 2026. The increase in ALCOSAN bad debt and the DSIC arising from the rate increase will also be projected.
3. Pittsburgh Water will then calculate the revenue requirement using those updated terms. If the revised projections produce a rate increase that is lower than the currently projected $20.7 million then Pittsburgh Water will only put in place the lower amount; if the projected rate increase is greater than $20.7 million then will only implement the maximum rate increase permitted (i.e., $20.7 million and will defer any additional revenue requirement until its next

base rate increase proceeding in which it can make a claim for recovery of any deferred revenue requirement.

4. Pittsburgh Water will attempt to price the 2027 bond prior to the rate increase going into effect on or about January 1, 2027. If it is able to do so, it will file a revised revenue requirement reflecting the actual costs of the 2027 bond, capped at $20.7 million.

5. Pittsburgh Water will consent to responding to Data Requests about the MYRP during the 60-day review period; the Parties will have the right to submit comments asking for modifications or revisions to the MYRP rate increase (so long as Pittsburgh Water has a right to reply).

6. Pittsburgh Water consents to the Commission reviewing and approving the MYRP filing through a Secretarial Letter (in order to meet the time frames).

These procedures provide a workable framework for arriving at the MYRP rate increase while permitting Parties to review and verify the 2027 rate increase and should eliminate any legitimate concerns about the process.

Q. ANOTHER THEME IS THAT THE REVENUE REQUIREMENT ASSOCIATED WITH INCREMENTAL LONG TERM DEBT COSTS PITTSBURGH WATER IS REQUESTING IN THE MYRP ARE ALLEGEDLY SPECULATIVE AND NOT RELIABLE. CAN YOU RESPOND?

A. Yes, the debt costs that make up the $20.7 million rate increase are comprised of: 1) debt service and debt service coverage associated with $110 million 2027 bond ($10.3 million); 2) increased debt service and coverage costs for existing bonds ($3.1 million); 3) additional debt service associated with PENNVEST loans ($5.9 million); and increased DSIC (as a result of the additional revenues) of $1.4 million. I show these

specific breakdowns on my chart below[31] (note that the portion of the increase associated with PENNVEST loans will be moved to the PENNVEST Surcharge if the Commission approves Pittsburgh Water's request to do so, which does not appear to have been opposed by the Parties.) The only input into the revenue requirement that is not known at this moment is the precise costs of the 2027 bond. But the procedure I have outlined above would permit the rate increase to be adjusted to take account of the actual interest rate and associated terms of the 2027 bond when those are actually known. In my view, this eliminates any concern about the 2027 MYRP rate increase being speculative.

Q. TURNING TO THE SPECIFIC OBJECTIONS OF THE VARIOUS PARTIES, PLEASE DESCRIBE THE REASONS THAT I&E WITNESS PATEL OPPOSES THE MYRP.

A. Mr. Patel claims that, because Pittsburgh Water has only been under PUC jurisdiction since 2018, and has only gone through four PUC rate cases, it is still "building a record of responsibility and developing a rapport with the Commission." (I&E St. No. 1 at 9.) But, whether true or not, I am at a loss to understand how these facts invalidate Pittsburgh Water's right and ability to utilize a MYRP. I note that there is nothing in Section 1330 of the Public Utility Code that ties the use of an alternative ratemaking methodology to experience with Commission regulation. Moreover, the alternative ratemaking methodology that Pittsburgh Water is here proposing realistically will eliminate the need to file one rate case. I&E and the other parties will still have the opportunity to scrutinize Pittsburgh Water in subsequent cases, as they have done in this case.

[31] See *infra* pg. 77.

Q. MR. PATEL ALSO OPPOSES THE PROPOSED MYRP BECAUSE PITTSBURGH WATER ALLEGEDLY HAS NOT EXPENDED ITS FULL BUDGET FOR CAPITAL EXPENDITURES IN SOME YEARS SINCE 2020. WHAT IS YOUR RESPONSE TO THIS ARGUMENT?

A. I address the contention about Pittsburgh Water's budget variances in another part of my testimony. But I believe that any concern about budget variances affecting Pittsburgh Water's level of debt costs in 2027 is alleviated by my proposal that the actual level of 2027 rate increase will be based on actual level and cost of the 2027 bond issuance (capped by our original, $20.7 million MYRP request) and the level of other increased costs from existing bonds. If the level of the new money borrowed in 2027 exceeds the amount that Pittsburgh Water expends in 2027 then the proceeds will be used in subsequent years. By permitting the rate increase to be adjusted for the actual level of debt costs, customers are completely protected from receiving a rate increase for debt that is not issued or is less expensive than projected.

Q. WILL THE MYRP IN ADDITION TO THE DSIC ERODE UTILITY INCENTIVES FOR CAPITAL COST MANAGEMENT (I&E ST. NO. 1 AT 11)?

A. No, there is no basis for such a concern. In the MYRP, Pittsburgh Water is not receiving ratepayer dollars that will be used to directly pay for capital projects. It is asking for a rate increase that will be used to pay for higher debt costs (compared to those in the FPFTY) for existing debt and a new bond issuance in 2027 that will produce dollars to finance construction. If Pittsburgh Water's actual expenditures fall short of budget and it does not spend the proceeds from a debt issuance it will maintain those funds and expend them for budgeted projects in the next fiscal year. Proceeds from bond issuances can only be used for capital expenditures. Moreover, Pittsburgh Water has been completely transparent with the capital projects that it intends to undertake (*see* Pittsburgh Water St.

No. 3, 14–51). No party has challenged a single one of those projects, or their projected costs.

Q. NEXT MR. PATEL CLAIMS THAT IT WOULD NOT BE PRUDENT TO PERMIT A UTILITY THAT IS "PLAYING CATCH-UP" FROM PRIOR YEARS OF LESS THAN APPROPRIATE CAPITAL EXPENDITURES TO PURSUE A RATE PLAN THAT GOES BEYOND THE FPFTY AND WOULD PREVENT THE COMMISSION'S CONTINUED AND BENEFICIAL OVERSIGHT. DO YOU HAVE A RESPONSE?

A. Yes. The MYRP process, as I have described above, does not eliminate Commission oversight; it merely streamlines it compared to a full base rate case. Because of the narrow nature of the cost that Pittsburgh Water is seeking be recovered, the MYRP will, at best delay a full base rate case until Pittsburgh Water needs to again access the capital markets, likely in 2028. Before that, I&E (and other Parties) would still have a variety of vehicles for taking action with respect to Pittsburgh Water, including formal or informal complaints. The Commission itself could order an audit or serve Pittsburgh Water with written interrogatories. Other Parties could also initiate informal investigations or reviews. With respect to low income issues, Pittsburgh Water conducts regular meetings of its Low Income Advisory Council in which it is very transparent about all of its policies and programs for low income customers.

Q. FINALLY, MR. PATEL OBSERVES THAT PITTSBURGH WATER WILL NEED SIGNIFICANTLY LOWER FUNDING FOR ITS CAPITAL IMPROVEMENT PLAN BEGINNING IN FY 2028, AND THEREFORE, IT WOULD BE INAPPROPRIATE TO BUILD UP AN ANNUAL REVENUE LEVEL FOR AN EXTENDED PERIOD. DO YOU HAVE A RESPONSE?

A. While Mr. Patel is correct about our projections in 2028, the revenue requirement in 2027 will continue in 2028 and beyond. As he is well aware annual debt costs will not go down in the short to medium term; they will just cease to grow at the pace they have in the last

several years. The projected drop in needed capital improvements in 2028 is not relevant to the reasonableness of the MYRP.

Q. TURNING TO I&E WITNESS CLINE, WHAT ARGUMENT DOES HE RAISE AGAINST PITTSBURGH WATER'S MYRP PROPOSAL?

A. His first argument is that Pittsburgh Water's MYRP, contrary to my claim, does not better align rates with costs because Pittsburgh Water is not proposing to increase *all* of its costs and expenses in FY 2027 but is limiting the second-year increase to debt costs only. He claims that "[e]xcluding all other costs which may or may not change in this period does not better align fixed and variable costs with revenues." (I&E St. No. 4 at 6).

Q. WHAT IS YOUR RESPONSE?

A. Our proposal is to update one item of expense – debt expense – for the level that Pittsburgh Water will accrue in 2027. To that extent, Pittsburgh Water's rates are better aligned with its debt expense.

Q. WILL NOT OTHER EXPENSES AND REVENUES CHANGE IN 2027?

A. Yes, of course. But, based on historic results, the overall level of all other expenses will be higher than in 2027; if those levels were included, Pittsburgh Water's revenue requirement for 2027 the overall revenue requirement would be much higher than that which we are requesting. Revenues do change, but, again, historically, the variations have been relatively minor. Therefore, Pittsburgh Water was being conservative in only claiming one item for consideration in setting the base rates for 2027; if it had included all items of expense and revenue the revenue requirement would have been much higher. And the MYRP would have been transformed into a base rate case, which may be Mr. Cline's intention.

Q. MR. CLINE GOES ON TO POINT OUT THAT MY POSITION THAT A MYRP BETTER ALIGNS CUSTOMER'S ANTICIPATED CONSUMPTION IS INCORRECT BECAUSE "[W]ATER AND SEWER RATES FOR YEAR 2 OF THE RATE PLAN (FY 2027) ARE BASED ON THE COST-OF-SERVICE ANALYSIS PERFORMED FOR THE YEAR 1 RATES." PITTSBURGH WATER DOES NOT PROJECT ANY CHANGES IN USAGE LEVEL IN THE FPFTY. THEREFORE, BECAUSE PITTSBURGH WATER IS NOT PROJECTING ANY CHANGES IN USAGE, IT IS NOT POSSIBLE THAT THE SECOND YEAR OF THE MYRP BETTER ALIGNS WITH THE CUSTOMER'S ANTICIPATED CONSUMPTION LEVEL. NOT TO MENTION, STORMWATER RATES HAVE NO CONNECTION TO "CONSUMPTION. (I&E ST. NO. 4 AT 7).

A. While Mr. Cline is correct that the FY2027 rates are based on the COS analysis performed for FY2026. But unless there is some reason to suspect that class demand characteristics will change materially from one year to the next there is no reason to do a separate COS. Even if one did, the available data would be the same and the resulting allocations likely would be the same as well.

With regard to whether a MYRP results in rates better aligned with anticipated consumption, it is neither better nor worse than setting rates based on a FPFTY and leaving them in place until the next full rate case. Both are based on demand projections which rely on historical information and some consideration of future events that may affect demand. I fail to see how the use of these types of projections make the results unreasonable.

Q. WHAT WAS MR. CLINE'S NEXT CRITICISM?

A. Mr. Cline states that my statement in my direct testimony that the revenue requirement in each year of the multi-year rate plan (which, at this point, is only 2027) will be set after an examination of Pittsburgh Water's projected revenues, expenses and cash needs for those years, and that this claim is inconsistent with the procedure I put forth, because I am recommending that the only expense item that should be reviewed in setting the rate for 2027 are new or higher debt costs, including the cost of the projected new debt

issuance. I can see where my statement was confusing. When I stated that there would be an examination of revenues, expenses and cash needs, I was actually referencing back to the FPFTY, 2026, which is the year before the MYRP would go into effect. The Commission will have thoroughly examined Pittsburgh Water's revenues, expenses and cash needs for 2026. And, as I state above, it is very likely that Pittsburgh Water's revenue requirement generally will only be higher in 2027. I do note that I am now proposing that the revenue requirement associated with debt costs will reviewed and potentially revised in the 2026 "mini proceeding," and can be further updated with actual information in 2027.

Q. MR. CLINE NEXT CLAIMS THAT MY OBSERVATION THAT A MULTI-YEAR RATE PLAN MAKES PARTICULAR SENSE FOR A CASH FLOW REGULATED UTILITY BECAUSE SETTING RATES USING A TEST YEAR CONCEPT "IS JUST NOT VALID [FOR PITTSBURGH WATER]," IS INCORRECT, AND SOMEHOW "CONCERNING." DO YOU HAVE A RESPONSE?

A. Yes, I stand by my comment. In taking the test year concept to task I was focusing in particular, on the process used by the opposing parties to come up with "pro forma" levels of expenses for Pittsburgh Water, recommending that the expense levels be set generally at three year historic averages in virtually every category. As a cash flow utility, this approach is just not valid because, unlike investor-owned utilities, Pittsburgh Water actually needs rates that reflect what it will spend in the test year – not an "average." Moreover, Pittsburgh Water has no profit allowance, so it has no funds to supplement its expense allowances in base rates if the revenue allowance for an item is inadequate. This means that the result of the rate case is, in every case, not adequate to fully fund its budget and Pittsburgh Water is forced to cut back expenditures in order to stay financially viable. The MYRP is a way to offset this failure to fully and adequately

fund our budgets. As far as whether other companies have been able to live with this process, I cannot speak for them. I will say however that I am aware that PGW complained about setting pro forma expenses using historic averages, most recently in its last fully litigated base rate case.[32]

Q. NEXT, MR. CLINE TAKES ISSUE WITH YOUR CONTENTION THAT A MYRP WOULD BE A GOOD THING BECAUSE IT WOULD "PROVIDE THE ABILITY OF PITTSBURGH WATER TO BREAK THE CYCLE OF HAVING TO FILE A RATE CASE EVERY TWO TO THREE YEARS TO RECOVER INCREASED COSTS." (I&E ST. NO. 4 AT 9). CAN YOU RESPOND?

A. Mr. Cline's position is, in effect, that he opposes the MYRP because it is not a base rate case. I have addressed this contention above. This position appears to refuse to recognize that the General Assembly specifically authorized additional ratemaking mechanisms that are *in addition to* the use of a base rate case.

Q. MR. CLINE ALSO ASSERTS THAT THE COMMISSION CANNOT RELIABLY DETERMINE THAT 1) PITTSBURGH WATER'S PROPOSED RATES IN FY 2026 AND FY 2027 WOULD BE JUST AND REASONABLE; AND 2) THE PROJECTIONS ARE TOO FAR AWAY WITH TOO LITTLE INFORMATION, WITH ESTIMATIONS THAT ARE TOO UNRELIABLE TO CREATE RATES THAT ARE RELIABLY JUST AND REASONABLE (I&E ST. NO. 4 AT 9). IS HE CORRECT?

A. I vigorously dispute this contention. As I explain in other parts of my testimony, Pittsburgh Water's budget variances can be explained by several factors that no longer appear to be present. Moreover, Pittsburgh Water's actual operating budget variances (as opposed to the construction budget) have not been significant. Finally, with respect to the MYRP, I have outlined above a procedure that would permit the 2027 rate increase to be adjusted to reflect the actual debt costs that Pittsburgh Water experiences for the 2027 bond issuance. Further, the actual debt costs that make up the 2027 revenue requirement

[32] *See, e.g.*, R-2023-3037933, et. al, Reply Brief of PGW, at 9.

come from both a new debt issuance in 2027 and increases in the debt costs and debt service coverage for the 2026 bond (which is being projected for the FPFTY; and an increase in the debt service costs and debt service for other existing bonds. Actual information for the latter 2 items will be known when Pittsburgh Water files its "mini proceeding" in 2026. Therefore, Mr. Cline's issue is no longer a valid concern.

Q. OCA WITNESS DEUPREE ALSO SUBMITTED TESTIMONY OPPOSING PITTSBURGH WATER'S MYRP. CAN YOU DESCRIBE AND RESPOND TO MR. DEUPREE'S ARGUMENTS?

A. Yes. His first contention is that Pittsburgh Water's MYRP (and its request to increase the DSIC cap) are attempts to mitigate regulatory lag. He contends that, on the contrary, regulatory lag is a good thing in that it forces the utility operate efficiently to reduce costs in order to maintain an adequate profit level in between rate cases. He further contends that Pittsburgh Water does not need a MYRP to reduce regulatory lag, even if that were a good idea, because "[t]he Authority's ability to file rate cases at will, utilize FPFTYs, and recover infrastructure costs through the existing DSIC already provide mechanisms to reduce lag without requiring additional changes to these mechanisms" (OCA St. No. 1 at 5–8), and Pittsburgh Water's finances have been adequate even without the MYRP.

Q. DO YOU AGREE WITH MR. DEUPREE ON THESE POINTS?

A. No, I disagree with each and every of his contentions. First, I will not comment on whether creating a system the imposes or results in regulatory lag, which I define as a lag between the time that the utility incurs a cost and the time that it is permitted to recover that cost in its rates, is a good or bad thing for investor owned utilities. But it should be obvious that it is not a good thing for a municipal utility that is regulated on basis of a cash flow ratemaking basis. Of course, a municipal utility like Pittsburgh Water has no shareholders and does not earn a profit. Indeed, the main study that Mr. Deupree cited in

support of his "pro-regulatory lag" ideology – is based on the A-V effect. But that theory simply does not apply to a municipal utility because the main finding of the study is that rate of return/rate base regulation gives investor owned utilities an incentive to add as much rate base as possible as quickly as possible in order to increase the return on investment that they are permitted to earn in their rates. Pittsburgh Water has absolutely no incentive to do this.

Moreover, under the cash flow method of ratemaking, Pittsburgh Water is only permitted a rate level that only permits them to recover their costs of operating the utility and the cost of debt or pay-go financing needed to finance the capital improvements required to keep the system running at safe and reliable levels. It is fair to say that these costs are continually going only in one direction – up. But the pro forma test year concept used to determine Pittsburgh Water's revenue requirement, as used by the opposing Parties, where expense levels are proposed at historic averages, by their very nature, condemns the Authority to a revenue requirement that perennially fails to fully cover its actual costs. This means that Pittsburgh Water has to struggle with reducing its expenditures and capital additions to fit the revenues granted by the Commission. This in turn hurts Pittsburgh Water's ability to achieve its ambitious goals of modernizing its system and operations, including its commitment to replace all residential lead service lines in an expeditious fashion. I submit that these facts make it clear that adopting mechanisms that would help to mitigate the regulatory lag that Pittsburgh has and will continue to experience is a good thing, and in the public interest, not the opposite.

Q. BUT MR. DEUPREE STATES THAT PITTSBURGH WATER ALREADY HAS MECHANISMS TO ELIMINATE REGULATORY LAG SUCH AS FILING RATE CASES "AT WILL" USING A FPFTY AND RECOVERING CAPITAL INVESTMENT COSTS IN ITS DSIC. IS HE INCORRECT?

A. He is either incorrect or substantially exaggerating the ability of a particular mechanism to combat regulatory lag. First, Pittsburgh Water actually does not have the right to file rate cases "at will." I am informed by counsel that the Public Utility Code actually prohibits a utility from filing a base rate case until the end of the suspension date of a prior case, which in this case, is currently March 8, 2026. Because of this anti-pancaking rule, Pittsburgh Water could not realistically file another base rate case until late May or early June, 2026 (allowing for time to prepare and assimilate the prior decision), which would mean that the decision from the Commission would not be entered in time for Pittsburgh Water to start recovering a full year of 2027 expenses.

Further, while Pittsburgh Water is utilizing the FPFTY mechanism to attempt to use 2026 as the basis for its cost claims, all of the Parties have insisted that allowances for expenses should be based on historic averages, rather than Pittsburgh Water's budget projections. This eviscerates any ability of the FPFTY to mitigate regulatory lag.

Moreover, Pittsburgh Water's specific request is to permit a rate increase to recover the revenue requirement associated with 2027 bond issuance. A 2026 FPFTY can not include such an out of period cost.

Additionally, while the DSIC is a helpful mechanism, it is, first, a relatively small part of Pittsburgh Water's overall capital expenditures, and, second, can only be used to advance the pace of capital improvements. Therefore, it does not assist in meeting Pittsburgh Water's regular capital budget.

Finally, Mr. Deupree's argument that these other mechanisms are the only ones that are

reasonable completely ignores that the General Assembly enacted a law (Section 1330 of the Public Utility Code) that specifically authorizes alternative rate making mechanisms notwithstanding the fact that all of the mechanisms (i.e., FPFTY, DSIC, more frequent base rate case) already existed when the law was enacted.

Q. IN DEALING SPECIFICALLY WITH THE MYRP, DID MR. DEUPREE ADDRESS YOUR RESPONSES TO THE COMMISSION'S FOURTEEN "STANDARDS" THAT IT DIRECTED BE ADDRESSED WHENEVER A UTILITY REQUESTS AN ALTERNATIVE RATEMAKING MECHANISM?

A. Yes. He presented an exhibit, Exhibit MWD-1. As an attachment to my testimony (Exhibit EB-21) I replicate this Exhibit and provide my response to each of Mr. Deupree's "observations."

Q. DID MR. DEUPREE PRESENT ADDITIONAL ARGUMENTS WHICH HE CLAIMS REQUIRES THE REJECTION OF PITTSBURGH WATER'S MYRP PROPOSAL?

A. Yes, several. He claims that the MYRP is not needed because, he claims, the Authority's annual revenues in excess of expenses for each year since 2018 (other than 2020) has grown each year (OCA St. No. 1 at 14–15), and the overall balance of all financial accounts held by Pittsburgh Water has grown from approximately 40 percent over the period 2018-2023, from approximately $70 million in 2018 to nearly $99 million in 2023. The Authority's financial reserves are expected to grow by a further 77.6 percent over the period 2024-2027, mainly due to growing cash and cash equivalents (OCA St. No. 1 at 15). But these facts are completely irrelevant to the justification for a rate increase in 2027 to cover additional costs that Pittsburgh Water is irrefutably going to incur. Refusing to acknowledge that by referring to past performance is not logical or reasonable.

Q. ADDITIONALLY, MR. DEUPREE STATES THAT ALL OF THE CREDIT RATING OPINIONS FROM THE CREDIT RATING AGENCIES FROM 2020 TO 2024 ARE MOSTLY POSITIVE FOR THE AUTHORITY, NOT NEGATIVE (OCA ST. NO. 1 AT 15–16). CAN YOU RESPOND?

A. I disagree with Mr. Deupree. It seems that he ignored the negative credit opinion commentary and only focused on the positive. The positive opinions are generally limited to improved management and governance, not financial or system performance, which remain a concern for the rating agencies and make up the largest share of the rating agency scorecards as defined in the Direct Testimony of Ms. Fay.

A few examples of this negative coverage include S&P Global Ratings noting in their November FY 2020 credit report that Pittsburgh Water's infrastructure requires significant structural, operational, and maintenance improvements to address long-term deficiencies in the systems. As recent as the May 2023 credit report, Moody's notes that Pittsburgh Water's cash position is considerably weaker than national water and sewer system median days of 450 days. Moody's continues to hold a negative view of Pittsburgh Water's finances, by stating in their December 2024 credit report that Pittsburgh Water's debt service coverage ratios remain low as compared to most utilities. Ms. Fay provides peer utility comparations in her Direct Testimony to support this claim by Moody's. The credit reports from 2020 to 2024 were provided in response to Discovery Request OCA Set XI.

Q. MR. DEUPREE ALSO REFERENCES THE FACT THAT THE AUTHORITY HAS BEEN ABLE TO CREATE AND EXPAND THE RSF TO MEET UNEXPECTED FINANCIAL CHALLENGES WITHOUT A MYRP OR OTHER FORM OF ALTERNATIVE REGULATION BEYOND THE FPFTY AND DSIC. PLEASE RESPOND.

A. Pittsburgh Water's ability to fund the RSF and the justification for a MYRP are unrelated. There are no regulations that make a MYRP contingent on a certain level of

reserves. Furthermore, as discussed throughout my testimony, Pittsburgh Water's FY 2027 revenue requirement request is singular to debt service costs and does not include other items, such as additional transfers into the RSF. Mr. Deupree's argument is not valid and should be rejected.

Q. MR. DEUPREE NEXT REFERENCES THE FACT THAT PITTSBURGH WATER HAS NEVER FAILED TO MEET ITS FINANCIAL REQUIREMENTS, MAINTAINING "HEALTHY" MARGINS OF 0.21 TO 0.51 BPS FOR THE ENTIRETY OF THIS SEVEN-YEAR PERIOD. PLEASE COMMENT.

A. First, I would like to point out the FY 2019 – FY 2024 bond indenture total debt service requirements Mr. Deupree includes within Table 2 of his testimony are not correct. The bond indenture requirement for FY 2019 was 1.20x and 1.10x for years FY 2020 – FY 2024.

Table 2: Pittsburgh Water Historic Debt Coverage Ratios, 2018-2024

Year	Debt Service Coverage	Bond Indenture Requirements	Coverage In Excess Of Requirement
2018	1.71	1.20	0.51
2019	1.58	1.25	0.33
2020	1.23	1.00	0.23
2021	1.44	1.15	0.29
2022	1.45	1.15	0.30
2023	1.36	1.15	0.21
2024	1.37	1.15	0.22

Second, Mr. Deupree's "healthy" margins claim is based on his opinion and not reality. In fact, Pittsburgh Water's most recent Moody's credit opinion states that its debt service coverage remain low compared to peer utilities. The peer utility data Ms. Fay provides in her Direct Testimony shows that most peer utilities have debt service coverage ratios at or above 2.0x, further invalidating Mr. Deupree's claim that that 0.21 to 0.51 bps is a "healthy" margin.

Mr. Deupree does not understand Pittsburgh Water's bond indenture requirements and his recommendation should be rejected.

Q. MR. DEUPREE NEXT STATES THAT THE AUTHORITY HAS BEEN ABLE TO FUND OVER $100 MILLION IN ANNUAL CAPITAL IMPROVEMENTS EVERY YEAR SINCE FY 2019, AND WAS ABLE TO FULLY FINANCE ITS PLANNED CIP BUDGET WITHOUT ANY ADDITIONAL ALTERNATIVE REGULATION REGIME BEYOND THE FPFTY AND DSIC APPROVED BY THE GENERAL ASSEMBLY. HE CLAIMS THAT THIS IS PROOF THAT PITTSBURGH WATER DOES NOT NEED" A MYRP. PLEASE RESPOND.

A. I do not agree with this claim. Again, like funding the RSF, Mr. Deupree uses completely unrelated financial data to argue against Pittsburgh Water's requested MYRP. There is no requirement that makes a MYRP contingent upon a certain level of capital improvements. However, even if this were the case, Mr. Deupree's argument still is not valid because Pittsburgh Water's capital revenue requirement is based on debt service costs associated with funding the capital plan, not the capital budget amounts themselves. Furthermore, Mr. Deupree points out that Pittsburgh Water has been able to achieve a large amount of annual capital expenditures every year since FY 2019. This track record of consistent spending supports Pittsburgh Water's MYRP FY 2027 revenue requirement debt service claim.

Q. ANOTHER ARGUMENT THAT MR. DEUPREE ADVANCES IS THAT, BECAUSE THE PROPOSED 2027 REVENUE REQUIREMENT IS ONLY APPROXIMATELY 25% OF PITTSBURGH WATER'S TOTAL REQUESTED INCREASE THE 2027 AMOUNT IS NOT "SIGNIFICANT" AND THAT, EVEN WITHOUT THE MYRP PITTSBURGH WATER WOULD BE ABLE TO RECOVER 75% OF ITS TOTAL REQUEST. CAN YOU COMMENT?

A. Apparently, Mr. Deupree believes this is a reason to deny the MYRP but it is inconsistent with the facts. Pittsburgh Water never represented that the ONLY cost it anticipated going up in 2027 was its cost of debt; in fact all of its other costs are projected to see net increases. Pittsburgh Water proposed recovering only new debt service costs as a conservative step that balanced Pittsburgh Water's need for additional revenues in 2027 with the interests of customers who will have just seen a rate increase for 2026. The

argument is also illogical because it implies that if Pittsburgh Water had asked that its MYRP increase for 2027 fully reflected all expense increases, requiring a much larger rate increase, Mr. Deupree would have been in agreement with that larger increase, which I suspect would not be the case.

Q. DOES THE FACT THAT PITTSBURGH WATER HAS PROPOSED A MYRP IN PRIOR CASES AND WITHDREW THE PROPOSALS HAVE ANY BEARING ON THIS REQUEST, AS MR. DEUPREE APPEARS TO INTIMATE (OCA ST. NO. 1 AT 21)?

A. Curiously, Mr. Deupree fails to make clear that Pittsburgh Water's actions in the prior cases were part of settlements of the entire case in which the Party he is representing – OCA – joined. Settlements, of course, have no precedential significance and Mr. Deupree's suggestions as to why Pittsburgh Water agreed in the Settlement to withdraw the MYRP proposals are pure speculation. Certainly, it would be completely inappropriate and wrong to conclude that Pittsburgh Water withdrew its proposal because of the concerns raised by other Parties. One could just as easily say that the fact that OCA chose to settle and not litigate the issue was an indication that it recognized the reasonableness of Pittsburgh Water's claims.

Q. NEXT, MR. DEUPREE SUGGESTS THAT ALLEGED "UNRELIABILITY" OF PITTSBURGH WATER'S CAPITAL BUDGET PROJECTIONS AND CALCULATION OF DEBT COSTS IS ANOTHER REASON TO REJECT THE MYRP. IS HE CORRECT?

A. No. I dispute the characterization of our budget projections or the cost of debt as wrong or unreliable. I and Pittsburgh Water witness Fay address these allegations elsewhere. But, more to the point, Pittsburgh Water is proposing that the 2027 rate increase be calculated using actual information about debt costs, rather than projections. As for construction budgets, Pittsburgh Water would only issue a new bond if it required or was projecting to require the proceeds to fund construction expenditures. Indeed, as

explained above, Pittsburgh Water actually uses its capital line of credit to fund construction expenditures and issues a bond when it needs the proceeds to retire the interim borrowing. Thus, the bond is issued *after* Pittsburgh Water has incurred sufficient construction expenditures – funded by interim debt – to incur the time and expense of going to the bond market. Therefore, a concern about Pittsburgh Water's construction expenditures verses budget is misplaced.

As to the debt costs claimed in the MYRP, they are made up of several parts:

Type of Expense	Change ($)	Notes
O&M	**$ -**	No claimed changes in O&M costs
Base Rate Debt Service		
Existing - Senior	$ 2,099,500	Large increase in principal on 1998 B series, mostly offset by large decrease in 2017 A Series
Existing - Subordinate	$ 495,000	Entirely due to minor change in Series 2025B
Future - Senior	$ 8,243,989	Entirely due to anticipated $110,000,000 issuance. Subject to change
Future - Subordinate	$ -	
Base Rate Debt Service Capital		
Existing - Senior	$ 524,875	Driven by increased senior existing debt repayment obligations
Existing - Subordinate	$ -	
Future - Senior	$ 2,060,997	Driven by increased senior future debt ($110 M issuance in FY 2027)
Future - Subordinate	$ -	
Subtotal Base Rate Debt	**$ 13,424,361**	
PENNVEST Surcharge		
Existing	$ 5,271,628	
Future	$ 666,170	
Subtotal PENNVEST	**$ 5,937,798**	
DSIC	**$ 1,372,590**	Dependent upon and proportional to overall revenue increase
Other	**$ -**	No claimed change in other expenses
Total	**$ 20,734,749**	

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As can be seen, several of them are known now; the FY 2026 bond costs will be known by the time Pittsburgh Water files for the MYRP, and the FY 2027 costs will be much better projected at the end of 2026.

Q. MR. DEUPREE NEXT ARGUES THAT THE MYRP DOES NOT PROVIDE ANY BENEFITS TO RATEPAYERS BECAUSE IT SIMPLY MAKES CUSTOMERS SUBJECT TO KNOWN FUTURE RATE INCREASES IN ORDER TO ALLEVIATE UNKNOWN FUTURE RATE INCREASES. IS THAT A FAIR CHARACTERIZATION OF PITTSBURGH WATER'S TESTIMONY?

A. No, of course not. Mr. Deupree has ignored a key part of the benefit of the MYRP: better tracking costs so that Pittsburgh Water is not forced to stop taking actions necessary to improve service or modernize its infrastructure until it can get sufficient funds through another rate hike. As I have explained above, Pittsburgh Water cannot instantly obtain a rate increase to address any diminution in available revenues; and it certainly cannot file anytime it wishes. It is these scenarios that Pittsburgh Water is intending to avoid. The OCA should be interested in avoiding them as well, since it will be Pittsburgh Water's customers who will suffer if services have to be cut back or lead line replacements slowed.

Q. MR. DEUPREE ALSO CRITICIZES THE MYRP PROPOSAL BECAUSE IT DOES NOT INCLUDE A "STAYOUT," WHICH WOULD BAR PITTSBURGH WATER FROM FILING ANOTHER BASE RATE CASE. IS THIS A VALID CONCERN?

A. No. Section 1330 of the Public Utility Code does not mandate or require that a utility seeking to use a MYRP must also promise to "stay out." Having said that, if the MYRP is approved as proposed by Pittsburgh Water, it will commit to not filing a new base rate case until 2028 at the earliest.

Q. FINALLY, MR. DEUPREE CRITICIZES PITTSBURGH WATER'S PROPOSAL FOR LACK OF A "RECONCILIATION MECHANISM AND THEN ALSO CRITICIZES THE AUTHORITY'S WILLINGNESS TO CONSIDER A RECONCILIATION MECHANISM THAT IS SYMMETRICAL (I.E. RECONCILABLE EITHER UP OR DOWN). PLEASE COMMENT.

A. As I stated in my Direct Testimony, the MYRP increase was proposed as a base rate increase. Base rates are not subject to "reconciliation." However, as I also stated, Pittsburgh Water is not opposed to making the 2027 increase reconcilable. To do that, the increase would have to be put into a surcharge so that the revenues billed for this item could be tracked. After a year, the revenues billed could be compared to the expense incurred for this bond issuance. If Pittsburgh Water billed more than that actual debt service and debt service coverage for new bond, the excess could be returned to ratepayers. However, if the billings were less than the annual expense then Pittsburgh Water should be able to recover that deficiency in the following year, as an addition to the surcharge. The surcharge revenues would then be rolled into base rates in Pittsburgh Water's next rate case. This is the only fair approach. Note however, that the amount that Pittsburgh Water would bill would still not exceed the actual revenue requirement associated with the new bond issuance.

Q. OCA WITNESS MUGRACE ALSO TESTIFIED AGAINST THE MYRP. MR. MUGRACE ALLEGES THAT PITTSBURGH WATER'S PROJECTIONS FOR FY 2027 "ARE NOT APPROPRIATELY SUPPORTED" (OCA ST. NO. 2 AT 5) AND THAT THE FY 2027 FORECASTED REVENUE REQUIREMENT "IS SPECULATIVE IN NATURE AND NOT KNOWN AND MEASURABLE IN THE SETTING OF RATES FOR SERVICE" (OCA ST. NO. 2 AT 7). DO YOU AGREE WITH MR. MUGRACE?

A. No, I do not. The projections that support the MYRP are based on Pittsburgh Water's best projection of the costs associated with its 2027 bond issuance. This is no different than what every utility does when it projects revenues and expenses for a fully projected future test year. However, as I have set forth above, Pittsburgh Water is modifying its

proposal to eliminate any concern about the accuracy of the projections of the cost of this debt issuance. To repeat, Pittsburgh Water proposes that, by November 1, 2026 Pittsburgh Water will make a filing proposing a base rate increase using the actual costs, as they are known, and the projections of the revenue requirement associated with the 2027 bond issuance. That projection will be much more timely. We are also willing to revise the rate increase once the actual bond costs are known, up to a cap of the originally proposed amount of the rate increase -– $20.7 million.

Q. OCA WITNESS MUGRACE ARGUES THAT THE PROPOSED FY 2027 DOES NOT MEET THE PUBLIC UTILITY CODE'S REQUIREMENT FOR A FPFTY (OCA ST. NO. 2 AT 6), AND OCA WITNESS MIERZWA SIMILARLY ARGUES THAT THE MYRP "IS DEFICIENT REGARDING THE STATUTORY AND REGULATORY PROVISIONS GOVERNING A MYRP" (OCA ST. NO. 4 AT 3). WHY DO THESE OCA WITNESSES BELIEVE THE MYRP PROPOSAL IS LEGALLY DEFICIENT?

A. Mr. Mierzwa adopts the reasoning of Mr. Mugrace, which is that the proposed FY 2027 is beyond the time period for the FPFTY set forth by Section 315(e) of the Public Utility Code. (OCA St. No. 2 at 6).

Q. DO YOU AGREE WITH THESE OCA WITNESSES AS TO THE LEGAL SUFFICIENCY OF PITTSBURGH WATER'S MYRP PROPOSAL?

A. No, this is a question of interpretation of the Public Utility Code and I am informed that neither Mr. Mugrace nor Mr. Mierzwa are qualified to present testimony on such a question. Moreover, legal questions of this sort are not appropriately raised in expert testimony. I am also informed that this contention is obviously incorrect for several reasons, not least that it would render inoperative the provisions of Section 1330 that the General Assembly recently added to the Public Utility Code. But this argument will be thoroughly addressed and refuted in Pittsburgh Water's brief.

Q. OCA WITNESS ALEXANDER ADDITIONALLY RECOMMENDS THAT THE MYRP NOT BE APPROVED. WHAT IS THE BASIS FOR HER RECOMMENDATION?

A. Ms. Alexander argues that Pittsburgh Water "has not provided any meaningful assurance or mechanism to meet reasonable customer service and service quality performance."[33]

Q. WHAT IS YOUR RESPONSE TO MS. ALEXANDER'S ARGUMENTS RELATING TO PITTSBURGH WATER'S LEVELS OF CUSTOMER SERVICE AND SERVICE QUALITY?

A. Ms. Alexander is essentially alleging that our MYRP proposal should be rejected because we have not included performance standards in our proposal when no such standards are required by the Public Utility Code or the Commission's pronouncements on what needs to be included in an alternative ratemaking proposal. Moreover, such commitments are not needed. Pittsburgh Water is under an ongoing obligation to provide safe, adequate and reasonable service to its customers, and it does that, and will continue to do that. Creating artificial requirements that go beyond those obligations is not appropriate nor legally required, I am informed by counsel. Ms. Mechling also addresses this issue in her rebuttal testimony. See Pittsburgh Water St. No. 6R.

Having said that, the fact is that Pittsburgh Water will be in a far better position to maintain and improve its level of service to customers if the MYRP is authorized. At this time, the main variable in the level of service that Pittsburgh Water can provide is whether it has the funds to do so. Denying the MYRP will create a $20.7 million hole in our 2027 budget, and Pittsburgh Water will be forced to cut other projects or reduce its level of borrowing to close this hole. This will certainly impact our ability to improve

[33] OCA St. No. 7 at 7–8.

service, although we will never fall below our requirement to provide the minimal "safe adequate and reliable" service standard.

Q. AS FOR OWT, PLEASE SUMMARIZE WITNESS CICERO'S CRITICISMS OF THE MYRP.

A. OWT Witness Cicero disapproves the proposed MYRP because "it would permit an automatic increase for Pittsburgh Water in 2027 at the expense of customers without the full scrutiny of a rate case" (OWT St. No. 1 at 34). Cicero further argues that setting rates on a test year concept does not deprive Pittsburgh Water of the tools or revenue it needs to manage revenue, expenses, and other costs. (OWT St. No. 1 at 35). Cicero disagrees with Pittsburgh Water's proposed "mini review" prior to implementing the FY 2027 rate increase because the 60-day period is insufficient and no other party to the rate case will be involved in the review. (OWT St. No. 1 at 35–36). Then, Cicero argues that Pittsburgh Water should be required to make improvements to its BDP upon removal of the minimum allowance by the effective date of rates, not in 2027. (OWT St. No. 1 at 37, 56). Finally, Cicero argues that "[t]here is simply no evidence that Pittsburgh Water will have 'dramatically reduce[d]' rate case filings" if the MYRP is approved. (OWT St. No. 1 at 38)

Q. WHAT IS YOUR RESPONSE TO CICERO'S CLAIM THAT THE MYRP ALLOWS FOR AN INCREASE WITHOUT THE FULL SCRUTINY OF A RATE CASE?

A. Most of Mr. Cicero's arguments have already been addressed, and so I will not repeat those responses. I will respond to several of his new or different points below and both Ms. Mechling and Mr. Smith further address why Pittsburgh Water continues to maintain that the removal of the minimum allowance from our rate structure should not occur until 2027. This provides additional support for a multi-year rate plan approach.

Q. DO YOU HAVE A RESPONSE TO CICERO'S ARGUMENT THAT TEST YEAR CONCEPT IN RATE SETTING WILL NOT DEPRIVE PITTSBURGH WATER OF THE RESOURCES IT NEEDS TO MANAGE REVENUE, EXPENSES, AND COSTS?

A. His conclusionary statement is demonstrably untrue. The FPFTY process permits a utility to set its rates based on a projection of revenues, expenses and capital costs for a one year period. As I understand it, PUC regulations limit the start of the test year to the month in which the suspension period for the base rate case ends. This means that Pittsburgh Water could only have extended its FPFTY start date to March, 2026. Pittsburgh Water chose to have its test year begin on January 1, 2026 because all of its financial and other data are developed and displayed on a calendar-year basis and to convert those data to a March 2026 to March 2027 period would have been very difficult and potentially prone to inaccuracies, Further, it would have only advanced the period being examined by 2 months. Further, one of the key differences between a FPFTY and a historic test year, which used to be required in the past, is that a utility may not extend beyond the FPFTY to claim expense or capital cost increases that are projected to occur after the end of the FPFTY. This means, for Pittsburgh Water, that it could not have included the significant additional 2027 debt costs that it is projecting it will incur in the FPFTY. The only way those could be included in this rate filing was by the use of a MYRP. Moreover, as I have explained above, it would be practically impossible for Pittsburgh Water to file *another* base rate case in time to raise rates to capture 100% of these 2027 costs. Mr. Cicero's generalized claims simply are not correct.

Q. DO YOU AGREE WITH MR. CICERO'S CONTENTION THAT THE PROPOSED 60-DAY REVIEW PERIOD PRIOR TO IMPLEMENTING THE FY 2027 RATE INCREASE IS INSUFFICIENT?

A. No. The 60 day period is, in my opinion, sufficient time to examine and verify our claim for one issue – incremental debt costs occurring in 2027. I have also made an additional suggestion for modification so that the 2027 rate increase will more fully reflect Pittsburgh Water's actual costs, further making the time for the upfront process manageable.

Q. FINALLY, WHAT IS YOUR RESPONSE TO MR. CICERO'S ARGUMENT THAT THERE IS NO EVIDENCE PITTSBURGH WATER WILL HAVE DRAMATICALLY REDUCED RATE CASE FILINGS IF THE MYRP IS APPROVED?

A. Pittsburgh Water cannot provide evidence of what will happen in the future but it is only logical that if the Authority is permitted to increase its rates in 2027 to recover a significant cost that it will incur in that year that it will permit Pittsburgh Water to delay its next rate increase. As I've said in my Direct this will not only reduce the number of cases filed and the costs associated with them.

XXX. PENNVEST CHARGE

Q. IS PITTSBURGH WATER PLANNING TO USE PENNVEST LOANS AND THE PENNVEST CHARGE IN THE FORESEEABLE FUTURE?

A. Yes. PENNVEST loans are a part of Pittsburgh Water's plans to fund construction projects in each year for the foreseeable future, as I explained in my direct testimony. Pittsburgh Water St. No. 2 at 27–43. No parties have opposed any of the proposed projects, but some parties raised general comments to my testimony which I will address. PENNVEST loans require Pittsburgh Water to do the project specified in the loan documentation. They also require that Pittsburgh Water have a mechanism to recover the rates needed to pay the debt service (principal and interest) to PENNVEST, as well as

sufficient funds to do so. Pittsburgh Water's obligation to make interest payments to PENNVEST begins upon the closing for the PENNVEST loan. The obligation to begin making both principal and interest payments commences at the end of construction for the project or the interest-only payment period (typically 36 months), whichever occurs first.

The existing PENNVEST Charge allows Pittsburgh Water to recover debt service (principal and interest) on PENNVEST loans that close after January 1, 2025 when the facilities financed by the loan are "used and useful." The debt service for PENNVEST loans not covered by the PENNVEST Charge is currently recovered as a part of base rates.

Q. PITTSBURGH WATER MADE TWO PROPOSALS TO EXPAND THE EXISTING PENNVEST CHARGE, CORRECT?

A. Yes. Pittsburgh Water made two proposals to expand the existing PENNVEST charge, which is sometimes referred to as the "PVC."

First, Pittsburgh Water is proposing to include both existing and new PENNVEST loans in the PENNVEST Charge. Pittsburgh Water St. No. 1 at 3–4; Pittsburgh Water St. No. 2 at 34, 59–62. This would change how Pittsburgh Water recovers the debt service (interest and principal) for PENNVEST loans. The proposal would allow for the recovery of debt service for all of Pittsburgh Water's PENNVEST to take place under the PENNVEST Charge. Debt service (principal and interest) on Pittsburgh Water's other debt (line of credit, WIFIA loans and borrowing supported by public-issued revenue bonds) would continue to be recovered under base rates. This proposal would not affect the amounts charged to customers – only the mechanism by which they are charged.

Second, Pittsburgh Water is proposing to revise the current tariff language so that it is clear that the surcharge permits the recovery of interest and/or interest and principal that is charged by PENNVEST prior to the completion of a PENNVEST-loan financed project. Pittsburgh Water St. No. 1 at 3–4; Pittsburgh Water St. No. 2 at 59–60, 62–63. This would remove the existing requirement that facilities financed by PENNVEST loan(s) may not be included in the PENNVEST charge until the facilities are "used and useful," a requirement that does not apply to Pittsburgh Water.

Both of those proposals are reflected in Pittsburgh Water's revenue requirement and Cost of Service Study. Pittsburgh Water St. No. 1 at 3–4; Pittsburgh Water St. No. 2 at 34, 59–63; Pittsburgh Water St. No. 6 at 49, 54; Pittsburgh Water St. No. 8. If Pittsburgh Water's changes are approved, the PENNVEST Charge would cover thirty-one PENNVEST loans (20 for water; 11 for wastewater). Pittsburgh Water Exhibit JAM-14 (Proposed Water Tariff) at Page 8B-8C; Pittsburgh Water Exhibit JAM-16 (Proposed Wastewater Tariff) at Page 9B-9C. The current PENNVEST Charge is zero. The Charge has been zero because none of Pittsburgh Water's outstanding PENNVEST loans have satisfied both conditions for inclusion in the PENNVEST Charge.

Q. DID ANY OF THE PARTIES COMMENT ON PITTSBURGH WATER'S FIRST PROPOSAL TO EXPAND ITS EXISTING PENNVEST CHARGE TO INCLUDE BOTH EXISTING AND NEW PENNVEST LOANS?

A. While OWT witness Cicero made clear that he "will not be addressing the proposed change in PENNVEST funding in this case," he does urge the Commission to ensure, if the change is approved, that the debt service (interest and principal) for PENNVEST loans is "in fact" removed from base rates "because those amounts will be collected through the" PENNVEST charge. OWT St. No. 1 at 12.

That "call to action" by Mr. Cicero is unnecessary. Pittsburgh Water's proposed rates for FY 2026 include the modification of the PENNVEST Charge to include all debt service on existing and future PENNVEST loans, as explained in Pittsburgh Water St. No. 7. There is no evidence in the record supporting the suggestion that Pittsburgh Water has left any PENNVEST loans included within base rates. Mr. Cicero did not point to anything in the Cost of Service Study or other document from Pittsburgh Water that did not reflect Pittsburgh Water's proposal to "move" all of the debt service for PENNVEST loans to the PENNVEST Charge.

Q. DID OWT MAKE ANY OTHER COMMENTS ABOUT THE FIRST PROPOSAL TO EXPAND ITS EXISTING PENNVEST CHARGE TO INCLUDE BOTH EXISTING AND NEW PENNVEST LOANS?

A. Yes. While not opposing the proposal, OWT witness Cicero expressed concern that the proposed change will shift the risk of recovery from Pittsburgh Water to its customers, OWT Statement 1 at 11, will create a guarantee of recovery, OWT St. No. 1 at 10–11, and will give Pittsburgh Water cash flow "flexibility," OWT St. No. 1 at 12–13, 35.

Q. PLEASE RESPOND TO THE CONCERNS RAISED BY OWT WITNESS CICERO.

A. I disagree with Mr. Cicero on all three of the concerns that he expressed. There is no evidence in the record supporting any of those concerns.

First, there is no shifting of risk of recovery. Pittsburgh Water's rates will be set to recover the same amount of dollars for debt service on PENNVEST loans. Pittsburgh Water's revenue requirement must be set so that Pittsburgh Water can pay the debt service (principal and interest) on all PENNVEST loans, whether the debt service is recovered in base rates or in PENNVEST Charge or both. *See* 52 Pa. Code §§ 69.2702(b), 69.2703(a)(5), (b). The PENNVEST Charge is intended and designed to

only collect the revenues needed to pay the debt service (principal and interest) on PENNVEST loans which would otherwise be recovered through base rates. Mr. Cicero did not provide any evidence to show that Pittsburgh Water has more risk of non-payment for base rates as compared to risk of non-payment of surcharges, such as the PENNVEST Charge.

Second, there is no "guarantee" of being paid by customers. While I understand that customers are expected to pay both base rates and surcharges under Pittsburgh Water's Commission-approved tariffs, Pittsburgh Water faces a constant risk of non-payment from customers, which can lead to significant financial and operational challenges. Mr. Cicero does not explain why surcharges, like the PENNVEST Charge, are more likely to be paid than base rates.

Third, there will be less flexibility, not more flexibility via the PENNVEST Charge as it is subject to annual reconciliation, as acknowledged by Mr. Cicero. OWT St. No. 1 at 86–87. This means that the funds recovered under the PENNVEST Charge must be used for the PENNVEST loans. Those funds cannot be used for any other purpose. That is not being changed by Pittsburgh Water's proposals.

Q. WERE THERE ANY OTHER COMMENTS ON THE PROPOSED CHANGE.

A. Yes. OCA witness Wise summarized customer testimony from the public input hearings. OCA St. No. 5. That summary states that one customer testified to concerns in paying the PENNVEST loan repayment in the proposed rate increase. OCA St. No. 5 at 7; Exhibit-LMW-2 at 7. I view that concern as being more about affordability, which is more specifically addressed by Pittsburgh Water witnesses Craley and Mechling, than about the debt service for PENNVEST loans under the PENNVEST Charge because Pittsburgh

Water's revenue requirement must be set so that Pittsburgh Water can pay the debt service (principal and interest) on all PENNVEST loans.

Q. DID I&E WITNESS PATEL OFFER GENERAL COMMENTS ABOUT PENNVEST LOANS?

A. Yes. I disagree with I&E witness Patel who stated that Pittsburgh Water's need for long-term bond or PENNVEST funding is speculative. I&E St. No. 1 at 11. It is not a question of "if" there will be more long-debt debt in the form of either long-term bonds or PENNVEST loans. Pittsburgh Water's Capital Improvement Plan (CIP) for 2025 through 2029 CIP includes over $1.2 billion in capital improvements. *See* Pittsburgh Water St. No. 2 at 27–43; Pittsburgh Water St. Nos. 3 and 4. I&E's position is that Pittsburgh Water should not pay for capital expenditures using IGF/PAYGO (other than the DSIC). See I&E St. Nos. 1 and 2. That means that Pittsburgh Water will need to borrow to pay for the vast majority of those capital expenditures. Without borrowing, the capital expenditures would end due to the lack of available funds. The only question is the form of the future borrowing. If Pittsburgh Water cannot obtain PENNVEST loans (or grants) for capital expenditures, it will need to borrow using long-term bonds. In either event, there will be costs for the borrowing as well as for debt service. Those costs are not speculative.

Q. DID ANY OF THE OTHER PARTIES COMMENT ON PITTSBURGH WATER'S PROPOSAL TO REMOVE THE "USED AND USEFUL" REQUIREMENT?

A. No.

Q. DID ANY OF THE OTHER PARTIES MAKE THEIR OWN PROPOSALS REGARDING THE EXISTING PENNVEST CHARGE?

A. Yes. OSBA made a proposal to change Pittsburgh Water's existing PENNVEST Charge. OSBA is proposing that, in Pittsburgh Water's next rate case, Pittsburgh Water provide

amortization tables for each loan and a summary of the history of PVC and revenue received from the surcharge. OSBA St. No. 1 at 14–15.

Q. PLEASE RESPOND TO OSBA'S PROPOSAL REGARDING THE PROVISION OF INFORMATION IN PITTSBURGH WATER'S NEXT BASE RATE CASE.

A. Mr. Kubas states that he made this recommendation to ensure the Commission and interested parties have the necessary information to determine the correctness of the PENNVEST surcharge and review the annual reconciliation. OSBA St. No. 1 at 14–15. This proposal is based on the underlying the concern that Pittsburgh Water should not be permitted to overestimate its expenses. That concern is shared by Mr. Cicero. OWT St. No. 1 at 12.

This recommendation is unnecessary because the Commission already directed Pittsburgh Water to file supporting information with the Commission with any tariff supplement filing to incorporate a PENNVEST loan into the PENNVEST Charge. R-2023-3039920, *et. al*, Order entered January 18, 2024 at Ordering Paragraph 7. In addition, the charge is subject to semi-annual adjustments and annual reconciliation filings. *Id*. at Ordering Paragraph 9.

I would note that Pittsburgh Water provided the required information in this proceeding. *See, e.g.*, Exhibit EB-14 (Water) and Exhibit EB-15 (Wastewater). The record supports the Pittsburgh Water's proposed PENNVEST Charge. Neither Mr. Kubas nor Mr. Cicero established that the proposed PENNVEST Charge was overstated. They merely expressed their speculative worry that customers could be overcharged.

XXXI. WHOLESALE RATE CONTRACT TERMINATION

Q. PLEASE DESCRIBE THE ISSUE THAT HAS BEEN RAISED CONCERNING WHOLESALE CONTRACTS.

A. On behalf of OCA, Mr. Mierzwa recommends that Pittsburgh Water issue notices of termination for each of its wholesale customers and negotiate new contracts that provide for movement toward cost of service rates. OCA St. No. 4 at 3–4, 11–12.

Q. WAS THAT ISSUE RAISED IN PITTSBURGH WATER'S 2023 WATER RATE PROCEEDING, DOCKET NO. R-2023-3039920?

A. Yes, and Mr. Mierzwa acknowledges that point. OCA St. No. 4 at 3–4.

Q. HOW WAS THE ISSUE RESOLVED IN PITTSBURGH WATER'S 2023 WATER RATE PROCEEDING?

A. Pittsburgh Water committed to reviewing its wholesale cost of service and rates when contract renewals are negotiated. Docket No. R-2023-3039920, et al., Settlement at Paragraphs 9.A.c and 74.a. Specifically, the Settlement provides:

> As the contractual timelines become available for renegotiation of [Pittsburgh Water's] current wholesale water contracts, [Pittsburgh Water] agrees to engage in good faith negotiations to negotiate new rates intended to move closer to [Pittsburgh Water's] tariffed wholesale rate.

Docket No. R-2023-3039920, et al., Settlement at Paragraph 9.A.c. See also Docket No. R-2023-3039920, et al., Settlement at Paragraph 74.a.

Q. HAS PITTSBURGH WATER BEEN DOING THAT?

A. Yes. Pittsburgh Water is negotiating a new contract and rates with Fox Chapel because Fox Chapel's wholesale contract is scheduled to end in 2025 (after the end of its 30-year initial duration). Mr. Mierzwa acknowledged this. Pittsburgh Water response to OCA-

VIII-6;[34] OCA St. No. 4 at 4, 12. I would emphasize that these negotiations are being done as the wholesale contract with Fox Chapel was nearing the end of its duration. It was not done as part of an "early" termination to the agreed-upon duration. Pittsburgh Water will be reviewing its wholesale cost of service with Aspinwall and Reserve as their contractual timelines become available for renegotiation. Notices of "termination" have not been sent to either Aspinwall or Reserve because their contractual timelines are not nearing their end. The Aspinwall contract is scheduled to end in 2039 (after the end of its 30-year initial duration). Under the terms of Aspinwall wholesale contract, negotiations for a new contract should begin at least six months prior to the scheduled end of the contract. Under that contractual timeline, Pittsburgh Water would be negotiating for Aspinwall's rates in or after 2039. Under the terms of Reserve wholesale contract, Pittsburgh Water can send a notice of intention to cancel in or before 2029 (four years prior notice) to end the current contractual period that would end in 2032. Under that contractual timeline, Pittsburgh Water would be negotiating for Reserve's rates in or after 2032.

Q. CAN YOU ELABORATE ON THE RESERVE TOWNSHIP WHOLESALE CONTRACT AND ITS DURATION?

A. The duration of the Reserve wholesale contract automatically renews for five-year periods of time unless one party provides the four-years prior notice of their intention to cancel. The current five-year period of time began in March 2023 and ends in March 2028. Pittsburgh Water did not send a notice of intention to cancel before March 2024 because it was in negotiations with Reserve Township for Pittsburgh Water to acquire or manage Reserves' water and wastewater systems. Those talks are ongoing. The next five-

[34] See Exhibit EB-22

year period beings in March 2028 and ends in March 2033. Four-years before March 2033 would be in March 2029.

Q. IS MR. MR. MIERZWA'S RECOMMENDING THAT PITTSBURGH WATER TERMINATE THE WHOLESALE CONTRACT WITH ASPINWALL AND RESERVE PRIOR TO THE END OF THEIR AGREED-UPON DURATIONS?

A. That is my understanding, and Pittsburgh Water does not support this.

Pittsburgh Water intends to honor the terms of the negotiated wholesale contracts. Pittsburgh Water's position is, and was, that wholesale rates will be renegotiated as they become due (in or around 2039 or 2032), as was agreed to the Settlement of Pittsburgh Water's 2023 rate proceeding. Docket No. R-2023-3039920, et al., Settlement at Paragraphs 9.A.c and 74.a. Pittsburgh Water opposes cancelling any of those wholesale contracts before the agreed-upon duration ends because it would send a worrisome signal to Pittsburgh Water's counterparties that a contract can be abrogated notwithstanding its terms. It would also not be fair to those municipalities who are assuming that their contractual agreements with Pittsburgh Water will be honored. Following the conclusion of those negotiations, the Commission can further investigate the newly negotiated contract terms that are agreed upon.

I would note that Mr. Mierzwa may suggest that he is actually recommending that Pittsburgh Water be directed to negotiate new wholesale contracts and is not recommending an early "end" to the existing wholesale contracts. If that is the case, his recommendation means that the existing wholesale contracts remain in place for the entirety of their agreed-upon duration and that any new rates under any wholesale contracts would be effective only after the end of the existing wholesale contracts. Demanding negotiations for new rates under new contracts that would be effective far in the future does not seem to be a reasonable expenditure of time and resources since the

prior Settlement already commits Pittsburgh Water to undertake future negotiations for new rates under new contracts and any new rates would not be effective until years after 2027.

XXXII. OSBA'S UNCOLLECTIBLE EXPENSE

Q. PLEASE DESCRIBE OSBA WITNESS KUBAS' PROPOSED ADJUSTMENT TO PITTSBURGH WATER'S PRO FORMA REVENUES.

A. Ms. Mechling's testimony described three types of accounts that Pittsburgh Water has or will soon turn over to a third party for collection. First, she described $602,015 of stormwater accounts associated with customers who are not also water customers. Second, she described $1,514,978 associated with tenants that are not also Pittsburgh Water customers and who Pittsburgh Water cannot terminate because they are exercising their right to pay their own utility bills directly. Third, she described $154,545 from West View Water Authority wastewater customers where Pittsburgh Water and West View Water Authority have not been able to negotiate mutually acceptable terms by which West View will terminate water service to these customers in an effort to obtain payment. (Pittsburgh Water St. No. 6 at 18–19). Based on a Pittsburgh Water discovery response in which Ms. Mechling stated that, historically, Pittsburgh Water only collects 2% of accounts turned over for collection, Mr. Kubas claims that Pittsburgh Water should collect $42,340 in the FPFTY ($602,015, + $1,514,978*2%) for the first two categories of nonpayers, plus 100% of the West View Water Authority customer amounts outstanding ($154,545) since, according to Mr. Kubas, there is "no reason: why we shouldn't collect 100% of the amount outstanding. OSBA St. No. 1 at 10–11.[35]

[35] Mr. Kubas also states that "If the Commission approves the Company's two-year rate case, the Company should reflect 50% of this $154,545 or $77,272 in the FPFTY, and the remaining 50% or $77,272 in FY 2027." Id.

Q. ARE THESE ADJUSTMENTS VALID?

A. No, and for a number of reasons. First, Mr. Kubas took Ms. Mechling's testimony out of context. Her purpose was to merely explain how Pittsburgh Water uses third party debt collectors. The three types of referrals were to show how debt collectors were being used at the present time. But Pittsburgh Water regularly receives revenue from customers or debt collectors in one year that is associated with billings from another. Therefore, Pittsburgh Water's historical revenue levels, on which FPFTY levels are based, already includes amounts from these sources. Adding more simply because these amounts have been placed with a debt collector, would be a double count.[36]

Second, Mr. Kubas is implicitly assuming that Pittsburgh Water will recover these funds in FY 2026 – the FPFTY. But there is absolutely no evidence that this will occur. Payments, if received at all, may be received many years after the FPFTY. Third, by including these amounts in the FPFTY Mr. Kubas is implicitly assuming that Pittsburgh Water will recover these amounts each year in which these base rates are in effect. That assumption is obviously wrong. Finally, even if one were to assume that Pittsburgh Water was going to collect 2% of these totals in the FPFTY, the 2% should be applied to all three buckets of revenue that are being sent to a debt collector. Assuming that the arrearages from the West View Water customers will be collected at a 100% rate is irrational and inconsistent with the assumption Mr. Kubas made for the other buckets. If the same 2% rate were applied to the total amount of dollars being referred to collection the additional revenue that would have to be added to pro forma revenues is $45,430.90.

[36] Note that the Answer to Pittsburgh Water's discovery response (OSBA St. No. 1, Exh. 4) states that the amounts from these specific sources are not explicitly included in pro forma revenue; that is because there has been no singling out these items for inclusion because the FPFTY projection *implicitly* includes amounts from prior years.

Given all the other infirmities with this adjustment, however, it should be clear that even this de minimus amount should not be considered.

XXXIII. INCREASED CUSTOMER SERVICE EXPENSES

1. Customer Transaction Fee for Credit/Debit Payment

Q. OCA'S WITNESS ALEXANDER DID NOT AGREE WITH THE PROPOSAL TO REINSTITUTE THE REQUIREMENT OF PASSING CREDIT CARD PAYMENT CONVENIENCE FEES BACK TO THE CUSTOMERS INCURRING THOSE FEES, RATHER THAN HAVING THOSE CONVENIENCE FEES ABSORBED BY ALL CUSTOMERS THROUGH RATES. OCA ST. NO. 7 AT 22–26. PLEASE SUMMARIZE.

A. Certainly. Ms. Alexander takes issue with Pittsburgh Water's proposal to require a customer who incurs a third-party fee to pay them directly which I discussed in my direct testimony as fair for all customers. Pittsburgh Water St. No. 2 at 26. Specifically, Witness Alexander proposes that all of Pittsburgh Water's customers continue to absorb these fees which costs rate payers approximately $500,000 per year. OCA St. No. 7 at 22. Witness Alexnder relies heavily on a prior settlement agreement where Pittsburgh Water agree to eliminate the pass through of third party transaction fees in the 2021 rate case. Her main concern is that paying a convenience fee may impact customers facing termination of service for non-payment. *Id* at 23–24. She further opines that the change "is likely" to adversely impact lower income and fixed income customers. *Id.* Witness Alexander ultimately asks the Commission to reject Pittsburgh Water proposal to reinstate passing through third-party transaction fees, and further demands that Pittsburgh Water not be permitted to collect the cost of the fees in rates without her deeming them to be "the lowest cost and that reflects a more recent analysis of handling these transactions in house." *Id.*

Q. PLEASE RESPOND TO WITNESS ALEXNDER'S POSITION.

A. As explained in my direct testimony, Pittsburgh Water is proposing to require residential customers to directly pay any processing fees incurred when they elect to make payment with their credit or debit card. To accommodate this proposal, Pittsburgh Water removed $500,000 per year from the FPFTY and FY 2027 revenue requirements. Pittsburgh Water St. No. 2 at 26. Because OCA does not support this reallocation of costs to residential customers who incur them, it proposes to include $470,000 in the revenue requirements for 2026. Pittsburgh Water Witness Julie A. Mechling explains in her rebuttal testimony why opposition to our proposal should be rejected. If, however, the Commission elects to require all other ratepayers to pay these costs, then the recommended amount is too low. Processing fees include the card processing fee as well as the ACH fee and the Lockbox fee. For January 2025 through August 2025, Pittsburgh Water incurred $368,923 in processing fees. Projecting that number out for the remainder of FY 2025 results in $553,385. Pittsburgh Water would project an even higher number for FY 2026.

2. Elimination of Minimum Charge/compliance with settlement

Q. DID OTHER PARTIES COMMENT ON PITTSBURGH WATER PROPOSAL TO ELIMINATE THE MINIMUM CHARGE IN FY 2027?

A. Yes. Both I&E and OCA provided testimony on Pittsburgh Water's proposal to eliminate the minimum charge. Specifically I&E supported the proposal, whereas OCA on one hand supported the proposal (OCA St. No. 4) and on the other hand scrutinized Pittsburgh Water's proposal, due to the time frame for implementation (FY 2027) not being in compliance with the 2023 Rate Case Settlement (OCA St. No. 1).

Q. PLEASE RESPOND.

A. As I stated in my Direct Testimony (Pittsburgh Water St. No. 2 at 66) and in rebuttal testimonies of Pittsburgh Water's witnesses Smith and Mechling (Pittsburgh Water St. Nos. 6R and 8R), due to the significant overhaul of Pittsburgh Water's entire rate structure, our concerns with correct implementation through the billing system, and need for time to educate customers, it is reasonable and justified that the elimination of minimum charges takes effect in FY 2027 due to the effort necessary to implement the changes. This further supports our proposed multi-year rate plan because of the customer bill impacts that will result from our revised rate structure.

3. Electronic Bill Credit

Q. HAVE YOU REVIEWED THE TESTIMONY OF OWT'S CICERO REGARDING ELECTRONIC BILL CREDIT, AND DO YOU HAVE ANY CONCERNS WITH HIS POSITION?

A. Yes. OWT's Cicero supports the bill credit, but does not support the proposed prohibition for customers to return to a mailed paper bill for 6 months after enrollment. OWT St. No. 1 at 94. Mr. Cicero rather proposes a monthly bill credit be applied rather than a one time credit for the total amount of the credit to allow customers who "realize after they sign up that they prefer mailed bills." *Id.* Ultimately, Pittsburgh Water does not agree with Mr. Cicero's approach. The purpose of the program and the one time credit is to work to reduce Pittsburgh Water costs while incentivizing customers to voluntarily move away from paper billing. It is not a requirement, and customers may simply continue to receive a mailed bill if they would like. However, giving customers the ability to switch at will diminishes the savings Pittsburgh Water is trying to achieve, even where prorating the credit on a monthly basis. As I stated in my direct, there is additional savings to the Authority, and to customers, if most customers stayed on electronic billing after electing

to switch and receive a credit. Mr. Cicero's push to allow customers to switch between paper and mailing defeats much of the purpose and benefits of the voluntary program in the first place. Further, as Ms. Mechling explains in her rebuttal testimony, Mr. Cicero's approach creates more opportunities for errors. See Pittsburgh Water St. No. 6R.

XXXIV. CONCLUSION

Q. DOES THAT COMPLETE YOUR REBUTTAL TESTIMONY?

A. Yes. However, I do reserve the right to supplement this testimony as may be appropriate.

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VERIFICATION

I, Edward Barca, hereby state that: (1) I am the Director of Finance for The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water; (2) the facts set forth in my testimony are true and correct (or are true and correct to the best of my knowledge, information and belief); and, (3) I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: 9/30/25

DocuSigned by:
Edward Barca
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Edward Barca
Director of Finance
The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water

Exhibit EB-11

starting in FY 2026 unless the requested rate increase is approved. Ms. Fay's testimony further describes the devasting impact that this would have on Pittsburgh Water.

Q. DOES PITTSBURGH WATER SATISFY THE ADDITIONAL BONDS TEST FOR THE FPFTY AT THE REQUEST LEVEL OF THE RATE INCREASE?

A. Yes, as shown in Exhibit EB-8, Pittsburgh Water passes the additional bonds test for the FPFTY at requested rates.

Q. WHAT IS THE DAYS CASH ON HAND CALCUALTION?

A. The Days Cash on Hand ("DCOH") calculation is a liquidity measurement that estimates how much cash is on hand to pay for operations only using cash. The calculation is typically performed on an annual basis by dividing the year ending cash balance by operating expenditures, then multiplying by 365.

Q. HOW IMPORTANT IS IT FOR PITTSBURGH WATER TO CONTINUE THE PROGRESS OF INCREASING ITS DAYS CASH ON HAND?

A. It is very important. As described in Ms. Fay's testimony, the DCOH metric is heavily used by rating agencies to determine the ratings of municipal authorities.

Q. AT PRESENT RATES, WHAT LEVELS OF YEAR END CASH IS PITTSBURGH WATER PROJECTING IT WILL EXPERIENCE IN THE FPFTY?

A. At present rates, Pittsburgh Water's DCOH in the FPFTY (FY 2026) is projected to be ~~118~~ 26 days with the DCOH metric dropping to ~~42~~ -103 days in FY 2027.

	FY 2026	*FY 2027*
Days Cash on Hand ("DCOH")	*~~118~~ 26 DCOH*	*~~42~~ -103 DCOH*

The substantial drop in DCOH, which is a result of required increases to operations and capital spending without rate relief to keep up with these additional obligations, demonstrates the imperative need for a substantial increase in rates to repair these cash levels. As described in EB-5, it also falls short of Pittsburgh Water's goal of maintaining

Exhibit EB-12

Pittsburgh Water **Pittsburgh Water Exhibit EB-1 (Corrected 8.27.25)**

Statement of Income - Existing Rates

	FY 2024 *HTY*	FY 2025 *FTY*	FY 2026 *FPFTY*	FY 2027 *Forecast*
System Operating Statement				
Operating Revenues				
Water Sales	$ 151,896,667	$ 148,287,512	$ 155,783,628	$ 155,783,628
Wastewater Sales	55,573,997	54,402,195	57,122,305	57,122,305
Stormwater	28,985,420	28,336,323	28,336,418	28,336,418
Sale for Resale & Contract Sales	3,517,719	4,526,103	4,526,103	4,526,103
DSIC - Water	7,501,070	7,408,364	7,408,364	7,408,364
DSIC - Wastewater	2,778,700	2,720,110	2,720,110	2,720,110
Other Revenues	4,384,472	2,541,190	4,327,687	4,327,687
Total: System Operating Revenues	**$ 254,638,045**	**$ 248,221,796**	**$ 260,224,613**	**$ 260,224,613**
Operating Expenses				
Direct Operating	$ 120,206,437	$ 133,489,949	$ 149,713,166	$ 149,713,166
Loss / (Gain) on ALCOSAN Billings	$ (2,521,199)	$ 2,036,793	$ 2,383,047	$ 2,383,047
Subtotal: Operating Expenses	$ 117,685,238	$ 135,526,742	$ 152,096,214	$ 152,096,214
Operating Income	**$ 136,952,807**	**$ 112,695,055**	**$ 108,128,400**	**$ 108,128,400**
Debt Service				
Existing Debt	$ 80,112,081	$ 91,663,251	$ 96,351,752	$ 104,217,880
Proposed Debt	$ 3,438,591	$ 2,011,924	$ 14,674,187	$ 23,584,346
Subtotal: Debt Service	$ 83,550,672	$ 93,675,175	$ 111,025,939	$ 127,802,226
Other Expenditures & Transfers				
Debt Coverage Capital	$ -	$ -	$ 21,231,922	$ 23,817,794
Internally Generated Funds / PAYGO (DSIC)	$ 10,071,393	$ 10,071,004	$ 18,898,544	$ 20,271,134
Other Transfers to Reserves	$ 20,000,000	$ -	$ 3,000,000	$ 3,000,000
Reimbursements (Municipalities & Pennvest)	$ -	$ -	$ -	$ -
Remarketing & Liquidity Charges	$ -	$ -	$ -	$ -
Bad Debt Expense	$ 4,934,717	$ 4,823,090	$ 6,199,010	$ 6,199,090
Water and Wastewater Leak Credit	$ -	$ -	$ 662,322	$ 662,322
Rider AFP	$ -	$ 280,094	$ 280,094	$ 280,094
Stormwater Credits	$ -	$ 234,800	$ 288,016	$ 288,016
Subtotal: Other Expenditures & Transfers	$ 35,006,110	$ 15,408,988	$ 50,559,907	$ 54,518,450
Total: Revenue Requirements	**$ 236,242,020**	**$ 244,610,905**	**$ 313,682,060**	**$ 334,416,890**
Revenue Surplus/(Deficit)	**$ 18,396,025**	**$ 3,610,892**	**$ (53,457,447)**	**$ (74,192,277)**
	$ 116,586,090	$ 113,831,871	$ 103,986,974	$ 103,867,740
Senior Debt Service Coverage	**1.82**	**1.57**	**1.22**	**1.09**
Minimum Requirement	*1.25*	*1.25*	*1.25*	*1.25*
Total Debt Service Coverage	**1.40**	**1.22**	**0.94**	**0.81**
Minimum Requirement	*1.10*	*1.10*	*1.10*	*1.10*
Days Cash on Hand	**136**	**130**	**26**	**-103**

Exhibit EB-13

Exhibit EB-13 (Corrected EB-2)

Pittsburgh Water
Statement of Income - Proposed Rates

Pittsburgh Water Exhibit EB-2 (Corrected 8.27.25)

	FY 2024 *HTY*	FY 2025 *FTY*	FY 2026 *FPFTY*	FY 2027 *Forecast*
System Operating Statement				
Operating Revenues				
Water Sales	$ 151,896,667	$ 148,287,512	$ 183,457,438	$ 194,811,879
Wastewater Sales	55,573,997	54,402,195	66,604,861	71,757,996
Stormwater	28,985,420	28,336,323	34,758,549	35,547,124
Sale for Resale & Contract Sales	3,517,719	4,526,103	5,697,030	7,734,877
DSIC - Water	7,501,070	7,408,364	13,903,179	14,889,230
DSIC - Wastewater	2,778,700	2,720,110	4,995,365	5,381,850
Other Revenues	4,384,472	2,541,190	4,327,687	4,419,962
Total: System Operating Revenues	**$ 254,638,045**	**$ 248,221,796**	**$ 313,744,110**	**$ 334,542,917**
Operating Expenses				
Direct Operating	$ 120,206,437	$ 133,489,949	$ 149,713,166	$ 149,713,166
Loss / (Gain) on ALCOSAN Billings	$ (2,521,199)	$ 2,036,793	$ 2,383,047	$ 2,383,047
Subtotal: Operating Expenses	$ 117,685,238	$ 135,526,742	$ 152,096,214	$ 152,096,214
Operating Income	**$ 136,952,807**	**$ 112,695,055**	**$ 161,647,896**	**$ 182,446,704**
Debt Service				
Existing Debt	$ 80,112,081	$ 91,663,251	$ 96,351,752	$ 104,217,880
Proposed Debt	$ 3,438,591	$ 2,011,924	$ 14,674,187	$ 23,584,346
Subtotal: Debt Service	$ 83,550,672	$ 93,675,175	$ 111,025,939	$ 127,802,226
Other Expenditures & Transfers				
Debt Coverage Capital	$ -	$ -	$ 21,231,922	$ 23,817,794
Internally Generated Funds / PAYGO (DSIC)	$ 10,071,393	$ 10,071,004	$ 18,898,544	$ 20,271,134
Other Transfers to Reserves	$ 20,000,000	$ -	$ 3,000,000	$ 3,000,000
Reimbursements (Municipalities & Pennvest)	$ -	$ -	$ -	$ -
Remarketing & Liquidity Charges	$ -	$ -	$ -	$ -
Bad Debt Expense	$ 4,934,717	$ 4,823,090	$ 6,199,010	$ 6,199,090
Water and Wastewater Leak Credit	$ -	$ -	$ 662,322	$ 662,322
Rider AFP	$ -	$ 280,094	$ 280,094	$ 280,094
Stormwater Credits	$ -	$ 234,800	$ 288,016	$ 288,016
Subtotal: Other Expenditures & Transfers	$ 35,006,110	$ 15,408,988	$ 50,559,907	$ 54,518,450
Total: Revenue Requirements	**$ 236,242,020**	**$ 244,610,905**	**$ 313,682,060**	**$ 334,416,890**
Revenue Surplus/(Deficit)	**$ 18,396,025**	**$ 3,610,892**	**$ 62,049**	**$ 126,027**
	$ 116,586,090	$ 113,831,871	$ 157,506,470	$ 178,186,044
Senior Debt Service Coverage	**1.82**	**1.57**	**1.85**	**1.87**
Minimum Requirement	*1.25*	*1.25*	*1.25*	*1.25*
Total Debt Service Coverage	**1.40**	**1.22**	**1.42**	**1.39**
Minimum Requirement	*1.10*	*1.10*	*1.10*	*1.10*
Days Cash on Hand	**136**	**130**	**118**	**116**

Exhibit EB-14

Response of Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water
to the Data Requests of the
Bureau of Technical Utility Services ("TUS") Set I in
Docket No. R-2025-3055010 (Water)

The narrative responses to **TUS-I-R-1 (Water)** through **TUS-I-R-7 (Water)** as well as the **attachments (listed below)** total over 810 pages and are available at https://www.puc.pa.gov/pcdocs/1884250.pdf.

List of Attachments

#	Attachment	Responsive Document
2a	TUS-I(W)-2a	PENNVEST Debt Service Schedules as of June 9, 2025
2b	TUS-I(W)-2b	PENNVEST Loan Agreements (19)
3ab	TUS-I(W) 3ab	PENNVEST Adjustment Calculation
4a	TUS-I(W)-4a	Draft PVC Annual Reconciliation
4b	TUS-I(W)-4b	Sample Supporting Data PVC Annual Reconciliation Report
5	TUS-I(W)-5A	Revised Response to FR 53.52(b)(3)
5	TUS-I(W)-5B	Revised Pittsburgh Water Exh. WJP-1
6b	TUS-I(W)-6b	Updated Service Territory Map
7	TUS-I(W)-7A	Updated Response FR II.10 Operating Revenues
7	TUS-I(W)-7B	Updated Response FR XI.1 Other Data

Exhibit EB-15

Response of Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water
to the Data Requests of the
Bureau of Technical Utility Services ("TUS") Set I in
Docket No. R-2025-3055011 (Wastewater)

The narrative responses to **TUS-I-R-1 (Wastewater)** through **TUS-I-R-4 (Wastewater)** as well as the **attachments (listed below)** total over 310 pages and are available at https://www.puc.pa.gov/pcdocs/1884245.pdf.

List of Attachments

#	Attachment	Responsive Document
2a	TUS-I(WW)-2a	PENNVEST Deb Service Schedules as of June 9, 2025
2b	TUS-I(WW)-2b	PENNVEST Loan Agreements (13)
3ab	TUS-I(WW) 3ab	PENNVEST Adjustment Calculation
4a	TUS-I(WW)-4a	Draft PVC Annual Reconciliation
4b	TUS-I(WW)-4b	Sample Supporting Data PVC Annual Reconciliation Report

Exhibit EB-16

Exhibit EB-16

Pittsburgh Water
TY Ending 12/31/2026

PA Public Utility Commission
Docket Nos. R-2025-3055010 (Water)
3055011 (Wastewater) 3055012 (Stormwater)

MODIFIED
Exhibit DM-21

MODIFIED

PROJECTED CASH FLOW

Days Cash on Hand

	(1) PWSA FY 2026	Adjustments	OCA Recommended	References
Operating Fund				
Beginning Balance	$ 83,729,892	$ (16,883,956)	$ 66,845,936	OCA Set 9-34
Operating Expenses	$ (149,713,165)		$ (131,022,326)	
ALCOSAN Charges	$ (109,172,087)		$ (106,789,040)	
Total	$ (258,885,252)		$ (237,811,366)	
	$ -		$ -	
Daily Days Cash	0.32342		0.28109	
Ending Cash Balance	**118.050**		**102.597**	
Unrestricted Cash (Excluding ALCOSAN)	**204.1331**		**186.2184**	
Unrestricted Cash (Including ALCOSAN)	**118.0500**		**102.5971**	

(1) PWSA Exhibit EB-2

Deficit of $ (16,883,956) is shown on OCA Exhibit DM-1

Exhibit EB-17

Exhibit EB-17

Pittsburgh Water
TY Ending 12/31/2026

PA Public Utility Commission
Docket Nos. R-2025-3055010 (Water) 3055011 (Wastewater)
3055012 (Stormwater)

Modified
Exhibit DM-1

Modified

SUMMARY REVENUE REQUIREMENT

		(1) PWSA 2025 Present Rates	Rev Req Increase Adjustments	PWSA FPFTY 2026	Adjustments	OCA Recommended FPFTY - 2026	References
1	**Total System Revenues**	**$ 248,221,796**	**$ 65,522,314**	**$ 313,744,110**	**$ 18,498,565**	**$ 266,720,361**	
2	Total Direct Operating Expenses	$ 133,489,949	$ 16,223,217	$ 149,713,166		$ 149,713,165	
3	Other Operating Expenses	$ 2,036,793	$ 346,254	$ 2,383,047	$ -	$ 2,383,047	
4	**Total**	**$ 135,526,742**	**$ 16,569,471**	**$ 152,096,213**	**$ (1)**	**$ 152,096,212**	
5	Total Debt Service	$ 93,675,175	$ 17,350,764	$ 111,025,939	$ -	**$ 111,025,939**	
6	Total CapEx & Transfers	$ 15,408,988	$ 35,150,919	$ 50,559,907	$ (8,008,789)	$ 42,551,118	
7	**Total System Wide Rev. Requirement**	**$ 244,610,905**	**$ 52,501,683**	**$ 313,682,059**	**$ (8,008,790)**	**$ 305,673,269**	
8	Surplus (Deficit)	$ 3,610,891		$ 62,051		**$ (38,952,908)**	
	Required Debt Service	$ 113,831,870		$ 157,506,471		$ 112,389,804	
9	DSC - Senior Debt	**1.572**		**1.8546**		**1.3449**	
10	DSC - Total Debt	**1.215**		**1.4186**		**1.0289**	
11	**Total Proposed Revenue Requirement**		**$ 65,522,314**			**$ 18,498,565**	
12	Overall % Increase		26.397%			7.452%	

(1) PWSA Exhibit EB-2

Exhibit EB-17

Pittsburgh Water
TY Ending 12/31/2026

PA Public Utility Commission
Docket Nos. R-2025-3055010 (Water) 3055011 (Wastewater)
3055012 (Stormwater)

Modified
Exhibit DM-2

Modified

	Acct. No.	INCOME STATEMENT - FPFTY 2026	(1) PWSA 2025 Present Rates	Adjustments	PWSA FPFTY 2026	Adjustments	OCA Recommended	References	
	tab	**System Revenues**						Ratio to Total	
1		Water Sales	$ 148,287,512	$ 35,169,926	$ 183,457,438	$ 11,051,028	$ 159,338,540	59.740%	
2		Wastewater Sales	$ 54,402,195	$ 12,202,666	$ 66,604,861	$ 4,054,287	$ 58,456,482	21.917%	
3		Stormwater Sales	$ 28,336,323	$ 6,422,226	$ 34,758,549	$ 2,111,746	$ 30,448,069	11.416%	
4		Sale for Resale / Contract Sales	$ 4,526,103	$ 1,170,927	$ 5,697,030	$ 337,305	$ 4,863,408	1.823%	
5		DSIC Water Revenues	$ 7,408,364	$ 6,494,815	$ 13,903,179	$ 552,103	$ 7,960,467	2.985%	
		DSIC Wastewater Revenues	$ 2,720,110	$ 2,275,255	$ 4,995,365	$ 202,714	$ 2,922,824	1.096%	
6		Other Revenues	$ 2,541,190	$ 1,786,497	$ 4,327,687	$ 189,380	$ 2,730,570	1.024%	
7		Penalties & Interest	$ -	$ -	$ -	$ -	$ -	0.000%	
8		**Total System Revenues**	**$ 248,221,797**	**$ 65,522,312**	**$ 313,744,109**	**$ 18,498,564**	**$ 266,720,361**	100.000%	1.03
		DSIC Water ratio	2.98%	26.40%	4.43%	7.45%		FR II.1	
		DSIC Wastewater ratio	1.10%		1.59%				
		System Revenue Requirements					**1.3449**		
		Operating Expenses:					DSC		
		Direct Operating Expenses							
		Administrative Division							
9	100	Executive Director	$ 3,064,525	$ 516,306	$ 3,580,831	$ -	**$ 3,580,831**		
10	101	Customer Service	$ 10,577,193	$ 1,232,073	$ 11,809,266	$ -	**$ 11,809,266**		
11	102	Technology Services	$ 6,954,251	$ 2,395,862	$ 9,350,113	$ -	**$ 9,350,113**		
12	103	Finance	$ 11,687,452	$ 4,462,440	$ 16,149,892	$ -	**$ 16,149,892**		
13		Procurement	$ -	$ -	$ -		**$ -**		
14	104	Human Resources	$ 2,171,267	$ 636,543	$ 2,807,810	$ -	**$ 2,807,810**		
15	105	Legal	$ 4,294,802	$ 336,874	$ 4,631,676	$ -	**$ 4,631,676**		
16	106	Safety & Security	$ 2,292,742	$ 402,063	$ 2,694,805	$ -	**$ 2,694,805**		
17	108	Public Affairs	$ 1,907,291	$ (17,986)	$ 1,889,305	$ -	**$ 1,889,305**		
		Operations Division:					**$ -**		
18	110	Env. Compliance	$ 5,064,527	$ (530,816)	$ 4,533,711	$ -	**$ 4,533,711**		
19	107	Warehouse	$ 563,331	$ 30,504	$ 593,835	$ -	**$ 593,835**		
20		Ops. Capital Assets	$ -	$ -	$ -		**$ -**		
21	200	Laboratory	$ 2,065,384	$ 386,190	$ 2,451,574	$ -	**$ 2,451,574**		
22	201	Water Treatment Plant	$ 23,517,836	$ 633,148	$ 24,150,984	$ -	**$ 24,150,984**		
23	300	Sewer Operations	$ 4,209,934	$ 1,337,410	$ 5,547,344	$ -	**$ 5,547,344**		
24	202	Water Operations	$ 17,847,846	$ 1,548,383	$ 19,396,229	$ -	**$ 19,396,229**		
25	109	Eng. & Construction	$ 37,271,567	$ 2,854,223	$ 40,125,790	$ -	**$ 40,125,790**		
		Other				$ -	$ -	OCA Set 9-14	
						$ -	$ -		
		Other Adjustments (econ. Develop. bus. Develop, dues, advertising contributions, lobbying, publications)					**$ -**	OCA Set 9-16/24	
26		**Total Direct Operating Expenses**	**$ 133,489,948**	**$ 16,223,217**	**$ 149,713,165**	**$ -**	**$ 149,713,165**		
				12.15%					
		Other Operating Expenses							
27		Loss/(Gain) on ALCOSAN Billings	$ 2,036,793	$ 346,254	$ 2,383,047	$ -	$ 2,383,047		
28		City Services	$ -	$ -	$ -	$ -	$ -		
29		Non-City Water Payments	$ -	$ -	$ -	$ -	$ -		
30		**Total Other Operating Expenses**	**$ 2,036,793**	**$ 346,254**	**$ 2,383,047**	**$ -**	**$ 2,383,047**		
				17.00%					
31		**Total Operating Expenses**	**$ 135,526,741**	**$ 16,569,471**	**$ 152,096,212**	**$ -**	**$ 152,096,212**		
		Debt Service							
32		Senior Debt	$ 72,420,504	$ 1,265,379	$ 73,685,883	$ -	$ 73,685,883		
33		Subordinate Debt	$ 19,242,747	$ 3,423,122	$ 22,665,869	$ -	$ 22,665,869		
		Subtotal : Existing Debt	**$ 91,663,251**	**$ 96,351,752**	**$ 96,351,752**	**$ -**	**$ 96,351,752**		
		Proposed Debt							

Exhibit EB-17

Pittsburgh Water
TY Ending 12/31/2026

PA Public Utility Commission
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3055012 (Stormwater)

Modified
Exhibit DM-2

34		Revolving LOC	$ 2,000,000	$ 1,000,000	$ 3,000,000	$ -	$ 3,000,000
		Revenue Bonds	$ -	$ -	$ 11,241,803	$ (1,792,071)	$ 9,449,732
		WIFIA Loans	$ -	$ -	$ -		$ -
		SRF Loans	$ 11,924	$ 420,460	$ 432,384	$ -	$ 432,384
		Proposed Debt	**$ 2,011,924**	**$ 12,662,263**	**$ 14,674,187**	**$ -**	**$ 12,882,116**
35		**Total Debt Service**	**$ 95,675,175**	**$ 15,350,764**	**$ 111,025,939**	**$ (1,792,071)**	**$ 109,233,868**
				16.04%			
		CAPEX & Transfers					
		Debt Coverage Capital - Existing Senior	$ -		$ 18,421,471	$ -	$ 18,421,471
		Debt Coverage Capital - Existing Total	$ -		$ -		
		Debt Coverage Capital - Future Senior	$ -		$ 2,810,451	$ -	$ 2,810,451
		Debt Coverage Capital - Future Total	$ -				
35		Internally Generated Funds-PAYGO	$ -	$ -	$ -		$ -
36	7.50%	Internally Generated Funds-PAYGO/DSIC	$ 10,071,004	$ 8,827,540	$ 18,898,544	$ (8,008,790)	$ 10,889,754
37		Other Transfers to Reserve	$ -	$ 3,000,000	$ 3,000,000	$ -	$ 3,000,000
38		Bad Debt Expense	$ 4,823,090	$ 1,375,920	$ 6,199,010	$ -	$ 6,199,010
39		Water/Wastewater Leak Credits	$ -	$ -	$ 662,322	$ -	$ 662,322
40		Hardship Grant Funding	$ -	$ -	$ -	$ -	$ -
41		Arrearage Forgiveness Funding	$ 280,094	$ -	$ 280,094		$ 280,094
42		Stormwater Credit Program Cost	$ 234,800	$ 53,216	$ 288,016	$ -	$ 288,016
43		**Total CAPEX & Transfers**	**$ 15,408,988**	**$ 35,150,920**	**$ 50,559,908**		**$ 42,551,118**
				228.12%			
44		**Total Systemwide Revenue Requirement**	**$ 244,610,904**	**$ 69,071,155**	**$ 313,682,059**	**$ (9,800,861)**	**$ 303,881,198**
45		**System Revenue/Surplus/(Deficit)**	**$ 3,610,893**	**$ (3,548,843)**	**$ 62,050**	**$ -**	**$ (37,160,837)**
				$ 65,522,312			

(1) PWSA Exhibit EB-1 and 2

Exhibit EB-17

Pittsburgh Water
TY Ending 12/31/2026

PA Public Utility Commission
Docket Nos. R-2025-3055010 (Water)
3055011 (Wastewater) 3055012 (Stormwater)

Modified
Exhibit DM-21

Modified

PROJECTED CASH FLOW

Days Cash on Hand

	(1) PWSA FY 2026	Adjustments	OCA Recommended	References
Operating Fund				
Beginning Balance	$ 83,729,892	$ (38,952,908)	$ 44,776,984	OCA Set 9-34
Operating Expenses	$ (149,713,165)		$ (149,713,165)	
ALCOSAN Charges	$ (109,172,087)		$ (106,789,040)	
Total	$ (258,885,252)		$ (256,502,205)	
	$ -		$ -	
Daily Days Cash	0.32342		0.17457	
Ending Cash Balance	**118.050**		**63.717**	
Unrestricted Cash (Excluding ALCOSAN)	**204.1331**		**109.1661**	
Unrestricted Cash (Including ALCOSAN)	**118.0500**		**63.7172**	

(1) PWSA Exhibit EB-2

Exhibit EB-18

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Pittsburgh Water and Sewer Authority
d/b/a Pittsburgh Water ("Pittsburgh Water")

Invitation for Bids (IFB)

Locating and Identifying Underground Facilities

Project No. 2025-077

Issued: July 9, 2025

Bids Due: July 30, 2025 at 2:00 PM ET

Contact: Janice Abate, Procurement Specialist

Late bids will not be accepted

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SOLICITATION REQUIREMENTS AND DATES

1. SUBMITTAL REQUIREMENTS

Bids will be received electronically via the Bonfire Procurement Portal until 2:00 p.m. Eastern Time on July 30, 2025 for Locating and Identifying Underground Facilities, Project No. 2025-077. Bids shall not be accepted in person, by U.S. Mail, by private courier service, via oral or e-mail communication, telephone or fax transmission.

Bids must be submitted in the format described in this IFB. To be considered, the bid must respond to all requirements in the IFB. The contents of this IFB and your bid shall become part of any contract(s) entered into as a result of this IFB. Submission of a bid indicates acceptance of the conditions in this IFB.

Prices quoted in the Bid shall be firm for the duration of this Contract.

Pittsburgh Water reserves the right to request additional information which, in Pittsburgh Water's opinion, is necessary to assure that the bidder's competence, business organization, and financial resources are adequate to perform in accordance with this IFB and any resultant contract.

Pittsburgh Water may make such investigation as it sees fit to determine the ability of the bidder to perform the work, and the bidder shall furnish Pittsburgh Water all such information and data for this purpose as requested by Pittsburgh Water. Pittsburgh Water reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy Pittsburgh Water that such bidder is properly qualified to carry out the obligations of the contract and to satisfactorily perform the work specified.

When asked, bidders shall also include their answers to the questions listed in this IFB using the same answering sequence as put forth in the IFB.

Pittsburgh Water reserves the right to extend or postpone the date and time for accepting bids through one or more addenda.

All proposals, responses, inquiries, or correspondence relating to or in reference to this IFB, and all electronic media, reports, charts, and other documentation submitted by supplier shall become the property of Pittsburgh Water when received. Nothing submitted shall be considered confidential or proprietary.

2. INQUIRIES

This IFB will be administered by Janice Abate, Procurement Specialist. All questions pertaining to this IFB prior to selection shall be submitted via Bonfire Procurement Portal. Questions are due from vendors by no later than 4:00 p.m. Eastern Time on July 23, 2025.

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All communication of any nature with respect to this IFB shall be addressed through the Bonfire Procurement Portal. Prospective firms and their staff are prohibited from communicating with City of Pittsburgh and Pittsburgh Water officials, staff, members of City Council and/or Pittsburgh Water Board of Directors regarding this IFB or submittals. Such contact is prohibited from the time the IFB is released until the selection results are publicly announced. Violation of this provision may lead to disqualification of the firm's submittal for consideration.

3. PRE-BID MEETING:

No pre-bid meeting will be held for this Invitation for Bids.

4. BID WITHDRAWAL

All bids shall remain firm and may not be withdrawn for 60 calendar days from the bid due date. This period may be extended, in writing, at the request of Pittsburgh Water. Any Vendor may withdraw its proposal at any time before due date for submission of proposals as provided in this IFB by delivering a written request for withdrawal signed by or on behalf of the Vendor to the IFB administrator.

SPECIFICATIONS AND DELIVERY INSTRUCTIONS

5. SCOPE OF WORK

It is the intent of Pittsburgh Water to establish a contract to locate and identify Pittsburgh Water's underground facilities when notified by the Pennsylvania One Call Center. The Contractor shall provide all labor, material, equipment, tools, and appurtenances necessary in order to complete the scope of work required.

The Contractor shall adhere to the Scope of Work as described in Attachment 7.

6. WORKING HOURS

Normal working hours shall be from 7:00 a.m. to 4:00 p.m., Monday through Friday, excluding weekends and Pennsylvania One Call observed holidays. Pittsburgh Water may specify when work at a site is to be performed. Such work may be scheduled outside of normal working hours to minimize service disruption. See also the Scope of Work for more time frame breakdowns for this contract.

7. PITTSBURGH WATER'S RESPONSIBILITIES

It is Pittsburgh Water's responsibility to:

A. Assign a Project Manager who is responsible for coordination with the Contractor and duties outlined herein, including Contractor's requirements to submit particular documentation regarding the completion of the work to Pittsburgh Water.

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B. Provide a copy of Pittsburgh Water's Code of Conduct Policy, Code of Ethics Policy, Non-Retaliation Policy, and Whistleblower Policy to Contractor.

C. Provide the Contractor with GIS mapping data containing electronic mapping of Pittsburgh Water's facilities and service line measurements up to the party line. Electronic mapping furnished to the Contractor is the property of Pittsburgh Water and shows only the approximate locations of Pittsburgh Water's facilities. Pittsburgh Water's Project Manager will provide the Contractor with spatial database of the water and sewer inventory and access to updates on a regular basis for the duration of the Contract.

8. CONTRACTOR'S RESPONSIBILITIES

The Contractor shall:

A. Perform the work in a manner that supports Pittsburgh Water's commitment to Environmental Compliance, Ethics and Conduct by being a steward of the environment under Contractor's control and doing so in a professional manner by incorporating the following actions into planning and conducting the Work:
   a. Protect the air, water, land, and other natural resources.
   b. Comply with applicable environmental regulations and permit requirements.
   c. Prevent pollution, minimize waste, and conserve resources.
   d. Comply with Pittsburgh Water's Code of Conduct, Code of Ethics and other policies.
   e. Report any concerns regarding environmental compliance, ethics/conduct, or safety under the Contractor's control, as well as concerns observed outside the scope of work.

B. Schedule with the Project Manager a kick-off meeting to review contract, environmental compliance, and ethics requirements for the work.

C. Make available to Contractor's staff and subcontractors information on Pittsburgh Water's compliance and ethics program, including copies of codes and policies.

D. Review Federal SAM system (http://www.sam.gov) to identify any firm or individual that would be a sub-contractor or supplier of service associated with the Work. Contractor shall not knowingly utilize a firm or individual listed on SAM as debarred, suspended, proposed for debarment or otherwise ineligible. If Contractor identifies a SAM listed individual or firm, they shall consult with Pittsburgh Water prior to entering into a transaction. Contractor shall keep a paper copy of all SAM search results and certifications.

E. Submit to Project Manager a Waste Disposal Plan for approval prior to conducting any waste generation. Waste Disposal Plan shall include:
   a. Name and address of the Contractor
   b. Name and contact information for the person responsible for waste management

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c. Project Name, Work Location, and Pittsburgh Water Project or Work Order Number
d. Contractor's cleaning process.
e. Waste Receiving Facility: Name, Address, Permit Number
f. Waste Receiving Facility Representative: Name, Phone Number, and Email
g. Statement that all vehicles transporting municipal or residuals wastes to a disposal facility in Pennsylvania have a valid Waste Transporter Authorization under Act 90 (Waste Transportation Safety).

9. HEALTH AND SAFETY

Prior to commencing work, all Contractors are subject to the development of a project-specific Health & Safety Plan (HASP) that includes a job safety analysis, hazard analysis (or equivalent). The HASP and any corresponding documentation will be reviewed by the Pittsburgh Water Safety & Security Department. Contractors performing work within specific Pittsburgh Water facilities may also be subject to completion of Pittsburgh Water Safety & Security Orientation.

Contractors performing work within a secure Pittsburgh Water facility may also be subject to a non-disclosure agreement (NDA) as a protective security measure.

BID FORMAT AND SUBMITTAL REQUIREMENTS

10. MANDATORY MINIMUM REQUIREMENTS

Each Bidder shall meet the mandatory minimum requirements. Failure to meet these requirements will cause the Firm's bid to be deemed non-responsive and will not be considered for award:

A. The Bidder must submit a description of any Notices of Violation or Administrative Orders issued to the Bidder, or any of its owners, directors, or officers in the last three years.
B. The Bidder must submit a list of any accidents at job sites that were reported to federal, state, county or local health and safety officials involving the Bidder in the last three years.
C. The Bidder must submit a narrative describing their experience related to the activities in the Scope of Work.

11. BIDDER TO BE EXPERIENCED

Before the Contract is awarded, the Bidder must satisfy, upon request, in writing, that it has the requisite organization, capital, plant, ability and experience to satisfactorily provide the Services described under the Contract in accordance with the provisions of the Contract and in conformance with best modern practice. When Pittsburgh Water makes such an inquiry, the entire responsibility and burden for satisfying Pittsburgh Water's inquiry is placed upon the Vendor to provide Pittsburgh Water with the requested information. Pittsburgh Water is not required to conduct an independent investigation to support the Vendor's claim of possessing

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the requisite responsibility, experience and/or capabilities to perform the Contract. If such an inquiry is made by Pittsburgh Water, Vendor must produce (a) an audited financial statement; (b) all documents, information and communications related to the tabulation, preparation and/or formulation of Vendor's bid; (c) a list of three (3) references that are applicable to the specific Services described in the Contract; (d) a list of all equipment, if any, that the Vendor will use to provide the Services, that is owned by the Vendor and/or which the Vendor will rent or lease, specifically indicating the means and methods of the same; (e) a list of the addresses of all facilities that the Vendor will utilize to provide the Services; and (f) a list of all professional experience that the Vendor has performing Contracts involving this specific type of Service described in the Contract and of a size and value comparable to those described in the Contract. **For this contract, Pittsburgh Water requires experience performing a minimum of two years with at least an average of 1,000 Pennsylvania One Call service tickets per month during those years. Pittsburgh Water would also consider other states' 811 or comparable systems to meet this requirement.**

12. PROJECT MANAGER/EMERGENCY CONTACT

Each Bidder shall also indicate the name, telephone number, facsimile number, and email address of their contact person for this Contract. This person shall be available to answer questions, solve problems, etc., during the term of this Contract. Should the contact person be changed during the term of this Contract, the Vendor shall promptly notify the Project Manager.

13. SCHEDULE OF PRICES

Bids will be received electronically via the Bonfire Procurement Portal. Each Bidder shall fill in the unit price for each item as listed on the Bid Table. Should there be a mathematical error between unit price and extended price, unit price will prevail. Unit pricing shall be all-inclusive. Bidders must fill in pricing for each line item to be considered for award. No additional line items will be considered for bidding or payment purposes. Non-conforming bids will be rejected.

14. EXCLUDE SALES TAX

In computing bids, the Bidder shall not include amounts for Pennsylvania Sales or Use Tax on materials and equipment to be incorporated in facilities used directly in rendering public utility service pursuant to 61 PA Code § 31.11 – 31.16. The Vendor shall ascertain in advance whether such exemption is available, and the Vendor shall, in compliance with such regulation, furnish the supplier with an exemption certificate properly endorsed by Pittsburgh Water.

The Vendor shall supply Pittsburgh Water with a statement that Pennsylvania Sales or Use Tax on materials and equipment to be incorporated in facilities used directly in rendering public utility service has not been included in the computation of the bid.

15. BID BOND REQUIREMENTS

No Bid Bond is required for this Invitation for Bids.

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16. STATEMENT OF AFFILIATION

Successful Bidder(s) must provide Pittsburgh Water with a statement of affiliation. The statement of affiliation shall include:

A. a description of the Bidder's qualifications and experience;
B. a description of any contractual or business relationship with the City of Pittsburgh or Pittsburgh Water within the past three years;
C. an identification of the Bidder's principals, owners, partners or shareholders, or if the Bidder is a public corporation, the officers, members of the board of directors and shareholders holding more than three percent of the corporate stock.

17. DEBARMENT UNDER PITTSBURGH CODE §161.22 (f)

The Bidder will also be required to submit an executed Certification of Debarment as required by Pittsburgh Code §161.22(f) which will state, under penalty of perjury, that neither they nor their company, corporation, partnership, or any affiliated individual is prohibited from entering a bid or participating in a City of Pittsburgh or a Pittsburgh Water contract by reason of debarment or disqualification as defined by Pittsburgh Code §161.22(b). The firm shall be deemed to have represented and warranted that the bid is not made in connection with any competing firm submitting a separate response to this IFB and is in all respects fair and without collusion or fraud. Furthermore, the firm certifies that neither it, any of its affiliates or subcontractors, nor any employees of any of the foregoing has bribed or lobbied, or attempted to bribe or lobby, an officer or employee of Pittsburgh Water in connection with this IFB.

18. COLLUSION

Bidder certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing this Contract. For purposes of this Contract, the following definitions shall apply: (1) "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official or Pittsburgh Water employee in the bidding/proposal process or in the Contract execution; (2) "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding/proposal process or the execution of the Contract to the detriment of Pittsburgh Water, (b) to establish the Contract prices at artificial non-competitive levels, or (c) to deprive Pittsburgh Water of the benefits of free and open competition; (3) "collusive practice" means a scheme or arrangement between two or more companies, with or without the knowledge of Pittsburgh Water, a purpose of which is to establish Contract prices at artificial, non-competitive levels; and (4) "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding/proposal process or affect the execution of the Contract.

19. REQUIRED ADDITIONAL STATEMENTS

Bidder must also fully complete and submit the following attachments included with this IFB:

1) Debarment Certificate under Code Section 161.22(f)

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2) Supplier Diversity Commitment Form or Waiver
3) Addenda Acknowledgement Form
4) Statement of Environmental Law Compliance
5) Reference Form—optional with bid, or required if requested during bid evaluation
6) Signature Page

20. PUBLIC INFORMATION

Respondent, by submittal of a bid, acknowledges that all bids may be considered public information in accordance with the Commonwealth of Pennsylvania Right-to-Know laws. Subject to award of this IFB, all or part of any submittal may be released to any person or organization who may request it. Therefore, Bidder shall specify in their Cover Letter if any portion of their submittal should be treated as proprietary and not releasable as public information. Respondents should be aware that all such requests may be subject to legal review and challenge. All information considered proprietary should be clearly indicated as such or not included in the response.

21. COMPARISON OF BIDS

Bids will be compared, and their amounts computed on the basis of the approximate estimate of quantities given on the bid forms. The quantities stated are approximate only and Pittsburgh Water does not expressly or implicitly warrant that the actual amount of Work will correspond therewith and reserves the right to increase or decrease each and all quantities without limit to the size of the increase or the decrease at Pittsburgh Water's sole discretion.

22. REJECTION OF BIDS

Pittsburgh Water reserves the right to reject any and all bids if it deems it to be in the interest of Pittsburgh Water to do so. When prices bid on various items are unreasonably high or low so as to unbalance the bid, the Director may, within his discretion, recommend that Pittsburgh Water reject it. The bid may also be rejected if it contains omissions, alterations, additions not called for, or irregularities of any kind.

23. BASIS OF AWARD

This Contract will be awarded to the lowest responsive and responsible Bidder, by line item or group, whichever is determined to be in the best interest of Pittsburgh Water.

Should there be an error between unit bid price and extended total of a line item, unit price shall prevail. Work sites to be assigned under this contract will be distributed at the sole discretion of Pittsburgh Water.

Pittsburgh Water reserves the right to waive informalities.

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CONTRACT AWARD

24. CONDITIONS OF AWARD

The performance of this Contract shall be governed solely by the terms and conditions as set forth in this solicitation.

25. NO CONTRACT AWARDED IF IN ARREARS TO PITTSBURGH WATER

The Contract will not be awarded to any corporation, firm or individual who is, from any cause, in arrears to the Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water.

26. NOTICE OF AWARD

The successful Bidder will be notified by letter, giving Notice of Award, of Pittsburgh Water's acceptance of their bid. The Vendor shall not begin any work on this Contract until such time as a Notice to Proceed has been issued by Pittsburgh Water.

27. PROTEST OF AWARD

A Bidder that desires to protest Pittsburgh Water's award shall submit protest in writing to:

Pittsburgh Water
Procurement Office
1200 Penn Ave, 2nd Floor
Pittsburgh, PA, 15222

Any protest shall be received by Pittsburgh Water no later than ten (10) business days after public notice of the award. The written protest shall include the basis for the protest and the relief sought. Owner shall issue a decision in writing within ten (10) business days of receipt of a timely filed, written protest stating the reason for the action taken. Owner's decision shall be final unless the Bidder appeals within ten (10) days of the written decision by instituting legal action. Any and all appeals shall be filed in the Court of Common Pleas of Allegheny County, Pennsylvania. Nothing in this Section shall be construed to permit a Bidder to challenge the validity of the terms or conditions of the Bidding Documents.

28. NOTICE TO PROCEED

After execution of the Agreement Pittsburgh Water and the Vendor, Pittsburgh Water shall issue Notice to Proceed to the Vendor. The successful Bidder shall not begin any work on this Contract until such time as a Notice to Proceed has been issued.

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CONTRACT TERMS AND CONDITIONS

29. CONTRACT TERM

The term of this Agreement shall commence upon Pittsburgh Water's issuance of a Notice to Proceed and shall continue for one year from the date of the issuance of the Notice to Proceed (the "Term"). Time is of the essence for this Agreement. Thereafter, this Agreement shall not renew, unless agreed upon in writing between the Parties. In the event that the Parties elect to renew the Agreement, the Contract may be extended for up to three additional one-year Term(s), or any portion thereof, if mutually agreed upon by the Parties in writing. For such renewal Term(s), Vendor agrees that pricing for option renewals shall be submitted to Pittsburgh Water's Contract Administrator at least 60 days prior to the most current term renewal and shall not exceed 3% annually.

30. ACCEPTANCE OF TERMS AND CONDITIONS

The performance of this Contract shall be governed solely by the terms and conditions as set forth in this IFB notwithstanding any language contained on any invoice, shipping order, bill of lading, or other document furnished. The acceptance by Pittsburgh Water of any goods or services furnished hereunder shall not be construed as acceptance by Pittsburgh Water of any terms or conditions which are inconsistent with the terms and conditions here stated. All terms and conditions under the solicitation, including any addenda thereto, are made part of this Contract. Any different or additional terms other than those stated herein are not acceptable.

31. COMPLIANCE WITH ALL LAWS

Vendor shall comply with all laws, ordinances, codes, rules, regulations, and orders of any government or public authority bearing on the performance of the Work.

32. REQUIREMENTS CONTRACT

Bidders acknowledge that the Contract that will be entered into as a result of this Solicitation will be a Requirements Contract Pittsburgh Water will have no obligation to the Vendor if no service is required. The Vendor understands and agrees that Pittsburgh Water is under no obligation to the Vendor to buy any amount as a result of issuing the Contract. The quantities stated herein are given as a general guide for bidding and are NOT guaranteed amounts but do represent the best estimate of Pittsburgh Water, based on previous usage and projected needs. In the event the Vendor is not able to provide service in the time frame required in Scope of Work, Pittsburgh Water will purchase the service from another Vendor and charge the Vendor for any price difference.

33. RELATIONSHIP OF THE PARTIES

Vendor shall act as an independent contractor and is retained by Pittsburgh Water only for the purposes and to the extent set forth in this Contract.

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34. CONFLICT OF INTEREST

Vendor covenants and represents that neither it, nor any officer or principal of its firm, has, or shall acquire any investment, income, business entity, interest in real property, or other interest, directly or indirectly, which would conflict in any manner with the interests of Pittsburgh Water, hinder Vendor's performance under this Contract, or be affected in any manner or degree by performance of the Work hereunder.

35. ASSIGNMENT

Vendor shall not assign or sublet the Work or any part thereof or transfer an interest in the Contract without the written consent of Pittsburgh Water.

36. SUPPLIER DIVERSITY PROGRAM

Minority Business Enterprise (MBE), Women Business Enterprise (WBE), Small Business Enterprises (SBE), Veteran Business Enterprise (VBE) (this includes Service Disabled-Veteran Business Enterprises (SDVBE)), Disability-Owned Business Enterprise (DOBE), and LGBT Business Enterprise (LGBTBE) participation is requested in all Pittsburgh Water contracts.

Pittsburgh Water requires that all Bidders demonstrate a good faith effort to obtain the participation of MBEs, WBEs, SBEs, VBEs, DOBEs, LGBTBEs in all work to be performed under Pittsburgh Water contracts. Such participation may be demonstrated by utilization of MBE/WBE/SBE/VBE/DOBE/LGBTBE firms through the use of subcontracts with such firms in support services, supplies, etc. For many of the services, supplies and equipment for which Pittsburgh Water contracts, Pittsburgh Water recognizes that the current business pool does not include percentages of minorities, women, veterans, or service-disabled veterans. Pittsburgh Water, however, wishes to encourage MBE/WBE/SBE/VBE/DOBE/LGBTBE participation in all business pools.

It is therefore the current goal of Pittsburgh Water to encourage increased MBE, WBE, SBE, VBE, DOBE, LGBTBE participation in all business pools. Pittsburgh Water 's current supplier diversity goal is between ten percent (10%) and twenty-five percent (25%). Pittsburgh Water intends to monitor the progress closely, including revising the practices and procedures from time to time as conditions warrant.

a. The dollar amount of the contract paid to MBEs along with the names and addresses of those MBEs.

b. The dollar amount of the contract paid to WBEs along with the names and addresses of those WBEs.

c. The dollar amount of the contract paid to SBEs along with the names and addresses of those SBEs.

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d. The dollar amount of the contract paid to VBEs along with the names and addresses of those VBEs.

e. The dollar amount of the contract paid to DOBEs along with the names and addresses of those DOBEs.

37. ANTI-DISCRIMINATION

Vendor shall not discriminate in its employment on the basis of race, color, religion, ancestry, national origin, place of birth, sex, age, disability, non-job-related handicap or sexual orientation. Vendor shall comply with the applicable provisions of the Pittsburgh Code, Title Six - Conduct, Article V - Discrimination, and any amendments thereto. Vendor shall also comply with the applicable provisions of Title I and Title II of the Americans with Disabilities Act, any amendments thereto and any regulations issued thereunder. Pittsburgh Water reserves the right to direct Vendor to submit a statement signed by an authorized officer or agent of any labor union or any agency referring workers or providing or supervising apprenticeship or other training, with which Vendor deals, with supporting information to the effect that the signer's practices and policies do not discriminate on the grounds of race, sex, color, religion, ancestry, national origin or place of birth. In this statement the signer either will agree to cooperate affirmatively in the implementation of the policy and provisions of the Contract and the MBE/WBE/VBE/SDVBE Solicitation and Commitment Statement or will agree that recruitment, employment, and the terms and conditions of employment under the Contract shall be in accordance with the purposes and provisions of the Contract. In the event that the union, or agency, shall refuse to execute such a statement, Vendor shall so certify and set forth what efforts have been made to secure such a statement and such additional factual material as Pittsburgh Water may require.

38. INSURANCE REQUIREMENTS

Prior to commencing the Work, Vendor shall procure and maintain, at its own expense and for the duration of this Contract, at least the following insurance from insurance companies that are found to be satisfactory by Pittsburgh Water, at Pittsburgh Water's sole discretion, which insurance shall name Pittsburgh Water a named insured on a no-fault basis, and shall not include any deductibles or self-insurance retention amounts (unless approved in writing by Pittsburgh Water): (a) Comprehensive General Liability Insurance with the following minimum limits: General Commercial Aggregate Limit - $2,000,000 Worker's Compensation - $1,000,000; Bodily Injury, including death - $1,000,000 each occurrence, $2,000,000 aggregate; Property Damage - $1,000,000 each occurrence, $2,000,000 aggregate; and (b) Comprehensive Automobile Liability Insurance covering all owned, non-owned and hired automobiles used in connection with the Work, with the following minimum limits: Automobile Liability - $1,000,000 each occurrence, $1,000,000 aggregate for bodily injury including death and $50,000 each occurrence and $500,000 aggregate for property damage. Vendor shall furnish a certificate, satisfactory to Pittsburgh Water from each insurance company showing that the above insurance is in force, stating policy numbers, dates of expiration, and limits of liability thereunder, and further that any cancellation or change will be mailed to and received by Pittsburgh Water 30 days prior to any such cancellation. To the

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extent permitted by law, Vendor waives its subrogation rights against Pittsburgh Water, Pittsburgh Water's customer and any other person or entity. Each policy required by this Contract shall be endorsed to state that coverage shall not be suspended, voided, cancelled, reduced, or limits or certificate holder be deleted as an additional insured except after thirty (30) days' prior written notice, by certified mail, return-receipt requested, has been given to Pittsburgh Water. The failure of Pittsburgh Water to pursue or obtain any certificate of insurance or endorsement or to point out any non-compliance of any certificate of insurance or endorsement shall not constitute a waiver of any of the requirements or relieve Vendor of any obligations. These insurance provisions are intended to be a separate and distinct obligation on the part of Vendor. Pittsburgh Water's acceptance of insurance submitted by Vendor does not relieve or decrease in any way the liability of Vendor for performance.

39. INDEMNIFICATION

Vendor shall indemnify, defend and hold harmless Pittsburgh Water and its officers, agents, and employees from and against all claims, damages, liabilities, judgments, liens, charges, demands, losses, fines, penalties, lawsuits, encumbrances, costs and expenses, whether well founded or unfounded, including, but not limited to, attorney's fees, costs of litigation and investigation, directly or indirectly arising out of or resulting from the performance of the Work or in connection with or as a result of Vendor's breach of this Contract, or failure to comply with the terms of this Contract, by Vendor, in the case of claims against Pittsburgh Water, and/or any other person or entity or their agents and employees by any employee of Vendor, anyone directly or indirectly employed by Vendor, anyone acting on behalf of or at the direction of Vendor, or anyone else for whom Vendor may be liable, Vendor's indemnification obligations shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Vendor under workers compensation acts, disability benefit acts or other employee benefit acts.

40. PERFORMANCE BOND REQUIREMENT

Successful Bidder(s) will be required to submit a Performance Bond for 100% of the awarded contract value, within 10 calendar days of award notification, using the attached Performance Bond Form. Failure to submit a performance bond within the time frame required may be cause for Pittsburgh Water to rescind the award. Performance Security(s) shall be accompanied by an appropriate power-of-attorney from the surety firm to the agent issuing the Security.

41. SAFETY

Vendor shall take and observe all necessary measures and precautions for the safety and protection of property and persons during the performance of the Work. Vendor shall secure and pay for all permits, fees, licenses and inspections necessary for the execution of the Work.

42. PROPER POSTING OF "NO PARKING" SIGNS

As the City of Pittsburgh Parking Authority continues to remove individual parking meters in its shift toward centrally located pay station kiosks, there are fewer places to post "No Parking"

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notices at work sites. Faced with finding visible location for the notices, crews and contractors sometimes attach the signs to the trees along the street. This is NOT an acceptable alternative as it is in violation of City of Pittsburgh ordinance Article XIII, Chapter 483, § 483.01 – Advertisements or Notices: No person shall attach any sign, advertisement or notice to any tree or shrub in any public street or other public place.

If there are no other options that provide clear and visible notice to the public, the "No Parking" sign may only be attached to a tree with string; NO STAPLES, NO WIRE, NO ZIP TIES or other fasteners that could penetrate the bark are permitted.

43. CONFIDENTIALITY

Vendor acknowledges that as a result of its engagement hereunder, it will be making use of and/or acquiring information of a special unique nature and value relating to Pittsburgh Water's business. As a material inducement to Pittsburgh Water agreeing to enter into this Contract, and to pay Vendor compensation, Vendor covenants and agrees that it and its employees, representatives, subcontractors and agents shall not at any time during the term of this Contract or thereafter directly or indirectly divulge or disclose for any purpose whatsoever any confidential information which has been obtained by or disclosed to Vendor as a result of its association with Pittsburgh Water. Confidential information shall include, without limitation, information concerning Pittsburgh Water's financial condition, customers, methods of doing business and the manufacturing, creation, design, marketing and distribution of Pittsburgh Water's products.

44. RIGHTS IN DATA; COPYRIGHTS; DISCLOSURE

All Data (written reports, studies, drawings, or other graphic, electronic, chemical or mechanical representations) developed pursuant to this Contract shall be the property of Pittsburgh Water and Pittsburgh Water shall have the full right to use such Data for any official purpose and in whatever manner deemed desirable and appropriate, including making it available to the general public. Such use shall be without any additional payment to or approval by Vendor. Pittsburgh Water shall have unrestricted authority to publish, disclose, distribute and otherwise use, in whole or in part, any Data developed or prepared under this Contract.

45. DISSEMINATION OF INFORMATION

Vendor agrees to not release any information related to the Services or the performance of Services, nor publish any reports or documents related to the Services with the prior written consent of Pittsburgh Water. Vendor agrees to hold all materials and information belonging to Pittsburgh Water or Pittsburgh Water's agents in the strictest confidence and not to make use thereof other than for the performance of its contractual obligations, to release it or to disclosure it to any other entity and/or individual. Any information of a restricted nature provided to Vendor by Pittsburgh Water in the course of the Services shall be handled in accordance with the restrictions placed thereon by Pittsburgh Water. Information or documents given to or generated by Vendor in the course of the Services shall be considered restricted information

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and subject to handling and dissemination restrictions as specified herein and/or as specified by Pittsburgh Water.

46. FORCE MAJEURE

Pittsburgh Water acknowledges that the delivery dates for goods being sold under this agreement are based upon the assumption there will be no delay due to causes beyond the reasonable control of the Supplier. Supplier will not be charged with any liability for delay or non-delivery when caused by acts of God, compliance with a court order, governmental regulation, order or request, riots, fires, labor disputes, or any other cause beyond the reasonable control of the Supplier. During the period when deliveries are affected by the matters identified in this paragraph, Supplier is expected to make all reasonable efforts to deliver goods to Pittsburgh Water.

47. DELAYS

If the services fail to conform the requirements of Pittsburgh Water by any fault or neglect or act or failure to act by Vendor or any of its officers, agents, servants, employees, vendors, sub-subcontractors or suppliers, then Vendor shall, in addition to all of the other obligations imposed by this Contract at its own cost and expense, work such overtime and/or otherwise provide additional labor as may be necessary to provide services that conform with the requirements of Pittsburgh Water. Should Vendor fail to provide services that comply with the requirements of Pittsburgh Water, Pittsburgh Water shall have the right to retain other entities to supply the services and to take whatever other action it deems to be necessary to avoid delay in the completion of the project, and the cost and expense of such work and/or such other action shall be exclusively borne by Vendor. Pittsburgh Water shall not be liable for any delay in or failure of performance hereunder by Pittsburgh Water due to any contingency beyond its control, including act of God, war, terrorism, government priority, mobilization, insurrection, rebellion, civil commotion, riot, act of extremist or public enemy, sabotage, labor dispute, lockout, strike, job action, explosion, earthquake, fire, flood, weather conditions, accident, drought, power failure, inability to obtain suitable or sufficient labor or material, delay of carrier, embargo, law, ordinance, rule or regulation, whether valid or invalid, or other cause beyond Pittsburgh Water's reasonable control.

48. PAYMENT

Vendor shall submit, on a monthly basis, properly detailed invoice(s) setting forth the Services performed, and any expenses incurred. Vendor's billed hourly rates shall be based upon the agreed upon hourly rates, if applicable, and for the Services actually performed and expenses actually incurred during the monthly billing cycle. For any agreed upon subcontracted Services, Vendor shall bill for the portion of the subcontractor's Services performed during the monthly cycle. Vendor shall provide such supporting documentation or data as Pittsburgh Water may reasonably require. The Payment terms are net 30 calendar days.

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Vendor agrees that, unless authorized by Pittsburgh Water in writing, Vendor shall not be reimbursed for travel time. Vendor shall claim compensation due and payable only when such time is spent in the performance of Services under this Agreement.

49. TAXES

Vendor shall be solely responsible to pay all applicable federal, state and local taxes and to file all related returns and reports in connection with the performance of Work.

50. LIMITATION OF LIABILITY

In no event shall Pittsburgh Water, its employees, officers, directors or agents be liable for any special, incidental, punitive, indirect or consequential damages (or equivalents thereof no matter how claimed, computed or characterized) arising out of or in connection with the contract or Pittsburgh Water's performance or breach thereof, regardless of whether any such liability shall be claimed in contract, warranty, equity, tort (including negligence, gross negligence and strict tort liability) or otherwise, even if Pittsburgh Water has been advised of the possibility of such damages.

51. GOVERNING LAW; JURISDICTION

This Contract, its terms and conditions and any claims arising therefrom, shall be governed by the laws of the Commonwealth of Pennsylvania, without regard to its conflicts of law principles. Should any dispute or controversy whatsoever arise between Vendor and Pittsburgh Water, then the complaining party shall give the other party thirty (30) days' written notice of the complaining party's intent to resort to legal action. If Vendor chooses to pursue legal action against Pittsburgh Water, it must commence such legal action within one (1) year of the accrual of any such alleged claim. In the event that Vendor brings and/or files a lawsuit Pittsburgh Water, and does not recover the entire amount sought and/or alleged in its lawsuit against Pittsburgh Water, Vendor shall compensate Pittsburgh Water for any and all attorneys' fees and costs incurred by Pittsburgh Water to defend itself against Vendor's lawsuit. Any dispute, controversy or claim arising out of or relating to this Contract shall be resolved in the Court of Common Pleas of Allegheny County, Pennsylvania.

52. LAWSUITS BY OR AGAINST PITTSBURGH WATER

The Vendor hereby agrees to provide, without expense to Pittsburgh Water, such evidence and information as may be in its possession or reasonably available to it as may be useful, in the judgment of Pittsburgh Water, in any lawsuit filed or threatened to filed by or against Pittsburgh Water.

53. TERMINATION

Pittsburgh Water may, (i) after having given forty-eight (48) hours' notice to Vendor terminate this Contract for convenience; or (ii) upon written notice to Vendor immediately terminate this Contract in the event of a breach of this Contract. Should Pittsburgh Water terminate the engagement of Vendor for all or any portion of the Work, Pittsburgh Water may take

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possession, for the purpose of completing the Work, of all materials, equipment, tools, appliances and other items thereon, all of which Vendor hereby transfers, assigns and sets over to Pittsburgh Water for such purpose. In case of a termination in the event of a breach of this Contract, Vendor shall not be entitled to receive any further payment under this Contract until Vendor's Work shall be wholly completed to the satisfaction of Pittsburgh Water, at which time, if the unpaid balance of the amount to be paid under this Contract shall exceed the cost and expenses incurred by Pittsburgh Water and the related overhead and profit earned by Pittsburgh Water in completing the Work, such excess monies shall be paid by Pittsburgh Water to Vendor; but if such cost, expense and earned income shall exceed such unpaid balance, then Vendor shall pay the difference to Pittsburgh Water or a withholding may be made by Pittsburgh Water from Vendor related to any Work performed by Vendor pursuant to this Contract. Such cost and expense shall include, not only the cost of completing the Work to the satisfaction of Pittsburgh Water and of performing and furnishing all labor, services, materials, equipment, and other items required therefor, but also all losses, damages, costs and expenses, including, but not limited to, legal fees and disbursements sustained, incurred or suffered by reason of or resulting from Vendor's default. Upon a termination for Pittsburgh Water's convenience, Pittsburgh Water shall pay Vendor for all Work satisfactorily completed through the date of termination, less the sums Vendor shall have already been paid on account of the Work. Pittsburgh Water shall not pay Vendor, and Vendor shall not be entitled to payment, for any Work not performed or for any anticipated profit for such non-completed Work.

54. AUDIT

At any time up to three years after the day of final payment, Vendor will provide Pittsburgh Water with access to its records related, in any way, to the Program and/or this Agreement for inspection and audit.

55. ENTIRE AGREEMENT; BINDING

This Contract represents the entire agreement between Pittsburgh Water and Vendor and incorporate all of the understandings of the parties hereto as to the matters contained herein and supersedes any and all contracts, negotiations, representations, agreements or other communications reached, participated in or discussed by the parties prior to the execution of the Contract, whether oral or written, as to such matters. This Contract may only be amended by a written instrument that is duly executed by Pittsburgh Water and Vendor. If any provision of this Contract is held to be invalid or unenforceable, the validity and enforceability of the balance of the provisions of this Contract shall not be affected thereby if the balance of the provisions of this Contract would then continue to conform to the requirements of applicable laws. Except as otherwise specifically provided in this Contract, whenever under this Contract approvals, authorizations, determinations, satisfactions or waivers are required or permitted, such items shall be effective and valid only when agreed to in a writing signed by a duly authorized officer of Pittsburgh Water. This Contract shall be binding upon and inure to the benefit of the parties named herein and their respective successors and assigns.

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56. ATTACHMENTS LIST

The following attachments are included as part of this invitation for bids. All Bidders must review all attachments and complete where appropriate. Any document listed as "Optional" under the Requested Information section of the online IFB (in the Euna Procurement/Bonfire portal) may be requested during evaluation or after award.

Attachment 1 - Debarment under Pittsburgh Code §161.22 (f)
Attachment 2 - Supplier Diversity Program and Documents
Attachment 3 - Addenda Acknowledgement Form
Attachment 4 - Reference Form
Attachment 5 - Statement of Environmental Law Compliance
Attachment 6 - Signature Page
Attachment 7 - SCOPE OF WORK-Locating Underground Facilities
Attachment 8 - Users Guide 811-version 2023_04_26

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PGH2O | PITTSBURGH WATER

Signature Page

Project Name: Locating and Identifying Underground Facilities

Pittsburgh Water Project No.: 2025-077

The following documents which are included in the Invitation for Bids/Request for Proposals shall be incorporated in the resulting Contract by reference and shall become a part of said Contract:

Submission of the Bid/Proposal shall be considered as prima facie evidence that the Bidder/Offeror has familiarized themselves with and understands the conditions under which the Contract shall be awarded, performed, and administered.

Name of Bidder/Offeror must be shown in full if an individual; and if a partnership, full names of all partners must be show. If Bidder/Offeror is a corporation, impress corporate seal and furnish name of state where incorporated. If a joint venture, all parties must sign. Bidder/Offeror represents that his/her firm does business as *(Check one)*:

☐ an individual
☐ a partnership
☐ a joint venture
☒ a corporation

Incorporated in the State of:
Delaware

T2 UES, Inc. CORPORATE SEAL Delaware

The Bidder/Offeror hereby agrees that if accepted by Pittsburgh Water, they will well and faithfully perform as specified.

THE PITTSBURGH WATER & SEWER AUTHORITY
d/b/a PITTSBURGH WATER

Accepted this date: September 23, 2025

William J. Pickering
Signature of Chief Executive Officer

Jen Presutti
Signature of Chief Financial Officer for Director of Finance

Approved as to form:

Megan Thiessen
Signature of Corporate Counsel - Commercial

WITNESS:

Rebecca Pearrell
Signature

Rebecca Pearrell
Printed Name

Commercial Contracts/Real Property Transactions Manager
Title

T2 UES, INC.
Full Vendor Business Name

Telephone No.: 727.639.4571

E-mail Address: Craig.Snyder@t2ue.com

Craig Snyder
Digitally signed by Craig Snyder
DN: cn=Craig Snyder, c=US, o=T2 Utility Engineers, ou=President, email=craig.snyder@t2ue.com
Date: 2025.08.29 14:06:15 -04'00'
Signature

Craig Snyder - President
Printed Name and Title

Business address (type or print):
1420 Western Avenue
Pittsburgh, PA 15233

WITNESS/ATTEST:

Signature

Michael P. Woods – Sr. Vice President
Printed Name and Title

July 29, 2025

ADDENDUM NO. 1

for

INVITATION FOR BIDS

LOCATING AND IDENTIFYING UNDERGROUND FACILITIES

IFB No. 2025-077

The following edits and questions/answers are applicable to the above-referenced solicitation:

REVISIONS:

- The bid Close Date/Deadline for Submissions has been extended to Monday, August 4 at 2:00 p.m. ET.

ADDITIONS: The following documents have been uploaded:

- File titled "Performance Bond Form" has been attached with this addendum for reference in response to Q&A18 below.

QUESTIONS & ANSWERS:

Q1: **Billing** - Can you please confirm if each of the following ticket types listed in the pricing table are considered mutually exclusive for billing purposes:

- Routine Ticket, Clear No Facilities
- Routine Ticket, Marked
- Routine Ticket, Engineering Completed
- Routine Ticket, Attended Meeting
- Emergency Ticket (Business Hours/After Hours/Weekend), with both "Clear No Facilities" and "Marked" statuses. Please clarify what constitutes an "Engineering Completed" ticket. Is this a physical locate or a design plan markup activity, and is there a specific required deliverable?

A1: Yes, these are the ticket types that are delivered within the system.

Q2: **Billing** - In the event a single ticket results in both an attended meeting and a markout, is the contractor authorized to bill both line items, or only one?

A2: This scenario should not happen because a meeting request is under "complex project meeting" and is used to discuss mark-out schedules for the tickets that will be placed.

Q3: **"Engineering Completed" Ticket -** Please clarify what constitutes an "Engineering Completed" ticket. Is this a tphysical [sic] locate or a design plan markup activity, and is there a specific required deliverable?

A3: These are for design tickets. A GIS snippet of the work location needs to be emailed to the requestor.

Q4: **Emergency Tickets -** What is the defined response time requirement for Emergency Tickets (business hours, after hours, and weekend)? Is a penalty applied if not met?

A4: Per PA1 call law, emergency tickets are to be responded to within 2 hours of the ticket placement unless otherwise noted on the 1 call ticket.

Q5: **Emergency Locates -** Will there be a guaranteed minimum number of emergency locates per month, or will the awarded contractor assume all emergency volume risk?

A5: Pittsburgh Water can make no guarantees. Emergency tickets are placed by the excavator, and there is no way to know when or how many will be placed.

Q6: **Equipment -** Please confirm whether Pittsburgh Water requires or mandates use of specific equipment types, such as:

- Ground Penetrating Radar (GPR)
- Electromagnetic Locators
- GPS Data Collection Units

If so, are specific models or certifications required?

A6: There are no mandates or requirements; however, the accuracy of the marks is the responsibility of the contractor. *IMPORTANT:* Mismarking of the assets can result in Pittsburgh Water billing the contractor for damages.

Q7: **One-Call Testimonial -** Please define what services are considered "One Call Testimonial" and under what circumstances the hourly rate will be used instead of ticket-based billing.

A7: This will be used for PUC damage prevention hearings that Pittsburgh Water is disputing, in any instance where the damage prevention committee requests the locating contractor to attend the hearing and answer questions.

Q8: **Hourly Rates -** Is the hourly rate limited only to testimonial services at DPC hearings, or can it also apply to standby time, non-billable duplicate tickets, or damage investigations?

A8: It will be used for the DPC hearings. We are given a hearing date and they normally last between 9:00am and 3:00pm, with the exact time of a given case not being known until it is called. Billing will be for the entire time.

Q9: **Scheduling Errors -** If a ticket is initially marked and a duplicate is issued due to scheduling errors or One Call boundary overlap, will the contractor be compensated for revisiting the site?

A9: This is determined by the 1 call ticket type.

Q10: **Design Tickets -** For design tickets that require plan markup through Coordinate PA, will the contractor be compensated under the "Engineering Completed" line item?

A10: Yes.

Q11: **Response Template -** Will Pittsburgh Water provide a standard design ticket response template or CAD-compatible format for markups?

A11: No; all that is required to send is a attachment of the work location from GIS mapping.

Q12: **Damage Investigations -** Is the contractor expected to perform post-damage investigation and submit Alleged Violation Reports (AVRs) regardless of fault?

A12: Contractor is expected to assist Pittsburgh Water in the investigation upon request. Such assistance primarily consists of emailing photos of the mark outs when the ticket was closed, documentation of agreed-upon mark out schedules, etc. AVRs are completed by Pittsburgh Water.

Q13: **Damage Investigations -** Please confirm the required response time for damage investigations (1 hour as per Scope Item D). Are there penalties for delayed arrival?

A13: Pa 1 call requires damage tickets responses within 2 hours.

Q14: **Billing -** If a technician is dispatched and the site is inaccessible or unsafe, is there a separate billing code for no-access or standby time?

A14: There are Pa 1 call responses associated with these situations. The locator is responsible for notifying the ticket owner of what work is necessary to have the ticket marked out.

Q15: **Ticket Volumes -** Can Pittsburgh Water provide historical monthly volume data for the past 24–36 months by ticket type?

A15: Ticket volumns typically increase in the spring through fall and lessen in the winter. Pittsburgh Water receives a consistent amount of tickets year to year with seasonality as shown in the attached file titled "Estimated Monthly Activity" with the last 12 months of data. Please note that highlighted columns of July through September of 2024 are estimates.

Q16: **Ticket Volumes -** Are projections available for anticipated volume increases or major capital improvement projects?

A16: No, there are no projections available to share on this work.

Q17: **Award Date - What is the anticipated award date and Notice to Proceed (NTP) date?**

A17: Pittsburgh Water anticipates having a Notice to Proceed by no later than September 30th.

Q18: **Performance Bond -** Please confirm that a 100% performance bond is required within 10 calendar days of award. Is there a standard form or specific bonding company requirement?

A18: Yes, this will be required per Section 40. The standard form to be used has been attached to this addendum for reference.

Q19: **Insurance -** Are subcontractors required to provide separate insurance certificates, or will the prime contractor's policy suffice if they are listed as additional insured?

A19: Upon request by Pittsburgh Water, Contractor shall produce copies of any or all required policies. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision. These provisions for verification of insurance also apply to all of the subcontractors or vendors the Contractor may employ for completing physical work at a project site or on any Pittsburgh Water property.

Q20: **Pricing -** Will Pittsburgh Water allow for an annual CPI-based adjustment to pricing after the initial contract term, beyond the 3% cap stated in Section 29?

A20: No, Pittsburgh Water does not intend to connect pricing for renewal terms to an annual CPI or other index-based adjustment.

Q21: **Force Majeure** - In the event of contractor-caused delays or work stoppage due to force majeure or environmental hazards, will Pittsburgh Water waive penalties?

A21: See contract terms and conditions item 46. Force Majeure.

Q22: Will Pittsburg [sic] Water accept exceptions or redlines to the scope of work or contract?

A22: It is not standard practice for exceptions or redlines to contracts based on Invitations for Bid (low bids), in order to follow best practices under procurement laws. The Scope of Work is to be the same for all bidders to ensure fair competition. Changes to the Scope would best be made via addenda during the bid period, based on vendor questions submitted by the submission deadline.

ALL OTHER TERMS & CONDITIONS OF THIS SOLICITATION SHALL REMAIN THE SAME.

THE PITTSBURGH WATER AND SEWER AUTHORITY

Project Name: _____

Project No.: _____

Project Description:

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

THAT WHEREAS, The Pittsburgh Water and Sewer Authority (the "Authority" or the "Obligee") has awarded to _____, as Principal, a contract dated the _____ day of _____, 20__ (the "Contract"), which Contract is by this reference made a part hereof, for the above-referenced Project;

AND WHEREAS, Principal is required to furnish a bond in connection with the Contract, guaranteeing the faithful performance thereof.

NOW, THEREFORE, we, the undersigned Principal and _____, as Surety, are held and firmly bound unto the Authority in the sum of _____ (_____), to be paid to the Authority or its successors and assigns; for which payment, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

1. THE CONDITION OF THIS OBLIGATION IS SUCH, that if Principal or its heirs, executors, administrators, successors, or assigns approved by the Authority shall promptly and faithfully perform the convenants, terms, conditions, and agreements of the Contract during the original term and any extensions thereof as may be granted by the Authority, and during the period of any guarantees or warranties required under the Contract, and shall also promptly and faithfully perform all the covenants, conditions and agreements of any alteration of the Contract made as therein provided on Principal's part to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify, defend, protect, and hold harmless the Authority as stipulated in the Contract, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.
2. No extension of time, change, alteration, modification or addition to the Contract, or of the work required thereunder, shall release or exonerate Surety on this bond or in any way affect the obligation of this bond; and Surety does hereby waive notice of any such extension of time, change, alteration, modification, or addition.
3. Whenever Principal shall be and declared by the Authority to be in default under the Contract, Surety shall promptly remedy the default, and shall:
    3.1 Undertake through its agents or independent contractors, reasonably acceptable to the Authority, to complete the Contract in accordance with its terms and conditions and pay and perform all obligations of the Principal under the Contract, including without limitation, all obligations with respect to warranties, guarantees, and the payment of liquidated damages or, at Surety's election or if required by the Authority,
    3.2 Obtain a bid or bids for completing the Contract in accordance with its terms and conditions and, upon determination by the Authority of the lowest responsible bidder, arrange for a contract between such bidder and the Authority and make available as the work progresses (even though

there should be a default or a series of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the Contract Sum, and to pay and perform all obligations of Principal under the Contract, including, without limitation, all obligations with respect to warranties, guarantees, and the payment of liquidated damages. The term "balance of the Contract Sum," as used herein, shall mean the total amount payable by the Authority to the Principal under the Contract and any amendments thereto, less the amount paid by the Authority to the Principal.

4. Notwithstanding the provisions of section 3 above, should the Obligee reasonably determine that the progress of the Project will be unreasonably delayed, that delay damages will be assessed, or that an emergency threatening injury to persons or property will exist unless immediate action is taken to cure the Principal's default, the Obligee may upon three days written notice to the Surety re-let or complete the Contract. The reasonable cost of such re-letting or completion shall be considered as part of the cost of completion.

5. The Surety is obligated without duplication for:

   5.1 all costs associated with performing responsibilities of the Principal for furnishing materials and completion of the Contract.

   5.2 additional legal, design professional, and delay costs associated with the Principal's default; and

   5.3 consequential and liquidated damages, or if no liquidated damage provision exists under the Contract, actual damages caused by delayed performance or non-performance of the Principal.

6. In any event, Surety's total obligations under this bond shall not exceed the penal amount set forth above.

7. No right of action shall accrue on this bond to or for the use of any other person, corporation or other entity other than the Authority or its successors or assigns.

8. Correspondence or claims relating to this bond shall be sent to Surety at the address set forth below.

IN WITNESS WHEREOF, we have hereunto set our hands this _____ day of _____, 2010.

PRINCIPAL:

_____

By:_____

Print name:_____

Title:_____

SURETY:

_____

By:_____

Print name:_____

Title:_____

Address for notices:

_____

_____

_____

NOTE: Notary acknowledgement for Surety and Surety's Power of Attorney must be attached.

PITTSBURGH WATER
PGH2O

						Estimate	Estimate	Estimate										
Item No.	Ticket Type	Day of Week	Time Frame	Final Response	UOM	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Total
1	Routine	n/a	n/a	Clear No Facilities	Each	1,553	1,553	813	813	619	402	398	504	1,081	2,085	1,084	1,553	12,458
2	Routine	n/a	n/a	Marked	Each	1,137	1,137	1,296	1,296	928	591	584	686	969	1,206	1,190	1,137	12,157
3	Routine	n/a	n/a	Engineering Completed	Each	149	149	230	230	154	155	117	150	174	167	176	149	2,000
4	Routine	n/a	n/a	Attended Meeting	Each	14	14	7	7	4	7	6	3	17	11	14	14	118
5	Emergency	Weekday Business Hours	7:00 a.m.-4:00p.m.	Clear No Facilities	Each	142	142	136	136	97	102	174	144	179	160	166	142	1,720
6	Emergency	Weekday After Hours	4:01 p.m.-6:59a.m	Clear No Facilities	Each	35	35	51	51	36	69	87	66	50	57	46	35	618
7	Emergency	Weekend	4:01 p.m.-6:59a.m	Clear No Facilities	Each	20	20	18	18	27	25	34	31	21	17	16	20	267
8	Emergency	Weekday Business Hours	7:00 a.m.-4:00p.m.	Marked	Each	103	103	162	162	93	92	155	110	110	98	107	103	1,398
9	Emergency	Weekday After Hours	4:01 p.m.-6:59a.m	Marked	Each	32	32	30	30	17	42	85	35	24	34	37	32	430
10	Emergency	Weekend	4:01 p.m.-6:59a.m	Marked	Each	11	11	17	17	10	21	22	21	15	9	4	11	169
11	n/a	n/a	n/a	Testimonial	Per Hour	-	-	-	-	-	-	-	-	-	-	-	-	-
						3,196	3,196	2,760	2,760	1,985	1,506	1,662	1,750	2,640	3,844	2,840	3,196	31,335

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ATTACHMENT 2

CERTIFICATION OF DEBARMENT

UNDER PITTSBURGH CODE § 161.22(f)

I, _____, the undersigned and duly-authorized
PRINTED REPRESENTATIVE NAME

representative, hereby certify that to the best of my actual knowledge, information and belief, neither _____
VENDOR BUSINESS NAME

nor any affiliated individual is prohibited from entering a bid for or participating in a City of Pittsburgh or Pittsburgh Water contract by reason of disqualification as set forth in Pittsburgh Code §161.22(b), a true and correct copy of which is attached and incorporated herein.

Signature: _____

Title: _____

Date: _____

§ 161.22 DEBARMENT FROM BIDDING ON AND PARTICIPATING IN CITY CONTRACTS.

(a) *Definitions.* The following words and phrases when used in this section shall have the meanings given to them in this section unless the context clearly indicates otherwise:

(1) *AFFILIATE.* Persons directly or indirectly, either one (1) controls or can control the other, or a third controls or can control both.

(2) *AGENT.* Any director, officer, servant, employee or other person authorized to act on behalf of the corporation or association and, in the case of an unincorporated association, a member of the association.

(3) *CONVICTION.* An entry of a plea of guilty or a plea of nolo contendere, or a verdict of guilty by a jury or a judge sitting without a jury.

(4) *ENTERPRISE.* Any individual, partnership, corporation, business, company, association or other legal entity and any union or group of individuals associated in fact although not a legal entity, engaged in commerce.

(5) *HIGH MANAGERIAL AGENT.* An officer of a corporation or an unincorporated association, company or business or, in the case of a partnership, a partner or any other agent of a corporation, company, business or association having duties or such responsibility that his or her conduct may fairly be assumed to represent the policy of the corporation or association.

(6) *PERSON.* An individual, corporation, partnership, unincorporated association, or other public or private entity.

(7) *SUBSTANTIAL STOCKHOLDER.* A stockholder who, in the aggregate, directly or indirectly, owns or controls five (5) percent of the outstanding securities of any one (1) class of stock.

(8) *WAGE THEFT VIOLATION.* A person or enterprise having been found guilty, liable, or responsible in any judicial or administrative proceeding for unpaid wages in violation of Pennsylvania Minimum Wage Act, Pennsylvania Wage Payment and Collection Law, Fair Labor Standards Act, or any other federal, state, or municipal law related to the payment of wages or the collection of debt owed due to unpaid wages.

(b) *Certain persons and enterprises prohibited from bidding on and participating in City contracts.* Any person or enterprise who has been convicted of, or been judged civilly to have committed, any offense indicating a lack of business integrity or honesty, shall be debarred from bidding on any contract which requires bidding and from participating in any City contract. The offense shall include, but not be limited to, any of the following:

(1) Fraud or a criminal offense in connection with obtaining, attempting to obtain or performing a public or private contract or agreement or subcontract, or in the performance of the contract or subcontracts;

(2) Bribery, embezzlement, false claims, false statements, falsification or destruction of records, forgery, racketeering, mail fraud, receiving stolen property, obstruction of justice, theft, breach of duty to act disinterestedly, or another offense indicating a lack of business integrity or honesty;

(3) Unlawful price fixing between competitors, allocation of customers between competitors, bid rigging or any other violation of federal or state antitrust laws;

(4) Violations of a governing hour of labor, minimum wage standards or prevailing wage standards, discrimination in wages or child labor violations;

(5) Violation of any section of the Civil Rights Act of 1968, the Pennsylvania Human Relations Act, the City of Pittsburgh's Human Relations Ordinance, any affirmative action, civil rights or nondiscrimination law, executive order, rule, plan or regulation, or violation of any affirmative action or nondiscrimination provisions included in any agreement or contract;

(6) Violation of any law, regulation or agreement relating to conflict of interest;

(7) Loss or denial of the right to do business or practice a profession under a circumstance indicating a lack of business integrity or honesty;

(8) Failure to pay a debt, including any taxes, owed to the City, provided the debt is uncontested by the debtor or, if contested, provided that the debtor's legal and administrative remedies have been exhausted;

(9) Subcontracting or otherwise doing business with a debarred person or enterprise, in connection with a contract with the City, where it is known or where it reasonably should have been known, that the person or enterprise is debarred;

(10) Willful or material failure to perform the terms of a contract or agreement in accordance with specifications or within contractual time limits;

(11) A record of failure to perform or of unsatisfactory performance in accordance with the terms of one (1) or more contracts, provided that the failure or unsatisfactory performance was within a reasonable period of time preceding the determination to debar and was caused by acts within the control of the person or enterprise debarred;

(12) Violation of election laws;

(13) Providing false or misleading information as part of a prequalification statement, including but not limited to financial statements, equal opportunity employment forms, affidavits of compliance with prevailing wage statutes and product descriptive literature;

(14) Debarment or equivalent exclusionary action by any public agency, government or government instrumentality;

(15) Decertification as a minority or women enterprise;

(16) Illegal littering or dumping as defined by Title Six, Conduct, Article I, Regulated Rights and Actions, § 601.11;

(17) Wage theft violation as defined in Section 161.22(a) herein.

(18) Other cause affecting responsibility as a City contractor or vendor as may be determined by the City.

(c) *Responsible bidders.* No person or enterprise which falls within the provisions of subsection (b) hereof shall be considered a responsible bidder on any City contract.

(d) *Debarment.*

(1) *Evidence.* The existence of a cause for debarment under this section will be established by conviction or a judgment obtained in a court of competent jurisdiction or by determination by the appropriate body.

(2) *Conditions.* The existence of any of the causes set forth in Section 161.22(b) (relating to cause for debarment) does not necessarily require that a person or enterprise be debarred. In each instance, the decision will be made in the discretion of the Director of the Office of Management and Budget and the Mayor, unless otherwise required by law, and will be rendered in the best interests of the City.

(3) *Term.* All debarments under this section shall be for a reasonable, definitely stated period of time commensurate with the seriousness of the cause therefore. As a general rule, debarment will not exceed three (3) years. Debarment may be for a longer period of time where the offense is willful and egregious providing that notice thereof is furnished.

(4) *Parties affected.* Debarment may include all known affiliates provided that each decision to include an affiliate is made on a case-by-case basis after giving due regard to all relevant facts and the circumstances. The commission of an offense listed in subsection (b) hereof by an individual, agent,

officer or substantial stockholder, shall be imputed to the enterprise with which he or she or they are connected, when such impropriety involved was performed in the course of official duty, operation of an enterprise, or with the knowledge or approval of the enterprise.

(5) *Waiver.* A waiver to debarment may be granted by the City if one (1) or all of the following circumstances determine the public interest would best be served by the waiver:

A. If debarment would be inconsistent with public interest;

B. If debarment would result in unreasonable cost to the City;

C. If the material or service is not otherwise reasonably available or of satisfactory quality.

Such waiver shall be granted by the City department director out of whose line item funds are allocated, but only with approval of the Mayor. Mitigating factors may be considered in determining whether a waiver is warranted.

(e) *Procedure.*

(1) *Notice.* The Director of the Office of Management and Budget shall furnish the person or enterprise and its known affiliates with written notice of debarment setting forth the specific reasons for the proposed debarment.

(2) Any person or enterprise receiving a letter of debarment from the Director of the Office of Management and Budget may request a hearing within ten (10) days of the date of mailing of the notice. The appeal shall set out reasons why the person or enterprise should not be debarred.

(3) The appeal shall be filed with the Director of the Department of Finance. The Director shall notify the affected person or enterprise of the place and time of the hearing within five (5) days of the receipt of the appeal. The hearing shall be held within fifteen (15) days of the receipt of the appeal unless otherwise agreed to by the person or enterprise and the Director.

(4) The cause for debarment shall be established by a preponderance of the evidence. If the debarment is based upon a conviction, a civil judgment, a debarment by another government or public agency or a determination by an appropriate body with competent jurisdiction, the standard shall be deemed to have been met.

(f) *Bidders to file certification.* All bidders on and parties to City contracts shall file with their bid or prior to commencing performance a certification stating that they are not prohibited from entering their bid or participating in a City, Commonwealth or federal contract by reason of disqualification under subsection (b) hereof. The certification shall be signed by the company's owner, president or other authorized signing agent.

(g) *Certain contracts terminated.* In the event a contract is entered into in violation of subsection (b) hereof, the contract shall be terminated, if practicable, and no action in quantum meruit shall be permitted for recovery against the City.

(h) *Regulations.* The City may promulgate regulations necessary to implement this section.

(i) *Interpretation.* This section shall be liberally construed and strictly enforced.

(Ord. 24-1989, eff. 10-24-89; Ord. No. 24-2006, § 1(6), eff. 12-4-06; Ord. No. 11-2014, § 1, eff. 6-17-14; Ord. No. 5-2017, § 1, eff. 2-10-17; Ord. No. 7-2020, § 1, eff. 3-13-20)

SUPPLIER DIVERSITY PROGRAM

PURPOSE:

The Pittsburgh Water and Sewer Authority dba Pittsburgh Water has established a Supplier Diversity Program (SDP) to ensure non-discriminatory practices and a more inclusive use of Minority Business Enterprise (MBE), Women Business Enterprise (WBE), Small Business Enterprise (SBE), Veteran Business Enterprise (VBE) (this includes service disabled veteran business enterprises), Disability-Owned Business Enterprise (DOBE), and LGBT Business Enterprise (LGBTBE) to increase accessibility of contracting opportunities.

BACKGROUND:

Pittsburgh Water is committed to ensuring that qualified MBE, WBE, SBE, VBE, DOBE, and LGBTBE firms have the opportunity to receive and participate in Pittsburgh Water contracts. Pittsburgh Water would like to identify and attract capable firms that can effectively provide quality services and facilitate the development of local disadvantaged firms.

POLICY:

It is the goal of Pittsburgh Water to award contracts to disadvantaged businesses and to provide guidance on how to conduct business with Pittsburgh Water. Pittsburgh Water encourages every contractual firm to meet or exceed participation levels of ten percent (10%) to twenty five percent (25%) of all contracts, regardless of dollar value. Services may include professional services, purchased supplies and materials, hired labor, equipment, and or general management services. This may include 1st and 2nd tier subcontractors. The goals may be adjusted from year to year and shall be communicated to all contractors through bid documents and pre-solicitation meetings. The disadvantaged business participation levels are goals and not a quota. The Supplier Diversity Program is consistent with federal and state statutory and regulatory provisions, the Mayor of Pittsburgh's Executive Order of November 30, 1990, and other contractual requirements relating to equal opportunity with supplier diversity. Pittsburgh Water does not discriminate against anyone based on race, color, religion, ancestry, national origin, place of birth, sex, sexual orientation, family status, age, or non-disqualifying disability, or on any other basis protected by federal, state or local law.

QUALIFICATIONS:

Disadvantaged businesses will be defined as the MBE, WBE, SBE, VBE, DOBE, and LGBTBE firms that are certified by an appropriate certification agency such as the Pennsylvania Unified Certification Program, Pennsylvania Department of Transportation, Pennsylvania Department of General Services, National LGBT Chamber of Commerce, U.S. Department of Veteran Affairs, WBENC, and/or the National Minority Supplier Diversity Council. Self-certifications are not accepted. Pittsburgh Water is not a certification agency; however, Pittsburgh Water accepts all governing agencies' certification, including out-of-state certifications. The certification must be current at the time the bid or proposal is submitted to Pittsburgh Water and shall remain in good standing through the contract period. All contractual parties must submit their bid with appropriate certification on the SDP Commitment Form designated by the Authority. Companies that submit bids without the appropriate certification shall be notified of the deficiency and given a reasonable opportunity to provide the evidence of the certification. If the company is unable to do so, the bid shall be considered on its own merit. Third-party resources and certification counseling services shall be

provided to firms that are unable to meet certification requirements and shall be further defined on our website.

PROCESS:

All bids and proposals submitted to Pittsburgh Water must include the SDP Commitment Form which shall be attached to the bid and proposal demonstrating commitment to hire disadvantaged businesses as direct subcontractors consistent with Pittsburgh Water expectations. Bids may be disqualified at the discretion of Pittsburgh Water for failure to submit the appropriate form, failure to express a commitment to hire disadvantaged businesses or past failure to satisfy its expressed commitment to hire disadvantaged businesses. A representative from Pittsburgh Water shall review such documentation or validity and make a recommendation to the CEO for awards.

If a firm cannot meet the ten percent (10%) minimum supplier diversity goals, then a Good Faith Effort Waiver Request Form must be completed and attached to the bid and/or proposal. A representative from Pittsburgh Water shall investigate whether the firm made a good faith effort by reviewing their written documentation and determining if the bid/proposal is valid or nonresponsive. If a bid/proposal is determined to be non-responsive or incomplete, the firm shall be given a final opportunity to submit the required relevant information. Pittsburgh Water will make the final determination whether a bid is responsive.

In the evaluation process of any bid/proposal, Pittsburgh Water shall take into consideration the effort made by firms to achieve the goals of the Supplier Diversity Program. For Request for Proposals (RFP), a portion of the overall evaluation score will be based on the firm's plan to employ MBE, WBE, SBE, VBE, DOBE, and LGBTBE firms in the proposed contract with Pittsburgh Water.

GOOD FAITH EFFORT WAIVER REQUEST:

A firm bidding on or responding to a Pittsburgh Water solicitation that is unable to meet the minimum Supplier Diversity Program goals must demonstrate to Pittsburgh Water that it has made a good faith effort to solicit MBE, WBE, DBE, SBE, VBE, DOBE, and LGBTBE firms where applicable. A good faith effort shall include one or more of the following:

1. Documentation that effectively demonstrates outreach to MBE, WBE, SBE, VBE, DOBE, and LGBTBE firms
2. Advertisements to disadvantaged firms through focused media
3. Solicitations of community organizations that provide assistance to disadvantaged businesses
4. Written feedback to any firm that was solicited but whose bid was rejected
5. Provide assistance to MBE, WBE, SBE, VBE, DOBE, LGBTBE firms to obtain any items necessary to satisfactorily complete the contract such as insurance, bonds, materials, equipment or other project-related components
6. A narrative explanation as to why the contract does not have subcontracting opportunities

MONITORING PERFORMANCE:

During any contract, the firm shall submit to Pittsburgh Water their commitment to the Pittsburgh Water goals as part of their regular invoice process. Every invoice must document which portion of that invoice was allotted to the disadvantaged businesses. The contractor must report the dollar amount and percentages of the total contract paid to the disadvantaged businesses and be able to provide evidence that said payments were made.

A representative from Pittsburgh Water may contact the disadvantaged business to determine their satisfaction with the payments for work performed or goods provided. Pittsburgh Water may inquire for any suggestions or improvements regarding its contracting procedures or policy. After final payment, a representative of Pittsburgh Water shall determine whether a good faith effort was made to utilize disadvantaged businesses. If the representative determines that a firm has failed to make a good faith effort, Pittsburgh Water shall retain such documentation for consideration of a firm's status for future awards.

In extreme cases, where a firm has demonstrated an unwillingness to honor commitments of a Pittsburgh Water contract, the firm may be excluded from bidding/proposing on future projects for no less than one year. A representative of Pittsburgh Water will keep records of all contracts with respect to disadvantaged business participation, the dollar amount and percentages of each contract, and any complaints received against specific firms with respect to disadvantaged business participation.

PUBLIC OUTREACH:

In order to enhance disadvantaged business participation in contracts, Pittsburgh Water shall engage in outreach efforts through new and established channels of MBE, WBE, SBE, VBE, SDVBE, DOBE, and LGBTBE communications. The Pittsburgh Water shall maintain a presence at industry events, forums, employment fairs, workforce development programs, governmental committees, and other opportunities that provide resources for information sharing. Pittsburgh Water shall use these networks to ensure all firms have the opportunity to participate in contracts. As a supplement to the overall Supplier Diversity Program, Pittsburgh Water shall build a database of MBE, WBE, SBE, VBE, DOBE, and LGBTBE businesses based on relevance, industry, and other criteria and send periodic emails to those businesses regarding contracting opportunities. Pittsburgh Water will also host at least one educational event per calendar year designed to educate disadvantaged businesses regarding contracting opportunities.

BOARD REPORTS:

A representative of the Pittsburgh Water shall be responsible for monitoring participation, good faith effort waiver requests, and outreach efforts. A monthly report will be provided to the Board of Directors for review and comment. This report shall include, but not be limited to the following information:

1. Identification of MBE, WBE, SBE, VBE, DOBE, and LGBTBE businesses included in the contracts that were sent out for bid during the prior period
2. The reason those MBE, WBE, SBE, VBE, DOBE, and LGBTBE businesses were rejected, if applicable
3. Status of reported MBE, WBE, SBE, VBE, DOBE, and LGBTBE goals from contracted firms

POLICY DOCUMENTS:
SDP Commitment Form
Good Faith Effort Waiver Request Form
SDP Commitment Invoice Form

	Editor:	Location of change(s), what was changed, and why:
12/15/2017		Original
09/27/2019	Alex Scuilli/ Nicole Dickun	1. The updated policy will encompass all contracts and will not be restricted to contracts over $250,000. 2. Disadvantaged and Small Business Enterprises are added as eligible categories. 3. Percentages have been changed from 18% (M), 7% (W), 5% (V/SD), to a range of 10-25% of any of the eligible categories. 4. Clarification of out-of-state certification eligibility 5. Suppliers and brokers will be credited on a 1:1 ratio instead of the previous 60% and 10%, respectively. 6. Addition of Good Faith Effort Waiver Request and Standards. 7. Enhanced monitoring of contracts. 8. Strengthen commitment to outreach efforts. 9. Strengthen commitment to providing Board reports.
12/03/2020	Nicole Dickun	Replaced “Executive Director” with “Chief Executive Officer”: Board approved title change
02/15/2021	Emily Pontarelli	1. Added Disability-Owned Business Enterprise (DOBE), and LGBT-Owned Business Enterprise (LGBTBE) to eligible business types. 2. Updated PWSA Policy to match existing language in Equal Opportunity Employment policy. 3. Added additional certifying agencies (National LGBT Chamber of Commerce, U.S. Department of Veteran Affairs).
	Emily Pontarelli	1. Removed DBE and SDVBE as eligible business types. SDVBE will be considered VBE on our documents. 2. Included 2nd tier subcontractors. 3. Updated certifying agencies, adding PA Department of General Services and WBENC and removing agencies that are under the umbrella of Pennsylvania Unified Certification Program. 4. Noted that self-certifications are not accepted.

SDP COMMITMENT FORM

Pittsburgh Water Project Name:		**Name of Bidder:**	
Pittsburgh Water Project Number:		**Contact Name:**	
Total Bid Amount:		**Telephone Number:**	
Total Overall Commitment (%):		**Email Address:**	
Total Overall Commitment ($):			

Disadvantaged Business Firm Name	Certifying Agency	Material/Service Provided	% MBE	% WBE	% SBE	% VBE	% DOBE	% LGBTBE	Total Commitment Price

- The firm is committing to the following diverse supplier participation on this bid/proposal.
- Complete the table indicating the suppliers that will be utilized as direct subcontractors/subconsultants to meet the participation levels indicated in the Supplier Diversity Program.
- If your company will not have a disadvantaged business participation, please indicate that as zero participation on the SDP Commitment Form and also complete the Good Faith Waiver Request Form.
- For subcontractors/subconsultant that are not selected, indicate in the Good Faith Waiver Effort Waiver Request Form.
- All bids/proposals must be accompanied with the completed SDP Form and supporting documentation that includes email correspondence, bids/proposals received, and a copy of the certification certificate and/or letter from certifying agency.
- Percentages are calculated by dividing total commitment price by total bid amount.

GOOD FAITH EFFORT WAIVER REQUEST FORM

Pittsburgh Water Project Name:		**Name of Bidder:**	
Pittsburgh Water Project Number:		**Contact Name:**	
Total Bid Amount:		**Telephone Number:**	
		Email Address:	

Disadvantaged Business Firm Name Contacted	Contact Name	Contact Telephone Number	Contact Email Address	Reason for Rejection

Narrative explanation as to why the contract does not have subcontracting opportunities

- A firm bidding on or responding to a Pittsburgh Water solicitation that is unable to meet the 10% minimum Supplier Diversity Program goals must demonstrate to Pittsburgh Water that it has made a good faith effort to solicit MBE, WBE, SBE, VBE, DOBE, and LGBTBE firms where applicable.
- For bid/proposals of disadvantaged businesses that are not selected, indicate the reason for rejection.
- If your company will not have a disadvantaged business participation, please indicate that as zero participation on the SDP Commitment Form and also complete the Good Faith Waiver Request Form.
- Include a description of any barriers or impediments encountered or reasoning for not meeting the minimum diversity participation goals in the narrative explanation section. All bids/proposals must be accompanied with the completed SDP Commitment Form and supporting documentation that includes email correspondence and bid/proposals received

SDP COMMITMENT INVOICE FORM

Pittsburgh Water Project Name:		
Pittsburgh Water Project Number:		
Prime Contractor:		
Total Contract Amount (including change orders):		
Invoice Amount:		
Remaining Contract Amount (including change orders):		
Contract Term:	From:	To:
Invoice Pay Period:	From:	To:

Disadvantaged Business Firm Name (Subcontractor/Subconsultant)	Disadvantaged Business Category (MBE, WBE, SBE, VBE, DOBE, LGBTBE)	Commitment in %	Commitment in $	Amount Paid to Invoice Pay Period

Addenda Acknowledgement Form

Project Name: Locating and Identifying Underground Facilities

Pittsburgh Water Project No.: 2025-077

We acknowledge the receipt of the following addenda:

Addendum Number	Date Received

Acknowledged by:

Full Name

Title

Organization

Click or tap to enter a date.

Date

Reference Form

Project Name: Locating and Identifying Underground Facilities

Pittsburgh Water Project No.: 2025-077

Instructions: Complete the following form for each reference to fulfill the reference requirement described in the solicitation.

Reference 1

Agency / Customer	
Name	
Address	
Contact Person	
Name	
Title	
Telephone Number	
E-mail Address	
Project	
Contract Title	
Contract Dates	
Cost	
Description of Work	

Reference 2

Agency / Customer	
Name	
Address	
Contact Person	
Name	
Title	
Telephone Number	

Reference 2 *(cont'd)*

Contact Person *(cont'd)*	
E-mail Address	
Project	
Contract Title	
Contract Dates	
Cost	
Description of Work	

Reference 3

Agency / Customer	
Name	
Address	
Contact Person	
Name	
Title	
Telephone Number	
E-mail Address	
Project	
Contract Title	
Contract Dates	
Cost	
Description of Work	

Statement of Environmental Law Compliance

Project Name:

Pittsburgh Water Project No.:

If, within the past ten years, your company has been found in violation of laws intended to safeguard the natural environment or regulations prescribing specific steps regarding the manufacturing, handling, and transportation of certain chemicals, give date, location, and a brief description here. Past violations will not necessarily disqualify a bidder. If your company has not been found in violation, so state.

Date	Location	Description

☐ *Enter Organization Name*: Click or tap here to enter text. has not been found in violation of federal, state, or local laws intended to safeguard the natural environment or regulations the manufacture, handling or transportation of chemicals.

I hereby certify that this is a complete and accurate representation of this company's compliance with environmental laws and regulations:

By:

Full Name

Title

Organization

Click or tap to enter a date.

Date

Signature Page

Project Name: Locating and Identifying Underground Facilities

Pittsburgh Water Project No.: 2025-077

The following documents which are included in the Invitation for Bids/Request for Proposals shall be incorporated in the resulting Contract by reference and shall become a part of said Contract:

Submission of the Bid/Proposal shall be considered as prima facie evidence that the Bidder/Offeror has familiarized themselves with and understands the conditions under which the Contract shall be awarded, performed, and administered.

Name of Bidder/Offeror must be shown in full if an individual; and if a partnership, full names of all partners must be show. If Bidder/Offeror is a corporation, impress corporate seal and furnish name of state where incorporated. If a joint venture, all parties must sign. Bidder/Offeror represents that his/her firm does business as *(Check one)*:

☐ an individual

☐ a partnership

☐ a joint venture

☐ a corporation

Incorporated in the State of: _____

The Bidder/Offeror hereby agrees that if accepted by Pittsburgh Water, they will well and faithfully perform as specified.

THE PITTSBURGH WATER & SEWER AUTHORITY
d/b/a PITTSBURGH WATER

Accepted this date: _____

_____
Signature of Chief Executive Officer

_____
Signature of Director of Finance

Approved as to form:

_____
Signature of Corporate Counsel - Commercial

WITNESS:

_____
Signature

_____
Printed Name

_____
Title

_____
Full Vendor Business Name

Telephone No.: _____

E-mail Address: _____

_____
Signature

_____
Printed Name and Title

Business address (type or print):

_____

_____

_____

WITNESS/ATTEST:

_____
Signature

_____
Printed Name and Title

ATTACHMENT 7: SCOPE OF WORK

It is the intent of Pittsburgh Water to establish a contract to locate and identify Pittsburgh Water's underground facilities when notified by the Pennsylvania One Call Center. The Contractor shall provide all labor, material, equipment, tools, and appurtenances necessary to complete the scope of work required. The Contractor shall:

A. Perform all tasks associated with this contract in compliance with the current version of the Pennsylvania811 Users Guide. A copy of the current version at the time of distribution of the solicitation, dated April 24, 2023, Attachment 8: Pennsylvania811 Users Guide. NOTE: In the event that any revision(s) are published to the Pennsylvania Underground Utility Line Protection Law and affiliated resources, the contractor shall follow the most recent publication(s) as of the time a work order is placed.

B. Attend and participate in pre-construction meetings complex construction projects per the PA One Call process and/or at Pittsburgh Water's request.

C. Assist in filing Alleged Violation Reports (AVR) at the request of Pittsburgh Water.

D. Investigate damage to Pittsburgh Water facilities within 1 hour of the damage being reported to the Contractor.

E. Provide completed investigation reports to Pittsburgh Water, along with pictures, using the standard damage investigation tool when a Pittsburgh Water facility is damaged within 1 business day. If damage is caused by Contractor not fulling the scope of this contract, fines levied by the PUC will be the responsibility of contractor.

F. Attend PA One Call Damage Prevention Committee (DPC) hearings with Pittsburgh Water personnel when requested.

G. Use radio frequency line locators, ground penetrating radar and any other industry standard means required by Pittsburgh Water to locate underground water and sewer lines.

H. For Design Notices where Pittsburgh Water's facilities are within the project scope, proposed plan or development Consultant shall: Request plans from the Designer via Coordinate PA, where plans and responses can be shared electronically. Shall mark-up plans accordingly showing all Pittsburgh Water's facilities within the project scope, proposed plan or development. Shall coordinate the final response with Pittsburgh Water for additional information Pittsburgh Water may want to provide.

I. When duplicate tickets are generated for the same service only one ticket may be billed (occasionally One Call will generate multiple tickets for the same work location due to Ward boundaries).

J. Bid Item Time Clarifications:

   1) Weekday Business Hours are Monday through Friday, from 7:00 a.m. through 4:00 p.m.

   2) Weekday After Hours are Monday through Thursday, from 4:01 p.m. through 6:59 a.m. the following day. Weekday After Hours end at 6:59 a.m. on Friday.

   3) Weekend Hours are from Friday at 4:01 p.m. and run through 6:59 a.m. Monday morning.

Pennsylvania 811

A Privately funded non-profit Pennsylvania Corporation

Users Guide

For Pennsylvania Underground Utility Line Protection Law

PA Act 287 of 1974 as amended by Act 50 of 2017
73P.S. § 176 et. seq.

Call Before You Dig!

www.paonecall.org

April 24, 2023

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www.puc.pa.gov
www.apwa.net
www.FHWA.dot.gov
www.commongroundalliance.com
http://www.nastt.org/
www.pa1call.org/ExcavationSafetyGuide

Download the Excavation Safety Guide

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DISCLAIMER OF LIABILITY

This Guide has been prepared as an educational document for excavators, designers, operators, project owners, and facility owners. It is intended as a reference tool for interacting with the Pennsylvania One Call System, ("POCS"). It is also intended to explain in a general way the requirements provided for in Pennsylvania's Underground Utility Line Protection Law, Act 287 of 1974, as amended by Act 50 of 2017 (the "Act"). It is strongly recommended that all individuals who regularly contact POCS review the Act and this Guide. Familiarity with its contents will be valuable, but the Guide is meant to clarify and explain the law according to POCS' understanding of how it affects interaction with POCS. This Guide is not a substitute for the Act and it does not relieve anyone from discharging their responsibilities as set forth in the Act or as otherwise required by law.

This Guide and the reproduction of the Pennsylvania Underground Utility Line Protection Law are provided solely as a convenience for the person or persons requesting it, and are not to be used as legal reference documents. Every effort has been made to reproduce the applicable sections of the Pennsylvania Underground Utility Line Protection Law. However, neither POCS nor any officer, director, employee, or agent of the above-named entity, makes any representations nor warranties, express or implied, as to the accuracy of this publication. POCS assumes no responsibility for the acts or conduct of any user of this Guide. Neither POCS nor any officer, director, employee or agent shall have any liability for any damage (including, without limitation, indirect or consequential damages) to any person or property resulting from the use of this Guide or reliance on any information contained herein.

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INTRODUCTION

The Pennsylvania One Call System Board provides this Guide for the participants of the Act to help clarify the responsibilities of each of the parties under the provisions of the law. Over 3,700 facility owners participate in the Pennsylvania One Call System currently, and a 35 member Board of Directors represents each of the industries involved in subsurface activity. All of the public utilities, public works, pipe line, telecommunications, the Commonwealth, construction and design industries were represented throughout the legislative process.

This Guide has been prepared to assist you in preparing your own operating procedures to comply with the Act, and to protect yourself and those you work with. It also provides insight into what you can expect to encounter underground. It is our hope to provide you with information to assist you in developing your own policy and procedures to guard against dangers and situations of working underground.

In addition to this Guide please reference the latest version of the Common Ground Alliance (CGA) Best Practices. The Law specifically requires your best efforts to comply with the CGA standards.

SECTION I - ODDS ARE YOU COULD BE MOVING MORE THAN EARTH

Damage prevention is a shared responsibility. Communication between stakeholders is the key to ensuring safety and protecting vital facilities. Free-flow communication and cooperation allows all parties to focus on the common goals for safety and damage prevention.

Virtually anywhere you need to dig, there are probably underground facilities somewhere in the vicinity. Growing networks of telephone cables, power lines, and cable TV lines are joining the gas, water, sewer and petroleum pipes. The odds of an excavator moving something besides dirt are growing every day. Even if you see overhead lines that doesn't rule out the existence of buried power, television or telephone facilities. Many utility companies have long-term programs to weatherproof their plant by putting it underground. Both aerial and underground facilities may be in use during transitions. Some areas have overhead main lines with buried services going to the homes and other buildings. Even water-filled ditches and streams may have underground utilities in or under them. A ditch may have been dry when utilities were buried. A stream may have been diverted. Even "open country" may conceal buried utilities. Large pipelines and high capacity cables are especially expensive to place, so utilities often cut across country to reduce total miles for these major installations. There are buried utilities located in most road rights of way. Buried utilities are also found along property lines and between lots and serve any building located on a lot.

Damage to buried utilities most often occurs when excavators do not call for utility locations before they dig. In many cases, utilities are damaged even after notification has been made and utility locations clearly marked. That's usually because some excavators do not know the procedures for safely excavating around the buried facilities. See section 5(4) of the Underground Utility Line Protection

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Act, or "Act" (PA 73 P. S. § 176 et. seq.) for excavator requirements.

SECTION II - WHO AND WHEN TO NOTIFY THE ONE CALL SYSTEM

Notifications are referred to as Locate requests, dig notices, and tickets.

The Act; OSHA Standard 1926.651 (revised in 1990 and clarified in 2004); the Federal PIPES Act of 2020, protecting underground liquid (CFR 49 Part 195) and natural gas (CFR 49 Part 192.614) pipelines; and the National Electric Safety Code, ANSI C-2 (revised in 2016); require anyone who engages in any type of excavation or demolition work to provide advance notice. (See the Act for the definition of excavation or demolition work.)

Who should notify the One Call System?

- For excavation work, the person performing the excavation must make the notification. If the work is subcontracted, the subcontractor should make the notification. The only party protected by the notification is the person who notifies.
- A homeowner should notify the One Call System only if they are performing the excavation work themselves. A homeowner should not place a notification on behalf of their excavator because the excavator will not be protected by the notification.
- For demolition work, the person performing the demolition must make the notification. If the work is subcontracted, the subcontractor should make the notification. The only party protected by the notification is the person who notifies.
- Designers who work on project plans that include a work operation which involves the movement of earth with powered equipment as part of the project must place the notification.
- Project Owners, who or which engages the contractor for construction on any project which requires excavation or demolition work should ensure their designers and excavators notify the one call system.

When should you notify the One Call System?

- Designers are obligated to notify "not less than ten nor more than ninety business days before final design is to be completed".
  - Designers may also choose to notify more than ninety business days in advance if they state that the work is preliminary.
- Excavators (including homeowners) are obligated to notify "not less than three nor more than ten business days in advance of beginning excavation or demolition work", unless the project is complex, then additional requirements apply. Complex project notices require ten business days notice.

  "Business day" means any day except a Saturday, Sunday or legal holiday prescribed by statute. A business day begins at 12:00:00 a.m. and ends at 11:59:59 p.m.

  Example of calculating the three business day notice for excavation:
  - The notice is made on Monday.
  - The first business day is Tuesday.
  - The second business day is Wednesday.
  - Excavation work can commence on the third business day which is Thursday.
    - For a notification made on Thursday, the earliest lawful start date for when excavation can commence is the following Tuesday. (The first business day is Friday, Saturday is not a business day, Sunday is not a business day, Monday is the second business day and Tuesday is the third business day.)
  - A legal holiday (defined below) may add one or two business days between the notification date and the date excavation can commence.

  To facilitate timely and accurate mark-outs of the work site before you excavate, **the maximum Locate request size is 1000 feet, or intersection to intersection, whichever is greater, along the same road, within the same political subdivision**. Base your notifications on the resources you plan to use and the time of year (near term weather) for each date such information is provided to the system. All excavators, including subcontractors should make their own notification.

The Act states that the person doing the work shall make the notification/call. The only party protected by the notification is the caller.

PA One Call System is open 24 hours a day every day of the year. Pursuant to Sections 221 and 709 (e.1) of The Administrative Code of 1929, the Executive Board has determined that the administrative offices of State Government shall be closed on the following holidays for the purpose of transacting public business:

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New Year's Day
Martin Luther King, Jr. Day
President's Day
Memorial Day
Juneteenth National Independence Day
Independence Day
Labor Day
Columbus Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Day

SECTION III - TYPES OF NOTIFICATIONS HANDLED BY PA ONE CALL

There are several variations to the excavation notifications, covered in detail in Section IV of this document. Each variation can be used to solve unique situations or problems.

The following is a brief explanation of each type of notification taken by Pennsylvania One Call System, Inc. (POCS):

1. DESIGN NOTICE

Any drawing that is prepared for an excavation requires a Design Notification that must comply with the provisions in Section 4 of the Act. The Design Notice is meant to allow the designer to plan the new work around existing facilities as the Act prescribes. The information provided should cover the entire scope of the plan or development with enough detail to allow the facility owners to provide the approximate locations of their lines in the proposed work area. Digging is not permitted on a design notification.

There are two types of design notices:

- **Final Design Notice**: Those planning work that disturbs the earth are **required** to notify POCS not less than 10, nor more than 90 business days in advance of the final design.
- **Preliminary Design Notice**: Designers **may** request line and facility information more than ninety days before final design is to be completed, however, they shall state in their requirements that such work is preliminary.

The designer is **required to send plans** to the involved Facility Owners for mark up when requested. PA One Call can assist with this process through Coordinate PA, where plans and responses can be shared electronically. Once the facility owners have responded, the designer shall add their facility information to the drawing before the final design is approved.

As a designer, you are **required** to add the one call serial number and the 1-800-242-1776 or 8-1-1 number to the plan before you forward it to the involved facility owners.

2. EMERGENCY NOTICES

- **Emergency Notice** - An emergency is defined by Section 1 of the Act as **"**a sudden or unforeseen occurrence involving a clear and immediate danger to life, property and the environment, including, but not limited to, serious breaks or defects in a facility owner's lines."

  When declaring an emergency excavation, excavators are required to confirm that the work being done falls within the definition of emergency and describe the nature of the emergency within the Locate request. Once complete, the ticket will be queued for immediate transmission.

- **Damage Report Notice -** When a facility is damaged the notice is generally considered an emergency to that facility owner and other facility owners in close proximity to the damage. If a line is damaged during excavation, call the One Call System or the facility owner immediately. Report the details and particulars once the work site is safe.

  If the damage results in the escape of any flammable, toxic or corrosive gas or liquid which endangers life, health, or property, immediately notify 911 and the facility owner, as required by Section 5 clause (8). It is most often best to evacuate the immediate area. Local emergency contact information should be at the job site with the crew at all times where they have

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access to it, along with a map or directions to the nearest emergency care facility.

- **Odor of Gas Notice –** POCS accepts non-excavation related calls from those who smell natural gas. A notification is created and is immediately sent to the gas companies registered to receive such notices.

- **No One Call Notice –** POCS accepts notification from third parties who are not performing excavation work, but witness excavation work occurring and no physical markings are visible at or near the work site. Prior to processing a No One Call, the CSR performs a search of tickets created within the last 90 days to confirm no existing valid notification was created for the site.

- **Potential Cross Bore Notice** – When installing new utility lines in urban and suburban areas, utility providers typically dig horizontally underground, using a trenchless boring technique that avoids damage to sidewalks and landscapes. In the process, a new utility line may be unintentionally bored through a sewer pipe. Over time, a cross bore in a sewer pipe will cause a blockage. When a plumber or sewer operator plans to clear a clogged drain, he can notify the One Call System, and a ticket will be created and immediately sent to all facility owners in the area. Cross bores most often occur through sewer lines, but can be found in other types of lines and structures.

  Utility Cross Bore definition: An intersection of an existing underground utility or underground structure by a second utility resulting in direct contact between the transactions of the utilities that compromises the integrity of either utility or underground structure.

3. ROUTINE LOCATE REQUEST NOTICE

Notification for excavation work shall be made not less than 3 business days nor more than 10 business days prior to commencing excavation work starting the day the notification is received. Each Locate request must clearly identify the work site (See Section IV). When exact site information cannot be provided, use white paint to outline the proposed excavation site. The Locate request shall be limited to the area described in the notification and the maximum Locate request size is 1000 feet, or intersection to intersection, whichever is greater, along the same road, within the same political subdivision. Facility owners should respond to routine locate request notices by the response due date.

4. DEMOLITION NOTICE

Notification for demolition work shall be not less than 3 business days nor more than 10 business days prior to commencing demolition work starting the day the notification is received. Caution: Demolition work may require more advance clearance from the facility owner if their service lines need to be disconnected. You also may need a permit for the work. The One Call notification should not be considered notice under any circumstance other than the Act. You must follow all local codes as a part of your compliance with the Act. Final billing and disconnect of the lines attached to the structure must be secured directly with the involved service provider. Facility owners should respond to demolition notices by the response due date.

5. COMPLEX PROJECT NOTICE

The Act defines complex project as: "***Complex project means an excavation that involves more work than properly can be described in a single locate request or any project designated as such by the excavator or facility owner as a consequence of its complexity or its potential to cause significant disruption to lines or facilities and the public, including excavations that require scheduling locates over an extended time frame.***"

And in Section 5, clause (2.1), the last sentence states: ***"In the case of a complex project, notification shall not be less than ten business days in advance of the beginning of excavation or demolition work."***

And Section 5 clause (3) states: "***In a complex project or if an excavator intends to perform work at multiple sites or over a large area, to take reasonable steps to work with facility owners, including scheduling and conducting a preconstruction meeting, so that they may locate their facilities at a time reasonably in advance of the actual start of excavation or demolition work for each phase of the work. A preconstruction meeting may take place at any time prior to the commencement of excavation or demolition work, and the excavator, facility owners and designer, or their agents, shall attend the meeting. Notice of the meeting shall be given sufficiently in advance so as to permit attendance, either in person or electronically, by the excavator, facility owners and designer, or their agents, and shall include information sufficient to identify the scope of work. If the excavator does not believe that a preconstruction meeting is necessary under the circumstances of this clause it shall indicate such belief in its notice, but any facility owner with facilities at the work site may request a meeting with the excavator, and a meeting shall be held between the facility***

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owner and the excavator. After commencement of excavation or demolition work, the excavator shall be responsible for protecting and preserving the staking, marking or other designation until no longer required for proper and safe excavation or demolition work at or near the underground facility or by contacting the One Call System to request that the facilities be marked again in the event that the previous markings have been compromised or eliminated."

And Section 5 clause (3.1) states: ***"To comply with the requirements by the One Call System as determined by the board of directors regarding the maximum area that a notification may cover."***

The Board of Directors adopted the following Complex Project Process Policy on 7/31/2019:

Complex Project Process Policy

I. Terms used in this policy are as defined in the Underground Utility Protection Act (UULPA).
II. Notifications will be handled through the Pennsylvania One Call System (POCS) Coordinate PA (CPA) Web Portal.
   A. Designers:
      1. The designer creates a project within the CPA web portal.
         a. Includes Project Description and proposed timeline.
         b. Uploads drawings.
      2. Through permissions, the designer assigns access rights (View Only or Modify) to the project owner.
      3. Depending on the timeline of the project, the designer creates at least one Preliminary Design or Final Design notification ticket via the portal, from within the CPA project.
         a. If multiple excavators will be working on the same project, the designer segments the project into phases based on bid requirements.
         b. The designer creates at least one Final design ticket for each phase of the project.
      4. When the project moves to construction phase, the project owner or designer assigns access rights (Modify) to the excavator for the phases of the project in which they are involved.
   B. Excavators:
      1. When a project exists in Coordinate PA:
         a. The excavator creates a complex project notification ticket via the portal, **from within the CPA project,** and indicates if a preconstruction meeting is requested. The excavator follows Option 1 or Option 2 below.
      2. When a project does not exist in Coordinate PA:
         a. The excavator creates a project within CPA.
         b. The excavator creates a complex project notification ticket via the portal, **from within the CPA project**, and indicates if a preconstruction meeting is requested. The excavator follows Option 1 or Option 2 below.

      Option 1: When a preconstruction meeting is requested, the excavator establishes the date, time and place of meeting in close proximity to the project work location. Electronic meetings are also acceptable. Meetings are strongly encouraged in the case of complex projects.
         a. It is strongly recommended that in the case of a complex project that extends over a large geographic area, the party should consider scheduling multiple meetings throughout the site to accommodate travel needs.
         b. The excavator is responsible for notifying the project owner and the designer of the meeting. Note: The designer is the one that prepared the drawing, not necessarily the one that is managing the project.

      Option 2: If the excavator determines that a pre-construction meeting is not necessary, the notice shall indicate. If an individual facility owner nonetheless wishes to have a meeting, a meeting shall take place between that facility owner and the excavator. Other facility owners need not attend. [Sec 5(3) of Act.] In the notice, the excavator shall state the reason for determining that a pre-construction meeting is not necessary.
         a. A facility owner requests a meeting by sending response code 092 (Requests Meeting) through POCS. This notice must be made prior to the third business day from the complex project notification.
         b. The facility owner then contacts the excavator to establish the date, time, and place of meeting in close proximity to the project work location. The meeting must be held prior to the seventh business day from the complex project notification. Electronic meetings are also acceptable.
III. Meeting Protocol
   1. At the meeting the parties shall agree upon their individual obligations consistent with the project. These obligations may vary from project to project based upon the specifics of the project and it is not the intent of this process to provide a specific set of standards for all complex projects. Rather it is intended that the parties shall have the flexibility to make decisions consistent with the project's parameters.
      a. Involved parties (facility owner, excavator, designer, project owners) are required to attend the meeting.
      b. The entire scope of the project must be defined at the meeting. Detail on phases should be defined as much as possible.
      c. Agreement on the scope of ticket will be left to the parties attending the preconstruction meeting.

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d. If a facility owner cannot agree to the proposed locate schedule, everyone must work to find a schedule that the one facility owner can agree to.
e. If no agreement can be reached, the excavator must create single routine excavation notifications, from within the project, for the areas where the dissenting facility owner owns/operates lines.
f. If an involved party fails to attend the meeting, the excavator may proceed according to the agreement reached at the meeting.

2. Meeting notes shall be taken by the excavator calling the meeting using the POCS approved template and the minutes shall set forth the agreements made by the parties. Meeting notes shall be uploaded to the POCS web portal as soon as practicable. In the absence of minutes or a meeting the parties shall be bound by the provisions contained in the POCS Users Guide for non-complex excavation notifications.
3. Within 90 days of the pre-construction meeting the excavator shall provide the routine excavation notification required by Sec. 5 of the Act. The notification shall be consistent with the agreements reached at the pre-construction meeting, if such a meeting is called.
4. A complex project requires 10 business days' notice. The excavator shall not enter a routine excavation notification prior to the pre-construction meeting.
5. If the **project start** is delayed AFTER the complex project preconstruction meeting has been conducted and the mark out schedule agreed to, the following will apply:
   a. If the **start date** that was agreed to is delayed more than 90 days:
      i. A new Complex Project ticket and meeting will be required, from within the same CPA project.
6. If the scope of the project changes, a new complex project notification and meeting will be required, from within the same CPA project.

Additional Guidance:

1. In the case where an excavator creates multiple routine excavations tickets:
   a. The facility owner may respond 092 (Requests meeting), via the KARL system and reach out to the excavator to work out a locate schedule.
   b. The one call system may reach out to the excavator to educate them on complex projects.
2. In the event an impacted facility owner fails to attend the pre-construction meeting, it is highly encouraged the facility owner contact the excavator and schedule a one on one meeting, a minimum of at least 3 business days prior to the first lawful start date of the first routine excavation ticket.
3. If a party disagrees with the posted minutes, they communicate back to the excavator through the communication tool within the CPA portal.
4. Announcements will be sent to all parties for communication related activity in CPA.

Addendum A:

1. ROUTINE AND COMPLEX PROJECT TICKETS
2. A routine ticket is one that does not meet the definition of a complex project as established by the Pennsylvania One Call System's (POCS) Board of Directors pursuant to the UULPA.
3. A complex project is one that meets the definition established by the POCS Board of Directors.
4. An excavator shall comply with the requirements of Section 5 of the UULPA but may determine that a pre-construction meeting is unnecessary, even in the case of a complex project as defined by the POCS Board of Directors. In the event that an excavator determines that a pre-construction meeting is unnecessary, an affected facility owner may, nevertheless, request a preconstruction meeting between itself and the excavator, pursuant to Section 5(3) of the UULPA.
5. Such request by a facility owner shall not require a preconstruction meeting with all affected parties, but only with the facility owner requesting the meeting, and an affected facility owner is not entitled to a meeting with all other parties.

"Large/Complex Project" is also included in the Common Ground Alliance (CGA) Best Practices, which are incorporated by reference in Act 287, as amended. Refer to chapter and sections: 2-2, 2-3, 2-4, 2-8, 3-14, 3-29, 4-11, 4-14, 4-17, 4-22, 5-4, 5-5, 5-6, 5-14, 5-23, 5-28, 6-18, and in the Glossary.

SECTION IV - GUIDELINES FOR PREPARING A LOCATE REQUEST

When initiating a Locate request, Section 5 clause (2.2) of the Act requires each excavator: ***"To provide the One Call System with exact information to identify the work site so that facility owners might provide indications of their lines. An excavator shall be deemed to have met the obligations of clause (2.1) if he calls the One Call System, provides the work site and other required information, and receives a serial number."***

And Section 5 clause (11): ***"To use the color white to mark a proposed excavation work site when exact work site information cannot***

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be provided."

We encourage excavators to visit the work site prior to placing a notification to outline their exact proposed work site in white, to assist the locator in marking only the area where the work will take place.

"If, after receiving information from the One Call System or directly from a facility owner, an excavator decides to change the location, scope or duration of a proposed excavation, the obligations imposed by this section [Section 5] shall apply to the new location."

ANNUAL FEE

Section 3 clause (f.1) states: ***"An excavator, designer or operator who proposes to commence excavation or demolition work and requests information from the One Call System shall pay to the One Call System an annual fee for the service provided by the One Call System under section 3. The fee shall be set by the One Call System board of directors and shall be used to offset a portion of the operating costs of the One Call System and a portion of the operation costs levied on the One Call System's political subdivision and municipal authority members. Failure to pay the fee shall constitute a violation of this act and shall subject the excavator, designer or operator to the enforcement authority of the commission for this nonpayment."***

The annual fee will be charged on the first notification each calendar year.

LOCATE REQUEST CREATION

When calling in notifications, POCS Customer Service Representatives (CSRs) are trained to obtain specific information concerning locate requests. All telephone calls are recorded and kept for five years. Each question asked has a purpose. This section will provide a brief explanation of the reason for each question.

Locate request processing is more efficient if the caller is prepared to answer all questions. The best way to prepare for a call is to visit the website www.paonecall.org.

Excavators, Designers, Project Owners and Facility Owners can submit Locate requests via the website with valid log in credentials. Homeowners working on their own property may submit single address Locate requests via the website without logging in. Whichever input method is chosen, questions will be asked to complete specific data fields.

Field Definitions:

Information about the company making the Locate request: (fields 1-6)

1. **Telephone Number & Extension:**
   The telephone number, including the area code, of the excavating company, design firm, or homeowner placing the call.
2. **Caller Name: (or Web Ticket Entry User name)**
   The caller's name is taken in order to maintain records of what person placed the Locate request.
3. **Company:**
   The name of the company for whom the caller works. For homeowners placing their own Locate requests, this field will contain the name of the caller.
4. **Address, City, State, Zip:**
   The mailing address of the company is recorded and stored as part of the Locate request. For homeowners placing their own Locate requests, this field will contain their mailing address.
5. **Caller Email Address: (or Web Ticket Entry User Email Address)**
   The caller or web ticket entry user will be emailed a copy of the Locate request ticket. In addition, facility owners are required to respond back to the One Call System for all notifications, and the One Call System will collect and email the responses to the caller provided email address.
6. **Caller Fax:**
   Needed only when an email address cannot be provided.

Description of the Work Site: (fields 7-16)

7. **County:**
   The name of the county in which the work will be performed is required.
8. **Municipality:**
   The name of the municipality in which the work will be performed is also required.
   Ward: If the work is taking place in Allentown, Erie, Pittsburgh, or Philadelphia, the voting ward of the site is also required.

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9. Street # & Street Name:

Name of the street and/or route number. Please use the exact address numbers, directional (N, S, E, W, etc.), and the street suffix (ST, RD, CT, AVE, LN, WY, etc.).

10. Nearest Intersection:

Name of the nearest intersecting street or cross street (within reasonable distance of the work site).

11. Second Intersection/Nearest Main Road:

The name of the second street if the work site is between two streets. If not working between two streets, the field can also be used to hold the nearest major intersection name, especially if the nearest intersection is a new or unnamed road. Directions and other clarifying information will be typed into location information so the facility owner knows which type of data has been entered in this field. Additional information is solicited to determine if the work is taking place in the intersection or between two intersections.

12. Site Marked in White?

Indicate by yes or no whether the proposed route or boundary of the work site had been marked in white. This field is not included for design notifications.

NOTE: If an exact location cannot be given, it is required that the proposed route or boundary of the work site be marked in white. Excavators should delineate the work site with 12 inch dashed white paint lines to avoid confusion with color codes used by facility owners (see Section V of this document). Marking the work site in white will provide locators with an accurate picture of the proposed excavation area, helps the locators complete the work and provides the excavator with the needed information, and prevents over marking. Over marking is a problem because in some areas, neighbors can get upset if the marks appear to be graffiti.

13. Location Information:

Clarifying information to specify the exact location of the dig. Include measurements and directional (N, S, E, W or variants) from known points, such as the curb line, street, structure, property line, or fence. If working on private property, note whether working in the front, rear, left, right or all sides. If known or visible, include utility pedestal or pole numbers, highway or railroad mile markers, landmark names, permanent pipeline marker identifiers, etc. You can also provide directions from the nearest town, or major intersection. Give as much descriptive information as you can to help the facility owners and the locator find the site.

14. Subdivision:

The name of the subdivision, housing development, named community, or building complex where the work will take place will be entered, if applicable.

15. Latitude and Longitude Coordinates:

Provide the GPS coordinates of the location, if available.

16. Type of Work Being Done:

Facility Owners need to know the specific reason for the excavation, demolition, or design work to help them evaluate the possible impact on their underground assets. Be as specific as possible. For example, "installing a sanitary sewer lateral" is much more helpful than "digging a sewer line".

Formatted information based on specific notification types is also included here.

Demolition notice: the value will begin with the word DEMOLITION-.

Damage notice: the notice is qualified and will begin with the word DAMAGE- or EXPOSED-, followed by the facility type detail provided by the excavator.

Odor of Gas: the value will display ODOR OF GAS.

No One Call: the value will display NO ONE CALL

Potential Cross Bore: the value will display POTENTIAL CROSS BORE

Specific qualifiers are added to the work site information: (fields 17-21)

17. Working in:

Identify if the work will take place in the street, sidewalk, public or private property. Other designations such as right of way, treelawn, berm, river, stream, etc., can also be specified.

Street: indicate yes or no

Sidewalk: indicate yes or no

Public Property: indicate yes or no

Private Property: indicate yes or no

If on Private Property, indicate Front, Rear, Left or Right side of the property

Other: where applicable

18. Depth:

Give the approximate depth of the excavation.

19. Extent of Excavation:

Give the approximate size of the excavation. Indicate the length and width, the diameter, or some other measurement to indicate

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the size of the opening.

20. Method of Excavation:

Indicate how the earth will be moved, i.e. anchoring, augering, backfilling, blasting, boring, compressing, digging, directional boring, ditching, dredging, drilling, driving-in, grading, grinding, hand-digging, milling, plowing-in, powered equipment, pulling-in, ripping, scraping, tilling, trenching, trenchless excavation, tunneling, or vacuum excavation.

21. Type of Equipment:

Indicate what kind of equipment will be used to perform the work, i.e. auger, backhoe, boring, directional drilling, drilling, excavator, explosives, farm equipment, grader, hand tools, milling equipment, probing device, scraper, trackhoe, trencher, vacuum equipment, or other (specify). If you don't know what type of equipment will be used, and have no way to determine the type, then indicate unknown.

Identification of the project owner and onsite contact information: (fields 22-26)

22. Work Being Done For (Project Owner):

Identification of whom the work is being performed for is another resource for obtaining additional information about a project. The Act refers to this as the "project owner". The "project owner" means any person who or which engages an excavator for construction or any other project which requires excavation or demolition work.

23. Onsite Contact:

The name of the person at the work site with knowledge about the work being done, who a locator can speak with, or a facility owner can make direct contact with when clarification is needed about the Locate request.

24. Onsite Contact Phone Number and Extension:

Provide the telephone number of the onsite contact, including the area code. This number should be a mobile phone, but in the case where an office phone is auto-forwarded to a mobile device, an extension is permitted.

25. Best Time to Call:

When the onsite contact person is normally available to receive calls from facility owners.

26. Onsite Contact E-mail:

Provide the email address of the onsite contact person, as they will be sent a copy of the Locate request in addition to the caller.

Timeframes are identified: (fields 27-29)

27. Scheduled Excavation Date:

On non-design notifications, indicate the date the excavation work is scheduled to begin. Excavation work cannot begin prior to the date given. (See Lawful Start Dates below.)

Formatted information based on specific notification types is also included here.

Design notices: this field is populated with the word DESIGN.

28. Start Time:

Indicate the estimated time the excavation crew plans to be on site and digging.

29. Duration of Job:

To help the facility owner understand the complexity of notification, indicate the approximate number of hours, days, weeks, months, or years you will be actively working on the excavation or demolition. This information helps the facility owner determine the resources needed to deal with the Locate request or complex project. This field is not included on design notices.

Additional information: (fields 30-31)

30. Job Number:

This is an optional field for your use to help reference Locate requests to your internal work management systems.

31. Remarks:

Additional information you wish to include on the Locate request that was not asked in any other field, or exceeded a field size, can be entered here.

Formatted information based on specific notification types is also included here.

Demolition notices: Because disconnect of lines attached to a structure being demolished must be secured directly with the utility, the excavator is asked if they contacted utilities.

If yes, Remarks will display: CALLER HAS CONTACTED UTILITIES DIRECTLY FOR DISCONNECTS/METER REMOVAL.

If no, Remarks will display: CALLER HAS BEEN ADVISED TO TELL PROPERTY OWNER TO CONTACT UTILITIES DIRECTLY FOR DISCONNECT/METER REMOVAL.

Damage notices: The caller is asked if the damage resulted in the escape of any flammable, toxic or corrosive gas or liquid which endangers life, health, or property.

If yes, they are asked if they notified 911.

If no, they are advised to notify 911.

Based on the information they provided the Remarks will display:

HAZARDOUS RELEASE <YES> or <NO> and CALLER HAS NOTIFIED 911 or CALLER HAS BEEN ADVISED TO NOTIFY 911.

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Odor of Gas notices: The caller is asked if they know the gas or pipeline company name. If yes, the Remarks will display: GAS COMPANY: <name of company provided>.

Update: The update action is available for design, non-emergency demolition and excavation Locate requests. An update banner is added in the Remarks and displays the serial number being updated. The banner will include a date/time stamp, CSR initials and channel number or web ticket entry user login followed by the requestor, the reason for the update, and whether lines need to be re-marked.

Example of what Remarks will display:

******=== UPDATE 20221231234-000 == 7/26/2022 1215 GRI 34===******

UPDATE REQUESTED BY: SALLY SMITH

REASON FOR UPDATE: WORK NOT STARTED *or* WORK STOPPED STARTING AGAIN *or* WORK IN PROGRESS

REMARK LINES or NO MARK OUTS NEEDED

Cancel: indicates the work will not take place, or the address provided on the notification was incorrect and a new serial number will be created to correct the bad information. A cancel banner is added in the Remarks and displays the serial number being cancelled. The banner will include a date/time stamp, CSR initials and channel number, the requester, and the reason for the cancel.

Example of what Remarks will display:

******=== CANCEL 20221231234-001 == 7/26/2022 1652 JEC 38===******

CANCEL SERIAL NUMBER: 20221231234

CANCEL REQUESTED BY: JANE DOE

INCORRECT ADDRESS, NEW TICKET HAS BEEN PLACED.

MAPPING the Locate request

During the creation of a ticket, the system attempts to locate the described proposed excavation site using the data provided for county, municipality, street, nearest intersection, and second intersection. Up to two latitude/longitude points can also be provided to assist in the search. The mapping process is slightly different based on the method of input:

Caller:

- If the map search is successful, the CSR will attempt to confirm the search results with the caller and draw a notification area polygon around the proposed excavation site.
- If the map search is unsuccessful, the CSR will work with the caller to determine if all data provided by the caller is accurate.
- In the rare situations when a site cannot be found on the map, an unmapped notification will be sent and the facility owners notified will be based on the county and municipality given by the caller.

A single point with a 150 feet radius (300 feet diameter) buffer, or a polygon delineated with up to six latitude/longitude points, with a 150 feet buffer, can be used to draw the notification area polygon.

Web Ticket Entry User:

- If the map search is successful and the ticket is being created by a user via web ticket entry, the user must draw the notification area polygon.
- If the map search is unsuccessful, the user should ensure all data entered in the fields is accurate and try again.
- If the user is still unable to map the ticket, they must abort the entry and call the One Call System to place their notification.

A single point with a 150 feet radius (300 feet diameter) buffer, or a polygon delineated with up to six latitude/longitude points, with a 150 feet buffer, can be used to draw the notification area polygon.

Web Single Address (WSA):

- Users do not draw a notification polygon.
- If the address search is successful, the user is presented with geometry in the shape of the property parcel, and asked to verify and accept that the location found by the system is correct.
- If the address search is unsuccessful, or the user does not agree with the site parcel found, the ticket is placed in a suspend queue for manual intervention by a CSR prior to its release.
- All WSA notifications created are first reviewed by a CSR, then released and assigned a serial number. The **ticket confirmation** is emailed and includes the serial number, a copy of the ticket information, and the facility owners notified.

Important: The notification area polygon drawn by the CSR or the WTE user, and the geometry shape accepted by WSA users determines which member facility owners will be notified of the proposed work.

The type of notification area will be included on the Locate request:

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32. Mapped Type--[P]

- P = Polygon
- X = Point
- S = WSA Parcel
- C = CPA geometry
- N = Not Mapped

33. Mapped Lat/Lon--

[40.361226/-79.926977,40.361981/-79.924776,40.360903/-79.924907
40.361123/-79.927265]

If the Mapped Type = S or C, the latitude longitude coordinates will not be populated in the Mapped Lat/Lon field because the output is in OGC WKT format, which exceeds the six point limit. The OGC WKT points can be output on the ticket if the member receiving site requests the data. See field 43 Geometry. If the Mapped Type = N, coordinates do not appear in either field.

A link to the image of the drawn notification area will be included on the Locate request:

34. Map Graphic--[http://www.pa811.org/ViewMap/view.aspx?sn=20221234567]

35. LAWFUL START DATES: (3 business days) **through** (10 business days)

These dates are calculated for Locate requests, based on the business day the notification is originated. They indicate the earliest date that digging can begin and the last possible date when digging must begin. If digging does not start within these dates, a new one call notification must be placed. This information is provided to the caller by the CSR. The information is emailed to web ticket entry and web single address users.

If the scheduled excavation date given by the caller falls between the lawful start dates and is not the third business day, the lawful start dates are recalculated and the scheduled excavation date becomes the earliest lawful start date. The last possible lawful start date remains the same, i.e., ten business days from the origination of the notification.

It is very important not to begin work prior to the lawful start dates. Beginning work before the lawful start date can result in forfeiture of the excavator's rights and protection provided for under Pennsylvania Act 287 as amended. Additionally, commencing work prior to the lawful dig date is a violation of the law.

36. SERIAL NUMBER

Once the available information for the notification is gathered, the system assigns a serial number to the notification.

The serial number is eleven digits comprised of the four digit year, three digit Julian date, and four digit sequential number. A three digit version number is then appended to the serial number to track its action type. On the original ticket, the version is -000, designating a NEW or UPDATE action type. Example: 20220010001-000 is the first ticket taken in 2022. On each subsequent action taken on the original, the version number is incremented as -001 or higher to designate a RENOTIFY, CANCEL or ANNOUNCEMENT. Example: 20220010001-001 is the first RENOTIFY of the original request.

The serial number is provided to the originator of the notification based on the method of input:

Caller:

- The serial number is read to the caller, who is also offered a list of the facility owners being notified.
- Callers who provided an email address will receive a **ticket confirmation** which includes a copy of the ticket information and the facility owners notified.

Web Ticket Entry User:

- A **ticket confirmation** is emailed and includes the serial number, a copy of the ticket information, and the facility owners notified.

Web Single Address User:

- For **successful parcel** searches, a **ticket confirmation** is emailed and includes the serial number, a copy of the ticket information, and the facility owners notified.
- For **unsuccessful parcel** searches, the notification is first reviewed by a CSR, then released and assigned a serial number.

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- Once released, a **ticket confirmation** is emailed and includes the serial number, a copy of the ticket information, and the facility owners notified.

The serial number is proof of your notification and should be saved.

Ticket confirmations should be reviewed for accuracy when received. If a discrepancy is found, the One Call System should be notified immediately and a new notification placed.

It is considered a Best practice is to have a copy of the notification at the work site.

37. RESPONSE DUE DATE

The ticket output will include the system generated response due date, which differs based on the Message Type. **Facility owners must respond to all notifications** through the One Call System by the response due date. (Refer to Section VI for additional information.)

38. LOCATE REQUEST MESSAGE TYPE

The ticket output format will include one designation from each of the three components below that define the Message Type. Example: [NEW] [EXCAVATION] [ROUTINE]

- **Action Type:** (how the request was created, which also determines the serial number and version assignment)
  - NEW – a new Locate request – receives a unique serial number and version 000.
  - UPDATE – modifies the Lawful Start Dates on an existing Locate request due to work not starting, work stopped and is starting again, or work in progress when re-marking is needed, – receives a unique serial number and version 000.
  - RENOTIFY – a re-transmit of an existing ticket, initiated by a caller, to advise one or more facility owners of locate related or response issues – the serial number does not change, however, the version number will increment with each successive re-notify.
  - CANCEL – notification by the ticket originator that work will not be done – the version number will increment.
- **Request Type:** (the kind of work being performed)
  - EXCAVATION – the movement of earth, rock, or other material.
  - DAMAGE – damaged or exposed underground facility or facilities.
  - ODOR OF GAS –third party reports of non-excavation related odor of gas.
  - DEMOLITION – partial/complete destruction of a structure served by/adjacent to underground lines.
  - NO ONE CALL –third party reports of excavation work where there is reason to believe no one call ticket exists.
  - POTENTIAL CROSS BORE – called in by plumbers or sewer operators to provide notice of intent to clear a clogged sewer drain prior to using a cutting tool.
- **Request Class:** (the timeframe of the work being performed)
  - FINAL DESIGN– a notification requiring not less than 10 nor more than 90 business days notice prior to final design.
  - PRELIMINARY DESIGN – a notification giving more than 90 business days notice.
  - ROUTINE – a notification requiring not less than 3 nor more than 10 business days notice.
  - EMERGENCY – the excavator declares work is an Emergency as defined by Act 287 as amended.
  - INSUFFICIENT NOTICE – the excavator fails to provide the required 3 business day notice and the work does not fall within the definition of emergency as defined by the Act.
  - COMPLEX PROJECT – used to schedule a complex project preconstruction meeting request.

Based on the Message Type, there may be variations in the data fields. Some variations impact the data fields described above, and have been noted where possible. Other data fields are based on conditionals or are specific to certain action or request types and the request class.

39. PennDOT Permit Number:
If the work is taking place on a PennDOT road, provide the permit number issued to you by PennDOT.

40. Project dates:
Used in lieu of Lawful Start dates on design notices. Project dates are calculated based on the designation as final design or preliminary design.

41. Project Contact, Project Contact Phone, and Project Contact Email:
Used in lieu of Onsite contact, Onsite Contact Phone, and Onsite Contact Email on design notices.

42. CPA Project ID, CPA Phase ID, and CPA Location ID:

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Used when a notice originates from the Coordinate PA (CPA) project coordination, collaboration and communication tool. (See Section XV Website Tools for more information on CPA.)

43. Geometry:

Used in lieu of Mapped Type and Mapped Latitude/Longitude on notices originating from CPA or WSA online. Due to its potential size, the Geometry field is suppressed unless the receiver CDC opts in to receive the data.

44.-51.

RNO Caller, RNO Caller Phone, RNO Onsite Contact, RNO Onsite Phone, RNO Onsite Contact Email, Crew Onsite, Unmarked or Incorrectly Marked, RNO Remarks:

RNO is an abbreviation for the action type RENOTIFY. The original Lawful Start Dates, Scheduled Excavation Date, Start time and serial number do not change. Cancel and Complex Project action types are not eligible for renotify action.

52. Direct Contact with Excavator Required within two hours:

The locate request will indicate Y(es) or N(o) based on information given by the excavator.

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The following is one example of the ticket output format with proper information used to identify identifying the location of a work site:

CDC ABC 00001 POCS MM/DD/YY TT:TT:TT 20221234567-000 NEW XCAV RTN

==========PENNSYLVANIA UNDERGROUND UTILITY LINE PROTECTION REQUEST=========

Serial Number--[20221234567]-[000] Channel#--[1234] [0123] [4567-89]

Message Type--[NEW] [EXCAVATION] [ROUTINE]

County--[ALLEGHENY] Municipality--[WEST MIFFLIN BORO]

Work Site--[925 IRWIN RUN RD]
Nearest Intersection--[NOBLE DR]
Second Intersection--[LUTZ LANE]
Subdivision--[BORLAND COMPLEX] Site Marked in White--[Y]

Location Information:
[WORKING FROM THE FIRE HYDRANT ON THE LEFT SIDE OF THE BUILDING, CROSSING THE DRIVEWAY INTO THE TREELAWN, CONTINUING THROUGH THE MIDDLE OF THE TREELAWN PARALLEL TO THE BUILDING, FOR 100FT, CROSSING BACK OVER THE DRIVEWAY TO THE RIGHT CORNER OF THE BUILDING.]
Caller Lat/Lon--[]
Mapped Type--[P] Mapped Lat/Lon--
[40.361226/-79.926977,40.361981/-79.924776,40.360903/-79.924907
40.361123/-79.927265]
Map Graphic--[http://www.pa811.org/ViewMap/view.aspx?sn=20221234567]
Type of Work--[INSTALL 2IN WATER SVC LINE] Depth--[3FT]
Extent of Excavation--[2FT X 230FT] Method of Excavation--[TRENCHING]
Equip Type—[BH]
Street--[N] Sidewalk--[Y] Pub Prop--[N] Pvt Prop--[Y] Other--[TREELAWN]
Private Front--[Y] Rear--[Y] Left--[Y] Right--[Y]

Lawful Dig Dates--[DD-MON-YY] thru [DD-MON-YY] Response Due Date--[DD-MON-YY]
Scheduled Excavation Date--[DD-MON-YY] Dig Time--[TTTT] Duration--[1 WEEK]

Caller--[ANNABELLE SMITH]
Caller Phone--[555-555-5555] Ext--[]
Excavator--[ABC CONSTRUCTION]
Address--[12345 MAIN ST]
City--[PITTSBURGH] State--[PA] Zip--[15236]
FAX--[555-444-4444] Caller Type--[B]
Email--[asmith@aol.com]
Work For--[PA ONE CALL SYSTEM INC]
Onsite Contact--[ANNABELLE SMITH]
Onsite Contact Phone--[555-555-5555] Ext--[]
Best Time to Call--[0800-1600]
Onsite Contact Email—[asmith@abcconstruction.com]
Job Number--[]

Prepared--[DD-MON-YY] at [TTTT] by [CSR NAME]
Remarks--
[]

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SECTION V - WHAT HAPPENS WHEN THE NOTIFICATION IS MADE

POCS records all conversations that pertain to the Locate request, and maintains a copy. The voice and data records are maintained for five (5) years.

When the Locate request is submitted, the computer processes the ticket, assigns a serial number to the notification, determines which member facility owners to notify, where to transmit the notification, creates the ticket output format, and delivers it to each involved member, separately tracking the sequence number of the day for each unique delivery address.

The system also determines if the notification is the first one placed by a business in the calendar year. If so, an invoice is generated for the annual fee for the service provided by the One Call System. (See Section IV for more information on the annual fee).

SECTION VI - RESPONSIBILITIES OF THE FACILITY OWNER *(After receiving the Locate request)*

Underground facility owners have the option to receive the information from the One Call System using a variety of delivery methods, such as email, fax, XML, or viewing Locate requests on the One Call System website. A sequence number is added to each transmission so a member can easily identify skipped transmissions.

To ensure successful delivery of Locate requests, an end of day (EOD) summary audit of messages transmitted from the One Call System is sent to each receiving site shortly after midnight each day. The summary lists by serial number, any messages the member should have received the day before. Members should check this audit for agreement with transmitted messages. If any serial numbers were missed, members can visit facility owner member web access or call the One Call System to request a resend. Members whose primary method of receiving tickets is web view should review the EOD online as they will not receive a transmission.

- A resend is a manual re-queue of a Locate request previously logged as a successful ticket delivery, initiated by the member facility owner.
- A resend does not change any data, but appends RSND to the delivery header, populates a new delivery sequence number and includes the date/time of the resend.
- A resend may also be manually forced to a facility owner not notified on the original list when the caller has cause to believe non-notified facilities are present at the work site and are requesting a locate/response.
- A resend conditionally adds one of two text lines at the end of the Locate request:
    - When the member was listed on the original transmission:
        - [Originally sent as sequence number NNNN at MM/DD/YY HHMM].
    - When a ticket is forced to a member not in the original list:
        - [Ticket (re) sent at your request.]

DETERMINING CONFLICT WITH EXISTING ASSETS

Once the information is successfully transmitted and received by the member facility owner, their personnel review the Locate request to determine possible conflicts. The review can include automated or manual comparison with asset maps and records, contact with the excavator to clarify data information about the request, or dispatching a locator to the work site. It is the facility owner's job to decide whether or not the location of the proposed excavation work is close to existing underground facilities.

If the work to be done or work site appears to be complex, or the lines at the site are considered critical, the facility owner may request to meet the excavator. In this case, the facility owner should respond via KARL with a "092-Requests Meeting" designation, and then contact the excavator to arrange a meeting date and time.

Some facility owners are required to be on site during excavation while work is in the vicinity of their line. Generally, there is no charge for this additional level of protection. Take advantage of their expertise and make sure you understand the safety precautions that are necessary to protect the line and yourself.

After receiving and screening the non-design Locate request, if a conflict exists within the excavation work site described on the Locate request, each underground facility owner is required to mark the location of the facility owner's underground lines within eighteen inches horizontally from the outside edge of the line, known as the tolerance zone, including known connections and appurtenances. At its option, the facility owner may timely elect to excavate around its facilities.

Under Section 2 clause (i.1), known as the Good Samaritan clause, as a helpful guide to the excavator or property owner, the facility owner may identify the location of a known facility connected to its facilities. The identification will not impose any liability upon the facility owner for the accuracy of the non-owned facility.

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RESPONDING TO LOCATE REQUEST NOTIFICATIONS

Section 2 (5) (i)-(ix) requires Facility Owners to respond to all notifications by marking, staking, locating or otherwise providing the position of the facility owner's underground lines at the work site within eighteen inches horizontally from the outside wall of such line in a manner so as to enable the excavator, where appropriate, to employ prudent techniques; or by notifying the excavator they have no facilities to be marked. (See below for more information on abandoned facilities, and responding to notifications that do not require marking in the field.)

USE OF MARKING

Facility Owners may use standard locating techniques suitable to each type of line being located based on accepted engineering and operational practices, and mark with paint, stake, and/or flags, according to APWA/Common Ground Alliance Best Practices for Temporary Marking set in ANSI standard Z535.1 Safety Color Code. (See Appendix D of this document). Markings will be done in a reasonable manner; in order to enable the excavator to easily recognize the location of buried facilities.

WHITE	Proposed Excavation
PINK	Temporary Survey Markings
RED	Electric Power Lines, Cables, Conduit and Lighting Cables
YELLOW	Gas, Oil, Steam, Petroleum or Gaseous Materials and Hazardous Materials
ORANGE	Communication, Alarm or Signal Lines, Cables or Conduit, and Traffic Loops
BLUE	Potable Water
PURPLE	Reclaimed Water, Irrigation and Slurry Lines
GREEN	Sewers and Drain Lines

SYMBOLS

(These symbols further define the color-coding used in marking buried facility locations).

CH	Chemical	SS	Storm Sewer
E	Electric	SL	Street Lighting
FO	Fiber Optic	STM	Steam
G	Gas	SP	Slurry System
LPG	Liquefied Petroleum Gas	TEL	Telephone
PP	Petroleum Products	TS	Traffic Signal
RR	Railroad Signal	TV	Television
S	Sewer	W	Water
SD	Storm Drain	W	Reclaimed Water "Purple

Use color-coded surface marks (paint or similar coating) to indicate the location and route of buried lines. To increase visibility, color-coded vertical markers (temporary stakes or flags) should supplement surface marks. All marks and markers should include the symbols of the underground facility owner or actual company abbreviation (i.e., VZPA, DLCO, PECO, UGI, PAWC, ATT, etc.) of the company that owns or operates the line, and the width of the facility if it is greater than 50 mm (2") as practicable.

Supplemental offset marking may also be added at the discretion of the facility owner, and is recommended if the surface over the buried line is to be removed or destroyed. Such markings will identify the direction and distance to the actual facility. Offset markings should be on a uniform alignment and must clearly indicate that the actual facility is a specific distance away. Please see the attached marking card for guidelines for marking of underground facilities.

Facility owners should consider documenting the completed mark out with photos.

TOLERANCE ZONE

The width of the tolerance zone means the horizontal space within eighteen inches of the outside wall or edge of a line or facility. (see Section VIII of this guide for additional information on excavating within the tolerance zone.)

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ABANDONED FACILITIES

Facility owners must make reasonable efforts to locate or notify excavators of the existence and type of abandoned main lines.

Information regarding abandoned facilities, in possession of the Facility Owner, should be provided in the following instances:

- with a correctly submitted preliminary or final Design request
- at a Pre-construction meeting on a Complex Project request
- for a Routine Locate request where the specific excavation area is identified using white paint/flags. (CGA 4.11/APWA guidance)

The Act specifically requires your best efforts to comply with the CGA standards.

RESPONSE DUE DATE

Facility owners must respond to all notifications through the One Call System by the response due date.

Responses are due:

- Emergency notifications: Emergency Locate requests that fall within the definition of an emergency are given top priority. Underground facility owners are required to mark facilities within the emergency excavation area as soon as practicable. The response by the facility owner should be consistent with the nature of the emergency information received. The expectation is that within 2 clock hours of the notice the Facility Owner will respond to the site or make direct contact with the Excavator.
  - Damage, odor of gas, no one call, and potential cross bore notifications are classified as emergencies.
  - Note: In certain situations that fall within the definition of an emergency, but do not require immediate mark out, an emergency Locate request contains a scheduled excavation date greater than the current date. For example, a water line break during the winter months, which might freeze, causing a hazard, but can be kept safe until the next day using road salt. In such cases, the response due is 23:59:59 the calendar day prior to the scheduled excavation date.
- Routine notifications: When the scheduled excavation date is equal to three business days from the Locate request submit date then the response due is 23:59:59 the business day prior to the first Lawful Start date. When the scheduled excavation date is greater than three business days from the Locate request submit date, the response due is 23:59:59 the calendar day prior to the first Lawful Start date.
  - Insufficient Notice: the response due is 23:59:59 two business days from the Locate request submit date.
- Complex Project meeting request notices: When a meeting is requested the response due is 23:59:59 the business day prior to the proposed meeting date. When a meeting is not requested, the response due is 23:59:59 two business days from the meeting request submit.
- Design notifications: For Preliminary and Final Design, the response due is 23:59:59 ten business days from the Locate request submit date.

If necessary, the facility should propose mutually agreeable scheduling by which the excavator, facility owner or designer may locate the facilities.

Responses may be sent to the One Call System via its web service, or by using web ticket response on the website, or by calling the automated IVR service know as KARL at 800-222-6470 and following the prompts.

KARL receives the facility owner responses and emails or faxes the collected responses to the originator of the Locate request at the end of the business day on the response due date.

For a list of the Facility Owner responses used in the KARL system please see Appendix B - KARL System of this guide.

RESPONDING TO EMERGENCY NOTIFICATIONS

Facility owners must respond as soon as practicable following receipt of notification from the One Call System. The response by the facility owner should be consistent with the nature of the emergency information received. The expectation is that within 2 clock hours of the notice the Facility Owner will respond to the site or make direct contact with the Excavator.

- Excavation Emergency when the scheduled excavation date is not the same day the notification is placed:
  In certain situations that fall within the definition of an emergency, but do not require immediate mark out, an emergency Locate request contains a scheduled excavation date greater than the current date. For example, a water line break during the winter months, which might freeze, causing a hazard, but can be kept safe until the next day using road salt. In such cases, the response due is 23:59:59 the calendar day prior to the scheduled excavation date.

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- Damage Emergency:
  Damage notices can be the only notification received by the one call system of active excavation activity. Facility owners should respond to damage notices in the same manner as other emergency notifications.
  Repairing the damaged facility: If the original ticket scope covers the area where repair work will occur, facility owners may proceed with repairs without placing a new notification, otherwise, facility owners should place an emergency notification prior to repairing damage to their lines.
- Odor of Gas Emergency:
  Facility owners should respond to odor of gas notices in the same manner as other emergency notifications.
- No One Call Emergency:
  Facility owners should respond to no one call notices in the same manner as other emergency notifications.
- Potential Cross Bore Emergency:
  Facility owners should respond to potential cross bore notices in the same manner as other emergency notifications.

RESPONDING TO COMPLEX PROJECT MEETING REQUESTS

A facility owner is required to attend and participate in preconstruction meetings for a Complex Project and to work with excavators on a schedule to mark the underground lines reasonably in advance of the actual start of excavation or demolition work for each phase of the work.

If the excavator does not believe a preconstruction meeting is necessary, it will be noted in the Complex Project notice sent to the facility owner, however, facility owners with facilities at the work site may request a meeting with the excavator and a meeting shall be held between the two parties.

When notification(s) exceed the scope of a routine Locate request as defined by the Board, or the work otherwise is determined to be complex in nature, the facility owner may designate a project as complex, and request a meeting with the excavator to determine a mutually agreeable locate schedule. Facility owners must make direct contact with the excavator to set the meeting.

RESPONDING TO DESIGN NOTIFICATIONS

Facility owners are required to initially respond to a design request for information as to the position and type of the facility owner's lines based on the information in their possession, or to mark the plans which have been provided to them by the designer, by field location or by another method agreed to with the designer.

Designers may utilize the POCS Coordinate PA application which allows for the upload of drawings at the time the design notification is made. Facility owners can access the drawings and upload pdfs of their facilities in response to the design inquiry.

RESPONDING TO RENOTIFY LOCATE REQUESTS

Facility owners are required to respond to all notifications received from the one call system.

Excavators renotify facility owners when locate request issues arise. The timing of the renotify request determines the response required of a facility owner:

- Scenario 1:
  - On a correctly submitted non-emergency Locate request from an excavator, who, upon their initial arrival at the work site determines that "clear evidence of facilities" exists which are not marked or may be mismarked, and initiates a renotify through the one call system.
  - The facility owner is required to make "direct contact" with the excavator within two hours.
  - If the facility owner fails to provide sufficient information to the excavator within three hours after the renotify call to POCS, the Act does allow the excavator to begin work as scheduled, but not earlier than the lawful dig date, provided he exercises due care and uses prudent techniques in his work.
- Scenario 2:
  - An excavator disagrees with a response a facility owner made through the one call system, but it is not their initial arrival at the work site. The one call system will capture the locate issue in the text of the renotify.
  - The facility owner must respond as soon as practicable.

Alleged Violations of the Law

Facility Owners are required to submit a report of an alleged violation. Please review Section X for the specifics regarding reporting of alleged violations of Act 287 of 1974 as amended.

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SECTION VII - RESPONSIBILITIES OF THE DESIGNER

A Designer is any architect, engineer or other person who or which prepares a drawing for a construction or other project which requires excavation or demolition work as defined by the Act. Each designer preparing a drawing requiring excavation or demolition work within the Commonwealth shall contact Pennsylvania One Call System. The Design Notice is meant to allow the designer to plan the new work around existing facilities as the law prescribes. The notice shall be placed not less than 10, nor more than 90 business days in advance of the final design. Designers can obtain such information more than 90 days before final design is to be completed, however, they shall state in their requirements that such work is preliminary.

According to the Act, Final Design means "***the engineering and construction drawings that are provided to a bidder or other person who is asked to initiate construction on the bid or date the project is set for construction in the absence of a bid***".

In many instances engineering and construction drawings are prepared far in advance of the bid date or the start of construction; or last minute project owner/designer adjustments may result in changes to the proposed excavation area. Preliminary design notifications should be created. The date of the most recent design One Call Notification should never be more than 90 days prior to the project bid date or date of construction in the absence of a bid. This provides the designer with the opportunity to assess the possible impact of any recently installed underground facilities within the project area and to adjust the design accordingly prior to the bid or the start of construction. It is the Project Owner's responsibility to not release any project to bid or construction until after final design is completed. Good communication between the designer, project owner and involved facility owners is necessary to produce the most accurate construction drawings possible.

Notifying POCS is the first step and there are several other responsibilities which need to be completed. Use of the web based Coordinate PA tool will facilitate the process of notifying POCS.

When contacting POCS to request the line and facility information, the information provided should cover the entire scope of the plan or development with enough detail to allow the facility owners to provide the location of their lines in the proposed work area. As much descriptive information as you can provide shall be given to help the facility owner identify the proposed construction area. Please be as specific as you can with the location information. It is very important to describe the site in detail.

The designer shall make a reasonable effort to prepare the construction drawings to avoid damage to and minimize interference with a facility owner's facilities in a proposed construction area by maintaining the clearance as provided for in the applicable easement condition or an eighteen-inch clearance of the facility owner's facilities, where practical, if no easement restriction exists, or other clearance permitted or agreed upon.

A copy of the project plans shall be forwarded to each facility owner who requests a copy. If a designer is unable to provide a copy because of security of the project or proprietary concerns regarding the design of the project, the designer shall negotiate in a timely manner with the facility owner the means of obtaining the necessary data.

Designers are encouraged to utilize the POCS Coordinate PA application which allows for the upload of drawings at the time the design notification is made. Facility owners can access the drawings and upload pdfs of their facilities in response to the inquiry.

The designer shall show upon the drawing the position and type of each facility owner's line derived pursuant to the request made, the name of the facility owner as shown on the list from the One Call System, the serial number of the Locate request and the toll free number of the One Call System.

The designer should consult with and advise the project owner regarding the project owner's requirement to utilize sufficient quality levels of subsurface utility engineering. Design stage responsibilities of the designer and project owner are contained within the law and in the latest version of the Common Ground Alliance (CGA) Best Practices. The Act specifically requires your best efforts to comply with the CGA Best Practices. It is also imperative that the external funding requests include the use of the SUE process in the early and the final design phases. (PENNVEST has advised POCS that this is an item they will include but it must be spelled out in the initial funding request.)

For projects requiring Section 6.1(1), a competent subsurface utility engineering (SUE) provider should be used to perform ASCE 38-22 utility investigations. ASCE 38 is a process where experience, good judgement, and proper equipment, are used for each quality level of ASCE 38 to enable the designer to prepare the construction drawings to avoid damage to, and minimize interference with a facility or line. ASCE 38 Quality Level D and Quality Level C are equivalent only to the current designer notification standard under Section 4 (2) of the UULPL. ASCE 38, Quality Level B and Quality Level A should be applied for more precise horizontal and vertical data necessary for conflict identification during the design phases, when appropriate. Projects under $400,000 may utilize Levels D and C only, with the exception of a potential conflict of a facility or line. The designer should enter a complex project that has a

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construction drawing into the Coordinate PA portal.

As ASCE 38 data is collected, this information should be included in the construction drawings in the final design, bid, construction, and post construction purposes. Electronic as-built data collected should be entered into the post design drawings and maintained for future projects. All pre and post design data collected are required to be submitted to the One Call System. **Note:** For more detailed requirements, refer to Section IX, Responsibilities of the Project Owner, outlined in this Users Guide.

As with notifications of excavation work, the facility owners shall respond to design notifications through the KARL System. Note that there is a response dedicated specifically for design notifications, "082 Design Conflict. Please send plans to: <*facility owner name & address*>". In addition to responding through the KARL System, facility owners:

- can send plans to the designer directly, or through the Coordinate PA application (described above);
- mark the plans provided by the designer by field location or by another method agreed to by the designer, excavator and facility owner or their agent;
- or mark the facilities in the field.

The designer is required to attend and participate in preconstruction meetings on complex projects when the excavator determines that the project is a Complex Project and actually schedules a meeting. project owners are required to participate in design and preconstruction meetings either directly or through a representative. In many instances the designer may be the project owner's representative. Such meetings are encouraged to improve communications between all parties.

Annual Fee

The Act requires designers request line and facility information from facility owners and to pay the applicable fee to the One Call System. The fee is billed on the date of the first notification placed each calendar year.

During Excavation

The designer is reminded that responsibilities under the law apply to all design activities, including changes of and additions to a project on which excavation is already underway. At the end of the project all SUE data shall be forwarded to the One Call Center in enhanced .pdf format.

Alleged Violations of the Law

Designers are required to submit a report of an alleged violation. Please review Section X for the specifics regarding reporting of alleged violations of Act 287 of 1974 as amended.

SECTION VIII - RESPONSIBILITIES OF THE EXCAVATOR *(After Making the Call)*

Many people believe that by notifying the One Call System of intended excavation they have completed all of their responsibilities with respect to the locating process. This is not the case. Notifying is only the first step, and there are several other important considerations.

Prior to the Start of Excavation

When planning excavation activities, the excavator should consider all available site information relating to the existence of underground facilities. The position of facility marks, any Subsurface Utility Engineering information contained on the project plans and the existence of visible landmarks such as meters, valve boxes, manhole covers and similar evidence should be included in the excavator's site assessment. If working on private property, check with the property owner to help identify any privately owned underground lines.

The excavator must inform each powered equipment operator employed at the site of the information obtained as a result of his notification to POCS. It also is good practice to provide this information to all workers at the site. Except in the case of an emergency, the excavator at each job site should have available a complete description of the dig site, a list of the facility owner members impacted at that dig site as identified by the one call center, and the one call ticket number.

The excavator should plan the excavation or demolition work to avoid damage to or minimize interference with underground facilities in the construction area. If the work requires temporary or permanent interruption of the facility owner's service the excavator must coordinate the work with the affected facility owner(s) in all cases.

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If the excavator is using horizontal directional drilling (HDD), he must, at a minimum, utilize the best practices published by the HDD Consortium.

If requested to do so by a facility owner, the excavator must assist a facility owner in determining involvement of their lines by disclosing additional available information including dimensions and the direction of the proposed excavations.

The excavator, except in an emergency with proper notification to POCS, may not begin excavation or demolition earlier than the scheduled excavation date which can be on or after the third business day after the notification to POCS was made. In a Complex Project, the excavator may not begin excavation earlier than ten business days after notification to POCS.

Consider documenting the position of marks as soon as possible after they are placed. Be watchful for possible removal and tampering of marks. This can occur unintentionally as a result of things such as lawn mowing, normal street maintenance, activities of children playing in the neighborhood as well as normal construction activities. Please remember that weather and wear can obliterate markings. Do not pile brush or spoilage on the marking. You are responsible for the marks once the locator has left the site. If the excavator suspects that marks may have been compromised or eliminated he should contact POCS to request that the facilities be marked again.

During the Excavation Process

All underground facilities encountered during the excavation work should be considered in use and potentially dangerous unless specific information from the facility owner indicates that the facility is abandoned or otherwise not in use and does not contain any dangerous elements or by-products.

If and when the excavation operation approaches the estimated location of underground facilities, the excavator must determine the precise location of the marked facility by safe and acceptable means. This must be accomplished by the use of hand tools or vacuum excavation techniques. The Act requires the use of prudent techniques for the area considered the "**TOLERANCE ZONE**", which means **the horizontal space within eighteen inches of the outside wall or edge of a line or facility**. After locating the precise location of underground facilities through the use of prudent techniques, excavators must continue to exercise due care within the tolerance zone to avoid interference, injury or damage to the underground lines.

If a marked facility is not found within the established Tolerance Zone during excavation, the excavator should contact POCS and renotify the facility owner. If excavation continues, prudent techniques must be used until the precise location of the facility is identified or until it has been otherwise determined that the excavation is not in conflict with the facility. The excavator may be entitled to compensation from the project owner for this extra work as set forth in clauses (4) and (15) of section 5 of the Act. The **project owner** under the Act ***is any person who or which engages the excavator for construction or any project which requires excavation or demolition work as herein defined.***
Work with the locator to reduce the confusion at the work site. Scheduling and cooperation can keep your job moving efficiently. Discuss your schedule and resources with the locators and set up a working relationship that can save everyone significant delays and confusion. It is always a good practice to document the work you do and record what safety instructions are given by the locator or field representative at the site.

Some facility owners have special policies because of the critical nature of their lines, (i.e. liquid pipelines, fiber optic communications, high pressure natural gas, chemical lines), and want to be on site when you are near their lines. Some facilities demand special consideration and are significant enough that your risk management policy should dictate extreme care be taken when working around these lines.

The One Call System is a mandatory organization, however, exemptions do exist. Pennsylvania One Call System (POCS) is the only One Call System in operation in Pennsylvania. Some underground facility owners have elected not to belong; in violation of the Act. Excavators are not required to make an effort to contact these nonparticipating facility owners directly before attempting an excavation, but realistically there could be a safety issue if you see indications of facilities that are not marked. It is your safety that's at risk. Entities exempt from membership under the Act are listed in the definition of "Facility Owner" and excavators should also be aware of exemptions within the definition of "Line or Facility" within the Act.

POCS is not responsible for the actual marking of facilities. It takes information from the excavator and relays it to the underground facility owners. The facility owners are responsible for ensuring that their facilities are properly marked.

Facility owners are required to respond to all notifications. POCS will collect the responses from the facility owners through the KARL system and relay it to the excavator by email or fax. When one underground facility owner indicates that there are no facilities in

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conflict with specific excavation, the excavator must realize that this does not mean that POCS has cleared the site, nor does it mean that other facilities are not at that location. Excavators are encouraged to verify the current status of their one call request prior to commencing excavation or demolition work by calling the POCS KARL system at 1-800-222-6470. Please see Appendix B - KARL System of this guide for further details.

Failure to Locate Facilities Prior To the Start Date

In cases where a facility owner has not responded to a correctly submitted *non-emergency* excavation request, or they have responded and the excavator, upon their initial arrival at the work site determines that "clear evidence of facilities" exists and are not marked or may be mismarked, the excavator must re-notify POCS. The facility owner(s) must make "direct contact" with the excavator. Excavation within the location of the unmarked or mismarked lines may not begin until receiving sufficient information from the facility owner to safely excavate. If the facility owner(s) fails to provide sufficient information to the excavator within three hours after the call to POCS, the Act does allow the excavator to begin work as scheduled, but not earlier than the lawful dig date, provided he exercises due care and uses prudent techniques in his work.

When Damage Occurs

If during the course of excavation, a facility has been exposed and/or damaged, it is the excavator's responsibility to promptly notify the facility owner so that it may be inspected and repaired, if necessary, before being backfilled. Damage can also occur from improper backfilling around exposed utilities. The excavator should support these exposed facilities until such time as the facility owner inspects them. Failure to notify the facility owner can result in the excavator being held responsible for any and all damages attributable to the damaged facility.

Cathodic Protection techniques are often used to deal with the earth's stray electric current where steel and other metal lines are buried. If these are damaged they cause problems to the pipe or cable and must be repaired by the facility owner, and the damage should also be reported.

If the damage results in the escape of any flammable, toxic or corrosive gas or liquid which endangers life, health or property the excavator must **immediately notify 911** and the facility owner. The excavator must also take reasonable measures, based on his knowledge, training, resources, experience and understanding of the situation to protect himself and those in immediate danger, the general public, property and the environment until the facility owner or emergency responders have arrived and completed their assessment of the situation. The excavator must also remain on site to convey any pertinent information to responders that may help them to safely mitigate the situation. The requirement to notify 911 is mandated by the Act and by the Federal Pipeline Safety Act.

ANNUAL FEE

The Act requires excavators to make a locate request to the One Call System prior to excavation or demolition work and to pay the applicable fee for the request. The fee is billed on the date of the first Locate request placed each calendar year.

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Alleged Violations of the Law

Excavators are required to submit a report of an alleged violation. Please review Section X for the specifics regarding reporting of alleged violations of Act 287 of 1974 as amended.

SECTION IX - RESPONSIBILITIES OF THE PROJECT OWNER

It is the Project owner who is in the best position to influence damage prevention measures applied in the design and preconstruction phases, as well as once excavation begins, as they control the finances, scope of project, and terms in the contract.

This section of the Users Guide recognizes the value of communication between all parties to the Act. To that end POCS has launched Coordinate PA, a planning tool intended to promote collaboration, cooperation, coordination and communication among all stakeholders. It is a tool that requires participation by Project owners or their designees to populate future projects to be successful at improving project quality, eliminating potential conflicts in advance of construction, and reducing damages to existing infrastructure.

It is the duty of Project owners to utilize and pay for Subsurface Utility Engineering (SUE) in accordance with the Act. It is the Project owner who initiates design projects that will require excavation or demolition and they are its principal beneficiary. The use of SUE or other similar techniques is required on large or complex projects costing $400,000 or more. The SUE process provides a way to accurately identify the quality of subsurface utility information. (see ASCE 38-22 (SUE) PROCESS - Standard of Care section, et.seq. below).

Project owners must furnish the pertinent data obtained through subsurface utility engineering to the One Call System in a mutually agreeable format. PA One Call's Coordinate PA application is the expected repository for upload of SUE data.

Project owners must not release to bid or construction any project until after final design is completed.

For new construction and where practicable in the opinion of the Project owner, color-coded permanent markers must be installed to indicate the type and location of all laterals installed by the Project owner. These markers will assist in locating efforts in the future.

Project owners are obligated to timely respond to notifications received from the excavator when facility owners cannot accurately locate or identify all lines. When not resolved in the design phase, and an excavator must ascertain the location or lines, including unclaimed or abandoned lines, as outlined in the Act in Section 5, clause (15), the excavator is entitled to compensation from the Project owner as outlined in said clause. The Project owner has responsibility to respond to such notifications, and to compensate the excavator for such work. By utilizing the SUE process, or other similar techniques, in the Design Phase, this potential is minimized. (Refer to Section III of this User Guide, Type of Calls, #1 for information on Preliminary and Final Design notifications.)

Project owners are required to participate in design and complex project preconstruction meetings and shall encourage such meetings, as appropriate, for work they put forth that is larger than the maximum area that a routine Locate request may cover to provide for a mark out plan with existing facility owners that can be maintained and help keep the project on track.

ASCE 38-22 (SUE) PROCESS - Standard Of Care

The American Society of Civil Engineers (ASCE) has developed an important standard of care guideline, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, CI/ASCE 38-02. As of August 26th, 2022 ASCE 38-02 has been updated to 38-22 and 75-22 added to clarify the recording of that Data.

This standard guideline describes four quality levels of utility depiction:

Quality Level D - Information derived from existing records or oral recollections.

Quality Level C - Information obtained by surveying and plotting visible above-ground utility features and by using professional judgment in correlating this information to Quality Level D.

Quality Level B - Information obtained through the application of appropriate surface geophysical methods to determine the existence and approximate horizontal position of subsurface utilities.

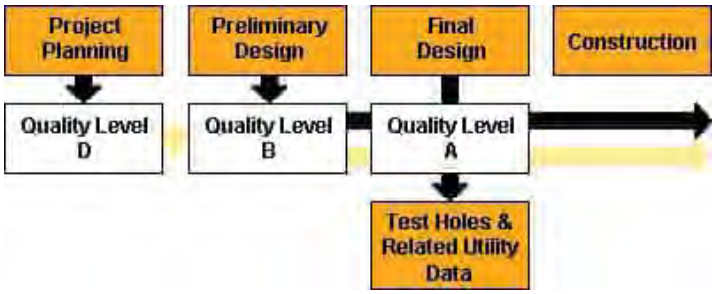
Quality Level A - Precise horizontal and vertical location of utilities obtained by the actual exposure and subsequent measurement of subsurface utilities, usually at a specific point.

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To order a copy of ASCE Standard 38-22 and 75-22, please go to the ASCE Bookstore: http://www.pubs.asce.org/ or call 1-800-548-2723.

This Chart is taken from ASCE and FHWA brochure. Click the link below to see the Federal Highway Administration Color Brochure and note that Final Design Level is "A"

Project Application



Updated: 06/27/2017 SUE Brochure - Subsurface Utility Engineering - Utility Program - Design - Federal Highway Administration (dot.gov)

SUE Definition. The ASCE standard makes it very clear that SUE is a process, not a technology. It defines SUE as a branch of engineering practice that involves managing certain risks associated with utility coordination; utility mapping at appropriate quality levels; utility conflict analysis; utility relocation, design, and coordination; utility condition assessment; and communication of utility data to concerned parties.

How can all these items be SUE? Keep in mind that SUE today is a **process**. It is no longer just paint marks on the ground or vacuum excavation. These technologies are not even mentioned in the ASCE definition. They may be part of SUE, but then again, they may not be.

ASCE 38 (SUE) Process. The SUE process doesn't follow any set pattern. Rather it is tailored to individual projects. It essentially involves systematically identifying the quality of utility information needed to design a project and acquiring and managing that level of information.
The following tasks are typically performed in the SUE process:

- Identify utility owners that have facilities on or may be affected by the project. Contact these utility owners (face to face meetings are preferable) and provide them with information about the proposed project. Schedule periodic follow-up meetings.
- When the project plans are about 30% completed, or possibly even sooner in the planning phase, provide the plans to utility owners along with a request that they review the plans and provide pertinent "as built" or other existing utility information. Obtain existing utility information from other sources. Review all information that can be obtained and plot it on a utility composite drawing or something equivalent. This is Quality Level D (QL-D) information.
- Make field observations to identify visible above-ground utility features. Survey and plot resulting information. This is Quality Level C (QL-C) information. It is correlated with the records information (QL-D). When records and features information do not agree, resolve discrepancies.
- Use appropriate surface geophysical methods (i.e., pipe and cable locators, terrain conductivity methods, resistivity measurements, metal detectors, ground-penetrating radar, etc.) to designate existing subsurface utilities or to trace a particular utility system. This provides two-dimensional horizontal information. Place paint marks on the ground. Place identification flags or stakes on the paint marks or coding on the pavement at 50-foot intervals and survey to project control. Depict resulting information in the client's computer-aided design and drafting (CADD) system, Geographic Information System (GIS), and/or manually plotted plan sheets. This is Quality Level B (QL-B) information. If requested by the project owner, also survey and depict information about aerial utilities.
- Resolve differences between QL-B, QL-C, and QL-D information. This may involve additional surface geophysical searches and/or actual exposure of some subsurface utilities. This may require re-depicting utilities that have previously been depicted in order to present the more accurate information.
- Develop a conflict matrix showing all possible conflicts. This involves comparing depicted utilities information with proposed plans (highway, bridge, drainage, maintenance of traffic, and other). The resulting matrix contains columns to record the physical location of each conflict, the name of the utility involved, the nature of the conflict, and action needed. Upon analyzing the information recorded on the matrix, it will be obvious that some conflicts can be readily resolved, some conflicts are questionable and additional information is needed, and some conflicts cannot be resolved.

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- Convene and facilitate a meeting with utility companies to discuss potential conflicts and other aspects of the project. Discuss possible strategies to avoid conflicts and identify locations where additional three-dimensional information is needed.
- Expose selected subsurface utilities to obtain three-dimensional information. Use minimally intrusive excavation methods, such as vacuum excavation. Depict resulting information using computer-aided design and drafting or manual plotting methods onto plan sheets. This is Quality Level A (QL-A) information.
- Resolve differences between QL-A information and the previously obtained QL-B, QL-C, and QL-D information. Depict new and corrected information. Go back to the conflict matrix with the new QL-A information to determine the status of conflicts requiring additional information. Meet with utility companies to discuss these conflicts and possible strategies to avoid utility relocations.
- Deliver depicted information to the project owner. The basic deliverables for utility information are a CADD file, a GIS file, or a plan sheet that has utility information in plan view for Quality Levels A, B, C, and D and utility information in plan and profile view for Quality Level A.
- Work with the project owner's designers to be sure they understand the information provided and to suggest possible ways to avoid conflicts.
- Where conflicts cannot be avoided, and utilities will have to be relocated:
    - Determine prior rights.
    - Obtain relocation cost estimates and plans from utility companies.
    - Prepare utility relocation agreements.
    - Provide utility relocation design.
    - Acquire necessary right-of-way.
- Store pipe location and condition information in a database for asset management.
- Work with utility companies, one-call centers, and contractors during construction as needed.
- Continue to represent the project owner in all utility-related activities as the project progresses.

In regard to the above tasks, several important things need to be kept in mind:

- These tasks may be provided by the project owner but are more commonly performed by a SUE provider working closely with the project owner. They are most effectively utilized when coordinated by a capable utility coordinator employed by the provider. The utility coordinator is responsible for working with the owner and the affected utilities to determine the need for each task and to assure selected tasks are performed properly and expeditiously.
- These tasks may be used in a different order than that prescribed above (i.e., it may sometimes be more practical to perform (a) QL-C tasks before and/or in conjunction with QL-D tasks, and/or (b) QL-B tasks before and/or in conjunction with QL-C or QL-D tasks).
- Some of these tasks should be used on every project, but it may not be necessary to use all of them (e.g., QL-D and QL-C information may be all the information deemed necessary for projects under $400,000). If not willing to accept potential risks involved in using only QL-D and QL-C, project owners may opt to obtain additional information using QL-B and QL-A or other methods. Determinations may be made every step of the way until acceptable risk levels are achieved.

No matter how many tasks are employed or in what order they are applied, it is all the SUE process.

Alleged Violations of the Law

Project owners are required to submit a report of an alleged violation. Please review Section X for the specifics regarding reporting of alleged violations of Act 287 of 1974 as amended.

SECTION X - ENFORCEMENT AND REPORTING ALLEGED VIOLATIONS

The UULPL assigns enforcement authority to the Pennsylvania Public Utility Commission (PUC) and established a Damage Prevention Committee (DPC). The DPC has the authority to review reports of alleged violations, issue warning letters, issue informal determinations that impose administrative penalties, and require persons to attend a damage prevention educational program. Affected parties have various rights regarding informal determinations, including the right to be heard, and the right to appeal administrative penalties; however, most cases are likely to be resolved at this level.

The DPC appointed by the PUC, consists of members of various stakeholder groups, as well as the PUC, the Department of Transportation, and Pennsylvania One Call System, with the PUC representative serving as the chairman. (See Section 7.8 of the UULPL.)

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The PUC also has the right, in appropriate cases, to file criminal and civil complaints against violators. Such action is more likely to occur where there is death, personal injury, or significant property damage, or in the case of repeat offenders.

The PUC has established a full-time enforcement staff specifically for the UULPL. In addition, the PUC will issue regulations that describe how both enforcement and the DPC will operate, consistent with the UULPL. Initially, these will be temporary or interim regulations, but, eventually, they will become permanent regulations. The PUC has the power to amend the regulations, as well.

Alleged Violations

All Alleged Violation Reports are to be submitted via the POCS website under the Enforcement section.

Excavators, designers, project owners, and facility owners shall submit an alleged violation report to the commission through the One Call System for instances when a person by action or inaction fails to fulfill the obligation of the Act. The report of alleged violation shall be in a form and manner as required by the commission. **An Alleged Violation Report (AVR) is submitted from the POCS website under the Enforcement section.**

- **Facility Owner** - Submit a report of alleged violation not more than thirty business days after receipt of notice that the facility owner's lines have been damaged by excavation or demolition work or if the facility owner believes a violation of this act has been committed in association with excavation or demolition work. No report may be required where the cost to repair the damage to the facility owner's lines is less than two thousand five hundred dollars ($2,500), unless the same person damaged the facility owner's lines two or more times within a six-month period.
- **Designer -** Submit a report of alleged violation not more than thirty business days from the time the designer becomes aware that a violation of this act may have been committed in association with excavation or demolition work.

- **Excavator -** Submit a report of an alleged violation not more than ten business days after striking or damaging a facility owner's line during excavation or demolition or if the excavator believes a violation of this act has been committed in association with excavation or demolition work.

- **Project Owner** - Submit a report of alleged violation not more than ten business days after striking or damaging a facility owner's line during excavation or demolition work activities, after a project owner's contracted excavator strikes or damages a facility owner's line during excavation or demolition activities or if the project owner believes a violation of this act has been committed in association with excavation or demolition.

When notified of an alleged violation, the stakeholder should fully investigate circumstances involved with the alleged violation.

Designate <u>one</u> person from your organization as a "contact person" to administer these alleged violation reports.

Pennsylvania One Call System is not responsible for the issuance of citations or enforcement under this statute.

Alternate Dispute Resolution

Pennsylvania One Call System has the authority under the statute to create and administer a voluntary payment dispute resolution process for all parties involved with the statute. This process may not be used to settle or resolve alleged violations of the law.

SECTION XI - TAMPERING WITH MARKS

Under the law owners of underground facilities such as pipe lines, electric, communication and other types of lines are required to place physical marks on the surface of the ground within 18" of the actual underground position of the lines, identifying the size, type and number of lines when an excavator makes a request to locate through Pennsylvania One Call System, Inc. These marks help the excavator determine, *in advance of excavation,* where the safety (tolerance) zone of the buried lines is so the excavator can use prudent techniques to safely excavate without causing damage to the underground facility within the tolerance zone. This process greatly reduces the chance that an existing line will be damaged during excavation activities.

It is important that these marks remain visible and unaltered until all excavation in the area is completed. Accurate marks for underground lines result in safer excavations with fewer damaged lines. Removing, moving or otherwise tampering with marks for underground facilities increases the chance of damage to the line. This can result in injury and even death to those in the immediate vicinity. It also can cause interruption of service to you and your neighbors and may result in costly repairs that could increase your monthly utility bills.

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Marks that have been removed, moved or otherwise tampered with are ***never*** accurate and could prove to be deadly! The color, style, method and location of marks communicate critical information to the excavator. If you witness or otherwise have reason to believe that someone has tampered with underground utility marks, please immediately notify the excavation company and Pennsylvania One Call System, Inc. POCS may be contacted by dialing 8-1-1 or 1-800-242-1776.

Tampering with underground facility marks, even if those marks are placed on private property, violates Section (10) of PA Act 287, as amended.

Accurate marks result in safer excavations for everyone!

SECTION XII - WEBSITE TOOLS

POCS provides a variety of online tools to stakeholders: Excavators, Designers, Facility owners (members), and homeowners. All are available at www.paonecall.org to authenticated users.

A user account is needed to gain access to any and all of POCS's online tools. To create a user account, navigate to www.paonecall.org and select "Create Account" in the black bar at the top of the homepage. The following information, at a minimum, is needed to create a user account: First and Last Name; Company; Email address; Street Address; City, State, Postal Code; Desired user name and Password. Other information (such as title, company name, telephone number) is helpful to POCS but not required to create an account. When the form is completed, click the <save> button at the bottom of the form. The website will validate the information provided and create an account.

To gain access to online tools, navigate to www.paonecall.org and select "Sign In" from the black bar at the top of the homepage. Then choose "Request Applications" from the "Applications" menu selection in the red bar near the top of the screen. Then check the applications you wish to gain access to and click the <Request> button at the bottom.

The request will be pending until a Member Services Representative reviews the request and grants access. Not all applications are available to all users – for example, the "Member Database Verification" application is only available to users who work at a member company and are responsible for maintaining their information on file with PA One Call. When access is granted, the user is notified via email or a telephone call.

What online applications are available to authenticated users?

Coordinate PA (CPA). This web service application developed to support Public Works (governmental) and Utility advance planning to aid in design and project planning collaboration and cooperation.

POCS maps are used to display participating project scopes and phases to make it easy for contributors to identify collaborative project opportunities far enough in advance to recognize cost savings and minimize disruption to the public through sharing and coordination of their effort.

CPA integrates with POCS's Web Ticket Entry process to create Design and Excavation notifications from the project coordination tool to increase project safety and reduce project costs as required by Pennsylvania's Underground Utility Line Protection Law.

Pennsylvania coordinating committees meet to share their projects and project plans in an effort to find overlap in construction work. A list of coordinating communities is available in the Resource Center of the POCS website.

CPA also facilitates the exchange of electronic design files between a facility owner and a designer for design tickets. Instead of sending paper copies of design files to facility owners that request them, the designer can upload an electronic file for the facility owner to view, determine their involvement, and upload pdfs of existing facilities which then appear as layers within the application so the designer can view them to plan their work.

Facility Owner Billing. This application for underground facility members to view and pay PA One Call invoices electronically.

Member Database Verification. This application facilitates online verification without the need for a paper form. POCS verifies facility owner information on file every year. The member is asked to verify all information on file, including business address, contact information, municipalities where the member owns or operates underground facilities, and maps of their notification area(s).

Member Mapping. This application is a geospatial mapping tool used by facility owners to describe notification areas within the

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municipalities where the member owns or operates underground lines. The member draws points, lines or polygons on a map to indicate where they want to be notified of excavation activities. POCS accepts shapefiles. These notification areas are compared to the proposed excavation area on a ticket. No overlap between the proposed excavation area and the member notification area indicates that excavation will not occur near the member's underground facilities, and ticket receipt to the member is suppressed.

Online Ticket Management. This application facilitates viewing the ticket database for facility owners, excavators, and designers. The facility owner can query the database for their tickets within a specified date range and filter on a variety of ticket attributes such as CDC, ticket action type, ticket county or ticket municipality, and response status. The excavator or designer can query the database for their tickets within a specified date range and filter on a variety of ticket attributes such as ticket action type, ticket county or ticket municipality, and facility owner responses and notes. A map is provided to both Facility Owners and Excavators to utilize a spatial search of the tickets received or placed, respectively. The center point of the notification area is represented by a blue or red dot. The red dots indicates the emergency tickets.

Web Single Address. This application is for Professional Excavators and Property Owners to submit an individual or "residential" address to request an underground facility line location prior to digging.

Web Ticket Entry. This application is an online or mobile application for excavators to enter design, construction or emergency location requests without contacting POCS by telephone.

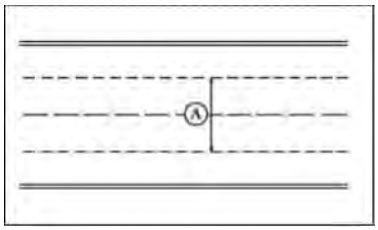
Web Ticket Response. This application is an online or mobile application that records ticket responses from facility owners. The facility owner logs in to the system and can view a color coded list of tickets, including tickets that need a <CLEAR> or <MARKED> response. . Notes are accepted, saved for viewing with each response in our online applications, and shared with the excavator.

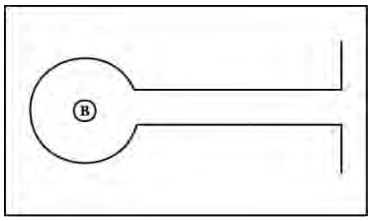
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Terminology often used when creating a notification

A. **Center Lane(s) –** In a four-lane street, the two lanes at the center of the pavement.

B. Cul-de-sac – A local street open at one end with a special provision for turning around.



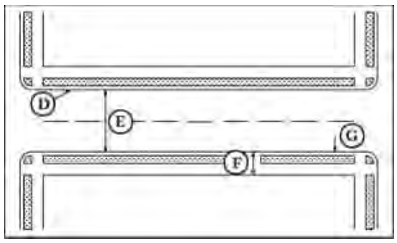


C. **Culvert** (not pictured) – Any pipe or structure under a roadway or driveway to facilitate drainage of surface water.

D. **Curb Lane(s) –** Traffic or parking lane immediately adjacent to the curb.

E. **Curb to Curb –** The paved area of a road right of way between the two curb lines.

F. **Curb to Property Line –** The area between the curb and the front property line.



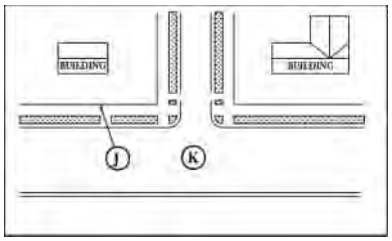
G. **Curb Line –** The point where the curb meets the edge of the street pavement.

H. **Easement** (not pictured) – A right to use or control the property of another for designated purposes.

I. **Frontage Road** (access road - not pictured) – A local street or road auxiliary to and located on the side of an arterial highway for service to abutting property and adjacent areas and for control access.

J. **Front Lot Line –** (Same as street right of way line) the property line adjacent to the street right of way.

K. **Intersection –** The general area where two or more highways join or cross, within which are included the roadway and roadside facilities for traffic movements in that area.



L. **Interchange** (not pictured) – A system of inter-connecting roadways in conjunction with one or more grade separations providing for the movement of traffic between two or more roadways on different levels.

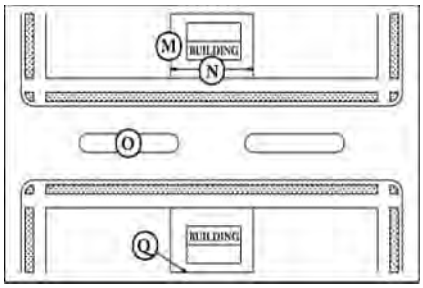
M. **Lot Line –** A line marking the legal limits of an individual's property.

N. **Lot Line to Lot Line –** The area between the two side lot lines on private property and the entire road right of way (See R.)

O. **Median –** The portion of a divided highway separating the traveled ways for traffic in opposite directions.

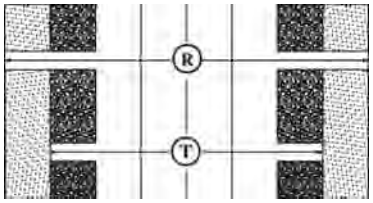
P. **Property Line –** See Lot Line (M).

Q. **Rear Lot Line(s) –** Property lot line at the rear of the lot (area opposite street that connects the two side lot lines).



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R. **Right of Way** – Dedicated street areas bounded by two generally parallel lines called right-of-way lines. Another name for these lines is front property lines.

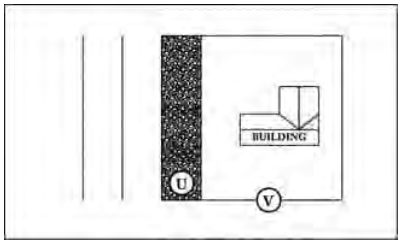


S. **Road** (not pictured) – Highway in rural area.

T. **Roadway –** The portion of a highway, including shoulders, for vehicular use.

U. **Shoulder –** The edge of a road (generally gravel) between normal traffic lanes and grass areas. The term normally used in areas where there is no curb.

V. **Side Lot Line(s) –** The two property lines, which normally extend away from the street right-of-way.



W. **Street** (not pictured) – Highway in an urban area.

X. **Tolerance Zone** (not pictured) – The horizontal space within eighteen inches of the outside wall or edge of a line or facility.

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The KARL System
(Kathy Automated Response to Location requests)

Overview

Pennsylvania One Call System, Inc. (POCS) has created a voice relay and response solution that automates the call out process to facility owner members requesting supplemental voice relay of information on emergency notifications; allows facility owner members to respond to all notifications; faxes or emails excavators/designers with the collected responses; and allows excavators/designers to retrieve information about their responses.

When an excavator/designer calls into the system a customer service representative (CSR) will enter the ticket information into the POCS computer system as a Locate request (WLR). Excavators and designers who have registered with POCS may also create their own WLRs utilizing Web Ticket Entry. Each WLR is assigned a unique serial number. Based on information within the ticket the computer system assigns a message type and determines if voice notification has been requested by a facility owner member. This information is passed to the KARL System.

KARL determines the priority of the voice message and queues a voice call out request for each pertinent facility owner. When a facility owner answers a voice call out KARL speaks the WLR information. Upon completion of the callout, KARL records the outcall status as successful or failed.

Anytime during voice relay of an emergency, KARL will accept responses to the spoken WLR information. When a facility owner responds, KARL will record their response in the database. On all other WLR's, KARL will accept responses through telephone input, data transfer, or web ticket response.

On the response due date, KARL will fax or email the results to the excavator/designer who initiated the WLR, to inform them of the status. If a response is not received for a facility owner by the response due date, KARL will send a "No response" indication for that facility owner. At any time, the excavator/designer may call into KARL to inquire the current status of the WLR.

KARL RESPONSE CODES BY NUMBER		
001	CLEAR. NO FACILITIES OR FACILITIES NOT INVOLVED BASED ON TICKET INFORMATION.	FINAL
002	CONFLICT. LINES NEARBY. DIRECT CONTACT TO FOLLOW BY FACILITY OWNER.	INTERIM
003	FIELD MARKED.	FINAL
004	INSUFFICIENT INFORMATION. DO NOT DIG.	INTERIM
005	NOT MARKED DUE TO NO ACCESS.	INTERIM
006	SCHEDULED DATE & TIME LINES WILL BE MARKED BY: <Facility Owner enters date and time>	INTERIM
007	VOICE MESSAGE (temporary communication valid for 30 days)	INTERIM
082	DESIGN CONFLICT. PLEASE EMAIL OR SEND PLANS TO: <system completes Facility Owner name & address from file>	INTERIM
083	ENGINEERING COMPLETED. A PDF FILE OR MARKED UP PLANS WERE SENT TO THE REQUESTOR.	FINAL
090	WILL ATTEND MEETING.	INTERIM
091	CLEAR. WILL NOT ATTEND MEETING.	FINAL
092	REQUESTS MEETING. DIRECT CONTACT TO FOLLOW BY FACILITY OWNER.	INTERIM
095	DID NOT ATTEND MEETING. DIRECT CONTACT TO FOLLOW BY FACILITY OWNER.	INTERIM
096	AGREES NO MEETING REQUIRED.	INTERIM
099	ATTENDED MEETING. REACHED AGREEMENT.	FINAL
999	DID NOT RESPOND THROUGH PA ONE CALL.	VIOLATION

With the exception of 007 and 999, each response code has a "note" section, which Facility Owners may use to relay additional information to the excavator, designer, or homeowner.

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KARL Responses - Uses and Constraints

NOTE: INTERIM responses require an update to a valid FINAL response.

001 CLEAR. NO FACILITIES OR FACILITIES NOT INVOLVED BASED ON TICKET INFORMATION.

- Facility Owner has no underground lines at the site as described in the Locate request.
- This is considered a final response under the law.

002 CONFLICT. LINES NEARBY. DIRECT CONTACT TO FOLLOW BY FACILITY OWNER.

- Facility Owner may have underground lines at the site and will contact excavator directly at the contact information provided on the Locate request.
- This is considered an interim response under the law and should be updated with a Clear (001) or Field Marked (003) response after contact is established with the excavator.

003 FIELD MARKED.

- A locator was dispatched and physically marked lines at the work site.
- This is considered a final response under the law.

004 INSUFFICIENT INFORMATION. DO NOT DIG.

- Facility Owner cannot make a determination of their involvement based on the information provided by the excavator on the Locate request.
- The facility owner should attempt to contact the excavator to obtain additional information, or instruct the excavator to call in a new Locate request.
- This is considered an interim response under the law and should be updated with a Clear (001) or Field Marked (003) response after contact is established with the excavator.

005 NOT MARKED DUE TO NO ACCESS.

- Facility Owner has a conflict but could not mark their lines at the site because the locator could not gain access to the location caused by things such as a bad dog, locked gate or other security measures.
- The facility owners should attempt to contact the excavator to arrange for access.
- This is considered an interim response under the law and should be updated with a Clear (001) or Field Marked (003) response after contact is established with the excavator.

006 SCHEDULED A DATE AND TIME LINES WILL BE MARKED BY: <Facility Owner enters date and time>

- Facility Owner will mark the lines at the site by the mutually agreed upon date and time.
- This is considered an interim response under the law and should be updated with a Field Marked (003) response once marking is complete.

007 VOICE MESSAGE (TEMPORARY)

- Facility Owner recorded a message to convey information to the excavator that is different from the standard KARL responses. It is important to note that this is a temporary message that is only saved for 30 days and is not considered a final response under the law.
- This is considered an interim response under the law and should be updated with a Clear (001) or Field Marked (003) response once contact is established with the excavator.

082 DESIGN CONFLICT. SEND PLANS TO: <system completes Facility Owner name & address from file>

- Facility Owner has lines at the site and the design drawings should be sent to them for markup.
- This is considered an interim response under the law and should be updated with an Engineering Completed (083) response once plans are marked up and returned to the designer, or updated with a Clear (001) response if after review of the plans, the Facility Owner determines no conflict exists.

083 ENGINEERING COMPLETED. A PDF FILE OR MARKED UP PLANS WERE SENT TO THE REQUESTOR.

- The Facility Owner has answered the designer's request for plans by uploading a PDF of their lines, or marked up the PDF provided by the designer. Alternately, the Facility Owner may email or mail hard-copy, marked up drawings to the requestor.
- This is a final response under the law.

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090 WILL ATTEND MEETING.

- Facility Owner may have underground lines in the area of the complex project and will attend the meeting.
- The law requires Facility Owners to attend complex project meetings when requested by the excavator.
- This is considered an interim response under the law and should be updated with a Clear (001), Field Marked (003), or Attended Meeting-Reached Agreement (099) response.

091 CLEAR. WILL NOT ATTEND MEETING.

- Facility Owner has no underground lines in the area of the complex project and will not attend the meeting.
- This is a final response under the law.

092 REQUESTS MEETING. DIRECT CONTACT TO FOLLOW BY FACILITY OWNER

- The Facility Owner is designating the work as complex for their company. The Facility Owner will contact the excavator. DO NOT DIG until the facility owner and excavator agree on a mark out schedule.
- Excavators are required by law to conduct a meeting with any Facility Owner that requests it.
- This is considered an interim response under the law and should be updated with a Clear (001) or Field Marked (003) response.

095 DID NOT ATTEND MEETING. DIRECT CONTACT TO FOLLOW BY FACILITY OWNER.

- Facility Owner may have a conflict at the site, but was unable to attend the preconstruction meeting.
- The Facility Owner should attempt to contact the excavator to set a one-on-one meeting.
- This is considered an interim response under the law and should be updated with a Clear (001), Field Marked (003), or Attended Meeting-Reached Agreement (099) response.

096 AGREES NO MEETING REQUIRED.

- Facility Owner agrees that a meeting is not required for this complex project.
- This is an interim response under the law and should be updated with a Clear (001) or Field Marked (003) response.

099 ATTENDED MEETING. REACHED AGREEMENT.

- The Facility Owner attended the meeting, has determined there is a conflict, and reached an agreement on a locate schedule.
- This is considered a final response under the law.

999 DID NOT RESPOND THROUGH PA ONE CALL.

- System generated response when no response is received from Facility Owner prior to the response due date.
- This is a violation of the law.

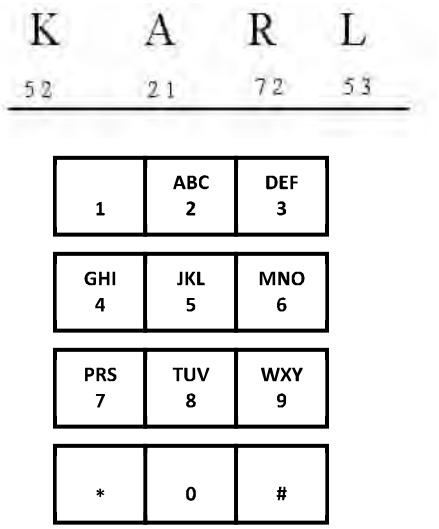
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USING THE INTERACTIVE VOICE RESPONSE SYSTEM (KARL):

Users of the KARL response system will be required to enter numeric and alphabetic answers to interact with the voice response unit. These responses may be entered verbally or by using the telephone keypad. At different times in the script, KARL may ask facility owners for the member call directing code (CDC), for the initials of the person entering responses or accepting supplemental voice out-dials, and to confirm the company telephone numbers. KARL will ask excavators and designers for their company telephone number, for serial numbers, and the initials of the person performing the inquiry. It is best to speak the answers.

If you choose to enter your alphabetic response by using the telephone keypad you must translate the letters into numbers. To translate letters into numbers for entry into KARL, look at the letter on the telephone keypad and the letter's position on the key. For the letter Q enter 11 and for the letter Z enter 12.

For example, if your initials are SAM, you would enter the number 7 matching the key where the S is found, followed by the position of the letter S which is 3. The numeric representation for the letter S would be 73. The A would be 21 and the M would be 61.



Facility Owner Response and Excavator/Designer Inquiry

Responses are initiated by facility owners after they have researched the serial number information delivered to them during the notification phase. Facility owners are required to respond to design stage serial numbers within ten business days of the creation date of the serial number, and by the response due date on construction serial numbers. Responses will be accepted from the facility owner after entering the member CDC and the initials of the person initiating the response. Serial number responses may be updated by a facility owner multiple times. The last response made will be included on the Response to Caller email/fax transmission. Inquiries can be initiated by excavators and designers, who can listen to the current status of the serial number they entered. The date/time of the inquiry will be recorded in the database.

Facility Owner Response

Action required:	Call KARL at 1-800-222-6470
KARL will say:	*"Thank you for calling the Pennsylvania One Call serial number response system. " Please indicate the type of caller you are. Press or say 1 for excavator, press or say 2 for facility owner, press or say 3 for homeowner. To speak with a customer service representative, press or say 0."*
Action required:	PRESS or SAY 2
KARL will say:	*"Please enter your CDC code. Press or say 7 for help on how to enter your cdc code numerically."*
Action required:	Enter your two or three digit cdc.
KARL will say:	*"CDC* <cdc> *is for* <facility owner name>. *If this is correct, press or say 1. If this is not correct, press or say 2. To speak with a customer service representative, press or say 0."*
Action required:	PRESS or SAY 1
KARL will say:	*"Please enter or say your initials. Press or say 7 for help on how to enter your initials numerically."*
Action required:	Enter or say at least two initials (4 numbers). KARL will accept three initials (6 numbers).
KARL will say:	*"The initials you have entered are* <initials>. *If this is correct, press or say 1. If this is not correct, press or say 2. To speak to a customer service representative press or say 0".*
Action required:	PRESS or SAY 1

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KARL will say: *"Please enter or say the one call serial number."*

Action required: Enter your 11 digit serial number.

KARL will say: *"The work location for ########### is for* <work site address>. *If this is correct, press or say 1. If this is not correct, press or say 2. To speak with a customer service representative, press or say 0."*

Action required: PRESS or SAY 1.

KARL will say: *"What is the status of this ticket?"*

"If this location is clear, no facilities or facilities not involved press or say 1.
If this location has Conflict, lines nearby direct contact to follow by facility owner, press or say 2.
If this location is field marked, press or say 3.
If this location has insufficient information, do not dig, press or say 4.
If this location is not marked due to no access, press or say 5.
If you will schedule a date and time for the mark, press or say 6.
If you would like to leave a voice message, press or say 7.
If there is a design conflict, press or say 82.
If a PDF file is marked up plans were sent to the requestor, press or say 83.
If you will attend the meeting, press or say 90.
If you are clear and will not attend the meeting, press or say 91.
If you have a possible conflict, require a meeting, and will make direct contact with the excavator, press or say 92.
If you did not attend the meeting due to an unforeseen circumstance, and will make direct contact with the excavator, press or say 95.
If you agree that no meeting is required, press or say 96.
If you attended the meeting, reached agreement, and plan to follow the locate schedule, press or say 99."

Action required: PRESS or SAY 1, 2, 3, 4, 5, 6, 7, 82, 83, 90, 91, 92, 95, 96, or 99.

KARL will say:

If 1: *"You selected, clear, no facilities or facilities not involved."*

If 2: *"You selected, conflict, lines nearby direct contact to follow by facility owner."*

If 3: *"You selected, field marked."*

If 4: *"You selected, insufficient information, do not dig."*

If 5: *"You selected, not marked due to no access."*

If 6: *"You selected, to mark by* <date> 2359*."*

If 7: *"You will now be given the opportunity to record a message to be left with this serial number, to continue press or say 1, to return to the previous menu, press or say 2."*

If 82: *"You selected, design conflict."*

If 83: *"You selected, a PDF file or marked up plans were sent to the requestor."*

If 90: *"You selected, will attend meeting."*

If 91: *"You selected, clear - will not attend meeting."*

If 92: *"You selected, requests meeting, direct contact to follow by facility owner."*

If 95: *"You selected, did not attend meeting, direct contact to follow by facility owner."*

If 96: *"You selected, agrees no meeting required."*

If 99: *"You selected, attended meeting, reached agreement."*

KARL will say: *"Your response to serial number ########### has been accepted. If you would like to enter a response for another ticket, press or say 1. If you would like to enter ticket response for a different CDC press or say 2. If you have no more ticket responses, please hang up."*

Excavator/Designer Inquiry

Action required: Call KARL at 1-800-222-6470

KARL will say: *"Thank you for calling the Pennsylvania One Call serial number response system." Please indicate the type of caller you are. Press or say 1 for excavator, press or say 2 for facility owner, press or say 3 for homeowner. To speak with a customer service representative, press or say 0."*

Action required: PRESS or SAY 1.

KARL will say: *"Please enter or say the One Call serial number."*

Action required: Enter or say your 11 digit serial number.

KARL will say: *"Please enter or say your company's 10-digit phone number."*

Action required: Enter or say the phone number used when the dig notice was created.

KARL will compare the phone number entered against the phone number associated with the serial number. If they match, KARL will speak the phone number and company name.

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KARL will say:	*"If this is correct, press or say 1, If this is not correct, press or say 2. To speak to a customer service representative press or say 0."*
Action required:	PRESS or SAY 1.
KARL will say:	*Please enter or say your initials. Press or say 7 for help on how to enter your initials numerically.*
Action required:	Enter or say at least two initials (4 numbers). KARL will accept three initials (6 numbers).
KARL will say:	*"The initials you have entered are <initials>. If this is correct, press 1. If this is not correct, press or say 2. To speak to a customer service representative press or say 0."*
Action required:	PRESS or say 1
KARL will say:	*"The work location for serial number ########### is for < work site address>. If this is correct, press or say 1. If this is not correct, press or say 2. To speak to a customer service representative press or say 0."*
Action required:	PRESS or say 1.

KARL will retrieve the status of each utility that has responded to the current ticket and speak the response to the excavator/designer. If an excavator/designer presses 2, they will be given another opportunity to enter a different serial number.

KARL will say:	*"To hear this serial number's information again, press or say 1. To enter a new One Call serial number, press 2. To speak with a customer service representative, press 0. To end this call, please hang up."*
Action Required:	Hang Up.

Facility Owner Notification

As directed by the facility owner, on serial numbers requiring supplemental outcall notification, such as emergency notifications out of normal business hours, KARL will attempt to deliver information for all serial numbers that apply to the contacted facility owner within the same call. The outcall will be considered a success and removed from the outcall queue after the field "location information" has been spoken to the facility owner member. Outcalls will be limited to one attempt per member CDC. After each outcall attempt the resulting successful or failed status of the outcall will be entered into the database.

To ensure successful facility owner out-dials please follow these instructions when KARL calls you:

Action required:	Answer the telephone
KARL will say:	*"Hello, this is the Pennsylvania One Call. We have an emergency location request for you. Press or say one to continue."*
Action required:	PRESS or say 1
KARL will say:	*"Please enter or say your company's ten-digit phone number."*
Action required:	Enter the telephone number designated for emergency notifications, which is the telephone number KARL dialed.
KARL will say:	*"Please enter or say your initials. Press or say 7 for help on how to enter your initials numerically.*
Action required:	Enter or say at least two initials (4 numbers). KARL will accept three initials (6 numbers).
KARL will say:	*"The initials you have entered are <initials>. If this is correct, press or say 1. Press or say 7 for help on how to enter your initials numerically."*
Action required:	PRESS or SAY 1.

KARL will speak the serial number, the proposed dig date and time; the work-site county, municipality, address, nearest intersection and location information of the WLR.

KARL will say:	*"To repeat this information, press or say 1. To respond to this serial number now, press or say 2. To continue, press or say 3. To speak with a service representative, press or say 0. To end this call, please hang up."*

Action required:	PRESS or SAY 1, 2, or 3.
If 1:	KARL will repeat the information.
If 2:	KARL will accept your response to the serial number (see Response Section).
If 3:	KARL will continue and speak the excavator name.
KARL will say:	*"The excavator is* <excavator name>. *For detailed information on this excavator, press or say 1. To continue, press or say 2."*
Action required:	PRESS or SAY 1 or 2.
If 1:	KARL will speak the excavator address, caller name, caller phone number, person to contact and contact phone number.
If 2:	KARL will speak the type of work, the extent of excavation, if the excavation is on the street, sidewalk, public property, private property, who the work is being done for, and remarks.

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Underground Utility Line Protection Law
AKA PA One Call Law

SB242	**ACT 50**	**Signed: 10/30/2017**
PN1227	**2017**	**Effective: 4/28/2018**

73 P. S. § 176 et. seq.

Reprinted by Pennsylvania One Call System, Inc. The purpose of this reprinting is to provide those affected with a complete copy of the ACT.

www.pa1call.org/usersguide
http://commongroundalliance.com/programs/best-practices

Note: Changes are shown in bold italics.
Notes in red are POCS clarifications.

AN ACT

Amending the act of December 10, 1974 (P.L.852, No.287), entitled, "An act to protect the public health and safety by preventing excavation or demolition work from damaging underground lines used in providing electricity, communication, gas, propane, oil delivery, oil product delivery, sewage, water or other service; imposing duties upon the providers of such service, recorders of deeds, and persons and other entities preparing drawings or performing excavation or demolition work; and prescribing penalties," further providing for title and for definitions; providing for lawful start date; further providing for duties of facility owners, for duties of the One Call System, for duties of other parties, for duties of excavators, for duties of designers, for duties of project owners, for audits and for penalties; providing for enforcement, for damage prevention committee and for compliance; and further providing for One Call System authority and for expiration.

The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

SECTION 1. The title and section 1 of the act of December 10, 1974 (P.L.852, No.287), referred to as the Underground Utility Line Protection Law, are amended to read:

AN ACT

To protect the public health and safety by preventing excavation or demolition work from damaging underground lines used in providing electricity, communication, gas, propane, oil delivery, oil product delivery, sewage, water or other service; imposing duties upon the providers of such service and persons and other entities preparing drawings or performing excavation or demolition work; and prescribing penalties.

TERMS TO BE USED IN THIS ACT - DEFINITIONS

Section 1. The following words and phrases when used in this act shall have the meanings given to them in this section unless the context clearly indicates otherwise:

"Abandoned" means no longer in service and physically disconnected from a line.

"Alleged violation" means an instance when a person by action or inaction fails to fulfill the obligations of this act.

"Business day" means any day except a Saturday, Sunday or legal holiday prescribed by statute. A business day begins at 12:00:00 a.m. and ends at 11:59:59 p.m.

"Chairman" means the Chairman of the Pennsylvania Public Utility Commission.

"Commission" means the Pennsylvania Public Utility Commission.

"Committee" means the damage prevention committee established under section 7.8.

"Common Ground Alliance best practices" means the damage prevention industry recommended standards issued by the Common Ground Alliance, a not-for-profit corporation created pursuant to the issuance of the United States Department of Transportation's Common Ground Task Force report in 1999.

"Complex project" means an excavation that involves more work than properly can be described in a single locate request or any project designated as such by the excavator ***or facility owner*** as a consequence of its complexity or its potential to cause significant disruption to lines or facilities and the public, including excavations that require scheduling locates over an extended time frame.

"Consumer Price Index" means the index of consumer prices developed and updated by the Bureau of Labor Statistics of the United States Department of Labor.

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"Conventional oil and gas well" means a conventional oil and gas well as defined in section 2 of the act of June 23, 2016 (P.L.375, No.52), known as the Pennsylvania Grade Crude Development Act.

"Demolition work" means the partial or complete destruction of a structure, by any means, served by or adjacent to a line or lines.

"Designer" means any architect, engineer or other person who or which prepares a drawing for a construction or other project which requires excavation or demolition work as herein defined.

"Emergency" means a sudden or unforeseen occurrence involving a clear and immediate danger to life, property and the environment, including, but not limited to, serious breaks or defects in a facility owner's lines.

"Excavation work" means the use of powered equipment or explosives in the movement of earth, rock or other material, and includes, but is not limited to, anchoring, augering, backfilling, blasting, boring, digging, ditching, drilling, driving-in, grading, plowing-in, pulling-in, ripping, scraping, trenching and tunneling. The term does not include soft excavation technology such as vacuum, high pressure air or water, tilling of soil for agricultural purposes to a depth of less than eighteen inches, performing minor routine maintenance up to a depth of less than eighteen inches measured from the top of the edge of the cartway or the top of the outer edge of an improved shoulder, in addition to the performance of incidental de minimis excavation associated with the routine maintenance and the removal of sediment buildup, within the right-of-way of public roads or work up to a depth of twenty-four inches beneath the existing surface within the right-of-way of a State highway, ***work performed by persons whose activities must comply with the requirements of and regulations promulgated under the act of May 31, 1945 (P.L.1198, No.418), known as the Surface Mining Conservation and Reclamation Act, the act of April 27, 1966 (1st Sp.Sess., P.L.31, No.1), known as The Bituminous Mine Subsidence and Land Conservation Act, or the act of September 24, 1968 (P.L.1040, No.318), known as the Coal Refuse Disposal Control Act, that relate to the protection of utility facilities or the direct operations on a well pad following construction of the well pad and that are necessary or operations incidental to the extraction of oil or natural gas.***

"Excavator" means any person who or which performs excavation or demolition work for himself or for another person.

"Facility owner" means the public utility or agency, political subdivision, municipality, authority, rural electric cooperative or other person or entity who or which owns or operates a line. The term does not include the Department of Transportation within a State highway right-of-way. The term does not include any of the following:

(1).A person serving the person's own property through the person's own line, if the person does not provide service to any other customer.

(2) A person using a line which the person does not own or operate, if the use of the line does not serve more than a single property.

"Federal pipeline safety laws" means the provisions of 49 U.S.C. Ch. 601 (relating to safety), including the regulations promulgated under 49 U.S.C. Ch. 601.

"Final design" means the engineering and construction drawings that are provided to a bidder or other person who is asked to initiate construction on the bid date or the date the project is set for construction in the absence of a bid.

"Fiscal year" means the fiscal year utilized by the commission.

"Horizontal directional drilling" means the use of horizontal boring devices that can be guided between a launch point and a reception point beneath the earth's surface.

"Injury" means a bodily harm to a person, who, as a result of the bodily harm, immediately receives medical attention away from the scene of the incident.

"Lawful start date" means the scheduled start date as provided under section 1.1.

"Line" or "facility" means an underground conductor or underground pipe or structure used in providing electric or communication service, or an underground pipe used in carrying, gathering, transporting or providing natural or artificial gas, petroleum, propane, oil or petroleum and production product, sewage, water or other service to one or more transportation carriers, consumers or customers of such service and the appurtenances thereto, regardless of whether such line or structure is located on land owned by a person or public agency or whether it is located within an easement or right-of-way. The term shall include unexposed storm drainage and traffic loops that are not clearly visible. The term ***shall include unconventional oil and gas well production and gathering lines or facilities. The term*** shall not include ***stripper well lines*** unless the line or facility is a regulated onshore gathering line as defined in regulations promulgated after January 1, 2006, by the United States Department of Transportation pursuant to the Pipeline Safety Act of 1992 (Public Law 102-508, 49 U.S.C. § 60101 et seq.), if the regulated gathering line is subject to the damage prevention program requirements of 49 CFR § 192.614.

"Locate request" means a communication between an excavator or designer and the One Call System in which a request for locating facilities is processed. Locate requests submitted by an excavator performing work within the right-of-way of any State highway, either under contract to the Department of Transportation or under authority of a permit issued by the Department of Transportation, shall include the number of the Department of Transportation contract or permit.

"Minor routine maintenance" means shaping of or adding dust palliative to unpaved roads, removal and application of patches to the surface or base of flexible base, rigid base or rigid surface roads by either manual or mechanized method to the extent of the existing exposed base material, crack and joint sealing, adding dust palliative to road shoulders, patching and cutting of shoulders and shoulder bases by either manual or mechanized methods to the extent of the existing exposed base, and cleaning of inlets and drainage pipes and ditches.

"One Call System" means the communication system established within this Commonwealth to provide a single nationwide toll-free telephone number or 811 number for excavators or designers or any other person covered by this act to call facility owners and notify them of their intent to perform excavation, demolition or similar work as defined by this act. The One Call System shall be incorporated and operated as a nonprofit

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corporation pursuant to 15 Pa.C.S. Pt. II Subpt. C (relating to nonprofit corporations).

"Operator" means any individual in physical control of powered equipment or explosives when being used to perform excavation or demolition work.

"Person" means an individual, partnership, corporation, political subdivision, a municipal authority, the Commonwealth and its agencies and instrumentalities, or any other entity.

"Powered equipment" means any equipment energized by an engine or motor and used in excavation or demolition work.

"Preconstruction meeting" means a scheduled event held by the excavator, designer, project owner and facility owner, or an agent of the excavator, designer, project owner and facility owner, prior to the commencement of excavation or demolition work in a complex project.

"Project owner" means any person who or which engages an excavator for construction or any other project which requires excavation or demolition work.

"Report of alleged violation" means a recorded account of an alleged violation.

"Stripper well" means a conventional oil and gas well with a maximum daily average production which does not exceed fifteen barrels of oil and ninety thousand cubic feet of natural gas during any twelve-month consecutive time period.

"Stripper well lines" means a production or gathering line or facility that has a nominal inside diameter of eight inches or less, only carries oil or natural gas produced exclusively from one or more stripper wells and is not regulated under the Federal pipeline safety laws and subject to the pipeline damage prevention requirements in 49 C.F.R. § 192.614 (relating to damage prevention program) or 49 C.F.R. § 195.442 (relating to damage prevention program).

"Subsurface utility engineering" or "SUE" means those techniques set forth in the American Society of Civil Engineers (ASCE) most recently published standard CI/ASCE 38-02, or its successor document as determined by the One Call System.

"Tolerance zone" means the horizontal space within eighteen inches of the outside wall or edge of a line or facility.

"Traffic loop" means a device that detects metal objects such as cars and bicycles based on the change in inductance that they induce in the device.

"Unconventional formation" means a geological shale formation existing below the base of the Elk Sandstone or its geologic equivalent stratigraphic interval where oil or natural gas generally cannot be produced at economic flow rates or in economic volumes except by vertical or horizontal well bores stimulated by hydraulic fracture treatments or by using multilateral well bores or other techniques to expose more of the formation to the well bore.

"Unconventional oil and gas well" means a bore hole drilled or being drilled for the purpose of or to be used for the production of oil or natural gas from an unconventional formation.

"Well pad" means area, under the control of an oil or natural gas company, occupied by equipment or facilities necessary or required for the drilling, production or plugging of an oil or natural gas well.

"Work site" means the specific place denoted on the locate request where excavation or demolition work is being or is planned to be performed. A work site should be denoted as a clearly defined, bounded area, including relevant identifiable points of reference such as the specific address with a specific description as to the portion of the property, including descriptions such as front, back, left side, right side and direction such as N, S, E, W or variants. Where possible, the points should also reference, without limitation, the size and radius or circumference of the excavation, utility pad or pedestal numbers, utility pole numbers, landmarks, including trees, fountains, fences, railroads, highway and pipeline markers, and latitude and longitude.

SECTION 2. The act is amended by adding a section to read:

SECTION 1.1. The lawful start date shall be three business days through ten business days following notification to the One Call System.

SECTION 3. Sections 2, 3, 3.1, 4, 5, 6.1 and 7 of the act are amended to read:

RESPONSIBILITIES OF THE FACILITY OWNER

Caution Some "Class 1" (RURAL) Stripper Well Gas & Oil Lines 8" or less are still exempt from Mandatory Participation along with PENNDOT in their Right of Way.

SECTION 2. It shall be the duty of each facility owner:

(1) To be a member of and give written notice to the One Call System. Such notice shall be in a form acceptable to the One Call System and include:

(i) the legal name of the facility owner and their official mailing address;

(ii) as follows:

(A) The names of the counties and municipalities, down to and including wards in Philadelphia, Pittsburgh, Allentown and Erie, in which its

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lines are located and other related information as may be required by the One Call System regarding the location of a member's facilities.

(B) The One Call System may not require its members to locate lines or facilities installed before the effective date of this clause unless the member has existing maps of the lines or facilities and the member's existing maps meet the specifications of the One Call System's Member Mapping Solutions. Nothing under this clause shall prohibit the One Call System members from voluntarily submitting to the One Call System maps of lines or facilities installed before the effective date of this clause.

(iii) the facility owner's address (by street, number and political subdivision)and the telephone number and fax number, if available, to which inquiries may be directed as to the location of such lines;

(iv) the street identifications or like information within each of the municipalities in which its lines are located. This information shall be in a form acceptable to the One Call System. Upon acceptance of the information from a facility owner, the One Call System shall provide the facility owner with notification within the boundaries described. All facility owners shall agree to indemnify and hold harmless the One Call System for any errors and omissions on the part of the facility owner or the excavator or designer providing the information as the agent of the facility owner; and

(v) any other information required by the One Call System.

(2) To provide the One Call System, within five business days, with any revised information required under this section.

(4) Not more than ten business days after receipt of a request from a designer who identifies the work site of excavation or demolition work for which he is preparing a drawing, to initially respond to his request for information as to the position and type of the facility owner's lines at such work site based on the information currently in the facility owner's possession or to mark the plans which have been provided to it by the designer by field location or by another method agreed to by the designer, excavator and facility owner, or their agent. The facility owner shall so advise the person making the request of the facility owner's status at the work site through the One Call System.

(5) After receipt of a timely request from an excavator or operator who identifies the work site of excavation or demolition work he intends to perform and not later than the business day prior to the lawful start date of excavation:

(i) To mark, stake, locate or otherwise provide the position of the facility owner's underground lines at the work site within eighteen inches horizontally from the outside wall of such line in a manner so as to enable the excavator, where appropriate, to employ prudent techniques, which may include hand-dug test holes, to determine the precise position of the underground facility owner's lines. This shall be done to the extent such information is available in the facility owner's records or by use of standard locating techniques other than excavation. Standard locating techniques shall include, at the utility owner's discretion, the option to choose available technologies suitable to each type of line or facility being located at the work site, topography or soil conditions or to assist the facility owner in locating its lines or facilities, based on accepted engineering and operational practices. Facility owners shall make reasonable efforts during the excavation phase to locate or notify excavators of the existence and type of abandoned lines.

(i.1) To identify the location of an actually known facility's point of connection to its facilities, where the point of connection is not owned or operated by the facility owner. A facility owner may identify the location of a known facility connected to its facilities, but not owned or operated by the facility owner, as a helpful guide to the excavator or owner. The identification shall not be deemed to impose any liability upon the facility owner for the accuracy of the other facility's identification.

(ii) To timely elect to excavate around its facilities in fulfillment of this subparagraph, at its option.

(iii.1) To propose mutually agreeable scheduling by which the excavator, facility owner or designer may locate the facilities.

(v) To respond to all notices through the One Call System, provided the request is made in the time frame set forth under this act. The response shall be made not later than the end of the second business day following receipt of the notification by the One Call System, excluding the business day upon which the notification is received, or not later than the day prior to the lawful start date of excavation if the excavator specifies a later date or, in the case of an emergency, to respond through the One Call System as soon as practicable following receipt of notification of the emergency by the One Call System.

(v.1) To, if a facility owner failed to respond to an original, proper, nonemergency locate request from the One Call System or to a renotification under section 5(20), communicate directly to the excavator within two hours after renotification of the information about its facility location and, if necessary and possible, go to the proposed work site to mark, stake or locate its underground lines or to verify to the excavator that the facility owner's underground lines are not within the area of the proposed work site.

(vi) In marking the approximate position of underground lines or facilities, to follow the Common Ground Alliance Best Practices for Temporary Marking set forth in ANSI standard Z535.1. Should the Common Ground Alliance Best Practices be amended, the amended guidelines shall be applied and followed. If the Common Ground Alliance Best Practices no longer publishes guidelines for temporary markings or if the responsibility for publishing the guidelines is transferred to or assumed by another entity, the facility owner shall follow the guidelines approved by the One Call System's board of directors.

(vii) To respond to emergency notifications as soon as practicable following receipt of notification of such emergency. The response by the facility owner shall be consistent with the nature of the emergency information received by the facility owner.

(viii) To participate in preconstruction meetings for a complex project or as described in section 5(3).

(ix) If notification is received pursuant to section 5(8), to give priority to responding to notification as an emergency.

(9) If a facility owner fails to become a member of the One Call System in violation of this act and a line or lines of such nonmember facility owner are damaged by an excavator by reason of the excavator's failure to notify the facility owner because the facility owner was not a member of the One Call System serving the location where the damage occurred, such facility owner shall have no right of recovery from the excavator of any

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costs associated with the damage to its lines. The right herein granted shall not be in limitation of any other rights of the excavator.

(10) To submit a report of alleged violation to the commission through the One Call System not more than thirty business days after receipt of notice that the facility owner's lines have been damaged by excavation or demolition work or if the facility owner believes a violation of this act has been committed in association with excavation or demolition work. The report of alleged violation shall be in a form and manner as required by the commission. No report may be required where the cost to repair the damage to the facility owner's lines is less than two thousand five hundred dollars ($2,500), unless the same person damaged the facility owner's lines two or more times within a six-month period.

(11) To comply with all requests for information by the ***commission*** relating to the ***commission's*** enforcement authority under this act within thirty days of the receipt of the request.

(12) To participate in the One Call System's Member Mapping Solutions as determined by the One Call System's board of directors.

(13) To maintain existing records of main lines abandoned on or after the effective date of this paragraph and to mark, locate or identify the main lines if possible, based upon the existing records. The records shall include written or electronic documents or drawings in the possession of the facility owner that show the location of an existing line or facility.

RESPONSIBILITIES OF THE ONE CALL SYSTEM

SECTION 3. It shall be the duty of the One Call System:

(1.1) to assign one or more serial numbers and the date that the work site may legally be excavated and to log the entire voice transaction on logging recorders in appropriate digital form and maintain these logs for five years. All records shall be indexed and available to the parties involved at a reasonable cost and at reasonable times set by the One Call System.

(1.2) to perform the obligations, as set forth under this section, on behalf of the facility owner, excavator or designer as established by the board of directors of the One Call System.

(1.3) to provide access to municipal lists provided to the One Call System for those interested parties. This list shall contain facility owners having lines in the municipality, including wards as indicated in section 2(1)(ii), and to maintain, for each municipality, a list containing the information as required to be submitted by the facility owner. Such list shall be updated as revised information is received from the facility owner within five business days.

(3) To, per memoranda of understanding between the commission and the One Call System, provide reports of alleged violations and other information, such as photographs, photocopies and drawings, that are submitted with the report of alleged violation. The One Call System shall provide access to or photocopies of One Call System response records, tickets or other similar information related to matters covered by this act under investigation by the commission, pursuant to its enforcement authority under this act. The One Call System may provide reports of alleged violations to the Pennsylvania Emergency Management Agency, per memoranda of understanding.

(4) To determine the maximum geographic area that shall constitute a valid single notification and to determine when multiple notifications shall be required of any person, including the method, the type and the number of notifications in a complex project.

Which has been set by the Board 1/2007 as: **"1000' or Intersection to Intersection, whichever is greater, along the same street, within the same political subdivision"** by the Board.

(5) If approved by the board of directors of the One Call System, to offer a service for the application and obtaining of State or municipal permits for excavation work. Issuance of the required permits shall be the responsibility of the appropriate State or municipal agency which has jurisdiction over the type of excavation work being performed.

(6) Pursuant to policies adopted by the One Call System's board of directors, to provide a secure repository for and access to subsurface utility engineering data received from project owners to affected facility owner members.

(7) To inquire, when an excavator has notified the One Call System of the existence of a release of natural gas or other hazardous substance or of potential danger to life, health or property, whether the excavator has notified the 911 system. If the 911 system has not been notified, the One Call System shall notify the excavator of the excavator's responsibility to notify the 911 system and shall make a record of the conversation.

(8) To notify the facility owner as soon as possible that an excavator has identified an unmarked or incorrectly marked facility and of the facility owner's responsibilities under section 2(5)(v.1).

SECTION 3.1. (a) The duties of the One Call System are those duties as set forth in section 3. Duties assigned to other parties in other sections of this act shall be the duties of those parties and shall not be imputed to the One Call System, including the duty to provide accurate information to the One Call System concerning proposed excavation and the duty to locate facilities at a work site.

(b) The One Call System shall not be liable for damages to the person or the person's property arising out of its non-negligent actions in furtherance of the duties imposed under this act and shall be liable only if the failure to comply was the proximate cause of any damages claimed.

(c) (Reserved).

(d) The One Call System shall be governed by a board of directors to be chosen by the facility owners. No less than twenty percent of the seats on the board shall be held by municipalities or municipal authorities. The board shall include all of the following:

(1) The chairman or his designee.

(2) The Director of the Pennsylvania Emergency Management Agency or his designee.

(4) The Secretary of Transportation or his designee.

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(5) An excavator or excavation industry representative.

(6) A designer or designer industry representative.

(7) An owner or operator or a representative of an owner or operator of pipelines associated with conventional oil and gas wells. The owner or operator may be a facility owner or a pipeline owner or operator who voluntarily submits maps of its lines or facilities to the One Call System.

(8) A facility owner or facility owner representative of pipelines associated with unconventional oil and gas wells.

(e) Operation costs for the One Call System shall be shared, in an equitable manner for services received, by facility owner members as determined by the One Call System's board of directors. Political subdivisions with a population of less than two thousand people or municipal authorities having an aggregate population in the area served by the municipal authority of less than five thousand people shall be exempt from the payment of any service fee. The One Call System may be reimbursed for its costs in providing this service from the contractor fees.

(f) All fees shall be set by the board of directors and shall be based on the latest annual audited cost factors of the One Call System. Fees shall be set and adjusted to a rate not more than five percent above the audited cost factor plus the current average published Consumer Price Index for Pennsylvania. Costs of capital improvements may be added, if the improvement receives a majority vote of the board of directors.

(f.1) An excavator, designer or operator who proposes to commence excavation or demolition work and requests information from the One Call System shall pay to the One Call System an annual fee for the service provided by the One Call System under section 3. The fee shall be set by the One Call System board of directors and shall be used to offset a portion of the operation costs of the One Call System and a portion of the operation costs levied on the One Call System's political subdivision and municipal authority members. Failure to pay the fee shall constitute a violation of this act and shall subject the excavator, designer or operator to the enforcement authority of the commission for the nonpayment.

(h) Any request for information shall be reviewed and provided as determined in accordance with the procedure established by the One Call System's board of directors.

RESPONSIBILITIES OF A DESIGNER

SECTION 4. It shall be the duty of each designer preparing a drawing which requires excavation or demolition work within this Commonwealth:

(2) To request the line and facility information prescribed by section 2(4) from the One Call System not less than ten nor more than ninety business days before final design is to be completed. This clause is not intended to prohibit designers from obtaining such information more than ninety days before final design is to be completed; however, they shall state in their requirements that such work is preliminary. The Designer is required to send plans to the involved Facility Owners to mark up. PA One Call can assist through the Coordinate PA application.

(2.1) To forward a copy of the project plans to each facility owner who requests a copy. If a designer is unable to provide a copy because of security of the project or proprietary concerns regarding the design or the project, the designer shall negotiate in a timely manner with the facility owner the means of obtaining the necessary data.

(3) To show upon the drawing the position and type of each facility owner's line, derived pursuant to the request made as required by clause (2), and the name of the facility owner as shown on the list referred to in section 3.

(4) To make a reasonable effort to prepare the construction drawings to avoid damage to and minimize interference with a facility owner's facilities in the construction area by maintaining the clearance as provided for in the applicable easement condition or an eighteen-inch clearance of the facility owner's facilities if no easement restriction exists.

(5) A designer shall be deemed to have met the obligations of clause (2) if he calls the One Call System and shows, as proof, the serial number of one call notice on drawings. The designer shall also show the toll-free number of the One Call System on the drawing near his serial number.

(6) If, after receiving information from the facility owners, the designer decides to change the work site of a proposed excavation, the obligations imposed by this section shall apply to the new work site.

(7) The designer who has complied with the terms of this act and who was not otherwise negligent shall not be subject to liability or incur any obligation to facility owners, operators, owners or other persons who sustain injury to person or property as a result of the excavation or demolition planning work of the designer.

(8) To submit a report of alleged violation to the commission through the One Call System not more than thirty business days from the time the designer becomes aware that a violation of this act may have been committed in association with excavation or demolition work. The report of alleged violation shall be in a form and manner as required by the commission.

(9) To request line and facility information required under section 2(4) from the One Call System and to pay the applicable fee for the request.

RESPONSIBILITIES OF THE EXCAVATOR

SECTION 5. It shall be the duty of each excavator who intends to perform excavation or demolition work within this Commonwealth:

(2.1) To request the location and type of facility owner lines at each work site by notifying the facility owner through the One Call System. Notification shall be not less than three nor more than ten business days in advance of beginning excavation or demolition work. No work shall begin earlier than the lawful start date which shall be on or after the third business day after notification. The lawful start date shall exclude the date upon which notification was received by the One Call System and notification received on a Saturday, Sunday or holiday, which shall be processed on the following business day. In the case of a complex project, notification shall not be less than ten business days in advance of the beginning of excavation

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or demolition work.

(2.2) To provide the One Call System with exact information to identify the work site so that facility owners might provide indications of their lines. An excavator shall be deemed to have met the obligations of clause (2.1) if he calls the One Call System, provides the work site and other required information and receives a serial number.

(3) In a complex project or if an excavator intends to perform work at multiple work sites or over a large area, to take reasonable steps to work with facility owners, including scheduling and conducting a preconstruction meeting, so that they may locate their facilities at a time reasonably in advance of the actual start of excavation or demolition work for each phase of the work. A preconstruction meeting may take place at any time prior to the commencement of excavation or demolition work, and the excavator, facility owners and designer, or their agents, shall attend the meeting. Notice of the meeting shall be given sufficiently in advance so as to permit attendance, either in person or electronically, by the excavator, facility owners and designer, or their agents, and shall include information sufficient to identify the scope of work. If the excavator does not believe that a preconstruction meeting is necessary under the circumstances of this clause it shall indicate such belief in its notice, but any facility owner with facilities at the work site may request a meeting with the excavator, and a meeting shall be held between the facility owner and the excavator. After commencement of excavation or demolition work, the excavator shall be responsible for protecting and preserving the staking, marking or other designation until no longer required for proper and safe excavation or demolition work at or near the underground facility or by contacting the One Call System to request that the facilities be marked again in the event that the previous markings have been compromised or eliminated.

(3.1) To comply with the requirements established by the One Call System as determined by the board of directors regarding the maximum area that a notification may cover.

(4) To exercise due care and to take all reasonable steps necessary to avoid injury to or otherwise interfere with all lines where positions have been provided to the excavator by the facility owners pursuant to section 2 (5). Within the tolerance zone the excavator shall employ prudent techniques, which may include hand-dug test holes, **vacuum excavation or similar devices** to ascertain the precise position of such facilities. If insufficient information to safely excavate is available pursuant to section 2(5), the excavator shall employ like prudent techniques which shall be paid for by the project owner pursuant to clause (15).

(5) If the facility owner fails to respond to the excavator's timely request as provided under section 2(5) or the facility owner notifies the excavator that the line cannot be marked within the time frame and a mutually agreeable date for marking cannot be arrived at, the excavator may proceed with excavation as scheduled, but not earlier than the lawful dig date, provided he exercises due care in his endeavors, subject to the limitations contained in this clause and clauses (2.1) through (4) and (20).

(6) To inform each operator employed by the excavator at the work site of such work of the information obtained by the excavator pursuant to clauses (2.1) through (5), and the excavator and operator shall:

(i) Plan the excavation or demolition work to avoid damage to or minimize interference with a facility owner's facilities in the construction area. Excavation or demolition work which requires temporary or permanent interruption of a facility owner's service shall be coordinated with the affected facility owner in all cases.

(ii) After consulting with a facility owner, provide such support and mechanical protection for known facility owner's lines at the construction work site during the excavation or demolition work, including during backfilling operations, as may be reasonably necessary for the protection of such lines.

(7) To report immediately to the facility owner any break or leak on its lines, or any dent, gouge, groove or other damage to such lines or to their coating or cathodic protection, made or discovered in the course of the excavation or demolition work. The One Call System board of directors may adopt procedures to permit reporting under this clause through the One Call System.

(8) To immediately notify 911 and the facility owner if the damage results in the escape of any flammable, toxic or corrosive gas or liquid which endangers life, health or property. The excavator shall take reasonable measures, based on its knowledge, training, resources, experience and understanding of the situation, to protect themselves and those in immediate danger, the general public, the property and the environment until the facility owner or emergency responders have arrived and completed their assessment and shall remain on the work site to convey any pertinent information to responders that may help them to safely mitigate the situation.

(9) The time requirements of clause (2.1) shall not apply to a facility owner or excavator performing excavation or demolition work in an emergency, as defined in Section 1; nonetheless, all facility owners shall be notified as soon as possible before, during or after excavation or demolition work, depending upon the circumstances.

(11) To use the color white to mark a proposed excavation work site when exact work site information cannot be provided.

(11.1) To assist a facility owner in determining involvement of a facility owner's lines by disclosing additional available information requested by the facility owner, including dimensions and the direction of proposed excavations.

(11.2) If using horizontal directional drilling (HDD), at a minimum, to utilize the best practices published by the HDD Consortium.

(12) The following standards shall be applied in determining whether an excavator shall incur any obligation or be subject to liability as a result of an excavator's demolition work or excavation work damaging a facility owner's facilities:

(i) The excavator who has complied with the terms of this act and who was not otherwise negligent shall not be subject to liability or incur any obligation to facility owners, operators, project owners or other persons who sustain injury to person or property as a result of the excavator's excavation or demolition work damaging a facility owner's lines.

(ii) Where an excavator has failed to comply with the terms of this act or was otherwise negligent, and the facility owner or designer has misidentified, mislocated or failed to identify its facilities pursuant to this act, then in computing the amount of reimbursement to which the facility

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owner is entitled, the cost of repairing or replacing its facilities shall be diminished in the same proportion that the facility owner's or designer's misidentification, mislocation or failure to identify the facilities contributed to the damage. Should the facility owner or designer not have misidentified, mislocated or failed to identify its facilities pursuant to this act, there shall be no diminution of the facility owner's right of recovery.

(13) If, after receiving information from the One Call System or directly from a facility owner, the excavator decides to change the location, scope or duration of a proposed excavation, the obligations imposed by this section shall apply to the new location.

(14) If an excavator removes its equipment and vacates a work site for more than two business days, to renotify the One Call System unless other arrangements have been made directly with the facility owners involved in his work site.

(15) When the information required from the facility owner under section 2(5)(i) cannot be provided or, due to the nature of the information received from the facility owner, it is reasonably necessary for the excavator to ascertain the precise location of any line or abandoned or unclaimed lines by prudent techniques, which may include hand-dug test holes, vacuum excavation or other similar devices, the excavator shall promptly notify the project owner or the project owner's representative, either orally or in writing. If oral notification is given, the notice shall be reduced to writing within a reasonable time by the project owner or excavator. After giving such notice, the excavator shall be entitled to compensation from the project owner for this additional work as provided in the latest edition of the Pennsylvania Department of Transportation Form 408 specifications for extra work performed on a force account basis. The provisions of this subsection shall not be deemed to limit any other rights which the excavator has under its contract with the project owner or otherwise. Provisions in any contract, public or private, which attempt to limit the rights of excavators under this section shall not be valid for any reason, and any attempted waiver of this section shall be void and unenforceable as against public policy and any such attempted waiver shall be reported to the commission.

(16) To submit a report of an alleged violation to the commission through the One Call System not more than ten business days after striking or damaging a facility owner's line during excavation or demolition or if the excavator believes a violation of this act has been committed in association with excavation or demolition work. The report of an alleged violation shall be in a form and manner as required by the commission.

(17) To comply with all requests for information by the commission relating to the commission's enforcement authority under this act within thirty days of the receipt of the request.

(18) To, if it chooses to do so and if working for a facility owner, a municipality or a municipal authority, delegate the power to discharge the duties set forth in clauses (2.1) and (2.2) to its project owner, with the project owner's consent. If the power is delegated pursuant to this clause, both the excavator and the project owner shall be responsible for providing the required notices.

(19) To ensure the accuracy of any information provided to the One Call System pursuant to this section.

(20) To renotify the One Call System of an unmarked or incorrectly marked facility, if an original, proper, nonemergency locate request has been made to the One Call System and, upon initial arrival at the proposed work site, it is apparent to the excavator that there is an unmarked or incorrectly marked facility. An excavator may not begin excavating in the affected area of the work site until after receiving sufficient information from the facility owner to safely excavate. If the facility owner fails to provide sufficient information to the excavator within three hours after the excavator has notified the One Call System of the unmarked or incorrectly marked facility, the excavator may proceed with excavation subject to the limitations under clause (5).

(21) To make a locate request to the One Call System prior to excavation or demolition work and to pay the applicable fee for the request. See www.paonecall.org for additional detail.

LEGISLATIVE INTENT

SECTION 6. Except as otherwise provided in this act, this act shall not be deemed to amend or repeal any other law, Commonwealth regulation or any local ordinance enacted pursuant to law concerning the same subject matter, it being the legislative intent that any such other law or local ordinance shall have full force and effect where not inconsistent with this act.

RESPONSIBILITIES OF THE PROJECT OWNER

SECTION 6.1. It shall be the duty of each project owner who engages in excavation or demolition work to be done within this Commonwealth:

(1) To utilize sufficient quality levels of subsurface utility engineering or other similar techniques whenever practicable to properly determine the existence and positions of underground facilities when designing known complex projects having an estimated cost of four hundred thousand dollars ($400,000) or more.

(2) To timely respond to notifications received from excavators pursuant to section 5(15).

(3) To not release to bid or construction any project until after final design is completed.

(4) To participate in design and preconstruction meetings either directly or through a representative.

(5) To furnish the pertinent data obtained through subsurface utility engineering to the One Call System in a mutually agreeable format.

(6) For new construction and where practicable in the opinion of the project owner, to install color-coded permanent markers to indicate the type and location of all laterals installed by the project owner.

(7) To submit a report of alleged violation to the commission through the One Call System not more than ten business days after striking or damaging a facility owner's line during excavation or demolition work activities, after a project owner's contracted excavator strikes or damages a facility owner's line during excavation or demolition activities or if the project owner believes a violation of this act has been committed in association with excavation or demolition. The report of alleged violation shall be in a form and manner as required by the commission.

PERFORMANCE CRITERIA

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SECTION 7. (a) The Auditor General may review management and financial audits of the One Call System, which audits shall be performed by a qualified auditing firm within this Commonwealth. A copy of the audit shall be submitted to the Auditor General upon its completion and to the General Assembly by October 31 of the year following the end of the audit period. The cost of reasonable expenses incurred by the Auditor General in performing the obligations under this section shall be reimbursed by the One Call System. The fees shall not be inconsistent with those of commercial auditing firms for similar work.

(b) The Auditor General, for the purposes set forth in subsection (a), and any contractor, excavator, facility owner or member of the One Call System shall have the right during regular business hours to inspect and copy any record, book, account, document or any other information relating to the provision of one call services by the One Call System, at the cost determined by the board of directors.

(c) The One Call System shall submit an annual report to its members, and a copy of the report shall be submitted to the Auditor General.

(d) The One Call System shall cause a financial audit to be performed annually by a qualified auditing firm within this Commonwealth.

SECTION 4. Section 7.2 of the act is repealed:

SECTION 5. The act is amended by adding sections to read:

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SECTION 7.8. (a) A damage prevention committee shall be established as follows:

(1) The committee shall consist of the following members, appointed by the commission:
(i) The chairman or his designee from the commission's professional staff.
(ii) The Secretary of Transportation or the secretary's designee.
(iii) The president of the One Call System or his designee from the One Call System professional staff.
(iv) One representative from each of the following nonmunicipally owned or affiliated facility owner industries: electric, natural gas or petroleum pipelines, telephone, water or wastewater and cable television, nominated by facility owners or affiliated organizations.
(v) Three representatives of excavators, nominated by excavators or affiliated organizations.
(vi) One representative of municipal governments, nominated by municipal governments or affiliated organizations.
(vii) One representative of municipal authorities, nominated by municipal authorities or affiliated organizations.
(2) A person appointed to the committee must have expertise within the operation of this act.
(3) A nomination under clause (1)(iv), (v), (vi) and (vii) shall be forwarded to the secretary of the commission. The executive director of the commission shall provide recommended candidates to the commission for approval.
(4) Except for an unexpired term or for committee members under clause (1)(i) and (iii), the following shall apply:
(i) An appointment to the committee shall begin January 1.
(ii) Except for initial terms under clause (5), a committee member's term shall be for a term of three years.
(5) The initial term of committee members shall be as follows:
(i) Two representatives of facility owners shall serve three years, one representative shall serve two years and two representatives shall serve one year.
(ii) One representative of excavators shall serve three years, one representative shall serve two years and one representative shall serve one year.
(iii) The representative of municipal governments shall serve two years.
(iv) The representative of municipal authorities shall serve three years.
(6) The commission member shall serve as the chairman of the committee and shall be a nonvoting member, except if the chairman's vote is necessary to break a tie. The chairman's attendance shall not be counted to establish a quorum.
(7) At least seven members of the committee who are present shall constitute a quorum for the transaction of business. A simple majority vote of the committee members present at a meeting shall be deemed to be the position of the committee.
(b) The committee shall meet regularly to carry out the following purposes:
(1) Review a report of an alleged violation of this act and damage prevention investigator findings and recommendations.
(2) Issue a warning letter to a person as deemed appropriate by the committee or as recommended by the damage prevention investigator.
(3) Issue an informal determination that imposes an administrative penalty.
(4) Require a person to attend a damage prevention educational program.
(5) Issue an informal determination that modifies or dismisses a recommendation of committee staff.
(c) The following shall apply to alleged violations:

(1) A person determined, in a report issued by a damage prevention investigator, to have committed an alleged violation shall do one of the following:

(i) Provide a written acknowledgment of the findings and administrative penalty contained in the report issued by the damage prevention investigator to the committee.

(ii) Appear before the commission to present its position.

(2) A person who is subject to an informal determination of the committee may accept or reject the result. If an informal determination is rejected, the matter shall be returned to the damage prevention investigator for further action, if appropriate, including referring the matter to the commission prosecutor staff for the purpose of issuing a formal complaint.

(d) Except for alleged violations involving injury or death, the provisions of subsection (c) may be applied in advance or instead of filing a formal complaint against a person determined, in a report issued by a damage prevention investigator, to have committed an alleged violation.

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An informal determination of the committee shall be binding on the commission unless the person rejects the informal determination.

(e) The committee shall have the following additional duties:

(1) Upon the request of the commission, the committee shall hold a special meeting to advise the commission on a matter related to damage prevention for underground facilities under this act.

(2) As soon as practicable after establishment, the committee, with input from the One Call System, shall develop and implement bylaws. The bylaws shall:

(i) Establish a schedule for the frequency of regular meetings.

(ii) Delineate the committee's practice and procedure concerning the performance of duties assigned under this act and commission orders and regulations.

(iii) Be approved by the commission.

(3) Submit an annual report containing relevant damage prevention data to the commission, the Committee on Consumer Protection and Professional Licensure of the Senate and the Committee on Consumer Affairs of the House of Representatives.

(f) Except for willful misconduct, members of the committee shall be immune, individually and jointly, from civil liability for an act or omission done or made in performance of the members' duties while serving as members of the committee.

(g) The commission shall have the following powers to carry out the purposes of this act:

(1) To employ individuals.

(2) To issue orders.

(3) To promulgate regulations. If the commission promulgates regulations that limit reporting to a specific type of incident, including contact with a line, damage to a line or line coating, personal injury, third-party damage and failure to comply with this act, the commission may consider the resources available for enforcement and other factors.

(4) For one year following the effective date of this section, to promulgate temporary regulations. Regulations under this clause shall:

(i) Expire no later than two years following the effective date of this section.

(ii) Be exempt from all of the following:

(A) Sections 201, 202 and 203 of the act of July 31, 1968 (P.L.769, No.240), referred to as the Commonwealth Documents Law.

(B) The act of June 25, 1982 (P.L.633, No.181), known as the Regulatory Review Act.

SECTION 7.9. (a) Program costs for commission enforcement of this act shall be included in the commission's proposed budget and shall be subject to the review and approval of the Governor and the General Assembly as described under 66 Pa.C.S. § 510(a) (relating to assessment for regulatory expenses upon public utilities). The assessment of the commission's program costs for commission enforcement of this act shall not include Federal and State funds provided for the enforcement of this act and shall be allocated in the following manner:

(1) Eighty percent of the program costs shall be included within the amount assessed to public utilities under 66 Pa.C.S. § 510.

(2) Twenty percent of the program costs shall be assessed as a fee upon the One Call System, with the fee to be paid to the commission. The One Call System's board of directors shall determine the manner in which the fee may be recovered from facility owners, excavators, designers and other involved persons, provided that the One Call System's board of directors' manner of recovery may not include facility owners that are public utilities.

(b) (Reserved).

SECTION 7.10. (a) The commission may issue a warning and order requiring compliance with this act and may levy an administrative penalty for a violation of this act. A warning, order or penalty shall be served on the person or entity violating this act at the person's last known address. A party aggrieved by the imposition of an order or administrative penalty imposed by the commission may appeal the order or penalty as provided under 2 Pa.C.S. Chs. 5 Subch. A (relating to practice and procedure of Commonwealth agencies) and 7 Subch. A (relating to judicial review of Commonwealth agency action).

(b) The following shall apply:
(1) A person or entity violating this act may be subject to:
(i) an administrative penalty of not more than two thousand five hundred dollars ($2,500) per violation; or
(ii) if the violation results in injury, death or property damage of twenty-five thousand dollars ($25,000) or more, an administrative penalty of not more than fifty thousand dollars ($50,000).
(2) The commission and committee shall consider the following factors in determining the administrative penalty to be assessed:
(i) The history of the party's compliance with the act prior to the date of the violation.
(ii) The amount of injury or property damage caused by the party's noncompliance.
(iii) The degree of threat to the public safety and inconvenience caused by the party's noncompliance.
(iv) The party's proposed modification to internal practices and procedures to ensure future compliance with statutes and regulations.
(v) The degree of the party's culpability
(vi) Other factors as may be appropriate considering the facts and circumstances of the incident.
(c) An administrative penalty recovered under this section shall be payable to the commission and collected in the manner provided for

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by law.

(d) This act shall not affect a civil remedy for personal injury or property damage, except as provided for under this act.

(e) The commission may issue a subpoena, on application of an attorney responsible for representing the Commonwealth in actions before the commission, for the purpose of investigating an alleged violation of this act. The commission shall have the power to subpoena witnesses and compel the production of books, records, papers and documents.

(f) No provision of this act shall be construed or interpreted to do any of the following:

(1) Affect the ability of a district attorney or the Attorney General to investigate or file a claim for the same conduct.

(2) Deprive a governmental agency, including a law enforcement agency, the Auditor General and a district attorney, of any jurisdictional power or duty.

(g) A facility owner may petition a court of competent jurisdiction to enjoin excavation or demolition work conducted in violation of this act. Local law enforcement or emergency management personnel may, in the interest of public safety, order an excavator on a work site to stop further excavation if the excavation is being conducted in violation of this act.

Note: This may also be enforced under Section 3302 of PA Title 18 Section b - Risking catastrophe.

SECTION 6. Section 8 of the act is amended to read:

DISPUTE RESOLUTION

SECTION 8. The One Call System shall have the authority to design, establish and administer a voluntary payment dispute resolution process which may be used by excavators, facility owners, designers, project owners and other involved persons. The process shall provide for dispute resolution panels selected from among a list of representatives of stakeholder groups, including facility owners, excavators, designers and regulators. The process established under this section may not be used to settle or resolve alleged violations of this act nor may involve any issues related to the commission's enforcement activities.

COMMON GROUND ALLIANCE BEST PRACTICES

SECTION 9. Except as otherwise provided for by this act, persons shall use their best efforts to comply with the Common Ground Alliance best practices.

SECTION 10. No person shall intentionally remove or tamper with a marking provided for under this act.

SECTION 11. Nothing in this act shall impair the rights or immunities provided to political subdivisions under 42 Pa.C.S. Ch. 85 Subch. C (relating to actions against local parties) or any other State law.

SUNSET PROVISION

SECTION 39. This act shall expire on December 31, ***2024***.

SECTION 8. This act shall take effect as follows:

(1) The following provisions shall take effect immediately:

(i) The addition of section 7.9 of the act.

(ii) The amendment of section 39 of the act.

(iii) This section.

(2) The remainder of this act shall take effect in 180 days.

APPROVED--The 30th day of October, A.D. 2017.

GOVERNOR TOM WOLF

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APWA/CGA Best Practices for Temporary Markings

This marking guide provides for universal use and understanding of the temporary marking of subsurface facilities to prevent accidents and damage or service interruption by contractors, excavators, utility companies, municipalities or any others working on or near underground facilities.

Know what's below. Dial 811 before you dig.
PA Act 287, as amended, Section 5, Clause 11
An excavator **shall** use the color white to mark a proposed excavation site when **exact** site information cannot be provided. THIS SHOULD BE DONE PRIOR TO THE NOTIFYING 811 or 1-800-242-1776 (from outside PA). Pennsylvania law requires notice no less than 3 nor more than 10 business days before you dig ANYWHERE IN THE COMMONWEALTH. Any excavation within the tolerance zone shall be performed by using prudent techniques. The excavator observes a tolerance zone which is comprised of the width of the facility plus 18" on either side of the outside edge of the underground facility on horizontal plane (see graphic on page 50). Use pink temporary survey markings for all surveying and grade marks. Continue using Prudent Techniques until you find the Line. Notify Project Owner and charge PennDOT 408 Spec for the extra work necessary beyond the 18" Tolerance Zone.

Temporary Facility Markings by Facility Owners
To mark, stake, locate or otherwise provide the position of the facility owner's underground lines at the site within 18 inches horizontally from the outside wall of such line in a manner so as to enable the excavator, where appropriate within the tolerance zone, to employ prudent techniques, which may include hand-dug test holes, to determine the precise position of the underground facility owner's lines. This shall be done to the extent such information is available in the facility owner's records or by use of standard locating techniques other than excavation. The marking can be done in one of two ways: either placing the marks over the approximate center of the facility, or by placing the marks over the actual outside edges of the facility with a line connecting the two horizontal lines to indicate there is only one facility. ***PA One Call does not locate or mark lines***.

Tolerance Zone
Any excavation within the tolerance zone is performed with non-powered hand tools or non-invasive method until the marked facility is exposed. The width of the tolerance zone is specified in PA Law. The tolerance zone including the width of the facility plus 18" (450 mm) measured horizontally from each side of the facility.

Best Practices for Locating & Marking Practices/Responsibilities
The APWA/CGA Temporary Marking Color Code and Chapter 4 marking practices are specified in PA Act 287, as amended. The Facility Owner or Representative is responsible to markings of facilities and appurtenances including the appropriate color of their facility type, their company identifier (name, initials or abbreviation), the number and width of their facilities and a description of the facility (HP, FO, STL). Use paint, flags, stakes or whiskers or a combination to identify the Facility Owner's line/facility(s) at or near the excavation Work site. It is against the Law to tamper with these markings. *CGA BP Appendix B contains the Uniform Color Code and Marking Guidelines and Chapter 4 contains the practices.*

Uniform Color Code
The American Public Works Association/CGA's Uniform Color Code is PA law. The code uses ANSI Standard Z535.1. Safety colors, as shown for temporary marking of excavation sites and underground facility identification (examples are provided on front). *Release 5/23*

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APWA/CGA Temporary Marking Color Code (ANSI Standard Z535.1)

WHITE - Proposed Excavation

PINK - Temporary Survey Markings

RED - Electric Power Lines, Cables, Conduit and Lighting Cables

YELLOW - Gas, Oil, Steam, Petroleum, Gaseous and Hazardous Materials

ORANGE - Communication, Alarm or Signal Lines, Cables or Conduit, and Traffic Loops

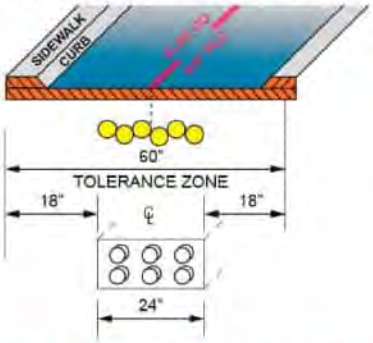
BLUE - Potable Water

PURPLE - Reclaimed Water, Irrigation and Slurry Lines

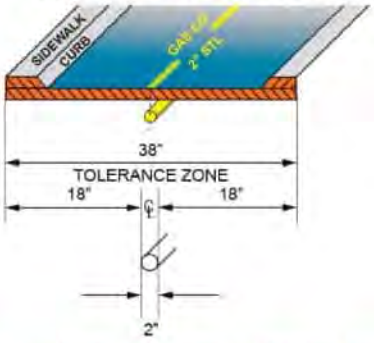
GREEN - Sewers and Drain Lines

TOLERANCE ZONE

LARGE PIPE OR MULTIPLE DUCTS



SMALL PIPE OR CABLES



PA One Call does not locate or mark underground lines.

THREE BUSINESS DAYS BEFORE YOU DIG – DRILL– BLAST

Dial 8-1-1 or 1-800-242-1776

www.paonecall.org

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Terminology used when creating a Design Notification

"Drawing" – is a type of technical plan that shows information about existing and proposed underground facilities, grading, landscaping, or other site details. These are intended to give a clear picture of construction to the excavator. This term does not include sketches made for the purpose of obtaining excavation related permits.

"Sketch" – is a physical depiction of the work site generally for permitting purposes and not solely or specifically applicable to design requirements.

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Contact Us	**contact@pa1call.org**
Call Before You Dig	811/800-242-1776 412-464-7100
KARL System	800-222-6470
POCS Administrative Offices	800-248-1786
Bill Kiger, President and CEO wgkiger@pa1call.org	412-464-7111
Ellen Kiger, Vice President and COO emkiger@pa1call.org	412-464-7115
Sherry Harim, Director – Member Services & Accounting sdharim@pa1call.org	412-464-7116
Linda Covelli, Manager – Operations ljcovelli@pa1call.org	412-464-7110
Kelly Pearl, Manager – Member Services & Accounting kapearl@pa1call.org	412-464-7106
S. Robin Johnson, Compliance Coordinator srjohnson@pa1call.org	412-464-7127
Marcos Bernal, Supervisor – Education mrbernal@pa1call.org	412-464-7113
Mark Lipka, Supervisor – Education mjlipka@pa1call.org	570-939-7042
Greg Danks, Damage Prevention Liaison (South East) gwdanks@pa1call.org	215-834-2069
Erika Dominick, Damage Prevention Liaison (South Central) eadominick@pa1call.org	814-615-7047
Brandon Dujmic, Damage Prevention Liaison (South West) bddujmic@pa1call.org	412-427-0112
Kevin Goldblum, Damage Prevention Liaison (South Central) ksgoldblum@pa1call.org	717-487-0797
Kirk Kirkpatrick, Damage Prevention Liaison (North West) kpkirkpatrick@pa1call.org	814-572-8113
D. Chance Montgomery, Damage Prevention Liaison (South West) dcmontgomery@pa1call.org	412-464-7109
Dan Nemanic, Damage Prevention Liaison (South West) djnemanic@pa1call.org	412-464-7102
Ryan Parrish, Damage Prevention Liaison (South East) rtparrish@pa1call.org	610-906-5137
Blaire Prough, Damage Prevention Liaison (South Central) baprough@pa1call.org	717-602-5976
Jim Reynolds, Damage Prevention Liaison (South East) jereynolds@pa1call.org	215-859-2868
Aaron Rugh, Damage Prevention Liaison (South East) anrugh@pa1call.org	717-490-0452
Maria White, Damage Prevention Liaison (North East) mawhite@pa1call.org	570-954-3545

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NOTES

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DIAL 8-1-1 or
1-800-242-1776

WORK LOCATION REQUEST FORM

TELEPHONE NUMBER: (_____) _____ EXT.: _____ CALLER: _____

COMPANY NAME: _____

ADDRESS: _____ CITY: _____ STATE: _____ ZIP _____

EMAIL ADDRESS: _____ FAX #: (_____) _____

NOTIFICATION TYPE:

☐ **FINAL DESIGN** (Not less than 10 nor more than 90 Business Days) ☐ **PRELIMINARY DESIGN** (Greater than 90 Business Days)

☐ **CONSTRUCTION** (Not less than 3 nor more than 10 Business Days) ☐ **DEMOLITION** (Not less than 3 nor more than 10 Business Days)

WORKSITE INFORMATION:

COUNTY: _____ MUNICIPALITY: _____ WARD: _____

STREET ADDRESS: _____ STREET NAME: _____

NEAREST INTERSECTION: _____

WORKING BETWEEN 2 INTERSECTIONS ☐ YES ☐ NO

SECOND INTERSECTION/NEAREST MAIN ROAD: _____

SUBDIVISION: _____ LATITUDE/LONGITUDE COORD.: _____

WORKING IN: ☐ STREET ☐ SIDEWALK ☐ PUBLIC PROPERTY ☐ PRIVATE PROPERTY (☐ Front ☐ Rear ☐ Left ☐ Right)

☐ OTHER (SPECIFY) _____ SITE MARKED IN WHITE: ☐ Yes ☐ No

LOCATION INFORMATION: _____

_____

_____

TYPE OF WORK: _____ DEPTH: _____

EXTENT OF EXCAVATION: _____ METHOD OF EXCAVATION: _____

PROJECT OWNER: _____ ONSITE CONTACT: _____

ONSITE CONTACT PHONE: (_____) _____ EXT: _____ BEST TIME TO CALL: _____

ONSITE CONTACT EMAIL: _____

SCHEDULED EXCAVATION DATE: _____ TIME: _____ DURATION OF JOB: _____

JOB #: _____ PENNDOT CONTRACT/PERMIT #: _____

REMARKS: _____

_____

_____

COMPLEX PROJECT REQUEST NUMBER (if applicable) _____

TO BE COMPLETED AFTER PLACING ONE CALL

LAWFUL START DATES: _____ THROUGH _____

OTHER SERIAL NUMBERS REFERENCED: _____

FACILITY OWNER MEMBERS NOTIFIED: _____

_____

_____

SERIAL NUMBER ASSIGNED: _____ DATE/TIME: _____

THERE IS AN ANNUAL FEE PLEASE DO NOT FAX THIS FORM TO POCS

PGH2O | PITTSBURGH WATER

ATTACHMENT 2

CERTIFICATION OF DEBARMENT

UNDER PITTSBURGH CODE § 161.22(f)

I, Nicholas J. McCombie, the undersigned and duly-authorized
PRINTED REPRESENTATIVE NAME

representative, hereby certify that to the best of my actual knowledge, information and belief, neither T2 Utility Engineers
VENDOR BUSINESS NAME

nor any affiliated individual is prohibited from entering a bid for or participating in a City of Pittsburgh or Pittsburgh Water contract by reason of disqualification as set forth in Pittsburgh Code §161.22(b), a true and correct copy of which is attached and incorporated herein.

Signature: Nicholas J. McCombie
Digitally signed by Nicholas J. McCombie
DN: cn=Nicholas J. McCombie, c=US, email=nicholas.mccombie@t2ue.com
Date: 2025.07.23 08:03:03 -04'00'

Title: Branch Manager

Date: July 23, 2025

§ 161.22 DEBARMENT FROM BIDDING ON AND PARTICIPATING IN CITY CONTRACTS.

(a) *Definitions.* The following words and phrases when used in this section shall have the meanings given to them in this section unless the context clearly indicates otherwise:

(1) *AFFILIATE.* Persons directly or indirectly, either one (1) controls or can control the other, or a third controls or can control both.

(2) *AGENT.* Any director, officer, servant, employee or other person authorized to act on behalf of the corporation or association and, in the case of an unincorporated association, a member of the association.

(3) *CONVICTION.* An entry of a plea of guilty or a plea of nolo contendere, or a verdict of guilty by a jury or a judge sitting without a jury.

(4) *ENTERPRISE.* Any individual, partnership, corporation, business, company, association or other legal entity and any union or group of individuals associated in fact although not a legal entity, engaged in commerce.

(5) *HIGH MANAGERIAL AGENT.* An officer of a corporation or an unincorporated association, company or business or, in the case of a partnership, a partner or any other agent of a corporation, company, business or association having duties or such responsibility that his or her conduct may fairly be assumed to represent the policy of the corporation or association.

(6) *PERSON.* An individual, corporation, partnership, unincorporated association, or other public or private entity.

(7) *SUBSTANTIAL STOCKHOLDER.* A stockholder who, in the aggregate, directly or indirectly, owns or controls five (5) percent of the outstanding securities of any one (1) class of stock.

(8) *WAGE THEFT VIOLATION.* A person or enterprise having been found guilty, liable, or responsible in any judicial or administrative proceeding for unpaid wages in violation of Pennsylvania Minimum Wage Act, Pennsylvania Wage Payment and Collection Law, Fair Labor Standards Act, or any other federal, state, or municipal law related to the payment of wages or the collection of debt owed due to unpaid wages.

(b) *Certain persons and enterprises prohibited from bidding on and participating in City contracts.* Any person or enterprise who has been convicted of, or been judged civilly to have committed, any offense indicating a lack of business integrity or honesty, shall be debarred from bidding on any contract which requires bidding and from participating in any City contract. The offense shall include, but not be limited to, any of the following:

(1) Fraud or a criminal offense in connection with obtaining, attempting to obtain or performing a public or private contract or agreement or subcontract, or in the performance of the contract or subcontracts;

(2) Bribery, embezzlement, false claims, false statements, falsification or destruction of records, forgery, racketeering, mail fraud, receiving stolen property, obstruction of justice, theft, breach of duty to act disinterestedly, or another offense indicating a lack of business integrity or honesty;

(3) Unlawful price fixing between competitors, allocation of customers between competitors, bid rigging or any other violation of federal or state antitrust laws;

(4) Violations of a governing hour of labor, minimum wage standards or prevailing wage standards, discrimination in wages or child labor violations;

(5) Violation of any section of the Civil Rights Act of 1968, the Pennsylvania Human Relations Act, the City of Pittsburgh's Human Relations Ordinance, any affirmative action, civil rights or nondiscrimination law, executive order, rule, plan or regulation, or violation of any affirmative action or nondiscrimination provisions included in any agreement or contract;

(6) Violation of any law, regulation or agreement relating to conflict of interest;

(7) Loss or denial of the right to do business or practice a profession under a circumstance indicating a lack of business integrity or honesty;

(8) Failure to pay a debt, including any taxes, owed to the City, provided the debt is uncontested by the debtor or, if contested, provided that the debtor's legal and administrative remedies have been exhausted;

(9) Subcontracting or otherwise doing business with a debarred person or enterprise, in connection with a contract with the City, where it is known or where it reasonably should have been known, that the person or enterprise is debarred;

(10) Willful or material failure to perform the terms of a contract or agreement in accordance with specifications or within contractual time limits;

(11) A record of failure to perform or of unsatisfactory performance in accordance with the terms of one (1) or more contracts, provided that the failure or unsatisfactory performance was within a reasonable period of time preceding the determination to debar and was caused by acts within the control of the person or enterprise debarred;

(12) Violation of election laws;

(13) Providing false or misleading information as part of a prequalification statement, including but not limited to financial statements, equal opportunity employment forms, affidavits of compliance with prevailing wage statutes and product descriptive literature;

(14) Debarment or equivalent exclusionary action by any public agency, government or government instrumentality;

(15) Decertification as a minority or women enterprise;

(16) Illegal littering or dumping as defined by Title Six, Conduct, Article I, Regulated Rights and Actions, § 601.11;

(17) Wage theft violation as defined in Section 161.22(a) herein.

(18) Other cause affecting responsibility as a City contractor or vendor as may be determined by the City.

(c) *Responsible bidders.* No person or enterprise which falls within the provisions of subsection (b) hereof shall be considered a responsible bidder on any City contract.

(d) *Debarment.*

(1) *Evidence.* The existence of a cause for debarment under this section will be established by conviction or a judgment obtained in a court of competent jurisdiction or by determination by the appropriate body.

(2) *Conditions.* The existence of any of the causes set forth in Section 161.22(b) (relating to cause for debarment) does not necessarily require that a person or enterprise be debarred. In each instance, the decision will be made in the discretion of the Director of the Office of Management and Budget and the Mayor, unless otherwise required by law, and will be rendered in the best interests of the City.

(3) *Term.* All debarments under this section shall be for a reasonable, definitely stated period of time commensurate with the seriousness of the cause therefore. As a general rule, debarment will not exceed three (3) years. Debarment may be for a longer period of time where the offense is willful and egregious providing that notice thereof is furnished.

(4) *Parties affected.* Debarment may include all known affiliates provided that each decision to include an affiliate is made on a case-by-case basis after giving due regard to all relevant facts and the circumstances. The commission of an offense listed in subsection (b) hereof by an individual, agent,

officer or substantial stockholder, shall be imputed to the enterprise with which he or she or they are connected, when such impropriety involved was performed in the course of official duty, operation of an enterprise, or with the knowledge or approval of the enterprise.

(5) *Waiver.* A waiver to debarment may be granted by the City if one (1) or all of the following circumstances determine the public interest would best be served by the waiver:

A. If debarment would be inconsistent with public interest;

B. If debarment would result in unreasonable cost to the City;

C. If the material or service is not otherwise reasonably available or of satisfactory quality.

Such waiver shall be granted by the City department director out of whose line item funds are allocated, but only with approval of the Mayor. Mitigating factors may be considered in determining whether a waiver is warranted.

(e) *Procedure.*

(1) *Notice.* The Director of the Office of Management and Budget shall furnish the person or enterprise and its known affiliates with written notice of debarment setting forth the specific reasons for the proposed debarment.

(2) Any person or enterprise receiving a letter of debarment from the Director of the Office of Management and Budget may request a hearing within ten (10) days of the date of mailing of the notice. The appeal shall set out reasons why the person or enterprise should not be debarred.

(3) The appeal shall be filed with the Director of the Department of Finance. The Director shall notify the affected person or enterprise of the place and time of the hearing within five (5) days of the receipt of the appeal. The hearing shall be held within fifteen (15) days of the receipt of the appeal unless otherwise agreed to by the person or enterprise and the Director.

(4) The cause for debarment shall be established by a preponderance of the evidence. If the debarment is based upon a conviction, a civil judgment, a debarment by another government or public agency or a determination by an appropriate body with competent jurisdiction, the standard shall be deemed to have been met.

(f) *Bidders to file certification.* All bidders on and parties to City contracts shall file with their bid or prior to commencing performance a certification stating that they are not prohibited from entering their bid or participating in a City, Commonwealth or federal contract by reason of disqualification under subsection (b) hereof. The certification shall be signed by the company's owner, president or other authorized signing agent.

(g) *Certain contracts terminated.* In the event a contract is entered into in violation of subsection (b) hereof, the contract shall be terminated, if practicable, and no action in quantum meruit shall be permitted for recovery against the City.

(h) *Regulations.* The City may promulgate regulations necessary to implement this section.

(i) *Interpretation.* This section shall be liberally construed and strictly enforced.

(Ord. 24-1989, eff. 10-24-89; Ord. No. 24-2006, § 1(6), eff. 12-4-06; Ord. No. 11-2014, § 1, eff. 6-17-14; Ord. No. 5-2017, § 1, eff. 2-10-17; Ord. No. 7-2020, § 1, eff. 3-13-20)

SDP COMMITMENT FORM

Pittsburgh Water Project Name:	Locating and Identifying Underground Utilities	**Name of Bidder:**	T2 Utility Engineers
Pittsburgh Water Project Number:	2025-077	**Contact Name:**	Nicholas J. McCombie
Total Bid Amount:	$1,099,445.00	**Telephone Number:**	814.475.7985
Total Overall Commitment (%):	10%	**Email Address:**	nicholas.mccombie@t2ue.com
Total Overall Commitment ($):	$109,944.50		

Disadvantaged Business Firm Name	Certifying Agency	Material/Service Provided	% MBE	% WBE	% SBE	% VBE	% DOBE	% LGBTBE	Total Commitment Price
Supreme Traffic Control	DGS	Traffic Control	2.5%						$27,486
JMD Building Products	DGS	Paint/Flags		7.5%					$82,458

- The firm is committing to the following diverse supplier participation on this bid/proposal.
- Complete the table indicating the suppliers that will be utilized as direct subcontractors/subconsultants to meet the participation levels indicated in the Supplier Diversity Program.
- If your company will not have a disadvantaged business participation, please indicate that as zero participation on the SDP Commitment Form and also complete the Good Faith Waiver Request Form.
- For subcontractors/subconsultant that are not selected, indicate in the Good Faith Waiver Effort Waiver Request Form.
- All bids/proposals must be accompanied with the completed SDP Form and supporting documentation that includes email correspondence, bids/proposals received, and a copy of the certification certificate and/or letter from certifying agency.
- Percentages are calculated by dividing total commitment price by total bid amount.

Addenda Acknowledgement Form

Project Name: Locating and Identifying Underground Facilities

Pittsburgh Water Project No.: 2025-077

We acknowledge the receipt of the following addenda:

Addendum Number	Date Received
Addendum 1	07/29/2025

Acknowledged by:

Nicholas J. McCombie

Full Name

Branch Manager

Title

T2 Utility Engineers

Organization

7/29/2025

Date

PGH2O | PITTSBURGH WATER

Statement of Environmental Law Compliance

Project Name:

Pittsburgh Water Project No.:

If, within the past ten years, your company has been found in violation of laws intended to safeguard the natural environment or regulations prescribing specific steps regarding the manufacturing, handling, and transportation of certain chemicals, give date, location, and a brief description here. Past violations will not necessarily disqualify a bidder. If your company has not been found in violation, so state.

Date	Location	Description

☒ *Enter Organization Name*: T2 Utility Engineers has not been found in violation of federal, state, or local laws intended to safeguard the natural environment or regulations the manufacture, handling or transportation of chemicals.

I hereby certify that this is a complete and accurate representation of this company's compliance with environmental laws and regulations:

By:

Nicholas J. McCombie

Full Name

Branch Manager

Title

T2 Utility Engineers

Organization

7/25/2025

Date

10. MANDATORY MINIMUM REQUIREMENTS

A. The Bidder must submit a description of any Notices of Violation or Administrative Orders issued to the Bidder, or any of its owners, directors, or officers in the last three years.

T2 UES, Inc. dba T2 Utility Engineers does not have any Notices of Violation or Administrative Orders issued to the firm, or any of its owners, directors, or officers in the last three years.

10. MANDATORY MINIMUM REQUIREMENTS

B. The Bidder must submit a list of any accidents at job sites that were reported to federal, state, county or local health and safety officials involving the Bidder in the last three years.

See attached OSHA 300 / 300A logs for last three years.

OSHA's Form 300 (Rev. 04/2004)

Log of Work-Related Injuries and Illnesses

Note: You can type input into this form and save it.
Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader. In addition, the forms are programmed to auto-calculate as appropriate.

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

Year 20 24

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Please Record:
- *Information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid.*
- *Significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional.*
- *Work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12.*

Reminders:
- *Complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.*
- *Feel free to use two lines for a single case if you need to.*
- *Complete the 5 steps for each case.*

Establishment name: T2 UES, Inc.

City: Indianapolis State: IN

Step 1. Identify the person

Step 2. Describe the case

Step 3. Classify the case

SELECT ONLY ONE circle based on the most serious outcome:

Step 4.

Enter the number of days the injured or ill worker was:

Step 5.

Select one column:

	(A) Case no.	(B) Employee's name	(C) Job title *(e.g., Welder)*	(D) Date of injury or onset of illness *(e.g., 2/10)*	(E) Where the event occurred *(e.g., Loading dock north end)*	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill *(e.g., Second degree burns on right forearm from acetylene torch)*	(G) Death	(H) Days away from work	(I) Job transfer or restriction	(J) Other record-able cases	(K) Away from work	(L) On job transfer or restriction	(M) Injury (1)	Skin disorder (2)	Respiratory condition (3)	Poisoning (4)	Hearing loss (5)	All other illnesses (6)
Reset	1	[redacted]	SUE Tech 2	1 / 19 month / day	rear of vacuum excavation truck on project site	right ear-temporary hearing loss from inadvertent release of high pressure air				●	____ days	____ days	●					
Reset	2		SUE Tech 1	2 / 13 month / day	Colorado Springs job site	left thumb laceration				●	____ days	____ days	●					
Reset	3		SUE Tech 1	3 / 4 month / day	Phoenix jobsite	inguinal hernia from attempt to free stuck chipping hammer bit		●			20 days	____ days	●					
Reset				____ / ____ month / day							____ days	____ days						
Reset				____ / ____ month / day							____ days	____ days						
Reset				____ / ____ month / day							____ days	____ days						
Reset				____ / ____ month / day							____ days	____ days						
Reset				____ / ____ month / day							____ days	____ days						
Reset				____ / ____ month / day							____ days	____ days						
Reset				____ / ____ month / day							____ days	____ days						
						Page totals ▶	0	1	0	2	20	0	3	0	0	0	0	0

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Add a Form Page

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

OSHA's Form 300A (Rev. 04/2004)

Summary of Work-Related Injuries and Illnesses

Note: You can type input into this form and save it.
Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader.

Year 20 24

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	1	0	2
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
20	0
(K)	(L)

Injury and Illness Types

Total number of... (M)			
(1) Injuries	3	(4) Poisonings	0
(2) Skin disorders	0	(5) Hearing loss	0
(3) Respiratory conditions	0	(6) All other illnesses	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name: T2 UES, Inc.

Street: 7217 E 87th St.

City: Indianapolis State: IN Zip: 46256

Industry description (*e.g., Manufacture of motor truck trailers*)

Subsurface Utilities Locating

North American Industrial Classification (NAICS), if known (e.g., 336212)

5 6 1 9 9 0

Employment information (*If you don't have these figures, see the Worksheet on the next page to estimate.*)

Annual average number of employees: 256

Total hours worked by all employees last year: 495,808.00

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company executive: [signature] Title: DIRECTOR HSE

Phone: 727-288-6698 Date: 1/22/2025

Reset

OSHA's Form 300A (Rev. 04/2004)

Summary of Work-Related Injuries and Illnesses

Note: You can type input into this form and save it.
Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader.

Year 20 23

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	1	0	2
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
18	0
(K)	(L)

Injury and Illness Types

Total number of . . . (M)			
(1) Injuries	3	(4) Poisonings	0
(2) Skin disorders	0	(5) Hearing loss	0
(3) Respiratory conditions	0	(6) All other illnesses	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name: T2 UES, Inc.

Street: 7217 E 87th St.

City: Indianapolis State: IN Zip: 46256

Industry description (*e.g., Manufacture of motor truck trailers*)

Subsurface Utilities Locating

North American Industrial Classification (NAICS), if known (e.g., 336212)

5 6 1 9 9 0

Employment information *(If you don't have these figures, see the Worksheet on the next page to estimate.)*

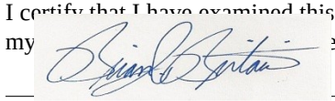
Annual average number of employees: 257

Total hours worked by all employees last year: 500,707.00

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my [illegible], accurate, and complete.



Company executive

Director of HSE
Title

Phone 727-288-6698 Date 01/11/2024

Reset

OSHA's Form 300 (Rev. 04/2004)

Log of Work-Related Injuries and Illnesses

Note: You can type input into this form and save it.
Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader. In addition, the forms are programmed to auto-calculate as appropriate.

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

Year 20 23

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Please Record:
- *Information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid.*
- *Significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional.*
- *Work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12.*

Reminders:
- *Complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.*
- *Feel free to use two lines for a single case if you need to.*
- *Complete the 5 steps for each case.*

Establishment name: T2 UES, Inc.

City: Indianapolis State: IN

Step 1. Identify the person

Step 2. Describe the case

Step 3. Classify the case

SELECT ONLY ONE circle based on the most serious outcome:

Step 4.

Enter the number of days the injured or ill worker was:

Step 5.

Select one column:

	(A) Case no.	(B) Employee's name	(C) Job title *(e.g., Welder)*	(D) Date of injury or onset of illness *(e.g., 2/10)*	(E) Where the event occurred *(e.g., Loading dock north end)*	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (*e.g., Second degree burns on right forearm from acetylene torch*)	(G) Death	(H) Days away from work	(I) Job transfer or restriction (Remained at Work)	(J) Other record-able cases (Remained at Work)	(K) Away from work (days)	(L) On job transfer or restriction (days)	(M) Illness: Injury (1)	Skin disorder (2)	Respiratory condition (3)	Poisoning (4)	Hearing loss (5)	All other illnesses (6)
Reset	1		Office Admin	1 / 20	office storage room	neck strain from pushing boxes on the floor				●								
Reset	2		Survey Tech	1 / 24	field in Key Largo	contact dermatitis-poisonwood sap				●			●					
Reset	3		SUE Tech	10 / 2	I-65 Calumet, IN	head laceration		●			18		●					
Reset				/														
Reset				/														
Reset				/														
Reset				/														
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Add a Form Page

	(G) Death	(H) Days away from work	(I) Job transfer or restriction	(J) Other record-able cases	(K) Away from work	(L) On job transfer or restriction	(M) Injury (1)	Skin disorder (2)	Respiratory condition (3)	Poisoning (4)	Hearing loss (5)	All other illnesses (6)
Page totals ▶	0	1	0	2	18	0	3	0	0	0	0	0

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

OSHA's Form 300A (Rev. 04/2004)

Summary of Work-Related Injuries and Illnesses

Note: You can type input into this form and save it.
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Year 20 22

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	0	0	2
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
0	0
(K)	(L)

Injury and Illness Types

Total number of . . .	(M)		
(1) Injuries	2	(4) Poisonings	0
(2) Skin disorders	0	(5) Hearing loss	0
(3) Respiratory conditions	0	(6) All other illnesses	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name: T2 UES, Inc.

Street: 7217 E 87th Street

City: Indianapolis State: IN Zip: 46256

Industry description (*e.g., Manufacture of motor truck trailers*)

Subsurface Utilities Engineering

North American Industrial Classification (NAICS), if known (e.g., 336212)

5 6 1 9 9 0

Employment information

(If you don't have these figures, see the Worksheet on the next page to estimate.)

Annual average number of employees: 247

Total hours worked by all employees last year: 476,231.00

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company executive: [signature] Title: DIRECTOR OF HSE

Phone: 727-288-6698 Date: 01/03/2023

Reset

OSHA's Form 300 (Rev. 04/2004)

Log of Work-Related Injuries and Illnesses

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Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

Year 20 22

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Please Record:
- Information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid.
- Significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional.
- Work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12.

Reminders:
- Complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.
- Feel free to use two lines for a single case if you need to.
- Complete the 5 steps for each case.

Establishment name: T2 UES, Inc.

City: Indianapolis State: IN

Step 1. Identify the person			Step 2. Describe the case			Step 3. Classify the case (SELECT ONLY ONE circle based on the most serious outcome:)				Step 4. Enter the number of days the injured or ill worker was:		Step 5. Select one column:						
								Remained at Work						(M) Illness					
(A) Case no.	(B) Employee's name	(C) Job title (e.g., Welder)	(D) Date of injury or onset of illness (e.g., 2/10)	(E) Where the event occurred (e.g., Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch)	Death (G)	Days away from work (H)	Job transfer or restriction (I)	Other recordable cases (J)	Away from work (K)	On job transfer or restriction (L)	(1) Injury	(2) Skin disorder	(3) Respiratory condition	(4) Poisoning	(5) Hearing loss	(6) All other illnesses
Reset 1	[redacted]	SUE Tech	5 / 19 month / day	Fridley, MN	Broken #19 Molar from biting on Debris ejected from test hole	○	○	○	◉	____ days	____ days	◉	○	○	○	○	○
Reset 2	[redacted]	SUE Tech	11 / 1 month / day	Huntington Beach, CA	Upper Back strain from 30-lb. Jackhammer usage	○	○	○	◉	____ days	____ days	◉	○	○	○	○	○
Reset			___ / ___ month / day			○	○	○	○	____ days	____ days	○	○	○	○	○	○
Reset			___ / ___ month / day			○	○	○	○	____ days	____ days	○	○	○	○	○	○
Reset			___ / ___ month / day			○	○	○	○	____ days	____ days	○	○	○	○	○	○
Reset			___ / ___ month / day			○	○	○	○	____ days	____ days	○	○	○	○	○	○
Reset			___ / ___ month / day			○	○	○	○	____ days	____ days	○	○	○	○	○	○
Reset			___ / ___ month / day			○	○	○	○	____ days	____ days	○	○	○	○	○	○
Reset			___ / ___ month / day			○	○	○	○	____ days	____ days	○	○	○	○	○	○
Reset			___ / ___ month / day			○	○	○	○	____ days	____ days	○	○	○	○	○	○
Reset			___ / ___ month / day			○	○	○	○	____ days	____ days	○	○	○	○	○	○
					Page totals ▶	0	0	0	2	0	0	2	0	0	0	0	0

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Add a Form Page

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

(1) Injury (2) Skin disorder (3) Respiratory condition (4) Poisoning (5) Hearing loss (6) All other illnesses

10. MANDATORY MINIMUM REQUIREMENTS

C. The Bidder must submit a narrative describing their experience related to the activities in the Scope of Work.

Related Project Experience. *Below is a list of our project experience with services of the same scope as those required by this PW contract.*

Pittsburgh Water (PW)
Locating and Identifying Underground Facilities (09/2024 – ongoing)
Pittsburgh, PA

T2 is providing underground utility locating services for the PW, which is comprised of approximately 964 miles of water lines and 1,220 miles of sewer lines. **T2 is responding to 1-call tickets, approximately 37,000 per year, which are placed in the vicinity of PW water and sanitary lines**. T2 is responsible for utilizing PW's GIS system and records. Additionally, T2's field locaters perform field mark-outs and respond to routine, design, damage, and emergency tickets. T2 manages PW's one-call responsibilities using our ticket management system and provides PWSA monthly ticket summaries and discrepancy reports. Contract Amount: $1.2M (Anticipated T2 Fee)

T2 has had a 100% response rate and zero damage liability through the duration of the contract.



Allegheny County Sanitary Authority (ALCOSAN)
(1-Call) Underground Utility Locating Services – Phase I (03/2021 - Ongoing)
Allegheny County, PA

T2 is providing underground utility locating services for the ALCOSAN, which is comprised of approximately 90 miles of sanitary sewer lines. **T2 is responsible for responding to PA-1-call tickets, approximately 4,000 per year, which are placed in the vicinity of ALCOSAN's sanitary lines**. T2 is utilizing ALCOSAN's GIS system and records. Additionally, T2's field locaters perform field mark-outs and respond to routine, design, damage, and emergency tickets. T2 is managing ALCOSAN's one-call responsibilities using an internal ticket management system and provides ALCOSAN weekly ticket summary and discrepancy reports. COST: $400K (T2 Fees)

T2 has had a 100% response rate and zero damage liability through the duration of the contract.



New York State Department of Transportation (NYSDOT)
Region 10 Underground Utility Locating Services (UULS)
Suffolk, Nassau Counties 04/2022 - ongoing

T2 was awarded this 2-year contract for UNDERGROUND UTILITY LOCATING SERVICES (UULS) to locate NYSDOT owned underground infrastructure associated with Traffic Signals, Roadway Lighting, Bascule Bridges, and Intelligent Transportation System (ITS) equipment locations in NYSDOT Region 10. COST: $ (Purchase Order Amount): $1M



New York State Department of Transportation (NYSDOT)
Region 11 Underground Utility Locating Services (UULS)
Bronx, Kings, New York, Queens, Richmond Counties
02/2023 - ongoing

T2 was recently awarded this 2-year contract for UNDERGROUND UTILITY LOCATING SERVICES (UULS) to locate DOT-owned underground infrastructure associated with Intelligent Transportation System (ITS) equipment locations in NYSDOT Region 11. COST: (Purchase Order Amount): $2.6M



The Port Authority of New York And New Jersey
Utility Locating / Designating "1-Call Mark-Out" Services
(Various Facilities in New York, excluding Staten Island) (2022- ongoing)

T2 is performing '1-Call Utility locating' services at all the PANYNJ New York facilities, (excluding Staten Island). Facilities to include JFK, LGA, BMT, WTC, PABT, as well as GWB, LT and HT, New York side only, according to Performance of Expert Professional Land Surveying-Utility Locating and marking/designating "1-Call" Mark-out Services as requested on a "Call-In" Basis.

COST: $2.0M annually (T2 Fees)

Testimonial for T2's PA 811 One-Call Services **January 17, 2025**

"…for AS (ALCOSAN) and CB (Pittsburgh Water) your response rates to tickets (locate requests) are both 100% for the last 90 days. Please contact me if you would like me to review additional response data. Great job on the response rate!"

Daniel J. Nemanic, Damage Prevention Liaison
Pennsylvania One Call System, Inc.

Question Set 1: Vendor Info

#	Question	Response	Comment
1.0.1	Contact Name	Nicholas J. McCombie	Project Manager
1.0.2	Email Address	nicholas.mccombie@t2ue.com	Work email
1.0.3	Phone Number	814.475-7985/724.776.4711	Cell-phone/Office
1.0.4	Do you confirm that your company meets the requirements under IFB Section 11. BIDDER TO BE EXPERIENCED: "...experience performing a minimum of two years with at least an average of 1,000 Pennsylvania One Call service tickets per month during those years. Pittsburgh Water would also consider other states' 811 or comparable systems to meet this requirement."	Yes	1) T2 has held NYSDOT Region 10 & 11 contracts since 2023 & 2024, respectively, with an average of 1,000+ tickets per month.2) T2 has held PWSA's one-call contract from October 1, 2024, to the present, with a ticket average of 2,000+ per month.
4 Questions			**100.00% Complete**

Schedule of Prices (BT-26LU)

VENDOR: **T2 UES, Inc. dba T2 Utility Engineers**
PROJ. #: **2025-077**
PROJ. TITLE: **Locating and Identifying Underground Facilities**

Term	Base Term
Dates	Sept. 30, 2025 - Sept. 29, 2026
Total Cost	$1,099,445.00

Line #	Item	Ticket Type	Time Frame	Final Response	Estimated Quantity	UOM	Unit Price	Extended Price
Group	***One Call Service***							
#1-1	Routine Ticket, Clear No Facilities	Routine	n/a	Clear No Facilities	12000	Each	$ 8.10	$ 97,200.00
#1-2	Routine Ticket, Marked	Routine	n/a	Marked	12000	Each	$ 62.10	$ 745,200.00
#1-3	Routine Ticket, Engineering Completed	Routine	n/a	Engineering Completed	2000	Each	$ 27.00	$ 54,000.00
#1-4	Routine Ticket, Attended Meeting	Routine	n/a	Attended Meeting	100	Each	$ 85.00	$ 8,500.00
#1-5	Emergency Ticket, Weekday Business Hours, Clear No Facilities	Emergency	Mon.-Fri., 7:00 a.m. - 4:00 p.m.	Clear No Facilities	1800	Each	$ 13.00	$ 23,400.00
#1-6	Emergency Ticket, Weekday After Hours, Clear No Facilities	Emergency	Mon.-Thu., 4:01 p.m. - 6:59 a.m. following day	Clear No Facilities	700	Each	$ 22.50	$ 15,750.00
#1-7	Emergency Ticket, Weekend Hours, Clear No Facilities	Emergency	Fri., 4:01 p.m. - Mon., 6:59 a.m.	Clear No Facilities	280	Each	$ 22.50	$ 6,300.00
#1-8	Emergency Ticket, Weekday Business Hours, Marked	Emergency	Mon.-Fri., 7:00 a.m. - 4:00 p.m.	Marked	1400	Each	$ 62.10	$ 86,940.00
#1-9	Emergency Ticket, Weekday After Hours, Marked	Emergency	Mon.-Thu., 4:01 p.m. - 6:59 a.m. following day	Marked	450	Each	$ 98.50	$ 44,325.00
#1-10	Emergency Ticket, Weekend Hours, Marked	Emergency	Fri., 4:01 p.m. - Mon., 6:59 a.m.	Marked	180	Each	$ 98.50	$ 17,730.00
#1-11	One Call Testimonial (Hourly Rate)	n/a	n/a	Testimonial	1	Per Hour	$ 100.00	$ 100.00

Docusign Envelope ID: 4160AA08-5A23-4449-97ED-73D80AAE0FCF

Bond No. N-5100073

THE PITTSBURGH WATER AND SEWER AUTHORITY

Project Name: Locating and Identifying Underground Facilities

Project No.: 2025-077

Project Description:

Locate and identify Pittsburgh Water's underground facilities through the Pennsylvania One Call Center. The Contractor shall provide all labor, material, equipment, tools, and appurtenances necessary to complete the scope of work.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

THAT WHEREAS, **The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water** (the "Authority" or the "Obligee") has awarded to **T2 UES, Inc. dba T2 Utility Engineers**, as Principal, a contract dated the 23rd day of September, 2025 (the "Contract"), which Contract is by this reference made a part hereof, for the above-referenced Project;

AND WHEREAS, Principal is required to furnish a bond in connection with the Contract, guaranteeing the faithful performance thereof.

NOW, THEREFORE, we, the undersigned Principal and **Indemnity National Insurance Company,** as Surety, are held and firmly bound unto the Authority in the sum of **One Million, Ninety-Nine Thousand, Four Hundred Forty-Five and no/100 United States Dollars ($1,099,445.00),** to be paid to the Authority or its successors and assigns; for which payment, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

1. THE CONDITION OF THIS OBLIGATION IS SUCH, that if Principal or its heirs, executors, administrators, successors, or assigns approved by the Authority shall promptly and faithfully perform the covenants, terms, conditions, and agreements of the Contract during the original term and any extensions thereof as may be granted by the Authority, and during the period of any guarantees or warranties required under the Contract, and shall also promptly and faithfully perform all the

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covenants, conditions and agreements of any alteration of the Contract made as therein provided on Principal's part to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify, defend, protect, and hold harmless the Authority as stipulated in the Contract, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

2. No extension of time, change, alteration, modification or addition to the Contract, or of the work required thereunder, shall release or exonerate Surety on this bond or in any way affect the obligation of this bond; and Surety does hereby waive notice of any such extension of time, change, alteration, modification, or addition.

3. Whenever Principal shall be and declared by the Authority to be in default under the Contract, Surety shall promptly remedy the default, and shall:

3.1 Undertake through its agents or independent contractors, reasonably acceptable to the Authority, to complete the Contract in accordance with its terms and conditions and pay and perform all obligations of the Principal under the Contract, including without limitation, all obligations with respect to warranties, guarantees, and the payment of liquidated damages or, at Surety's election or if required by the Authority,

3.2 Obtain a bid or bids for completing the Contract in accordance with its terms and conditions and, upon determination by the Authority of the lowest responsible bidder, arrange for a contract between such bidder and the Authority and make available as the work progresses (even though there should be a default or a series of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the Contract Sum, and to pay and perform all obligations of Principal under the Contract, including, without limitation, all obligations with respect to warranties, guarantees, and the payment of liquidated damages. The term "balance of the Contract Sum," as used herein, shall mean the total amount payable by the Authority to the Principal under the Contract and any amendments thereto, less the amount paid by the Authority to the Principal.

4. Notwithstanding the provisions of section 3 above, should the Obligee reasonably determine that the progress of the Project will be unreasonably delayed, that delay damages will be assessed, or that an emergency threatening injury to persons or property will exist unless immediate action is taken to cure the Principal's default, the Obligee may upon three days written notice to the Surety re-let or complete the

Docusign Envelope ID: 4160AA08-5A23-4449-97ED-73D80AAE0FCF

Contract. The reasonable cost of such re-letting or completion shall be considered as part of the cost of completion.

5. The Surety is obligated without duplication for:

5.1 all costs associated with performing responsibilities of the Principal for furnishing materials and completion of the Contract.

5.2 additional legal, design professional, and delay costs associated with the Principal's default; and

5.3 consequential and liquidated damages, or if no liquidated damage provision exists under the Contract, actual damages caused by delayed performance or non-performance of the Principal.

6. In any event, Surety's total obligations under this bond shall not exceed the penal amount set forth above.

7. No right of action shall accrue on this bond to or for the use of any other person, corporation or other entity other than the Authority or its successors or assigns.

8. Correspondence or claims relating to this bond shall be sent to Surety at the address set forth below.

9. The bond shall be effective for the definite period of August 22, 2025 to August 22, 2026. The bond may be extended, at the sole option of the surety, by continuation certificate for additional periods from the expiry date hereof. However, neither a) the surety's decision not to issue a continuation certificate, nor b) the failure or inability of the principal to file a replacement bond or other security in the event the surety exercises its right to not renew this bond, shall itself constitute a loss to the Obligee recoverable under this Bond or any extension thereof.

IN WITNESS WHEREOF, we have hereunto set our hands this 12th day of September, 2025.

PRINCIPAL:

T2 UES, Inc. dba T2 Utility Engineers

By: Michael P. Woods

Print name: Michael P. Woods

Title: Sr. Vice President

T2 UES, Inc. CORPORATE SEAL Delaware

SURETY:

Indemnity National Insurance Company

By: Vanessa Dominguez

Print name: Vanessa Dominguez

Title: Attorney-In-Fact

Docusign Envelope ID: 4160AA08-5A23-4449-97ED-73D80AAE0FCF

Bond No. N-5100073

Address for notices:

Indemnity National Insurance Company

238 Bedford Way

Franklin, TN 37064

NOTE: Notary acknowledgement for Surety and Surety's Power of Attorney must be attached.

Docusign Envelope ID: 4160AA08-5A23-4449-97ED-73D80AAE0FCF

Indemnity National Insurance Company
238 Bedford Way
Franklin, TN 37064

Power of Attorney

KNOW ALL PERSONS BY THESE PRESENTS: that Indemnity National Insurance Company, a Mississippi corporation, (hereinafter the "Company"), does hereby constitute and appoint: *******Amanda George, Andrea M. Penaloza, Gina A. Rodriguez, ********** **********Lisa A. Ward, Lupe Tyler, Misty Wright, Terri L. Morrison, Vanessa Dominguez********** of **********Aon********** to be its true and lawful Attorney-in-Fact, with full power and authority hereby conferred to sign, seal, and execute on its behalf surety bonds or undertakings and other documents of a similar nature issued in the course of its business up to a penal sum not to exceed Ten million dollars ($10,000,000.00)********** each, and to bind the Company thereby as fully and to the same extent as if the same were signed by the duly authorized officers of the Company.

This appointment is made under and executed pursuant to and by authority of the following Minutes of Special Actions Taken by Written Consent of the Board of Directors, which is now in full force and effect:

Authorization to Appoint Attorneys-in-Fact and the Use of Facsimile Signatures and Facsimile Seals for the Purpose of Issuing Bonds:

RESOLVED: That the president or any vice president may appoint attorneys-in-fact or agents with authority as defined or limited in the instrument evidencing the appointment in each case, for and on behalf of the Company to execute and deliver and affix the seal of the Company to bonds and related obligatory certificates and documents; and any one of said officers may remove any such attorney-in-fact or agent and revoke any power previously granted to such person, whether or not such officer appointed the attorney-in-fact or agent.

RESOLVED: That any bonds and related obligatory certificates and documents shall be valid and binding upon the Company,
(i) when signed by the president, or any vice president, and sealed with the Company seal; or
(ii) when duly executed and sealed with the Company seal by one or more attorneys-in-fact or agents pursuant to and within the limits of authority evidenced by the power of attorney issued by the Company to such person or persons a certified copy of which power of attorney must be attached thereto in order for such obligation to be binding upon the Company.

RESOLVED: That the signature of any authorized officer and the seal of the Company may be affixed to any power of attorney or certification thereof authorizing the execution and delivery of any bonds and related obligatory certificates and documents of the Company and such signature and seal then so used shall have the same force and effect as though manually affixed.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Company and the corporate seal of Indemnity National Insurance Company has been affixed thereto in Lexington, Kentucky this 20th day of August, 2021.

Indemnity National Insurance Company

By _____
Thomas F. Elkins, President

State of Kentucky
County of Fayette

On this 20th day of August, 2021, before me, a Notary Public, personally came Thomas F. Elkins, to me known, and acknowledged that he is President of Indemnity National Insurance Company; that he knows the seal of said corporation; and that he executed the above Power of Attorney and affixed the corporate seal of Indemnity National Insurance Company thereto with the authority and at the direction of said corporation.

By _____
Notary Public

My Commission Expires 09/26/2025

CERTIFICATE

I, James E. Hart, Secretary of Indemnity National Insurance Company, do hereby certify that the foregoing Power of Attorney is still in full force and effect, and further certify that the Minutes of Special Actions Taken by Written Consent of the Board of Directors are now in full force and effect.

IN TESTIMONY WHEREOF I have subscribed my name and affixed the seal of said Company. Dated this 12th day of September, 2025.

By _____
James E. Hart, Secretary

Docusign Envelope ID: 4160AA08-5A23-4449-97ED-73D80AAE0FCF

CERTIFICATE OF ACKNOWLEDGMENT OF CORPORATE SURETY

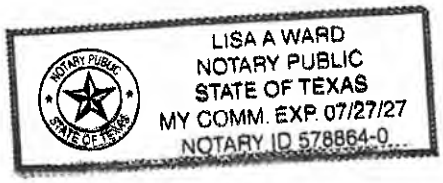
State of Texas §

County of Comal §

Before me, the undersigned authority, on this day personally appeared Vanessa Dominguez known to me to be the person whose name is subscribed to the foregoing instrument as Attorney-in-Fact of Indemnity National Insurance Company and acknowledged to me that he/she executed the same for purposes and consideration therein expressed, and in the capacity therein stated.

Given under my hand and seal of office this 12th day of September, 2025.

SEAL



Lisa A. Ward

Notary Public in and for
The State of TEXAS

Lisa A. Ward
My Commission expires: 7/27/2027

Docusign Envelope ID: 4160AA08-5A23-4449-97ED-73D80AAE0FCF

CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY) 08/22/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Aon Risk Services Southwest, Inc.
Houston TX Office
1300 Post Oak Blvd., Suite 1400
Houston TX 77056 USA

CONTACT NAME:
PHONE (A/C. No. Ext): (866) 283-7122 **FAX (A/C. No.):** (800) 363-0105
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A:	Zurich American Ins Co	16535
INSURER B:	Illinois Union Insurance Company	27960
INSURER C:	Commerce & Industry Ins Co	19410
INSURER D:	National Union Fire Ins Co of Pittsburgh	19445
INSURER E:		
INSURER F:		

INSURED
T2 UES Inc
7217 E 87th Street
Indianapolis IN 46256 USA

COVERAGES **CERTIFICATE NUMBER:** 570115054349 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

Limits shown are as requested

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
D	X **COMMERCIAL GENERAL LIABILITY** CLAIMS-MADE / X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY / X PRO-JECT / LOC OTHER:	Y	Y	5361923	07/01/2025	07/01/2026	EACH OCCURRENCE	$1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$100,000
							MED EXP (Any one person)	$10,000
							PERSONAL & ADV INJURY	$1,000,000
							GENERAL AGGREGATE	$10,000,000
							PRODUCTS - COMP/OP AGG	$2,000,000
							Per Project Aggregate	$2,000,000
A	**AUTOMOBILE LIABILITY** X ANY AUTO OWNED AUTOS ONLY / SCHEDULED AUTOS HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY	Y	Y	BAP 0305096-05	10/31/2024	10/31/2025	COMBINED SINGLE LIMIT (Ea accident)	$2,000,000
							BODILY INJURY (Per person)	
							BODILY INJURY (Per accident)	
							PROPERTY DAMAGE (Per accident)	
C	X **UMBRELLA LIAB** / X OCCUR **EXCESS LIAB** / CLAIMS-MADE DED / X RETENTION $10,000	Y	Y	BE013506426	07/01/2025	07/01/2026	EACH OCCURRENCE	$4,000,000
							AGGREGATE	$4,000,000
A	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N: N **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below	N / A	Y	WC030509505 AOS - WA Stop Gap	10/31/2024	10/31/2025	X PER STATUTE / OTH-ER	
							E.L. EACH ACCIDENT	$1,000,000
							E.L. DISEASE-EA EMPLOYEE	$1,000,000
							E.L. DISEASE-POLICY LIMIT	$1,000,000
D	Architects & Engineers Professional			060790076 CLAIMS MADE	06/30/2025	06/30/2026	Each Claim Policy Aggregate	$10,000,000 $10,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Re: Project: Pittsburgh Water Project 2025-077 Locating and Identifying Underground Facilities.
Pittsburgh Water is included as Additional Insured in accordance with the policy provisions of the General Liability, Automobile Liability and Umbrella Liability policies. A Waiver of Subrogation is granted in favor of Pittsburgh Water in accordance with the policy provisions of the General Liability, Automobile Liability, Umbrella Liability, and Workers Compensation policies. Should General Liability, Automobile Liability and Workers Compensation policies be cancelled before the expiration date thereof, the policy provisions of each policy will govern how notice of cancellation may be delivered to certificate holders in accordance with the policy provisions of policy.

CERTIFICATE HOLDER

Pittsburgh Water
Penn Liberty Plaza
1200 Penn Avenue
Pittsburgh PA 15222 USA

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Aon Risk Services Southwest, Inc.

Holder Identifier :

Certificate No : 570115054349

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AGENCY CUSTOMER ID: 570000081474

LOC #:

ADDITIONAL REMARKS SCHEDULE

AGENCY	NAMED INSURED
Aon Risk Services Southwest, Inc.	T2 UES Inc
POLICY NUMBER: See Certificate Number: 570115054349	
CARRIER: See Certificate Number: 570115054349 / NAIC CODE	EFFECTIVE DATE:

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: ACORD 25 **FORM TITLE:** Certificate of Liability Insurance

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER	
INSURER	
INSURER	
INSURER	

ADDITIONAL POLICIES If a policy below does not include limit information, refer to the corresponding policy on the ACORD certificate form for policy limits.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS	
	OTHER							
B	Contractors Pollution Liability			G466584898002 CLAIMS MADE	12/31/2024	06/30/2026	Per Claim Limit	$10,000,000
							Aggregate Limit	$10,000,000

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Exhibit EB-19

PITTSBURGH WATER
PGH2O

BOARD RESOLUTION ITEM

Originating Department:	Engineering and Construction	Phone:	412-720-8568
Department Contact:	Rachael Beam	E-mail:	RBeam@pgh2o.com
Date:	08.22.2025	Project Number:	2025-OPS-100-0

Resolution No: 82

Approving a Change Order of an Operating Contract for Construction of the 2025 Surface Restoration Project to A. Folino Construction, Inc. and an Amendment of a Professional Service Agreement (Operations) for Construction Management and Inspection Services to Hatch Associates Consultants, Inc. Cumulative Operating Budget: $3,220,000.

FINAL BOARD APPROVAL:
ADOPTED AUGUST 22, 2025

BJ Leber, Secretary

BOARD RESOLUTION REPORT

Resolution No:	82
DATE:	08.22.2025
TO:	Pittsburgh Water Board of Directors
SUBJECT:	Approving a Change Order of an Operating Contract for Construction of the 2025 Surface Restoration Project to A. Folino Construction, Inc. and an Amendment of a Professional Service Agreement (Operations) for Construction Management and Inspection Services to Hatch Associates Consultants, Inc. Cumulative Operating Budget: $3,220,000.
PROJECT NUMBER:	2025-OPS-100-0

STATEMENT OF THE ISSUE:

This Indefinite Delivery/Indefinite Quantity (IDIQ) contract addresses necessary surface restoration for sites completed by Pittsburgh Water Operations, including any open site yet to be restored to date, and sites that will be completed in the 2025 construction season. This contract involves milling, asphalt and brick placement, concrete restoration, and landscaping across the service area in support of the water and sewer line repair sites completed by Pittsburgh Water's Operations Department.

The basis for this change order and amendment is to continue addressing the restoration needed on the current backlog of sites as well as sites generated during the 2025 construction season. This change order will result in the completion of approximately 140 additional sites during the current restoration season.

This proposed change order for the construction contract for $2,800,000 is an approximate 50% increase to the approved current commitment of $5,635,343.33 and if approved will result in a new cumulative commitment of $8,435,343.33.

This proposed amendment for the Professional Services Agreement for $420,000 is an approximate 28% increase to the approved current commitment of $1,499,999 and if approved will result in a new cumulative commitment of $1,919,999.

Dates of Advertisement:	
Date of Pre-Bid/Pre-Proposal Meeting and Number of Firms in Attendance:	
No. of Firms that Requested Solicitation:	
Dates of Issue of Addenda and brief description:	
Bid/Proposal Due Date and Time:	
No. of Bids/Proposals Received:	
Why did firms requesting the solicitation not submit a bid/proposal?	

RECOMMENDED ACTION:
Approve a change order for an Operating Contract for construction of the 2025 Surface Restoration Project to A. Folino Construction, Inc. in the amount of $2,800,000 and an amendment of the Professional Services Agreement (Operations) for Construction Management and Inspection Services to Hatch Associates Consultants, Inc. in the amount of $420,000.

SUPPLIER DIVERSITY PROGRAM STATUS:
Details regarding the Supplier Diversity Program (SDP) Participation Commitments can be found in the attached SDP Participation Summary Memos.

FINANCIAL IMPACT OF RECOMMENDATION:

Account Information	
Account:	Operating
Department Code:	109 - Engineering & Construction
Account Code:	7701 - Capital Projects Only, 5413 - Concrete Repairs
Total Amount Requested for Approval:	$3,220,000.00

MULTI-YEAR BREAKDOWN:
This section displays the current and future year commitments.

Approval Type	**Year**	**Amount**
Base Term	**2025**	**2,500,000.00**
Base Term	**2026**	**720,000.00**

DOCUMENTS ATTACHED:

Supplier Diversity Memos

FOR MORE INFORMATION:

Staff contact: Sciulli, Marco

E-mail: msciulli@pgh2o.com

LEGAL REVIEW: MONICA WALAAN 08.15.2025

FINANCE. REVIEW: KEVIN PAWLOS 08.14.2025

PROCUR. REVIEW: EDWIN MARTINEZ 08.14.2025

BY CHIEF EXECUTIVE OFFICER:

William J. Pickering 08.15.2025

Exhibit EB-20

Exhibit EB-20

Utility	DSIC Cap Language	Citation to Tariff
Water		
Aqua	The DSIC will be capped at 7.50% of the amount billed to customers (including all applicable clauses and riders) under otherwise applicable rates and charges	Original Page 27 of **Aqua Tariff**
Columbia Water	The DSIC will be capped at 5% of the amount billed to customers for service (including all applicable clauses and riders) as determined on an annualized basis	Fifty-Third Revised Page No. 56 of **Columbia Water Tariff**
PA-American Water	The DSIC will be capped at 7.50% of the amount billed to customers under otherwise applicable rates and charges.	First Revised Page 38 of **Pennsylvania-American Water Tariff**
Veolia	The DSIC is capped at 7.5% of the amount billed to customers for distribution service (including all applicable clauses and riders), as determined on an annualized basis.	Fifth Revised Page 61 to **Veolia Tariff**
Gas		
Columbia Gas	The DSIC is capped at 5.0% of the amount billed to customers for distribution service (including all applicable clauses and riders) as determined on an annualized basis.	Fourth Revised Page 180 of **Columbia Gas Tariff**
PECO (Gas)	The DSIC is capped at 5.0% of the amount billed to customers for distribution service (including all applicable clauses and riders) as determined on an annualized basis	Original Page No. 55 of **Peco Gas Tariff**

Peoples Gas	The DSIC is capped at 5.0% of the amount billed to customers for distribution service (including all applicable clauses and riders) as determined on an annualized basis	First Revised Page No. 83 of **Peoples Gas Tariff**
UGI (Gas)	The DSIC is capped at 5.0% of the amount billed to customers for distribution service (including all applicable clauses and riders) as determined on an annualized basis.	First Revised Page No. 65 of **UGI Gas Tariff**
Electric		
Duquesne Light Co.	The DSIC is capped at 5.0% of the amount billed to customers for distribution service (including all applicable clauses and riders) as determined on an annualized basis.	Original Page No. 140 of **Duquesne Light Co. Electric Tariff**
FirstEnergy Pennsylvania Electric Company	For Met-Ed, Penelec and West Penn, the DSIC is capped at 5.0% of the amount billed to customers for distribution service (including all applicable clauses and riders) as determined on an annualized basis. For Penn Power, consistent with the Commission Order at Docket No. P-2019-3012628, the DSIC is temporarily capped at 7.5% of the amount billed to customers for distribution service (including all applicable clauses and riders) as determined on an annualized basis.	Original Page 242 of **FirstEnergy Pennsylvania Electric Company Tariff**

PECO (Electric)	The DSIC is capped at 5.0% of the amount billed to customers for distribution service (including all applicable clauses and riders) as determined on an annualized basis	Original Page No. 51 of **PECO Electric Tariff**
PPL	Consistent with the Commission Order dated February 28, 2025, at Docket No. P-2024-3048732, the DSIC is capped at 7.50% of the amount billed to customers for distribution service (including all applicable clauses and riders) as determined on an annualized basis until the effective date of rates established in the Company's next base rate case or until the end of the Company's 2023-2027 LTIIP, whichever occurs first	Fifth Revised Page No. 19Z.19 of **PPL's Electric Tariff**
UGI (Electric)	The DSIC is capped at 5.0% of the amount billed to customers for distribution service (including all applicable clauses and riders) as determined on an annualized basis.	Fourth Revised Page No. 52 of **UGI's Electric Tariff**

Exhibit EB-21

Commission Alternative Regulation Considerations (§ 69.3302)

	Commission Consideration Criteria	Discussion	
§ 69.3302(a)(1)	How the ratemaking mechanism and rate design align revenues with cost causation principles as to both fixed and variable costs.	The Authority's proposed MYRP does not address the Commission's consideration criteria aligning revenues with cost causation. While increases in rates after the conclusion of a FPFTY may be more consistent with utility costs, the MYRP will likely be less consistent than future rate filings.	Untrue. PW's specific claim is limited to increased cost of debt in FY 2027; failure to permit will mean that 2027 customers will be paying rates that are misaligned with costs.
§ 69.3302(a)(2)	How the ratemaking mechanism and rate design impact the fixed utility's capacity utilization.	The proposed MYRP will not impact capacity utilization.	PW Agrees
§ 69.3302(a)(3)	Whether the ratemaking mechanism and rate design reflect the level of demand associated with the customer's anticipated consumption level.	While increases in rates after the conclusion of a FPFTY may be more consistent with customer consumption, the MYRP will likely be less consistent than future rate filings.	Untrue. Pro forma revenues for FPFTY are being calculated in the same way as revenues used for FY 2027 increase. See [Smith rebuttal].
§ 69.3302(a)(4)	How the ratemaking mechanism and rate design limit or eliminate interclass and intraclass cost shifting.	The proposed MYRP does not have an effect on interclass or intraclass cost shifting.	PW Agrees
§ 69.3302(a)(5)	How the ratemaking mechanism and rate design limit or eliminate disincentives for the promotion of efficiency programs.	The proposed MYRP will likely not impact the promotion of efficiency programs.	PW Agrees
§ 69.3302(a)(6)	How the ratemaking mechanism and rate design impact customer incentives to employ efficiency measures and distributed energy resources.	The proposed MYRP will likely not impact customer incentives to employ efficiency measures.	PW Agrees
§ 69.3302(a)(7)	How the ratemaking mechanism and rate design impact low-income customers and support customer assistance programs.	The proposed MYRP would guarantee a second rate increase in additional to the proposed increase required for the FPFTY. This will negatively impact all ratepayers, including impact low-income customers .	Untrue. Low income customers are protected from rate increases by low income programs; rate increase for increased bond costs will have to occur, but MYRP will reduce costs of implementing and will better assure that PW will have the revenues it needs to keep service safe and reliable
§ 69.3302(a)(8)	How the ratemaking and rate design impact customer rate stability principles.	In the absence of a reconciliation mechanism the proposed MYRP may allow for the Authority to over collect revenues required to service the Authority's debt. This would negatively impact customer rate stability.	Untrue. PW proposed procedure will accurately match actual cost of debt with associated revenue requirement, better than in base rate case and FPFTY estimates would do
§ 69.3302(a)(9)	How weather impacts utility revenue under the ratemaking mechanism and rate design.	The proposed MYRP is unrelated to weather concerns.	PW Agrees

	Commission Consideration Criteria	Discussion	
§ 69.3302(a)(10)	How the ratemaking mechanism and rate design impact the frequency of rate case filings and affect regulatory lag.	While the proposed MYRP may slightly reduce future rate case filings, it is unlikely to significantly reduce such filings as: (1) the proposed MYRP is limited to only the increase required to service the Authority's debt, and (2) the proposed MYRP is limited to a single year - FY 2027.	While those comments are correct, the MYRP proposal could reduce future rate cases if PW is permitted to continue to use this mechanism in the future
§ 69.3302(a)(11)	If or how the ratemaking mechanism and rate design interact with other revenue sources, such as Section 1307 automatic adjustment surcharges, 66 Pa. C.S. § 1307 (relating to sliding scale of rates; adjustments), riders such as 66 Pa. C.S. § 2804(9) (relating to standards for restructuring of electric industry) or system improvement charges, 66 Pa. C.S. § 1353 (relating to distribution system improvement charge).	The proposed MYRP would not impact surcharges.	PW Agrees
§ 69.3302(a)(12)	Whether the alternative ratemaking mechanism and rate design include appropriate consumer protections.	The proposed MYRP does not include sufficient consumer protections. These include reconciliation mechanism, service targets, and/or stay-out provisions.	This is untrue. Public Utility Code does not require specific service targets or stay outs. PW is required to maintain safe and adequate service, so there is no need for additional "service targets. PW is willing to accept a reconciliation mechanism if it is reciprocal, but the total rate increase is capped at $20.7 million. PW is willing to make the MYRP reconcilable and reciprocal
§ 69.3302(a)(13)	Whether the alternative ratemaking mechanism and rate design are understandable to consumers.	The proposed MYRP effectively pre-approves an additional rate increase after the conclusion of the FPFTY, and thus would be as understandable to customers as any other Authority rate increase.	PW agrees that the MYRP will be understandable; PW does not agree that the MYRP "preapproves" a rate increase. PW's proposed procedure would require PW to present evidence justifying the 2027 increase to recover only actual debt service and coverage
§ 69.3302(a)(14)	How the ratemaking mechanism and rate design will support improvements in utility reliability.	The Authority's proposed MYRP is put forward to support capital investments required under the Authority's CIP. However, the Authority fails to include any quality of service standards with its proposed MYRP so ratepayers are not assured that the proposed MYRP will lead to improved utility reliability, and may, in fact, lead to reduced quality of service as discussed by OCA Witness Alexander.	This is untrue. The proposed MYRP only covers debt service and debt service coverage costs that PW has already incurred or is about to incur. PW does not issue bonds until it has expended dollars on construction projects, financed via its short-term line of credit. Allowing PW to better cover its actual costs will permit it to continue its efforts to improve its system and avoid cancelling projects and activities for lack of funding.

Exhibit EB-22

Exhibit EB-22

Response of the Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water to the Interrogatories of the Office of Consumer Advocate ("OCA"), Set VIII Docket R-2025-3055010 (Water), R-2025-3055011 (Wastewater), R-2025-3055012 (Storm Water)

Request: OCA-VIII-6 Reference HJS-10W.

a. Please provide the calculations supporting the Wholesale Contracts adjustments in electronic format;

b. For each wholesale customer, identify and explain when Pittsburgh Water will be able to adjust the rates of each customer and by how much. Provide copies of the provisions of each wholesale contract that identify the current rates and Pittsburgh Water's ability to adjust those rates; and

c. Please explain whether Pittsburgh Water has issued termination notices for its wholesale contracts as recommended by OCA witness Jerome D. Mierzwa in Docket No. R-2023-3039920 (OCA Statement 3, page 10).

Response:

(a) The adjustments to the Wholesale Contracts are simply the difference between the projected revenues and the allocated cost of service. This information is available in the COS Model submitted with the original filing. Note that there will be some changes to projected revenues from wholesale customers in the FPFTY. See the responses to OSBA-I-7 for more information.

(b) See OCA-8-6 Attach A through Attach G for the wholesale agreements and rates.

(c) Pittsburgh Water is actively negotiating new rates for Fox Chapel. Other wholesale rates will be renegotiated as they become due.

The 2025 Cost of Service excel model available at is available at:
https://eckertseamans.sharefile.com/f/fo86ffe3-22bf-452b-ba22-a5f17778a828.

Response provided by: Harold Smith, Raftelis

Date Response provided: July 23, 2025

Response of the Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water to the Interrogatories of the Office of Consumer Advocate ("OCA"), Set VIII Docket Nos. R-2025-3055010 (Water), R-2025-3055011 (Wastewater), R-2025-3055012 (Storm Water)

> Barca testifies that DCOH at present rates is 118 days in FY 2026 and 42 days in FY 2027, and that at proposed rates DCOH is 118 and 116 days in FY 2026 and FY 2027, respectively. In contrast, Pittsburgh Water St. No. 1 (Pickering), Exhibit WJP-1, Table I(A), shows FPFTY 2026 DCOH at present rates of 45 days (26 including ALCOSAN charges) and proposed-rate DCOH of 118 days in FY 2026 and 116 days in FY 2027.

a. Please reconcile these differences in DCOH projections between Mr. Barca's testimony and Mr. Pickering's testimony for the FPFTY 2026.
b. If corrections are necessary, provide an updated model with formulas and cell references intact.

Response:

The discrepancy is Pittsburgh Water Statement No. 2 (Barca) calculates the DCOH using the beginning cash balance and Pittsburgh Water Statement No. 1 (Pickering) uses the ending cash balance for the DCOH calculation. Using the ending cash balance calculation is correct and consistent with how the rating agencies calculate DCOH. Exhibit WJP-1 is correct and Pittsburgh Water Statement No. 2 (Barca) will be updated to reflect the correct DCOH calculation. Exhibits EB-1 and EB-2 will also be updated per the response to OCA-XXII-6 below (see OCA-22-5 Attach A and Attach B for corrected exhibits).

For clarity, OCA-22-5 Attach C (excel) is a simplified DCOH calculation for FY 2026 and FY 2027 that matches WJP-1.

Response provided by: Edward Barca, Director of Finance for Pittsburgh Water

Date response provided by: August 27, 2025

Response of the Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water to the Interrogatories of the Office of Consumer Advocate ("OCA"), Set XXII Docket Nos. R-2025-3055010 (Water), R-2025-3055011 (Wastewater) R-2025-3055012 (Storm Water)

Request: OCA-XXII-2 In the "FutureDebt" tab of the "Pittsburgh Water 2025 Cost of Service Study," the principal and interest payments for the forecast period (through FY 2050) appear to be hard-coded inputs. Please provide a revised version of the "FutureDebt" tab in which principal and interest payments are derived by formulas (i.e., linked calculations based on the bond assumptions), with all formulas and cell references intact.

Response:

Please see attachment OCA-22-2 (excel).

Response provided by: Edward Barca, Director of Finance for Pittsburgh Water

Date Response provided by: August 27, 2025

Pittsburgh Water
Future System Debt Service

								FY 2025	FY 2026	FY 2027
Future Debt Service								FY 2025 *Budget*	FY 2026 *Forecast*	FY 2027 *Forecast*
Revolving Line of Credit										
Estimated Annual Interest Payment								$ 2,000,000	$ 3,000,000	$ 3,000,000
Subordinate Debt										
WIFIA Loan #2								-	$ -	$ -
Subtotal: Subordinate Debt								$ -	$ -	$ -
Subtotal: Anticipated Bonds								$ 2,000,000	$ 3,000,000	$ 3,000,000
Forecasted Debt Service	Initial Amt.	Rate	Term	Premium %	Premium	DSRF	Issue Amt			
Revenue Bonds										
FY 2026	150,000,000	7.00%	30	7.00%	(10,500,000)	-	139,500,000.00		11,241,803	11,241,803
Principal					-				$1,476,803	1,580,180
Interest					-				$9,765,000	9,661,624
FY 2027	110,000,000	7.00%	30	7.00%	(7,700,000)	-	102,300,000.00			8,243,989
Principal					-					1,082,989
Interest					-					7,161,000
FY 2028	105,000,000	7.00%	30	7.00%	(7,350,000)	-	97,650,000.00			
Principal					-					
Interest					-					
FY 2029	105,000,000	7.00%	30	7.00%	(7,350,000)	-	97,650,000.00			
Principal										
Interest										
Subtotal: Revenue Bonds								$ -	$ 11,241,803	$ 19,485,792
Total: Future Debt								**$ 2,000,000**	**$ 14,241,803**	**$ 22,485,792**

FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039
FY 2028 *Forecast*	**FY 2029** *Forecast*	**FY 2030** *Forecast*	**FY 2031** *Forecast*	**FY 2032** *Forecast*	**FY 2033** *Forecast*	**FY 2034** *Forecast*	**FY 2035** *Forecast*	**FY 2036** *Forecast*	**FY 2037** *Forecast*	**FY 2038** *Forecast*	**FY 2039** *Forecast*
$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000
$ -	$ -	$ -	$ -	$ -	$ 2,091,842	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569
$ -	$ -	$ -	$ -	$ -	$ 2,091,842	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569
$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 5,091,842	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569
11,241,803	11,241,803	11,241,803	11,241,803	11,241,803	11,241,803	11,241,803	11,241,803	11,241,803	11,241,803	11,241,803	11,241,803
1,690,792	1,809,148	1,935,788	2,071,293	2,216,284	2,371,423	2,537,423	2,715,043	2,905,096	3,108,452	3,326,044	3,558,867
9,551,011	9,432,656	9,306,015	9,170,510	9,025,520	8,870,380	8,704,380	8,526,761	8,336,708	8,133,351	7,915,759	7,682,936
8,243,989	8,243,989	8,243,989	8,243,989	8,243,989	8,243,989	8,243,989	8,243,989	8,243,989	8,243,989	8,243,989	8,243,989
1,158,798	1,239,914	1,326,708	1,419,578	1,518,948	1,625,275	1,739,044	1,860,777	1,991,031	2,130,403	2,279,532	2,439,099
7,085,191	7,004,075	6,917,281	6,824,411	6,725,041	6,618,714	6,504,945	6,383,212	6,252,958	6,113,586	5,964,457	5,804,890
7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262
1,033,762	1,106,126	1,183,554	1,266,403	1,355,052	1,449,905	1,551,398	1,659,996	1,776,196	1,900,530	2,033,567	2,175,917
6,835,500	6,763,137	6,685,708	6,602,859	6,514,211	6,419,357	6,317,864	6,209,266	6,093,066	5,968,732	5,835,695	5,693,346
	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262
	1,033,762	1,106,126	1,183,554	1,266,403	1,355,052	1,449,905	1,551,398	1,659,996	1,776,196	1,900,530	2,033,567
	6,835,500	6,763,137	6,685,708	6,602,859	6,514,211	6,419,357	6,317,864	6,209,266	6,093,066	5,968,732	5,835,695
$ 27,355,055	$ 35,224,317	$ 35,224,317	$ 35,224,317	$ 35,224,317	$ 35,224,317	$ 35,224,317	$ 35,224,317	$ 35,224,317	$ 35,224,317	$ 35,224,317	$ 35,224,317
$ 30,355,055	**$ 38,224,317**	**$ 38,224,317**	**$ 38,224,317**	**$ 38,224,317**	**$ 40,316,159**	**$ 40,308,886**	**$ 40,308,886**	**$ 40,308,886**	**$ 40,308,886**	**$ 40,308,886**	**$ 40,308,886**

FY 2040	FY 2041	FY 2042	FY 2043	FY 2044	FY 2045	FY 2046	FY 2047	FY 2048	FY 2049	FY 2050	FY 2051	FY 2052
FY 2040 *Forecast*	**FY 2041** *Forecast*	**FY 2042** *Forecast*	**FY 2043** *Forecast*	**FY 2044** *Forecast*	**FY 2045** *Forecast*	**FY 2046** *Forecast*	**FY 2047** *Forecast*	**FY 2048** *Forecast*	**FY 2049** *Forecast*	**FY 2050** *Forecast*	**FY 2051** *Forecast*	**FY 2052** *Forecast*
$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000
$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569
$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569
$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569
11,241,803	11,241,803	11,241,803	11,241,803	11,241,803	11,241,803	11,241,803	11,241,803	11,241,803	11,241,803	11,241,803	11,241,803	11,241,803
3,807,988	4,074,547	4,359,765	4,664,949	4,991,495	5,340,900	5,714,763	6,114,796	6,542,832	7,000,830	7,490,888	8,015,250	8,576,318
7,433,816	7,167,256	6,882,038	6,576,855	6,250,308	5,900,904	5,527,041	5,127,007	4,698,971	4,240,973	3,750,915	3,226,553	2,665,485
8,243,989	8,243,989	8,243,989	8,243,989	8,243,989	8,243,989	8,243,989	8,243,989	8,243,989	8,243,989	8,243,989	8,243,989	8,243,989
2,609,836	2,792,524	2,988,001	3,197,161	3,420,962	3,660,430	3,916,660	4,190,826	4,484,184	4,798,077	5,133,942	5,493,318	5,877,850
5,634,153	5,451,465	5,255,988	5,046,828	4,823,027	4,583,559	4,327,329	4,053,163	3,759,805	3,445,912	3,110,047	2,750,671	2,366,139
7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262
2,328,231	2,491,207	2,665,591	2,852,183	3,051,836	3,265,464	3,494,047	3,738,630	4,000,334	4,280,357	4,579,982	4,900,581	5,243,622
5,541,032	5,378,055	5,203,671	5,017,080	4,817,427	4,603,798	4,375,216	4,130,632	3,868,928	3,588,905	3,289,280	2,968,681	2,625,641
7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262
2,175,917	2,328,231	2,491,207	2,665,591	2,852,183	3,051,836	3,265,464	3,494,047	3,738,630	4,000,334	4,280,357	4,579,982	4,900,581
5,693,346	5,541,032	5,378,055	5,203,671	5,017,080	4,817,427	4,603,798	4,375,216	4,130,632	3,868,928	3,588,905	3,289,280	2,968,681
$ 35,224,317	$ 35,224,317	$ 35,224,317	$ 35,224,317	$ 35,224,317	$ 35,224,317	$ 35,224,317	$ 35,224,317	$ 35,224,317	$ 35,224,317	$ 35,224,317	$ 35,224,317	$ 35,224,317
$ 40,308,886	**$ 40,308,886**	**$ 40,308,886**	**$ 40,308,886**	**$ 40,308,886**	**$ 40,308,886**	**$ 40,308,886**	**$ 40,308,886**	**$ 40,308,886**	**$ 40,308,886**	**$ 40,308,886**	**$ 40,308,886**	**$ 40,308,886**

FY 2053	FY 2054	FY 2055	FY 2056	FY 2057	FY 2058	FY 2059	FY 2060	FY 2061	FY 2062	FY 2063	FY 2064	FY 2065
FY 2053 *Forecast*	**FY 2054** *Forecast*	**FY 2055** *Forecast*	**FY 2056** *Forecast*	**FY 2057** *Forecast*	**FY 2058** *Forecast*	**FY 2059** *Forecast*	**FY 2060** *Forecast*	**FY 2061** *Forecast*	**FY 2062** *Forecast*	**FY 2063** *Forecast*	**FY 2064** *Forecast*	**FY 2065** *Forecast*
$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000
$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569
$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569
$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569
11,241,803	11,241,803	11,241,803	-	-	-	-	-	-	-	-	-	-
9,176,660	9,819,026	10,506,358	-	-	-	-	-	-	-	-	-	-
2,065,143	1,422,777	735,445	-	-	-	-	-	-	-	-	-	-
8,243,989	8,243,989	8,243,989	8,243,989	-	-	-	-	-	-	-	-	-
6,289,300	6,729,551	7,200,619	7,704,663	-	-	-	-	-	-	-	-	-
1,954,689	1,514,438	1,043,370	539,326	-	-	-	-	-	-	-	-	-
7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	-	-	-	-	-	-	-	-
5,610,675	6,003,423	6,423,662	6,873,318	7,354,451	-	-	-	-	-	-	-	-
2,258,587	1,865,840	1,445,600	995,944	514,812	-	-	-	-	-	-	-	-
7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	7,869,262	-	-	-	-	-	-	-
5,243,622	5,610,675	6,003,423	6,423,662	6,873,318	7,354,451	-	-	-	-	-	-	-
2,625,641	2,258,587	1,865,840	1,445,600	995,944	514,812	-	-	-	-	-	-	-
$ 35,224,317	$ 35,224,317	$ 35,224,317	$ 23,982,514	$ 15,738,525	$ 7,869,262	$ -	$ -	$ -	$ -	$ -	$ -	$ -
$ 40,308,886	**$ 40,308,886**	**$ 40,308,886**	**$ 29,067,083**	**$ 20,823,094**	**$ 12,953,832**	**$ 5,084,569**	**$ 5,084,569**	**$ 5,084,569**	**$ 5,084,569**	**$ 5,084,569**	**$ 5,084,569**	**$ 5,084,569**

FY 2066	FY 2067	FY 2068	FY 2069	FY 2070	FY 2071	FY 2072	FY 2073
FY 2066 *Forecast*	**FY 2067** *Forecast*	**FY 2068** *Forecast*	**FY 2069** *Forecast*	**FY 2070** *Forecast*	**FY 2071** *Forecast*	**FY 2072** *Forecast*	**FY 2073** *Forecast*
$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 3,000,000
$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569
$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569	$ 2,084,569
$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569	$ 5,084,569
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
$ 5,084,569	**$ 5,084,569**	**$ 5,084,569**	**$ 5,084,569**	**$ 5,084,569**	**$ 5,084,569**	**$ 5,084,569**	**$ 5,084,569**

Exhibit EB-22

Request: I&E-RE-20 Reference Pittsburgh Water Statement No. 2, p. 17 regarding surface restoration. Provide the following:

A. Detailed basis and calculation for the $15,000,000 projected in the fully projected future test year (FPFTY).

B. Clarify whether this expense is for a contractor or paving supplies. If this is a contractor expense, provide documentation to support the claim in the form of a contract or invoice.

Response:

A. See I&E-RE-20 Surface Restoration Projections FPFTY (excel). The estimated FY 2026 paving cost per site is $16,196, which is a 5% cost increase over the FY 2025 cost per site. Pittsburgh Water will not have final FY 2026 costs per site until the solicitation is released later this year.

   It should be noted that Pittsburgh Water estimates starting FY 2026 with a backlog of 1,000 sites that need to be paved. As demonstrated in the attached, the FPFTY revenue requirement of $15,000,000 does not reduce the number of open sites at the end of FY 2026. The reason for this is Pittsburgh Water is cognizant of the affordability impact of requesting the additional amount of approximately $19,000,000 needed to eliminate the backlog of sites within one year. Rather, Pittsburgh Water's plan is to gradually reduce the number of open sites over time.

B. The expense claimed is for a contractor to do the paving work with their own equipment and supplies. Pittsburgh Water does not have the proper equipment or staff to perform its own paving. Pittsburgh Water will not have a FY 2026 contract with final pricing until the solicitation process is completed later this year. If Pittsburgh Water's assumed 5% increase is higher than actual FY 2026 bid costs, then it would allow more sites to be eliminated from the back log.

Response provided by: Edward Barca, Director of Finance for Pittsburgh Water

Date response provided by: August 13, 2025

Exhibit EB-22

Request: I&E-RE-21 Reference Pittsburgh Water Statement No. 2, pp. 17-18 regarding new vehicles. Provide the following:

A. A detailed analysis to support the statement that "approximately $2-3 million should be the minimum amount invested annually to keep up with replacement cycles and account for the expansion of operations."

B. Expected useful life of each vehicle type planned to be purchased in the FPFTY.

Response:

A. Attachment I&E-RE-21 (excel) is Pittsburgh Water's 5-year fleet acquisition plan. The plan calls for at least 20 vehicles to be purchased annually with a total budget of roughly $3 million per year to keep up with life cycle replacements. Failure to fund vehicle replacements at this level will result in more expensive repairs, increased vehicle downtime, and difficulties providing a basic level of service to customers.

B. See attached.

Response provided by: Edward Barca, Director of Finance for Pittsburgh Water

Date response provided: August 11, 2025

Exhibit EB-22

Request: I&E-RE-23 Reference Pittsburgh Water Statement No. 2, p. 19 regarding the manhole repair contract. Provide a copy of the vendor contract and other documentation necessary to support the projected $3,000,000 in the FPFTY.

Response:

See attachment I&E-RE-23 at page 3 (under Article 5) and below. $523,369 has been spent on the FY 2025 Manhole and Point Repair contract through 7/15/2025. It is anticipated an additional $500,000 will be spent by the end of FY 2025, leaving a remaining amount of $1,232,672 to be spent in FY 2026. In addition, Pittsburgh Water in the process of preparing the solicitation documents for the FY 2026 contract in the amount of $1,767,328, which is comparable to prior contract amounts.

Manhole and Point Repair		Contract Amount Spent through 7/15/2025	FPFTY Revenue Requirement
2026 Manhole and Point Repair Contract	$	-	1,767,328
2025 Manhole and Point Repair Contract	$	523,369	1,232,672
Total	$	523,369	3,000,000

Response provided by: Edward Barca, Director of Finance for Pittsburgh Water

Date response provided: August 11, 2025

Request: I&E-RE-24 Reference Pittsburgh Water Statement No. 2, pp. 19-20 regarding the emergency water line and sewer main repair contracts. Provide copies of the vendor contracts and other documentation necessary to support the projected $7,000,000 for water and $7,800,000 for sewer in the FPFTY.

Response:
See I&E-RE-24 Attach A through Attach N and below.

It is assumed that an additional $1,000,000 will be incurred on both 2025 urgent water contracts before the end of the year. This leaves the remaining amount of $1,629,284 and $1,557,488 to be spent in FY 2026

It is assumed that the 2024 urgent water contracts will be fully expended by the end of FY 2025 except for some closeout items. These closeout items represent the $500,000 for both contracts in FY 2026.

Urgent Water Repair Contracts	Contract Amount Spent through 7/29/2025	FPFTY Revenue Requirement
2026 Urgent Water Contracts	$ -	3,293,228
2025 Urgent Water Contract - Folino	$ 97,989	1,629,284
2025 Urgent Water Contract - IEI	$ 120,952	1,577,488
2024 Urgent Water Contract - IEI	$ 3,194,685	500,000
2024 Urgent Water Contract - Mele & Mele	$ 2,731,817	500,000
Total	$ 3,413,626	$ 7,000,000

It is assumed that an additional $1,000,000 will be incurred on both 2025 urgent sewer contracts before the end of the year. This leaves the remaining amount of $2,589,996 and $2,489,615 to be spent in FY 2026.

It is assumed that the 2024 urgent sewer contracts will be fully expended by the end of FY 2025 except for some closeout items. These closeout items represent the $500,000 for both contracts in FY 2026.

Exhibit EB-22

Urgent Sewer Repair Contracts	Contract Amount Spent through 7/28/2025	FPFTY Revenue Requirement
2026 Urgent Sewer Contracts	$ -	2,220,389
2025 Urgent Sewer Contract - Folino	$ -	2,589,996
2025 Urgent Sewer Contract - IEI	$ -	2,489,615
2024 Urgent Sewer Contract - IEI	$ 3,248,672	500,000
2024 Urgent Sewer Contract - Mele & Mele	$ 1,743,068	500,000
Total	$ 3,248,672	$ 7,800,000

Response provided by: Edward Barca, Director of Finance for Pittsburgh Water

Date response provided by: August 11, 2025

Exhibit EB-22

Request: I&E-RE-25 Reference Pittsburgh Water Statement No. 2, p. 20 regarding field inspection services. Provide a copy of the vendor contract and other documentation necessary to support the projected $3,094,282 in the FPFTY.

Response:
Please see I&E-RE-25 Attach A through Attach P and below. There is an associated construction inspection contract associated with every urgent water, urgent sewer, manhole and point repair, and surface restoration contract.

Note that it is assumed that the FY 2024 contracts below will be in closeout in the FPFTY, the FY 2025 contract will finish during the first half of the FPFTY, and the FY 2026 contracts will start in Q1 of the FPFTY.

You will notice that some of the attached contracts have both a formal contract and purchase order **or** just a task order. Contracts that were bid out under Pittsburgh Water's pre-approved on-call vendor list results in a task order and contracts that were bid out via a Request for Proposal results in a formal contract and purchase order.

Construction Inspection Contracts	FPFTY Revenue Requirement
2026 Urgent Sewer Contracts	431,525
2026 Urgent Water Contracts	391,525
2026 Manhole and Point Repair Contracts	191,525
2026 Surface Restoration Contracts	699,640
2025 Surface Restoration - Hatch - Mele & Mele Contract	268,655
2025 Surface Restoration - Hatch - Folino Contract	268,655
2025 Manhole and Point Repair - WRA - IEI Contract	120,561
2025 Urgent Water Contract - Hatch - IEI Contract	135,801
2025 Urgent Water Contract - Hatch - Folino Contract	135,801
2025 Urgent Sewer Contract - Hatch - IEI Contract	171,062
2025 Urgent Sewer Contract - Hatch - Folino Contract	171,062
2024 Urgent Water Contract - Hatch - Mele & Mele Contract	23,362
2024 Urgent Water Contract - Hatch - IEI Contract	23,362
2024 Urgent Sewer Contract - Hatch - Mele & Mele Contract	30,872
2024 Urgent Sewer Contract - Hatch - IEI Contract	30,872
Total	$ 3,094,282

Response provided by: Edward Barca, Director of Finance for Pittsburgh Water
Date response provided by: August 13, 2025

Request: I&E-RE-26 Reference Pittsburgh Water Statement No. 2, p. 21 regarding consultants. Provide a copy of the vendor contracts and other documentation necessary to support the projected $7,341,919 in the FPFTY.

Response:

See below and I&E-RE-26 Attach A through Attach H.. The consultants listed without a contract represent an initiative that would be bid out and finalized in FY 2026 assuming the funds are approved in this rate case.

Consultant Contracts		FPFTY Revenue Requirement	Active Contract
Wet Weather Consultant	$	4,529,544	X
Obermeier Consulting		67,200	X
Hydraulic Modeling Support		250,000	X
Stormwater Master Plan		500,000	
SCADA Master Plan		300,000	
Business Intelligence Infrastructure		500,000	
SAP Vendor Migration		500,000	
Third Generation Maintenance		33,000	X
Annual Environmental Compliance Assessment		80,000	
Disparity Study		80,000	X
Pittsburgh Futures		129,000	
Ceridian Support		35,000	
Cloud Geshen		75,000	
Graphic Design		21,000	
Customer Survey		40,000	
ReGroup Media		50,000	X
Videography		30,000	
Raftelis (Non Rate Case Expenses)		122,175	X
Total	$	7,341,919	

Response provided by: Edward Barca, Director of Finance for Pittsburgh Water
Date response provided by: August 13, 2025

Exhibit EB-22

Request: I&E-RE-43 Reference Pittsburgh Water's Excel file attached to the response to I&E-RE-1-D concerning operating expenses by account. Explain in detail the year-over-year increases for the following Fees and provide the detailed basis, calculation, and supporting documentation for these expense projections:

A. Bank Fees (7003) - $40,000 or 400% from the FTY to FPFTY.

B. Membership Fees (7010) - $47,146 or 46% from the FTY to FPFTY. Include a breakdown by organization and dollar amount to support the FPFTY claim of $149,038.

C. Permits (7015) - $3,881,003 or 870% from the FTY to FPFTY.

Response:

A. Pittsburgh Water is forecasting interest rates to drop in the FPFTY. As rates drop the interest earned will decrease accordingly. This interest currently offsets the monthly bank fees charged by PNC bank.

B. See attachment I&E-RE-43b.

C. Pittsburgh Water's adopted Capital Improvement Plan requires additional right-of-way permits from the City of Pittsburgh's Department of Mobility and Infrastructure. These expenses are levied by the City of Pittsburgh using the annual fee schedule adopted by Pittsburgh City Council as part of the annual budgeting process. We also are forecasting the pricing for permits to increase. Much of this increase is offset with a corresponding negative amount within Capital Asset Reclass general ledger account (7710).

Response provided by: Edward Barca, Director of Finance for Pittsburgh Water

Date Response provided: August 15, 2025

Request: I&E-RE-45 Reference Pittsburgh Water's Excel file attached to the response to I&E-RE-1-D concerning operating expenses by account. Explain in detail the year-over-year increases in the following Professional Services expense lines and provide the detailed basis, calculation, and supporting documentation for these expense projections:

A. Consultants (7323) - $1,755,925 or 38% from the HTY to the FPFTY and $1,305,865 or 21% from the FTY to the FPFTY.
B. Construction Management (7330) - $356,463 or 27% from the HTY to FTY and $251,117 or 15% from the FTY to FPFTY.
C. Consulting Engineers (7332) - $143,404 or 269% from the FTY to FPFTY.
D. Non Capital Engineering Services (7335) - $46,417 or 20% from the HTY to FTY and $45,000 or 16% from the FTY to FPFTY.
E. Ins Auto (7345) - $57,667 or 70% from the HTY to FTY.
F. Ins Commercial Property (7348) - $62,718 from the FTY to the FPFTY.
G. Ins Workers Comp (7365) - $39,829 or 12% from the HTY to the FTY and $22,423 or 6% from the FTY to the FPFTY.
H. Legal (7370) - $838,582 or 49% from the HTY to the FTY.
I. Payroll Services (7382) - $85,000 or 54% from the FTY to the FPFTY.
J. Prof Service Other (7383) - $433,419 or 14% from FTY to FPFTY.

Response: See attachment I&E-RE-45 (excel).

A. The increase from the HTY to the FTY reflects additional consulting services tied to the upcoming wet weather consent decree and ongoing rate case activities. The rise from the FTY to the FPFTY further accounts for projected costs associated with planned master plans for green infrastructure and SCADA systems, as well as ongoing wet weather initiatives.

B. The increase from the HTY to the FPFTY reflects efforts to address a growing backlog of surface restoration work sites, expanded construction management activities for those sites, and compliance with evolving standards outlined in the City of Pittsburgh's DOMI Right-of-Way Procedures Manual.

C. The increase from the FTY to FPFTY is driven by the return of required site visits as part of the required annual report.

D. The increase from the HTY to the FTY reflects expanded geotechnical activities in response to landslides associated with service line breaks. The subsequent increase from the FTY to the FPFTY is driven by costs associated with the implementation and use of the project management platform TUC (formerly e-Builder).

E. The increase from the HTY to the FTY is attributed to Pittsburgh Water's expanded fleet and rising replacement costs. These increases, compounded by a strengthened market, have resulted in higher expenditures than previously experienced.

F. The increase from the FTY to the FPFTY reflects a planned property appraisal to align asset values with fair market standards. This includes the anticipated addition of the new Highland Pump Station, scheduled to become operational in mid-2026.

G. The increase from the FTY to the FPFTY is primarily driven by moderate staffing growth and targeted salary adjustments consistent with industry standards. These investments are intended to enhance recruitment and retention efforts.

H. The increase from the HTY to the FTY is primarily driven by increased legal expenses related to rate case activities and continues wet weather consent decree negotiations.

I. The increase from the FTY to the FPFTY is driven by anticipated changes to Pittsburgh Water's payroll system, either through an upgrade to the existing Ceridian Dayforce system or the implementation of a new payroll platform.

J. The increase from the FTY to the FPFTY is driven by a planned classification and compensation study for existing positions, anticipated energy efficiency initiatives, and higher annual PUC fees

Response provided by: Edward Barca, Director of Finance for Pittsburgh Water

Date Response provided: August 15, 2025

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

REBUTTAL TESTIMONY OF

BARRY KING, PE, PMP

ON BEHALF OF
THE PITTSBURGH WATER AND SEWER
AUTHORITY D/B/A PITTSBURGH WATER

Docket Nos.
R-2025-3055010 Water
R-2025-3055011 Wastewater
R-2025-3055012 Stormwater

TOPICS:

Capital Improvement Projects
Distribution System Improvement Charge
Unaccounted-for Water

September 30, 2025

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND CURRENT POSITION.

A. My name is Barry King and I am the Director of Engineering and Construction for Water Programs for The Pittsburgh Water and Sewer Authority ("Pittsburgh Water").

Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS PROCEEDING?

A. Yes. I submitted Direct Testimony on June 4, 2025 as Pittsburgh Water St. No. 3, which accompanied the rate filing package.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. No, I am not.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to respond to portions of the direct testimony of Esyan Sakaya submitted on behalf of the Bureau of Investigation and Enforcement ("I&E") (I&E Statement No. 3).

Q. DOES YOUR LACK OF RESPONSE TO ANY PARTICULAR ISSUE RAISED BY THE OTHER PARTIES INDICATE YOUR ACCEPTANCE OF THEIR TESTIMONY?

A. No. While I have attempted to respond to the specific statements and recommendations made by the other parties' witnesses within the scope of my subject matter area, the failure to address a specific issue should not be viewed as my acceptance of that testimony. Rather, it reflects my belief that a further response in this rebuttal testimony is not warranted, either because it was adequately addressed in my direct testimony, is being addressed by another witness in their rebuttal testimony, or because it is a legal matter that is better addressed by counsel in briefs or other pleadings.

Q. ARE OTHER WITNESSES ADDRESSING THESE ISSUES?

A. Yes, other Pittsburgh Water witnesses are addressing these and related topics in their rebuttal testimonies. In particular, Ed Barca (Pittsburgh Water St. No. 2R) will respond to I&E witness Sakaya's proposed expense adjustments related to UFW and William McFaddin (Pittsburgh Water St. No. 5R) will discuss the specific challenges facing Pittsburgh Water in regard to UFW and describe the leak detection efforts in place to address aspects of UFW.

Q. PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY.

A. First, I will respond to portions of the I&E witness Esyan Sakaya's direct testimony (I&E Statement No. 3) related to Pittsburgh Water's projected budget level for Capital Improvement Projects, where Mr. Sakaya contends that Pittsburgh Water's budgeting for the next 5 years should be reduced directly by the average percentage of the last 5-year's historic capital underspending. I will explain the various challenges facing Pittsburgh Water over the past 5 years, clarifying what factors directly impacted the historic level of spending as compared to the budgeting, and the differences predicted moving forward.

Next, I will respond to another portion of I&E witness Esyan Sakaya's direct testimony disagreeing with Pittsburgh Water's request to increase the present Distribution System Improvement Charge (DSIC) rate from 5% to 7.5% to allow Pittsburgh Water to increase the pace at which infrastructure is replaced for projects that are identified within Pittsburgh Water's long-term infrastructure improvement plan (LTIIP).

Finally, I will respond to another portion of I&E witness Esyan Sakaya's direct testimony related to unaccounted-for water ("UFW"). Specifically, I will explain the

specific challenges facing Pittsburgh Water in this regard and describe the engineering efforts in place to address aspects of UFW and Pittsburgh Water's meter replacement plan. Similar to the views of William McFaddin, my conclusion is that the level of UFW in Pittsburgh Water's system, in light of the unique circumstances of Pittsburgh Water's system and its ongoing efforts to control and reduce its UFW, is not unreasonable, and Mr. Sakaya's recommendation to adjust Pittsburgh Water's expenses due to UFW would only hurt efforts to eliminate UFW.

II. PROJECTED BUDGET LEVEL FOR CAPITAL IMPROVEMENT PROJECTS

Q. PLEASE SUMMARIZE I&E WITNESS SAKAYA'S TESTIMONY REGARDING PITTSBURGH WATER'S BUDGET FOR FPFTY CAPITAL IMPROVEMENT PROJECTS.

A. In summary, Mr. Sakaya argues that Pittsburgh Water's allowance for FPFTY Capital Improvement Projects should be reduced by 35.24% (a reduction of $121,296,123), which was determined by calculating the historic 5-year average actual CIP underspend as compared to budget projections.[1]

Mr. Sakaya disagrees with the level of capital improvement projects that Pittsburgh Water includes in the FPFTY because of what he describes as Pittsburgh Water having "historically fallen short of meeting the capital budget that it sets on an annual basis."[2] In support of this assertion, Mr. Sakaya refers to I&E Exhibit No. 3, Schedule 3, which is Pittsburgh Water's response to I&E-RS-1, containing budgeted dollars and actual dollars spent on capital improvement projects in FY 2020, FY 2021, FY 2022, FY 2023, and FY 2024.

[1] I&E Exhibit No. 3, Schedule 1, p. 3, Column P, Line 15.

[2] I&E Statement No. 3 at 16-17, 5.

Q. DO YOU AGREE WITH I&E WITNESS SAKAYA'S ASSERTION?

A. No, I do not.

Q. ARE THERE POINTS YOU WOULD LIKE TO MAKE IN RESPONSE TO MR. SAKAYA'S RECOMMENDATION?

A. The basis Mr. Sakaya identifies for determining the reduction in Pittsburgh Water's 5-year capital budget involves analyzing data for fiscal years where underspending was due to many impactful factors that were well outside Pittsburgh Water's control nor could these factors have been reasonable anticipated. Additionally, while several of these factors were significantly impactful in the years of their occurrence, the effects in some instances were temporal (only occurred in a specific bandwidth of time) and cannot be assumed to have the same effect and intensity in subsequent years. For example, the planned capital projects in FY 2020 were significantly impacted by the COVID-19 pandemic. Those impacts continued into FY 2021 with widely known/reported supply chain issues that, along with the pandemic, delayed construction of several Pittsburgh Water projects, which extended into FY 2022 for specific equipment and materials, such as electrical and pumping equipment. Accordingly, the differences between the budgeted amounts and actual expenditures are clearly larger underspends in FY 2020 (-38.6%) and FY 2021 (-44.0%) when compared to the differences in 2022 (lesser underspend of -29.3%) and in 2024 (overspend of 10.3%). It should be clearly noted that the large underspend of -57.2% in 2023 was largely due to several issues resulting in significant delays in project schedules experienced on several of the largest Capital Improvement Projects and Infrastructure Programs (e.g., the Water Reliability Plan's Aspinwall Pump Station, Bruecken Pump Station, and the Clearwell Bypass Projects, as well as the Small Diameter Water Main Replacement Program

["SDWMRP"], and the Lead Service Line Replacement ["LSLR"] Program) due to one or more of the following impacts: significant regulatory and permitting approval delays, impacts associated with implementing the State of Pennsylvania's Management of Fill Policy (reference municipal and residual waste regulations, 25 Pa. Code §§ 271.1 and 287.1), and delay impacts of addressing and incorporating the Build America, Buy America Act (BABA) requirements and obligations into these PENNVEST- and WIFIA-funded projects to ensure out compliance with the new federal infrastructure assistance obligations under BABA approved in May 2022.

In addition, across this 5-year CIP timeframe, Pittsburgh Water has experienced impacts to cost and schedule due to a limited contracting pool, with the number of bidders significantly decreasing compared to the past. Other factors include delays in the permitting process of the Pennsylvania Department of Environmental Protection ("PADEP"), and the lengths of technical reviews (up to six months) conducted by agencies such as the PADEP and the Pennsylvania Department of Transportation ("PennDOT"), which are beyond Pittsburgh Water's control. Likewise, Pittsburgh Water has encountered unexpected significant delays associated with the coordination and review times, and the impacts of resulting requirements imposed by agencies such as the Pennsylvania State Historic Preservation Office ("SHPO"), City of Pittsburgh Department of City Planning, and elongated durations to coordinate with the railroads for easements on several of our largest Capital Projects.

It is also worth mentioning that as a municipal authority, Pittsburgh Water is required to comply with a lengthy process established by the Municipal Authorities Act ("MAA"), 53 Pa. C.S. §§ 5601 et seq. For example, Section 5614 of the MAA mandates

that all construction projects exceeding a certain base amount (well below most of Pittsburgh Water's projects) be done only under a contract with the lowest responsible bidder after public notice seeking competitive bids. 53 Pa. C.S. § 5614. Additionally, it is our understanding that investor-owned utilities do not have to rely on capital plans to obtain Commission approval for construction expenses and that when divergences from the budgets occur, they are reflected in their returns on assets, which is not applicable to Pittsburgh Water, as a cash flow utility.

I would also point out that, as Mr. Barca explains , Pittsburgh Water's level of bond financing is not tied to Pittsburgh Water's capital budget, but instead is reflective of the dollars Pittsburgh Water has actually spent for capital improvements. This means that Pittsburgh Water's revenue requirement claim is not affected by the level of capital budget shortfall.

In any event, and as stated in my direct testimony, the capital projects that Pittsburgh Water is planning, as included in the current 5-year CIP, are needed critical capital work that have been identified and evaluated, and ultimately prioritized in a ranking on the basis of which projects need to be done in light of funding limitations.[3] It is not arbitrary and it is not a wish list. The level of capital improvements that Pittsburgh Water is currently undertaking is necessary and unprecedented due to a history of neglecting the infrastructure over many years, resigning the program to a 'fix as fails' approach in order to save money in the short term. Spending less than projected over a few years, for unanticipated reasons that were outside of Pittsburgh Water's control, is not a reasonable nor valid reason to drastically and arbitrarily reduce the level of

[3] Pittsburgh Water St. No. 3 at 6-26, 17.

spending on capital projects that have been identified by Pittsburgh Water's CIP Review Committee and approved by Pittsburgh Water's Board.

Q. DO YOU HAVE ONE OR MORE EXAMPLE PROJECTS THAT DEMONSTRATE HOW PITTSBURGH WATER'S EFFORTS WERE IMPACTED AND WAYLAID BY FORCES OUTSIDE YOUR CONTROL?

A. Yes. A clear example of a group of projects that have been impacted by multiple forces throughout the design and into construction phases has been the Water Reliability Plan's Aspinwall Pump Station Improvements, Bruecken Pump Station Replacement, and the Clearwell Bypass Projects (ABC Projects).

With respect to the schedule impacts associated with permitting, the first Public Water Supply (PWS) Permit Application for the ABC Projects was submitted to the PADEP on September 23, 2021. Acknowledging the enormity and complexity of this project (780 sheet Contract Drawing set and 3315 page Specification Book), the Permit Application Package had remained in the PADEP's court for review up until May 23, 2023, at which time the PADEP requested Pittsburgh Water to resubmit the entire permit application, as the duration that the first submission had been in their possession (1 year 8 months) had far exceeded their stated review duration. Accordingly, Pittsburgh Water recompiled all documentation and resubmitted the PWS Permit Application on September 29, 2023. The PADEP approved the application within the revised 6 month review period, issuing the PWS Permit for Construction of the ABC Projects on March 26, 2024, just over two and a half years after the first set Permit Application was submitted (a delay of 2 years).

Another form of delay in the design phase is associated with impacts from requirements associated with funding sources. For example, a change in the funding source from WIFIA to PENNVEST-WIFIA resulted in a delay in the project timeline,

due to the elongated discussions to resolve which governing agency would take responsibility for overseeing the historical requirements of the project. Ultimately, it was concluded that the Programmatic Agreement (which had already taken an extended duration of time to develop amongst EPA, PA-SHPO, and Consulting Parties) should be terminated and replaced by a Mitigation Plan in its place. The development of the original Programmatic Agreement took 2 years to complete (including the time for coordination with all Consulting Parties, including tribal nations and other historical preservation groups).

Another delay in the design phase was related to the need to comply with the Building America Balanced Approach (BABA) standards, which introduced additional design, material, and process requirements, while ensuring the use of U.S. suppliers and materials, along with quality and sustainability, it had the direct effect of leading to increased costs and extended timelines. To date, we have found that the primary complexities of addressing the BABA requirements related to having to navigate ambiguous rules, accepting and responding to supply chain disruptions and higher costs, and facing extensive compliance and documentation burdens. It was originally confirmed by Pittsburgh Water's consultants upon the adoption of the BABA requirements in 2022 that the ABC Projects were eligible for a blanket temporary BABA waiver, as the project was in progress prior to 2022. But because the project was delayed due to numerous factors, and did not go out to bid until 2024, the project was no longer considered eligible for the blanket waiver, which expired in October 2024, at which time the temporary BABA Waiver was removed by the EPA. Pittsburgh Water's design consultant spent an extended amount of time since October 2024

working to verify every manufacturer's BABA status and prepared two packages of BABA Waivers and additional American Iron and Steel (AIS) Waiver in an effort to ensure as many of the manufacturers are approved for a project specific waiver.

Other delays were experienced in the ABC Design as a result of the PENNVEST technical review requirements, which were extensive, especially the UER (Uniform Environmental Report). The UER was officially approved on September 19, 2024, the last milestone required to allow the ABC Projects to go out to bid. The projects were advertised on November 17, 2024, and bids were received March 21, 2025.

Another area of delay in the project design and bidding completion are associated with the processes to obtain Zoning Development Review (ZDR) and Building and Development Application (BDA) Building Permits for both The Aspinwall and Bruecken Pump Station Sites. Aspinwall Pump Station's Building Permit reviews by the City Permits, Licenses, and Inspections (PLI) Department took significantly longer due to the historical aspect, as well as addressing the resolution of tree removal fees, and the imposition of a revetment study by the city in order to receive the Building Permit, which is a work still in progress.

III. <u>INCREASING THE PRESENT DSIC RATE FROM 5% TO 7.5%</u>

Q. PLEASE SUMMARIZE I&E WITNESS SAKAYA'S TESTIMONY REGARDING THE REQUESTED INCREASE IN THE DSIC RATE FROM 5% TO 10%.

A. In summary, Mr. Sakaya argues that due to the aforementioned history (in FY 2020 through FY 2023) of underspending when comparing the actual CIP spend to the budgeted projections, that Pittsburgh Water should not be allowed to recover additional revenues from the DSIC cap being increased to 7.5%.

Q. DO YOU AGREE WITH I&E WITNESS SAKAYA'S ASSERTION?

A. No, I do not agree with Mr. Sakaya.

Q. ARE THERE POINTS YOU WOULD LIKE TO MAKE IN RESPONSE TO MR. SAKAYA'S RECOMMENDATION?

A. I would reiterate that Pittsburgh Water's request to increase the current DSIC rate from 5% to 7.5% will actually allow Pittsburgh Water to increase the pace at which infrastructure is replaced for projects that are identified within Pittsburgh Water's long-term infrastructure improvement plan ("LTIIP") or projects added to the LTIIP.at A key program that would be directly supported by this DSIC rate increase is the Small Diameter Water Main Replacement Program ("SDWMRP"). The SDWMRP is an on-going effort to address the aging, and at times undersized, small-diameter mains that are in fragile condition to minimize the rate of failures of these water mains through the service areas. Further, the locations where the SDWMRs are chosen focus on areas with a high likelihood of having lead service lines ("LSLs"), which would decrease the amount of time it will take to get the lead piping out of the Pittsburgh Water system. The increase in the DSIC cap will generate an additional $6.5 million in the FPFTY and $986,051 in FY 2027 that can be used to increase the amount of work completed under these projects, potentially resulting in an additional 5,400 of linear feet of SDWM replaced in FPFTY and 820 linear feet of SDWM replaced in FY2027.

IV. <u>UNACCOUNTED-FOR WATER ("UFW")</u>

Q. PLEASE SUMMARIZE I&E WITNESS SAKAYA'S TESTIMONY REGARDING UFW.

A. In summary, Mr. Sakaya argues that as Pittsburgh Water's three-year running average UFW is 51.7 percent, Pittsburgh Water's average UFW is therefore, by PUC's

assessment, "excessive."[4] Mr. Sakava then goes on to recommend that Pittsburgh Water's claim for power, purification and materials & supplies expenses should be reduced by 57.1% each, or a total reduction of $5,771,000, "to remove the cost of this excess UFW."[5] Mr. Sakaya takes the position that "A reduction in the amount of UFW reduces the expense incurred by a utility by reducing the amount of water that needs to be pumped, treated, and sent out into the distribution system" and "increases the amount of water available."[6] It appears that Mr. Sakaya carries the thought process to the next step, applying the logic that to account for what is deemed to be excessive UFW is to reduce the costs, based on a reduction in the cost per thousand gallons, for power, chemicals, and production of water.

Q. DO YOU AGREE WITH MR. SAKAYA, AND WHY?

A. No, with the level of UFW in Pittsburgh Water's system, in light of the historic condition that the Pittsburgh Water's system had reached, and the ongoing efforts to control and reduce its UFW, it is unreasonable to enact Mr. Sakaya's recommendation to adjust Pittsburgh Water's expenses downward to ostensibly penalize for the present UFW as it will remove funding from projects that could otherwise further reduce the current UFW.

Q. PLEASE EXPLAIN WHAT EFFORTS PITTSBURGH WATER IS UNDERTAKING TO ADDRESS UFW WITHIN ITS CAPITAL PROJECTS.

A. Pittsburgh Water continues our program of residential water meter replacement in conjunction with Pittsburgh Water's Lead Service Line Replacement Program.

[4] I&E St. No. 3 at 1-4, 14.

[5] I&E St. No. 3 at 6-14, 14.

[6] I&E St. No. 3 at 1-5, 14.

Accurate metering is a key factor in reducing non-revenue water, as the volume of water supplied is increasingly underreported over time due to slow or failing water meters. Logically, a used water meter will very rarely speed up (read high) over time, but is increasingly likely to slow down (read low) when not maintained or replaced over time. When meters slow (read low), the actual amount of water supplied to the customer is not recorded and is one of the items contributing to the category of Unaccounted for Water. Re-metering our customers is a key part of program to reduce UFW. Furthermore, the more accurate the meter readings, the more accurate the billing, the more likely the customers will clearly identify their respective usage, and aid them in improving water conservation.

Finally, an increase in DSIC Funding would support an increase in the SDWMRP, allowing us to further eliminate the leaking pipes that are aged and deteriorated. These points are more fully discussed in Mr. McFaddin's testimony.

V. CONCLUSION

Q. DOES THAT COMPLETE YOUR REBUTTAL TESTIMONY?

A. Yes; however, I do reserve the right to supplement this testimony as may be appropriate.

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VERIFICATION

I, Barry King, hereby state that: (1) I am the Director of Engineering and Construction for Water Programs for The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water; (2) the facts set forth in my testimony are true and correct (or are true and correct to the best of my knowledge, information and belief); and, (3) I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

DocuSigned by:
Barry King
F87AE2CF53E04F0...

Dated: 9/30/25

Barry King
Director of Engineering
The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

REBUTTAL TESTIMONY OF

KATHERINE "KATE" MECHLER, PE

ON BEHALF OF
THE PITTSBURGH WATER AND SEWER
AUTHORITY D/B/A PITTSBURGH WATER

Docket Nos.
R-2025-3055010 Water
R-2025-3055011 Wastewater
R-2025-3055012 Stormwater

TOPICS:

Stormwater Planning and Projects
Public Input Testimony on Stormwater Management
Damaged Wastewater Laterals
Surface Restoration

September 30, 2025

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND CURRENT POSITION.

A. My name is Katherine Mechler and I am the Director of Engineering and Construction for Wastewater, Stormwater and Green Infrastructure Programs for the Pittsburgh Water and Sewer Authority ("Pittsburgh Water").

Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS PROCEEDING?

A. Yes. I submitted Direct Testimony on June 4, 2025 as Pittsburgh Water St. No. 4, which accompanied the rate filing package.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. No, I am not.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to respond to portions of the direct testimony of Pittsburgh United Our Water Table ("OWT") witness Patrick Cicero, Office of Consumer Advocate ("OCA") witness LeeAnn Wise, and Bureau of Investigation and Enforcement ("I&E") witness Vanessa Okum.

Q. DOES YOUR LACK OF RESPONSE TO ANY PARTICULAR ISSUE RAISED BY THE OTHER PARTIES INDICATE YOUR ACCEPTANCE OF THEIR TESTIMONY?

A. No. While I have attempted to respond to the specific statements and recommendations made by the other parties' witnesses within the scope of my subject matter area, the failure to address a specific issue should not be viewed as my acceptance of that testimony. Rather, it reflects my belief that a further response in this rebuttal testimony is not warranted, either because it was adequately addressed in my direct testimony, is

being addressed by another witness in their rebuttal testimony, or because it is a legal matter that is better addressed by counsel in briefs or other pleadings.

Q. ARE OTHER WITNESSES ADDRESSING THESE ISSUES?

A. Yes, other Pittsburgh Water witnesses are addressing these and related topics in their rebuttal testimonies. In particular, Mr. Barca is also addressing the need to fund stormwater projects and responding to I&E witness Okum's proposed adjustment on surface restoration expenses.

Q. PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY.

A. First, I will respond to OWT witness Patrick Cicero's testimony on stormwater topics, including issues related to Pittsburgh Water's Stormwater Strategic Plan, deferred stormwater projects, stormwater management in the Four Mile Run Watershed, and proposed tariff changes related to notice of changes to ERU designations. I also respond to OCA witness Wise regarding public input testimony on flooding concerns in Four Mile Run. Next, I respond to OWT witness Cicero's testimony on damaged wastewater laterals. Finally, I will address I&E witness Okum's testimony regarding surface restoration costs.

II. <u>STORMWATER</u>

A. <u>Stormwater Strategic Plan</u>

Q. PLEASE SUMMARIZE OWT WITNESS CICERO'S TESTIMONY REGARDING PITTSBURGH WATER'S STORMWATER STRATEGIC PLAN.

A. Mr. Cicero testified that Pittsburgh Water should more closely follow its Stormwater Strategic Plan. He criticizes Pittsburgh Water for stating in a discovery response that the Stormwater Strategic Plan is "aspirational" and only provides guidance to Pittsburgh Water. He also argues that more communication and transparency is needed and that

Pittsburgh Water should be required to submit progress reports detailing to what extent it has implemented the goals and projects in the Stormwater Strategic Plan, updates on how it intends to implement other goals and projects in the Strategic Plan, and how it will engage with stakeholders regarding those goals and plan. He recommends that these reports be published on an annual basis. OWT St. 1 at 87–88.

Q. DO YOU AGREE WITH MR. CICERO'S CRITICISMS AND RECOMMENDATIONS RELATED TO PITTSBURGH WATER'S STORMWATER STRATEGIC PLAN?

A. No, I do not. Mr. Cicero misunderstands the purpose of Pittsburgh Water's Stormwater Strategic Plan and its overall role in planning for stormwater projects.

Q. CAN YOU PLEASE EXPLAIN THE PURPOSE OF PITTSBURGH WATER'S STORMWATER STRATEGIC PLAN?

A. The Stormwater Strategic Plan is an initial high-level evaluation of the stormwater issues in the Pittsburgh Water tributary area. The objective of the Stormwater Strategic Plan is covered in the introduction to the Plan:

> The PWSA Strategic Plan for Stormwater builds off past planning efforts by using climate data, previous regional studies, community input, and best practices by our peer utilities to provide recommendations that consider equity, the environment, priority sites, and water quality. In addition to tried-and-true technical approaches, **the plan is aspirational in its recommendations for PWSA's consideration and use in future detailed stormwater planning endeavors that will provide a more detailed stormwater management approach within Pittsburgh's neighborhoods and watersheds.**
>
> **Since the plan is aspirational**, the recommendations – conceptual sketches, guiding principles for level of service approaches, instituting a joint task force, etc. – are strategic stepping stones to help PWSA and our stakeholders develop a final workable stormwater management plan. **This plan should be viewed as an initial strategic step towards stormwater management. PWSA intends to use the Plan recommendations to eventually design and implement specific projects** that meet a determined level of service to manage stormwater quantity at a rate PWSA customers

> can afford. As such, this plan presents a strategy to be used in reaching our final goal of delivering cost-effective and environmentally-compliant stormwater service.

Pittsburgh Water's Strategic Plan for Stormwater (Dec. 2023), at page 5, *available at* https://www.pgh2o.com/your-water/stormwater/stormwater-plans/stormwater-strategic-plan (emphasis added) ("Stormwater Strategic Plan").

As such, the Stormwater Strategic Plan itself states that it is an aspirational, high-level document that is only intended to be an initial step toward a more detailed and complex stormwater planning process. Mr. Cicero's effort to convert the Stormwater Strategic Plan to some sort of mandate for Pittsburgh Water is not consistent with the purpose of the Stormwater Strategic Plan as clearly stated in the document itself and should be rejected.

Q. HAS PITTSBURGH WATER PRIORITIZED SPECIFIC AREAS AND COMMUNITIES FOR INVESTMENT TO DATE.

A. No, specific areas and communities have not been prioritized for investment to date. The Stormwater Strategic Plan does not identify specific projects but rather was developed on a watershed-basis. It is a conceptual document only; in fact, it is not clear at this time if the options outlined in the Stormwater Strategic Plan are even technically feasible, let alone if they are desired by specific communities. The Stormwater Strategic Plan does not include specific projects or a timeline on which specific projects are to be completed. As such, Mr. Cicero's argument that Pittsburgh Water should "more closely follow" the Stormwater Strategic Plan is not constructive feedback because the content of the plan itself does not align with his proposal.

Q. HOW DOES PITTSBURGH WATER CURRENTLY DETERMINE WHAT STORMWATER PROJECTS TO PURSUE?

A. Addressing local stormwater issues is a complex process. Instead of prioritizing specific areas, Pittsburgh Water currently determines where to spend limited resources by applying evaluation criteria specific to public health and safety, damage to property, regional stormwater planning obligations, and regulatory requirements. Locations for investment are selected based on how high a stormwater problem is rated. Since the completion of the Stormwater Strategic Plan, the priority sheds are a key factor in ranking the problem but is only one of many factors that Pittsburgh Water takes into consideration. This is discussed further below related to deferred stormwater projects.

Q. DOES PITTSBURGH WATER ANTICIPATE A FUTURE, MORE DETAILED STORMWATER PLANNING PROCESS?

A. Yes. Pittsburgh Water anticipates additional stormwater planning, including development of a stormwater master plan at some time in the future. However, Pittsburgh Water does not currently have funding to undertake this more in-depth planning process. The limited funding in this area is currently focused on consent decree negotiations. The Stormwater Strategic Plan was developed as an initial planning step with support from Pittsburgh-area foundations (see Stormwater Strategic Plan, page 5); however, Pittsburgh Water does not have similar funding for additional planning processes at this time.

Q. ARE THERE ANY OTHER POINTS YOU WOULD LIKE TO MAKE IN RESPONSE TO MR. CICERO'S RECOMMENDATIONS?

A. Yes. I would point out that Mr. Cicero has not identified anything, either in the Stormwater Strategic Plan or in a Commission Order, that would require Pittsburgh

Water to comply with the Stormwater Strategic Plan. Mr. Cicero's effort to convert this high-level, initial analysis into a binding document must be rejected.

B. Communication and Outreach

Q. WHAT IS YOUR RESPONSE TO CONCERNS ABOUT COMMUNICATION AND TRANSPARENCE WITH STAKEHOLDERS?

A. I wish to be clear that Pittsburgh Water believes that communication and transparency with stakeholders, including its ratepayers, is an important part of the stormwater planning process. To date, Pittsburgh Water has done significant outreach to customers as it implemented stormwater charges and through ongoing stormwater planning.

Q. PLEASE DESCRIBE PITTSBURGH WATER'S TO DATE STORMWATER OUTREACH AND EDUCATION INITIATIVES.

A. To date, Pittsburgh Water's Stormwater Outreach and Education initiatives have included:

- "Save Water and Save Money with Better Stormwater Management" community workshops in May 2024 and March 2025. The next workshop is scheduled for September 17, 2025.
- Implementation of a $40 rain barrel credit for residential stormwater customers in 2024, with outreach that included information in bills and a postcard to customers.
- The Manager of Talent Acquisition and Workforce Development, in conjunction with the Stormwater Group, provided green infrastructure maintenance workers with workforce development training in 2025 to Pittsburgh Gateways, LandForce, and the Trade Institute of Pittsburgh.

Q. WHAT ARE SOME OF PITTSBURGH WATER'S CURRENT IN PROGRESS ITEMS REGARDING STORMWATER OUTREACH ISSUES?

A. Items in progress include:

- Audit website content on stormwater to make sure it is easy to understand.

- Continue to include stormwater fee office hours as part of outreach. This is included at the end of each "Save Water and Save Money with Better Stormwater Management" community workshop, and several customers have taken advantage of this opportunity to ask a question about their stormwater fee to a Pittsburgh Water staff member and get an immediate answer.
- Conduct two drinking water system workshops on the treatment process and ensuring quality. The first Water Workshop was conducted on June 18, 2025 and also included discussion of wastewater and stormwater. Planning for the second Water Workshop is underway for October 2025.
- In collaboration with the WaterNow Alliance and River Network, Pittsburgh Water is organizing a Community Water Academy to create authentic and equitable relationships between community organizations and water authorities. The academy would launch in 2026.
- Presenting on the Stormwater Program and Fee for the Waste and Watershed module in Pennsylvania Resources Council and Allegheny Cleanways "Eco Scouts" program in August 2025.

Q. WHAT ARE SOME OF PITTSBURGH WATER'S FUTURE PLANS REGARDING STORMWATER OUTREACH?

A. Future plans include Green Infrastructure project tours for educators, which are slated to take place in 2026 as part of the Act 48 Grant Pittsburgh Water received in collaboration with Allegheny Land Trust.

Q. DOES PITTSBURGH WATER ALSO SOLICIT FEEDBACK REGARDING STORMWATER OUTREACH AND EDUCATION FROM ITS LOW-INCOME ADVISORY COMMITTEE ("LIAAC")?

A. Yes. At its March 2024 LIAAC meeting, Pittsburgh Water provided an overview of its most recent outreach activities and began discussing the elements that could be incorporated into the enhanced stormwater communication plan. This discussion continued during the June 2024 meeting which reviewed and discussed feedback provided by LIAAC and during the December 2024 meeting in which Pittsburgh Water

presented on the next steps for implementing the enhanced stormwater communication plan. Further updates have not been provided in 2025 to LIAAC.

Q. HAVE STORMWATER OUTREACH AND EDUCATION OPPORTUNITIES CONTINUED TO BE DISCUSSED IN 2025?

A. Yes. Throughout 2025, stormwater has been discussed with the Water Equity Taskforce mainly with taskforce members reporting out on activities related to outreach and opportunities to highlight various stormwater achievements during the One Water Summit. During the February 2025 meeting, results from the 2024 Customer Satisfaction Survey as they relate to stormwater were shared with the taskforce and a brief discussion followed about the enhanced stormwater communication plan.

Q. PLEASE DESCRIBE PITTSBURGH WATER'S EFFORTS WITH OWT'S STORMWATER WORKING GROUP.

A. Pittsburgh Water met with OWT's Stormwater Working Group in May and August 2024. At the first meeting, Pittsburgh Water provided an overview of the stormwater fee structure and the credit program. The Stormwater Working Group discussed programs in other cities such as the 20-year DOEE program, RiverSmart Homes Program (funded by the USEPA's Chesapeake Bay Implementation Grant), that Pittsburgh Water could look to for ideas, such as installing rain barrels, rain gardens, permeable pavement for reduced cost or with a reimbursement. Pittsburgh Water noted that our primary funding stream to fund the stormwater program is our customer rates, but we are actively seeking external funding. Pittsburgh Water asked the Stormwater Working Group to help spread the word about the Customer Assistance Programs to help income-eligible customers with their Pittsburgh Water bills, and to encourage residents to report stormwater problems to Pittsburgh Water via phone or on our website. The August 2024 meeting focused on our "Enhanced Stormwater Communications Plan" where we discussed our

recent and planned stormwater communications. Valuable feedback from the Stormwater Working Group was received and included emphasizing projects in the community's environmental justice areas, stormwater education in schools, and providing rate information language that is easier to understand.

Pittsburgh Water has also staffed information tables at events involving OWT, including: the East Side Environmental Justice Fair (August 10, 2024); Negley Run Task Force Meeting (March 20, 2025); Lincoln-Lemington Community Collaborative Meeting (May 3, 2025); H2O Network: Spring Confluence 2025 (June 6, 2025); and the Water Equity: Community Power and Leadership Panel (June 24, 2025).

Q. PLEASE DESCRIBE HOW PITTSBURGH WATER COORDINATES STORMWATER OUTREACH AND EDUCATIONAL INITIATIVES AND EVENTS WITH OTHER ENTITIES AND/OR ORGANIZATIONS.

A. Pittsburgh Water currently has several partnerships with local community groups, community venues, organizations, and educational institutions with which we plan, coordinate, and promote ongoing stormwater community outreach events for all ages and throughout our service area. Event planning is typically a multi-departmental collaborative process between Pittsburgh Water's Public Affairs, Environmental Compliance, and Engineering and Construction Departments, who then coordinate with our external partners. Pittsburgh Water also provides outreach about stormwater independent of external partners.

Event planning typically starts with an individual or team of Pittsburgh Water collaborators who internally define outreach objectives and necessary event logistics. When external partners are involved, secondary coordination with these partners occurs to define additional roles such as co-presenter responsibilities and shared duties

regarding promotion and logistics.

Our stormwater outreach falls into the following categories:

- **Stormwater/Sewer Construction Community Presentations** – meetings held virtually or in person about neighborhood-level construction and green infrastructure projects affecting stormwater and the sewer system.
- **K-12 Stormwater Scholastic Outreach**: Workshops and presentations to students occurring in schools or as out-of-school extracurricular education about local stormwater topics, tied to Pennsylvania state educational standards.
- **Stormwater Community Workshops**: Workshops presented within neighborhoods that discuss our stormwater fee, green infrastructure, the stormwater fee and rain barrel credit, stormwater management at home, our sewer system and how to report stormwater and sewer issues. Examples include our Water Workshops, State of Pittsburgh Water presentations, and Save Water, Save Money Workshops.
- **Neighborhood Cleanups:** These events focus on stormwater education and coordinate internal and external volunteers for neighborhood storm drain cleanups and litter removal.
- **CARES Outreach**: During these outreach events, which often include tabling at community events, community members are encouraged to interact with our customer assistance outreach team, CARES, who can provide community members with information and resources available through our customer assistance programs. General customer questions about our services are also answered at these events.
- **Careers in Water – Stormwater Green Infrastructure Working Days:** These working days held with partners such as Landforce and the Trade Institute of Pittsburgh provide career seekers an opportunity to work alongside our stormwater staff to learn about the green infrastructure and routine maintenance activities.

Q. PLEASE IDENTIFY EXTERNAL PARTNERS WORKING WITH PITTSBURGH WATER REGARDING STORMWATER ISSUES.

A. Since 2024, Pittsburgh has partnered with the following external partners:

- **Watershed Groups/Wet Weather Groups**:
  - 3 Rivers Wet Weather
  - Mon River Project
  - UpStream Pittsburgh
  - Negley Run Watershed Task Force
  - Watersheds of South Pittsburgh
  - Local Governments and Nonprofit Water Agencies Learning Circle
  - H2O Network

- OWT Stormwater Working Group
- **City of Pittsburgh**:
  - Multiple Departments
  - City Parks
  - Healthy Active Living Centers
  - Recreation Centers
- **Nonprofit and Community Organizations**:
  - Pennsylvania Resources Council
  - The Pittsburgh Project
  - Reading is Fundamental
  - Allegheny Cleanways
  - The Kingsley Association
  - Homewood YWCA and YMCA
  - Opportunity Pathways Program
  - Children's Museum of Pittsburgh
  - Children's Hospital of Pittsburgh
  - Brookline Together
  - Grounded Strategies
- **Education and Schools:**
  - Pittsburgh Public School District
  - Winchester Thurston Academy
  - Christ the Divine Teacher Academy
  - Environmental Charter Schools
  - University of Pittsburgh
  - Pittsburgh Learning Collaborative/A+ Schools
- **Libraries**:
  - Carnegie Library System of Pittsburgh: Various branches
- **Conservation Districts:**
  - Allegheny County Conservation District
  - Westmoreland County Conservation District
- **University Extension Programs**:
  - Penn State Master Watershed Stewards
  - Penn State Master Gardeners
  - Pitt Water Collaboratory
- **City Registered Community Organizations (RCOs):**
  - Hill Community Development Corp
  - Hazelwood Initiative
  - Charles Street Area Corp
  - Bellefield Area Citizens Association
  - Beltzhoover Consensus Group
  - East Allegheny Community Council
  - 31st Ward Community Action Group
  - Stanton Heights Neighborhood Association
  - Highland Park Community Council
  - Squirrel Hill Urban Coalition
  - Downtown Pittsburgh Partnerships

- Knoxville Community Council
- Allegheny City Central Association
- Lincoln-Lemington Community Collaborative
- East Hills Consensus Group
- Beechview Area Concerned Citizens
- Community Alliance of Spring Garden

- **ALCOSAN**

Q. IS PITTSBURGH WATER COMMITTED TO EDUCATING AND COLLABORATING WITH STAKEHOLDERS ABOUT ISSUES REGARDING STORMWATER?

A. Yes. Pittsburgh Water continues to look for opportunities to partner with community groups, the City of Pittsburgh, and others to help engage community members about stormwater education and projects. It should be noted too that the public input testimony that Mr. Cicero cited as evidence of a lack of communication regarding stormwater issues was specifically related to flooding concerns in Four Mile Run, which I will further discuss below. I want to be clear that stormwater planning is a complex process and Pittsburgh Water is dedicated to ensuring that outreach to ratepayers remains an integral part of that process.

C. <u>Deferred Stormwater Projects</u>

Q. DID MR. CICERO'S TESTIMONY ADDRESS CERTAIN STORMWATER PROJECTS THAT WERE DEFERRED?

A. Yes. OWT witness Cicero notes that Pittsburgh Water deferred construction for six stormwater projects including Fowler Park, Oakridge Stormwater Separation, Southside Park, Four Mile Run, Stewart Avenue, and MLK Field. As discussed above, Mr. Cicero argues that Pittsburgh Water should more closely follow its Stormwater Strategic Plan in prioritizing stormwater projects, such that the public has a "roadmap" of when and how the highest priority projects will be completed. He claims that projects identified in the developmental stage but then deferred should have "clear timelines for completion"

before the end of the current Capital Improvement Plan ("CIP")[1]. OWT St. 1 at 87–88. He also claims that 66% of Pittsburgh Water's stormwater mitigation funding is being used in lower priority watersheds. OWT St. 1 at 85–86.

Q. DO YOU AGREE WITH MR. CICERO'S RECOMMENDATIONS RELATED TO THE DEFERRED STORMWATER PROJECTS?

A. No, I do not.

Q. WHY WERE THE SIX STORMWATER PROJECTS DEFERRED IN THE 2025–2029 CAPITAL IMPROVEMENT PLAN?

A. The 2025–2029 CIP prioritizes critical water system investments, including lead service line replacements and the $470 million Water Reliability Plan required by a state consent decree. Together, these and related drinking water projects represent approximately $934.7 million—or 80 percent—of Pittsburgh Water's CIP.

The specific stormwater projects that were deferred in the CIP were selected due to outstanding permits, coordination with other stakeholders, constructability concerns, the project's phase and/or the need of additional project funds—not based on location.

Once again, stormwater projects and planning are very complex and must take into account many variables—including limitations on funding—and not only the location of the project. As I explained above, the Stormwater Strategic Plan did not identify specific areas and communities to be prioritized for stormwater investment, and did not include specific projects. There is no requirement that Pittsburgh Water complete certain projects pursuant to the Stormwater Strategic Plan. Mr. Cicero is simply incorrect about the purpose of the Stormwater Strategic Plan and is trying to

[1] Pittsburgh Water Exh. EB-4 is the 2025–2026 CIP.

impose requirements on Pittsburgh Water's stormwater planning process that do not exist.

Q. WHAT IS YOUR RESPONSE TO MR. CICERO'S CLAIM THAT PITTSBURGH WATER IS "GASLIGHTING" THE OTHER PARTIES AND THE COMMISSION REGARDING ITS EFFORTS TO ADDRESS STORMWATER (OWT ST. NO. 1 AT 86)?

A. Mr. Cicero is critical of the reality that dollars are needed to fund operations and initiatives and, unfairly, suggests that my pointing this out is somehow aimed at deriding the other Parties or the Commission. This is simply not correct. Pittsburgh Water operates three utilities—water, wastewater conveyance, and stormwater—and it must balance the needs of all three systems in a way that continues to ensure that ratepayers can continue to fund their operation. As a municipal authority, Pittsburgh Water relies on ratepayer funding for all operations. This means that decisions about where to concentrate those dollars must be made and reconsidered when Pittsburgh Water is authorized to receive less revenue than requested in its rate proceeding—whether by Commission directive or as part of a settlement. Importantly, these deferred stormwater projects would include all new infrastructure, while Pittsburgh Water also needs to maintain its existing infrastructure. Despite Mr. Cicero's negative characterizations, it is simply a fact that Pittsburgh Water has limited funding sources to carry out its work while also attempting to strike a balance between securing the dollars it needs for these projects with maintaining affordable rates. Stormwater projects will continue to suffer if Pittsburgh Water does not receive the necessary funding through this rate proceeding to allow the projects to move forward.

Q. DO YOU AGREE WITH MR. CICERO'S ASSERTION THAT PITTSBURGH WATER DEFERRED FUNDING FOR THESE SIX STORMWATER PROJECTS BUT DEDICATED SIGNIFICANT CAPITAL TO PROJECTS THAT ARE

PRIORITIZED BY THE CITY OF PITTSBURGH (E.G., CATCH BASINS AND THE BUS RAPID TRANSIT PROJECT)?

A. No, I do not agree.

Q. CAN YOU PLEASE EXPLAIN WHY YOU DO NOT AGREE WITH THAT ASSERTION RELATED TO CATCH BASINS?

A. Certainly. Catch basins are a critical and essential asset of our combined sewer system. They allow stormwater to enter the system and control solids and floatables from entering and clogging our system and impairing our waterways. As part of the Capital Lease Agreement, Pittsburgh Water is responsible for operating and maintaining the sewer system. Catch basins are not the City of Pittsburgh's responsibility unless they are in a City Park of less than 50 acres, per the Cooperation Agreement between Pittsburgh Water and the City of Pittsburgh.

There are approximately 25,000 catch basins and inlets in our system and the Catch Basin Replacement Program is part of Pittsburgh Water's asset management program. The 2025–2029 Capital Budget allocated $13,911,006 toward catch basin replacement, which is one percent of the overall planned capital improvement expenditures. Based on our current contract pricing, this equates to less than 700 catch basins being replaced over a five-year period under this program. Pittsburgh Water currently has a list of 298 catch basins that require replacement due to structural failures and an additional 843 catch basins with known structural deficiencies. Any suggestion by Mr. Cicero that Pittsburgh Water is only prioritizing these catch basins because they are in some way prioritized by the City of Pittsburgh is simply incorrect.

Q. PLEASE DISCUSS PITTSBURGH WATER'S INVOLVEMENT WITH THE BUS RAPID TRANSIT PROJECT.

A. The construction of Pittsburgh Regional Transit's ("PRT") Bus Rapid Transit ("BRT") Project requires that certain water and sewer facilities owned and/or operated by Pittsburgh Water be removed, replaced, and/or relocated. The PRT has agreed to a 75 percent (PRT) / 25 percent (Pittsburgh Water) cost share for the removals, replacements, and/or relocations. Pittsburgh Water has committed $2,846,437.25 in construction funds and $697,465.00 in construction management and inspection funds for the oversight for the infrastructure replacement, removal, and installation. Additionally, Pittsburgh Water has committed $2,179,813.19 of construction funds for green infrastructure facilities to be constructed in conjunction with the BRT. This is an opportunity to invest in our infrastructure in a cost-effective way.

Again, Mr. Cicero's suggestion that Pittsburgh Water is only prioritizing costs related to PRT's BRT project because they are in some way prioritized by the City of Pittsburgh is not correct, and in fact will result in savings to customers while also providing stormwater management benefits associated with the planned green infrastructure facilities.

Q. IF PITTSBURGH WATER'S WASTEWATER DSIC PROPOSAL IN THIS RATE CASE IS APPROVED, WHAT PROJECTS WILL PITTSBURGH WATER BE ABLE TO FUND?

A. As I explained in my direct testimony, the wastewater Distribution System Improvement Charge ("DSIC") currently funds all or a portion of the sewer reconstruction and small diameter sewer rehabilitation projects, which significantly improve the sewer system. The proposed increase in DSIC funding could result in an additional 13,300 linear feet

of sewer main rehabilitated in the FPFTY and 2,250 linear feet of sewer main rehabilitated in FY 2027. *See* Pittsburgh Water St. No. 4 at 22.

D. Stormwater Management in Four Mile Run

Q. DID OCA WITNESS WISE AND OWT WITNESS CICERO TESTIFY REGARDING PUBLIC INPUT TESTIMONY ON STORMWATER MANAGEMENT IN FOUR MILE RUN?

A. Yes. OCA witness Wise summarized public input testimony from customers, including testimony raising concerns about flooding in Four Mile Run (also known as "The Run") and recommended that Pittsburgh Water address those concerns in rebuttal testimony. OCA St. 5 at 5–7, 9–10. OWT witness Cicero also cited public input testimony by customers in Four Mile Run, particularly related to communication and transparency on their flooding concerns. OWT St. 1 at 87–88, fn. 198.

Q. CAN YOU PLEASE DESCRIBE THE FOUR MILE RUN AREA?

A. The Four Mile Run Watershed encompasses Schenley Park and parts of several Pittsburgh neighborhoods including Greenfield, Hazelwood, Oakland, and Squirrel Hill. The Run neighborhood is located in the basin of the watershed, in a low-lying area near the Monongahela River. This area experiences flooding and basement backups. Pittsburgh Water's website addresses stormwater planning in Four Mile Run.[2] Stormwater management in this area is complex, both in terms of topography and other infrastructure and facilities in the area, which has made it challenging for Pittsburgh Water and others to complete projects to address flooding concerns in this area.

[2] *See* https://www.pgh2o.com/projects-maintenance/search-all-projects/four-mile-run-stormwater-project.

Q. CAN YOU PLEASE PROVIDE A HISTORICAL TIMELINE FOR PITTSBURGH WATER'S FOUR MILE RUN STORMWATER IMPROVEMENTS PROJECT?

A. Initial visioning and stakeholder engagement occurred in 2016–2017 through an effort led by the Pittsburgh Parks Conservancy. Pittsburgh Water's preliminary design effort began in 2018 and continued through 2020. The selected 2020 design alternative included a daylighted stream from Panther Hollow Lake through Schenley Park and connecting to a new separate storm sewer that would convey stormwater flows from "The Run" neighborhood to a new stormwater outfall at the Monongahela River. This would serve to reduce combined sewer overflow volumes within the M-29 sewershed while improving capacity within the existing combined sewer system infrastructure located in "The Run" neighborhood. As an early action project completed in 2020, stormwater management was improved within Schenley Park along Overlook Drive and next to the Bridle Trail, with two stormwater detention swales that reduce erosion and slow stormwater runoff from the top of Schenley Park to Naylor Street in The Run.

Due to permitting review comments received in 2021 and 2022 from state and federal agencies, including the Pennsylvania Department of Environmental Protection ("PADEP") and the U.S. Army Corps of Engineers ("USACE"), the project scope was updated in 2022 to focus only on the separate storm sewer conveyance from the neighborhood to the river and to not include improvements within Schenley Park. This revision was in part due to technical issues including impacts to the dam at Panther Hollow Lake, and also property access issues with property owned by CSX Railroad and required property flowage easements for the proposed stream.

Between 2022 and 2024, design efforts were continued to finalize the separate storm sewer and outfall design package for construction, and to prepare a revised joint

permit application. This work included additional site investigations of geotechnical conditions and confirmation of existing utility locations. Constructability risks were identified including needed relocation of a critical utility conflict and also a recommendation for additional existing geotechnical assessments to support the tunneling method proposed. Final design work is on hold at this time until Pittsburgh Water evaluates the effectiveness of the M-29 Outfall Improvements projects, coordinates with ALCOSAN on the proposed hydraulic conditions at M-29 for ALCOSAN regional system projects, including its wastewater treatment plant ("WWTP") expansion project and the Monongahela River Tunnel ("MRT"),[3] and evaluates other stormwater improvement projects upstream of the Run.

Q. WHY CAN'T PITTSBURGH WATER CONSTRUCT THE GREEN INFRASTRUCTURE COMPONENTS IN SCHENLEY PARK?

A. Pittsburgh Water cannot construct the green infrastructure components of the Four Mile Run project in Schenley Park because we were never granted an easement from the Railroad (CSX) nor did we receive a permit from PADEP to daylight the stream. The CSX issues specifically included difficulties acquiring railroad property access and the designation of Panther Hollow Lake as a high hazard dam. Since the lake is considered a dam and the spillway is located within CSX's right-of-way, CSX will not grant Pittsburgh Water a permit. The PADEP also would not grant the permit due to the liner that was included in the design of the daylighted stream. The designer of record did not

[3] Pursuant to a consent decree, ALCOSAN is currently constructing a regional tunnel system along the Ohio, Allegheny and Monongahela Rivers that will divert excess stormwater away from outfalls, and instead move it through the tunnels and to ALCOSAN's wastewater treatment plant. The MRT portion of this project is currently scheduled to be completed in 2037. https://www.alcosan.org/clean-water-plan/regional-tunnel-system.

want to remove the liner because it would result in the daylighted stream infiltrating away and leaving a dry streambed.

While providing an opportunity for stormwater separation and combined sewer overflow reduction, this project area is not as central to providing flood reduction benefits compared to the proposed stormwater outfall.

Pittsburgh Water is currently evaluating stormwater opportunities within Schenley Park and other M-29 stormwater project concepts upstream of the flooding areas to provide flood reduction benefits to the customers most affected.

Q. WHEN PITTSBURGH WATER DIVERTED THE FUNDING FOR THE FOUR MILE RUN STORMWATER PROJECT IN THE 2025 BUDGET, WHERE DID THAT MONEY GO SPECIFICALLY?

A. As I noted above, the 2025–2029 Capital Budget prioritizes critical water system investments, including lead service line replacements and the $470 million Water Reliability Plan required by a state consent decree. Together, these and related drinking water projects represent approximately $934.7 million—or 80 percent—of Pittsburgh Water's CIP. This leaves the remaining 20% of the CIP funding to address all other projects, including stormwater projects.

Due to limited resources and a need to keep rates affordable, several stormwater projects were delayed. This includes the Four Mile Run Stormwater Project, along with projects in South Side Park, MLK Field in the Hill District, and Stewart Avenue in Carrick. Importantly, these projects are not cancelled. Additional funding for design services for the Four Mile Run Stormwater Project have been approved and will support completion of tasks needed to identify alternatives that are more effective and less expensive. As I explained above, final design work is on hold at this time until Pittsburgh Water evaluates the effectiveness of the M-29 Outfall Improvement projects,

coordinates with ALCOSAN on the proposed hydraulic conditions of drop shaft for ALCOSAN's MRT project, and evaluates other stormwater improvement projects upstream of The Run.

Although these projects are not advancing to construction at this time, Pittsburgh Water is actively pursuing external funding and remains committed to addressing stormwater issues across Pittsburgh, including in The Run. Pittsburgh Water reviews the capital program annually and will reevaluate stormwater projects as drinking water system priorities progress and additional funding becomes available. Pittsburgh Water is working to address these concerns and is working to do so in a financially responsible way.

Q. HOW MUCH HAS PITTSBURGH WATER INVESTED IN THE SEWERSHED THAT FLOWS THROUGH FOUR MILE RUN?

A. Since 2020, Pittsburgh Water has invested $16 million in capital funding for the following completed projects in the M-29 sewershed:

- Early Action Project (2020) – Bridle Trail improvements in Schenley Park reduces stormwater flows from Schenley Park into the Run neighborhood ($537k).
- M-29 Outfall Rehabilitation (2022) – Improved hydraulic conditions and lowered the weir height of the M-29 diversion structure ($5.0M).
- Wightman Park Phase 1 and 2 (2022) – Captured stormwater runoff from a nearly 30-acre neighborhood area upstream, helping to slow stormwater runoff from entering the existing sewer system. ($4.5M).
- Sewer rehabilitation and relining – Rehabilitated 31,000 linear feet of sewer main, which extends the useful life of the sewers ($6.0M).

Q. WHAT OUTREACH HAS PITTSBURGH WATER DONE TO RATEPAYERS IN THE RUN?

A. When the Four Mile Run stormwater project was active, Pittsburgh Water had regular public meetings related to the stormwater project. From 2018 through 2021, these meetings were held every three to six months. In 2022, one project meeting was held in November to share decisions related to the direction of the project once the permitting process closed. In total, 10 meetings were held about the Four Mile Run stormwater project. Pittsburgh Water's Stormwater Conversations and Water Workshops were marketed to residents in The Run. Again, these were held in several neighborhoods across Pittsburgh with one of each being held at the Hazelwood Active Living Center, which is in close proximity to The Run. Residents of The Run attended the Stormwater Conversation. Pittsburgh Water is currently in the early stages of planning a community meeting regarding the status of the Four Mile Run project in December. While the agenda for this meeting has not yet been finalized, Pittsburgh Water anticipates that it will include an update on the project, an opportunity for residents to share their concerns, and time for idea sharing.

Q. WHAT DO YOU CONCLUDE OVERALL?

A. Pittsburgh Water takes the concerns of residents in The Run seriously, and to date has made significant efforts to address flooding in this area. However, stormwater management in Four Mile Run is extremely complex and previous projects have encountered numerous hurdles. Pittsburgh Water will continue working to address these stormwater issues but notes that this will likely be a long-term project with no easy solutions. Limited resources are part of the challenge, and the funds requested in this rate case are necessary for Pittsburgh Water to move forward.

E. Notice of Changes to ERU Designations

Q. DID PITTSBURGH WATER PROPOSE CHANGES ITS STORMWATER TARIFF REGARDING NOTICE OF CHANGES TO ERU ADJUSTMENTS?

A. Yes. Pittsburgh Water proposed to modify its stormwater tariff language to remove the requirement that written notice of an ERU adjustment increasing the customer's bill must be provided 60 days in advance of the effective date of the ERU Adjustment. Rather, the customer will receive notice when the change is made. Additionally, the notice would not be required when the change is initiated by the customer. *See* Pittsburgh Water St. No. 4 at 27.

Q. HOW DID OWT WITNESS CICERO RESPOND TO THIS PROPOSAL?

A. Mr. Cicero opposed this proposal. He believes that the 60-day notice requirement should remain in place. He also argues that when the ERU change is initiated by the customer, the customer should receive notice at the time the change is made. OWT St. 1 at 89–90.

Q. DO YOU AGREE WITH MR. CICERO'S PROPOSALS?

A. No, I do not. As I explained in my direct testimony, providing 60-day advance notice of ERU changes has proven to be overly burdensome for Pittsburgh Water, in both costs and administrative burden. Pittsburgh Water St. No. 4 at 27–28. Managing this notice process takes significant customer service staff time, printing and mailing costs, and technology costs to carry out this requirement within Pittsburgh Water's systems. Under Pittsburgh Water's proposal, customers will still receive notice at the time of the change and will be able to contact Pittsburgh Water if any corrections or billing adjustments are needed. As with any customer inquiry, Pittsburgh Water will provide information on the reason for the change and will make any necessary billing correction, including any

retroactive adjustments or corrections to the amounts billed. Additionally, it is not reasonable to require separate notice to customers when the ERU change was initiated by the customer. For these reasons and those detailed in my direct testimony, I maintain that Pittsburgh Water's proposed tariff change related to notice of ERU redesignations is reasonable and should be approved.

III. DAMAGED WASTEWATER LATERALS

Q. DID OWT WITNESS CICERO PROVIDE TESTIMONY REGARDING DAMAGED WASTEWATER LATERALS?

A. Yes. Mr. Cicero recognizes that Pittsburgh Water filed a filed a Petition for Approval of a Damaged Wastewater Sewer Lateral ("DWSL") Program with the Commission as required by a prior settlement, but that this DWSL Petition was rejected by the Commission.[4] Mr. Cicero faults Pittsburgh Water for not filing a second DWSL Petition, and argues that Pittsburgh Water should be required to file another DWSL Petition within 90 days of the effective date of rates in this proceeding that is compliant with the Commission's prior order on Pittsburgh Water's DWSL Petition, Act 120 of 2018, and Commission regulations. OWT St. 1 at 95–98.

Q. DO YOU AGREE WITH MR. CICERO'S CLAIMS REGARDING PITTSBURGH WATER'S DWSL PETITION?

A. No, I do not.

Q. PLEASE EXPLAIN WHY PITTSBURGH WATER HAS NOT RE-FILED A DAMAGED WASTEWATER LATERAL PLAN COMPLIANT WITH ACT 120 OF 2018.

A. The reason Pittsburgh Water has not refiled its Petition is because the Commission essentially found that an Act 120 program could not be structured in a way that would

[4] *See* Docket Nos. P-2022-3031586 and R-2022-3031597, Order entered Dec. 29, 2022.

address Pittsburgh Water's unique circumstances. Approximately 73 percent of the Pittsburgh Water sewer system, or approximately 912 miles of sewer lines, are part of the combined sewer system, which conveys both wastewater and stormwater and which was specifically designed to allow inflow and in some cases infiltration. Therefore, a high percentage of DWSLs in Pittsburgh Water's system may be in areas where infiltration/inflow is not the main reason for Pittsburgh Water to consider repairing/replacing them. This differs from the purpose of Act 120 of 2018, which is to address:

1. Excessive Inflow & Infiltration (I&I) causing, or which is reasonably expected to cause within the next 5 years, a hydraulically overloaded condition, wastewater overflows or additional flow which is prudent for the entity to avoid.
2. Design or construction conditions causing, or which are reasonably expected to cause with the next 5 years, wastewater overflows.

Because Pittsburgh Water's system is largely a combined system, Act 120 is not as beneficial as it may be for customers in a system where wastewater and stormwater infrastructure are separated. Additionally, damaged wastewater laterals in Pittsburgh Water's system are typically discovered due to structural issues (e.g. sinkholes, blockages, etc.), not excessive I&I. Because of this, the framework of Act 120 is not readily applicable to Pittsburgh Water's system. In its previous DWSL Petition, Pittsburgh Water requested that the Commission allow for modifications to align the purposes of Act 120 with our system, but the Commission rejected this request. Without such modifications, it would not be possible for Pittsburgh Water to align a DWSL Petition with the requirements of Act 120.

Q. WHY DID PITTSBURGH WATER NOT PETITION THE COMMISSION FOR A DAMAGED WASTEWATER LATERAL AND ILLEGAL CONNECTION REMOVAL PILOT PROGRAM AS STATED IN THE 2023 RATE CASE?

A. As stated in testimony in the 2023 rate case, Pittsburgh Water was exploring filing an additional DWSL Petition. This program would have been funded using American Rescue Plan Act ("ARPA") funds that were allocated for this pilot program. However, those ARPA funds were rescinded by the City of Pittsburgh and are no longer available to fund a DWSL Pilot Program.

Q. DID THE COMMISSION'S DECEMBER 29, 2022 ORDER REQUIRE PITTSBURGH WATER TO FILE AN ADDITIONAL DWSL PETITION?

A. No. I am advised by counsel that while the Commission's Order allowed Pittsburgh Water to re-file a DWSL Petition, it did not require Pittsburgh Water to do so. I am not aware of any other requirement that Pittsburgh Water file another DWSL Petition, and Mr. Cicero's testimony did not point to any such requirement.

IV. SURFACE RESTORATION

Q. DID I&E WITNESS OKUM TESTIFY REGARDING SURFACE RESTORATION COSTS?

A. Yes. Ms. Okum recommends rejecting Pittsburgh Water's claim for surface restoration costs and instead "normalizing" the expense using a three-year historic average of concrete repair expenses. I&E St. No. 2 at 23–25.

Q. DO YOU AGREE WITH MS. OKUM THAT THE SURFACE RESTORATION EXPENSE SHOULD BE BASED ON A THREE-YEAR HISTORIC AVERAGE?

A. No.

Q. PLEASE EXPLAIN WHY NOT.

A. Certainly. While the three-year historic average provides information on what Pittsburgh Water has spent in the past on surface restoration, it does not accurately reflect the amount that Pittsburgh Water needs to adequately complete this work.

After the winter pavement moratorium,[5] Pittsburgh Water would ideally enter each paving season with approximately 441 sites (based on the weekly average of site generated by Operations). However, each year, Pittsburgh Water starts the paving season with a significant backlog of sites—1,200 or greater—that cannot be completed due to funding shortfalls. Without adequate funding, it is currently taking an average of nine months from when work is performed until the site is restored. The result is that Pittsburgh Water never has sufficient funding to complete all surface restoration projects. Ms. Okum's proposed three-year average would only exacerbate this problem, particularly given that costs of surface restoration continue to increase.

Delays in completing surface restoration present safety hazards for the traveling public. Sidewalks remain as aggregate, which can be a tripping/slip hazard, and difficult for customers to maintain during winter months. Unrestored roadways develop ruts or sinkholes, which can cause vehicular damage and accidents. It also results in Pittsburgh Water fielding numerous complaints regarding the timeframe it takes complete restoration. This places an undue administrative burden on staff to investigate and reply to each complaint received.

[5] The City of Pittsburgh's Department of Mobility and Infrastructure ("DOMI") places a moratorium on permanent sidewalk and street restoration from November 1 to March 31 of each year. See Section 4.9 of the DOMI Right-of-Way Procedures Manual, available at https://www.pittsburghpa.gov/files/assets/city/v/1/domi/documents/12991_row_procedures_manual_2021rev_draft.pdf.

This is also discussed in Pittsburgh Water witness Ed Barca's testimony. Ms. Okum's proposal would continue these surface restoration budget shortfalls and therefore should be rejected.

V. CONCLUSION

Q. DOES THAT COMPLETE YOUR REBUTTAL TESTIMONY?

A. Yes; however, I do reserve the right to supplement this testimony as may be appropriate.

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VERIFICATION

I, Katherine Mechler, hereby state that: (1) I am the Director of Engineering and Construction for Wastewater, Stormwater, and Green Infrastructure Programs for The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water; (2) the facts set forth in my testimony are true and correct (or are true and correct to the best of my knowledge, information and belief); and, (3) I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

DocuSigned by:
Kate Mechler, PE
6FCA778A9DFE40C...

Dated: 9/30/25

Katherine Mechler
Director of Engineering and Construction for Wastewater, Stormwater, and Green Infrastructure Programs
The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

REBUTTAL TESTIMONY OF

WILLIAM J. MCFADDIN

ON BEHALF OF
THE PITTSBURGH WATER AND SEWER
AUTHORITY D/B/A PITTSBURGH WATER

Docket Nos.
R-2025-3055010 Water
R-2025-3055011 Wastewater
R-2025-305012 Stormwater

TOPICS:

Unaccounted-for Water

September 30, 2025

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND CURRENT POSITION.

A. My name is William J. McFaddin and I am the Director of Operations for the Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water ("Pittsburgh Water").

Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS PROCEEDING?

A. Yes. I submitted Direct Testimony on June 4, 2025, pre-marked Pittsburgh Water St. No. 5, which accompanied the rate filing package.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. No, I am not sponsoring any exhibits.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my Rebuttal Testimony is to respond to a portion of the Direct Testimony of Esyan Sakaya submitted on behalf of the Bureau of Investigation and Enforcement ("I&E") (I&E Statement No. 3) related to unaccounted-for water ("UFW"). More specifically, I will explain the specific challenges facing Pittsburgh Water in this regard and describe the leak detection efforts in place to address UFW. My conclusion is that the level of UFW in Pittsburgh Water's system, in light of the unique circumstances of Pittsburgh Water's system and its ongoing efforts to control and reduce its UFW, is not unreasonable, and Sakaya's recommendation to adjust Pittsburgh Water's expenses due to UFW would only hurt efforts to eliminate UFW.

Q. DOES YOUR LACK OF RESPONSE TO ANY PARTICULAR ISSUE RAISED BY THE OTHER PARTIES INDICATE YOUR ACCEPTANCE OF THEIR TESTIMONY?

A. No. While I have attempted to respond to the specific statements and recommendations made by the other parties' witnesses within the scope of my subject matter area, the failure to address a specific issue should not be viewed as my acceptance of that

testimony. Rather, it reflects my belief that a further response in this rebuttal testimony is not warranted, either because it was adequately addressed in my direct testimony, is being addressed by another witness in their rebuttal testimony, or because it is a legal matter that is better addressed by counsel in briefs or other pleadings.

Q. ARE OTHER WITNESSES ADDRESSING THESE ISSUES?

A. Yes, other Pittsburgh Water witnesses are addressing these and related topics in their rebuttal testimonies. In particular, Ed Barca (Pittsburgh Water St. No. 2R) will respond to Mr. Sakaya's proposed expense adjustments related to this issue and Barry King (Pittsburgh Water St. No. 3R) will discuss other engineering aspects of UFW and Pittsburgh Water's meter replacement plan.

II. UNACCOUNTED-FOR WATER ("UFW")

Q. SUMMARIZE I&E WITNESS SAKAYA'S TESTIMONY REGARDING UFW.

A. Witness Sakaya concludes that Pittsburgh Water's three-year average of UFW is 51.7 percent and this is greater than the level, he claims, is considered by the Commission to be excessive. (I&E St. No. 3 at 14). He then recommends that Pittsburgh Water's claim for power, purification and materials & supplies expenses should be reduced by $5,771,000 due to UFW. (I&E St. No. 3 at 14–15). Mr. Sakaya takes the position that a reduction in UFW will counteract his proposed adjustment for these expenses. (I&E St. No. 3 at 15).

Q. DOES MR. SAKAYA OFFER ANY FURTHER SUGGESTIONS AS TO HOW PITTSBURGH WATER COULD ACHIEVE A LOWER UFW OR PROVIDE ANY EXAMPLES OF HOW OTHER WATER UTILITIES MAY HAVE DECREASED THEIR AMOUNTS OF UFW?

A. No. Mr. Sakaya appears to have just focused on our average UFW and then calculated what expenses would be needed if that actual number were significantly reduced—and

then claimed that the Commission should reduce this expense. The underlying assumption of this proposal appears to be that Pittsburgh Water's present level of UFW is imprudent or unreasonable and that Sakaya's adjustment will serve as an "incentive" for Pittsburgh Water to reduce UFW.

Q. IN YOUR VIEW, WOULD A REDUCTION OF BUDGETED EXPENSES AVAILABLE TO SUPPORT PITTSBURGH WATER'S WATER INFRASTRUCTURE LEAD TO A REDUCTION OF UFW?

A. No, quite the contrary. As I will explain, there are a number of factors that contribute to Pittsburgh Water's level of UFW, the sum of which are unique to this system. These include the variable elevations of Pittsburgh's geographical landscape, the pervasive problem of smaller leaks that do not get fixed by private property owners, and the difficulty of locating leaks and then fixing them in an old system. As both Mr. King and I explain, Pittsburgh Water is taking all reasonable measures to address this issue, but doing so requires resources including manpower and equipment, which have associated costs. As such, the way to address this concern is not—as Mr. Sakaya suggests—to take away revenues for Pittsburgh Water but rather, to increase available funding resources to address this specific problem. By cutting essential resources through an unsupported reduction in expenses, Mr. Sakaya's recommendation would hamstring Pittsburgh Water's ongoing efforts to make affirmative gains and tangible reductions in UFW.

Q. CONSIDERING ALL RELEVANT FACTORS, DO YOU AGREE WITH SAKAYA'S IMPLICATION THAT PITTSBURGH WATER'S LEVEL OF UFW IS EXCESSIVE?

A. No, I do not agree. The Commission's regulations permit a "reasonable" amount of UFW. *See* 52 Pa. Code § 65.20(4) ("Levels of unaccounted-for water should be kept within reasonable amounts."). Nowhere is the term "reasonable" defined; in addition, the fact that the Commission has considered UFW levels above 20% to be excessive in the

past does not mean that all instances where UFW is above 20% equate to unreasonable levels, given the specific circumstances at play in a given system such as Pittsburgh Water's system.

In addition, that section of the Commission's regulations provides that "[i]n rate proceedings of water utilities, the Commission intends to examine specific factors regarding the action or failure to act to encourage cost-effective conservation by their customers" and that "the Commission will review utilities' efforts to meet the criteria in this section when determining just and reasonable rates." *Id.* § 65.20. My understanding of this regulation is that the amount of UFW is only one of the factors to be considered by the Commission in assessing a water utility's efforts to conserve water—yet it is the only one that Sakaya has fixed on when it comes to Pittsburgh Water.

My assessment is that Pittsburgh Water's levels of UFW are reasonable under the Commission's regulations and under the circumstances. Section 65.20(4) does not support the idea that a system experiencing above 20% unaccounted for water is *de facto* unreasonable; Section 65.20 merely advises that water conservation measures may be necessary to mitigate UFW.[1]

[1] *See Aqua v. Pa. Pub. Util.* Comm'n, Docket No. R-2021-3027385, (Reply Brief of I&E filed Sept. 21, 2022) ("I&E asserts that Section 65.20(4) does not stand for the presumption that a system experiencing above 20% unaccounted for water is a de-facto troubled water system. As I&E noted, there are various other end-of-service plant issues that were known or knowable that could be the cause and Section 65.20 merely advises that water conservation measures may be necessary.").

Q. IS PITTSBURGH WATER'S LEVEL OF UFW UNREASONABLE WHEN COMPARED TO THE UFW LEVELS OF OTHER SIMILARLY SITUATED WATER UTILITIES?

A. In my opinion, no. For example, the level of UFW within the Philadelphia Water Department's system was estimated in 2015 to be roughly forty percent.[2] In 2024, medium-sized Western Pennsylvania water utility Hampton Shaler Water Authority estimated UFW levels of more than 35 percent.[3] Other utilities have faced recommendations to lower their UFW levels below twenty percent.[4] While I recognize that Pennsylvania American Water also services portions of Pittsburgh Water's service territory, the level of UFW for those specific areas is not publicly available—though I would suspect that it is similar to what Pittsburgh Water experiences.

Q. TO YOUR KNOWLEDGE, HAS THE COMMISSION EVER REDUCED AUTHORIZED EXPENSE LEVELS IN A RATE CASE DUE TO EXCESSIVE UFW?

A. No, I am not aware of the Commission ever reducing a utility's authorized level of expenses on the grounds that the utility's UFW was excessive.

Q. WHY IS UFW A PERVASIVE ISSUE IN PITTSBURGH WATER'S SYSTEM?

A. The issue of UFW is complicated and multi-faceted because Pittsburgh Water's system presents unique challenges, including variable topography, aging infrastructure, and a general high level of difficulty in tracking down leaks of all sizes. Importantly, the "small" leaks within the system on a customer-owned line can be difficult to remediate

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2 *See* Carolyn Beeler, *With nearly 200-year-old pipes, Philly's water leak rate stays high*, WHYY (Mar. 6, 2015), https://whyy.org/segments/with-nearly-200-year-old-pipes-phillys-water-leak-rate-stays-high/.

3 *GIS Helps Hampton Shaler Water Authority Reduce Non-Revenue Water*, ESRI Water (Nov. 6, 2024), https://www.esri.com/en-us/industries/blog/articles/gis-helps-reduce-non-revenue-water.

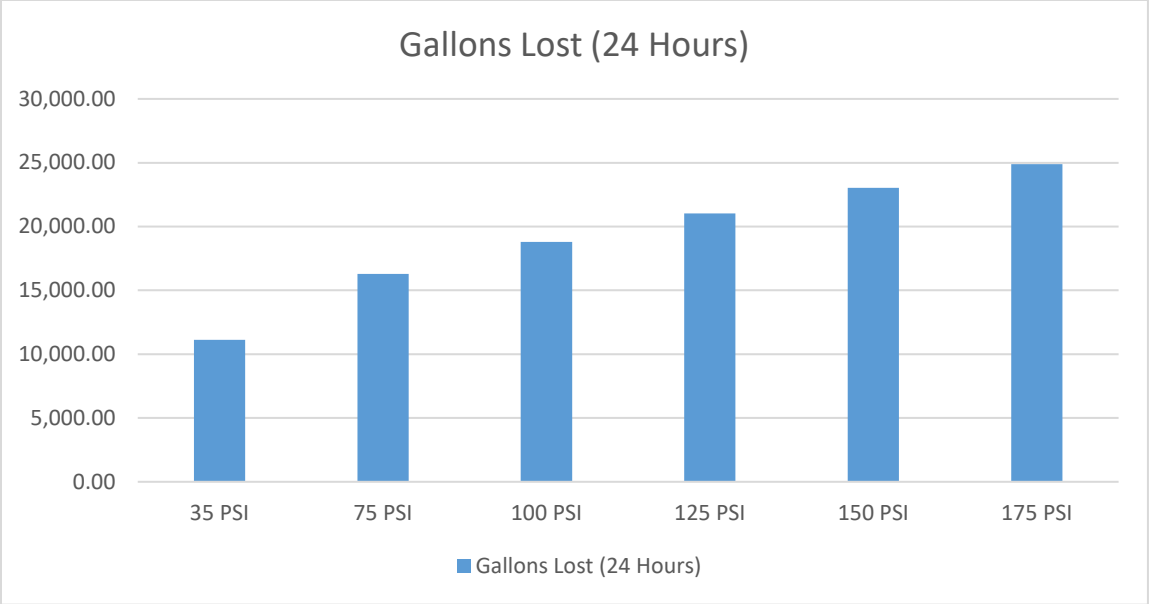
4 *See, e.g.*, *Veolia Water Pennsylvania Inc. Management and Operations Audit*, Pennsylvania Public Utility Commission Bureau of Audits (Dec. 2024), https://www.puc.pa.gov/pcdocs/1863117.pdf; *PUC Audit Makes Management Recommendations to SUEZ Water PA*, Pennsylvania Public Utility Commission, https://www.puc.pa.gov/press-release/2017/puc-audit-makes-management-recommendations-to-suez-water-pa.

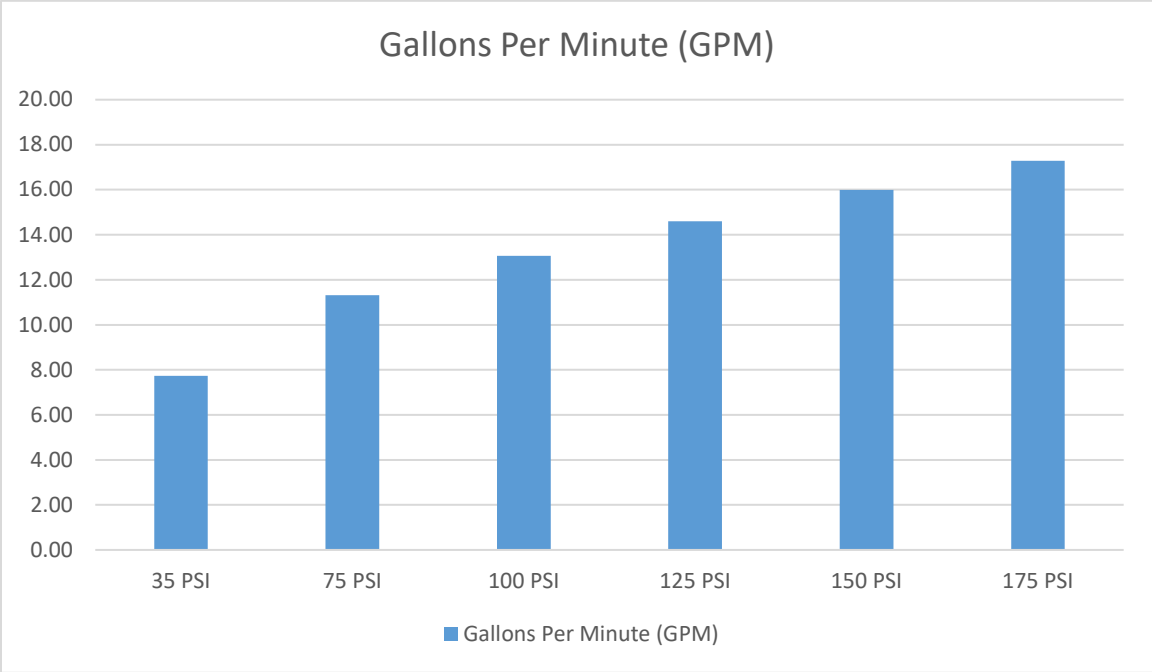
because doing so is usually the property owner's responsibility. In many cases, the leak may not be causing much problem to the owner, such that they elect not to fix it. This decision, multiplied by dozens or hundreds of property owners, has a significant impact on Pittsburgh Water's UFW and Pittsburgh Water cannot effectively address it.

Q. WHAT IS UNIQUE ABOUT THE TOPOGRAPHY OF THE AREA THAT PITTSBURGH WATER SERVES?

A. The service territory of Pittsburgh Water features a variety of elevations, owing to the area's hills, valleys, and river system. The basic principle at play is that water naturally flows from higher elevations to lower ones; yet for every 2.31 feet of elevation drop, water pressure must increase by 1 pound per square inch ("PSI"). As system pressure increases, the volume of a leak increases as well. In areas with high pressure, this can escalate a leak significantly in a short amount of time, and because a leak is often ongoing and constant, the effect of pressure on the severity of the leak over a duration of time is an important consideration.

To demonstrate the effect that pressure has on leaks, consider the following scenario—assume a quarter-inch hole in pipe over a period of twenty-four hours at varying levels of PSI:





This scenario shows that PSI alone can drastically accelerate the rate that a typical leak causes UFW. In a system such as Pittsburgh Water's where pressure varies greatly, the challenges of addressing UFW become far more daunting than in a system located in a flat area with low levels of elevation change.

Q. HAS PITTSBURGH WATER ATTEMPTED TO ADDRESS THE EFFECT OF EXCESS PRESSURE ON LEAKS?

A. Yes. Pittsburgh Water has been taking a number of steps. Most importantly it is now employing pressure-reducing valves to "knock down" the pressure in certain areas of the system. For example, Pittsburgh Water maintains a zone called the "Bloomfield/Garfield" regulator area that has reduced system pressure. These steps in turn minimize the effect that excess pressure has on exacerbating existing leaks.

Q. HOW DOES AGING INFRASTRUCTURE AFFECT THE ISSUE OF UFW?

A. Outdated infrastructure, including pipe and meters, contributes to the problem of UFW. This includes everything from pipes leaking at the joints to obsolete meters that may not accurately measure water consumption and that make leak detection more difficult. As described by my colleague Barry King in his testimony (Pittsburgh Water St. No. 3R), meter replacement is a key part of reducing UFW. Pittsburgh Water also has an active valve and hydrant maintenance program, the purpose of which is to exercise valves and hydrants to confirm proper operation or identify locations where a repair or replacement is needed—including due to leaks. To date, there have been over 1,994 hydrants and 4,652 valves operated in 2024. The program may identify leaking valves and hydrants, but also works to assure valves and hydrants are available to facilitate line isolation and flushing during leak repairs.

Q. DOES PITTSBURGH WATER TAKE ANY OTHER MEASURES TO ADDRESS UFW AND WATER CONSERVATION GENERALLY?

A. Yes, Pittsburgh Water's measures to address UFW fit into a larger scheme of actions that Pittsburgh Water has taken and will continue to take to encourage water conservation pursuant to Section 65.20 of the Commission's regulations. For example, the regulations provide that "[a] system of leak detection should be utilized on a regular basis, with leaks

being repaired as expeditiously and economically as possible." *See* 52 Pa. Code § 65.20(5). Pittsburgh Water engages in daily leak detection efforts using "loggers" on valves that activate each day—often early in the morning when usage on the system in lowest—and which report data by cellular connection. This allows Pittsburgh Water to scan an entire section of pipe quickly to identify leaks, and the portable nature of the loggers allow for their deployment to areas of concern on short notice. Pittsburgh Water has installed over 500 loggers and plans to install approximately 140 more. Loggers are strategically placed in areas of concern to help identify leaks and make efficient decisions to repair or replace leaking pipes and can be particularly helpful identifying small leaks that are not obvious but that can add up to cause significant water loss over time. The leak detection loggers are installed in a network in a specific area of the distribution system and using acoustic monitoring can alert Pittsburgh Water to areas where leaks are detected, prior to the leak surfacing. Leak loggers can remain in sentinel monitoring positions and can also be moved around the distribution system once the investigation of an area is complete. This is one example of Pittsburgh Water's efforts to identify and address leaks in its system.[5] Pittsburgh Water also has two dedicated leak detection crews with specially equipped vehicles and equipment for leak detection. These crews report for duty on a daily basis and are used to support field operations at the location of a leak for repair and for investigation of suspected leaks. Efforts like this have helped Pittsburgh Water improve key metrics such as leak history per mile, which stood at 67.5 leaks per 100 miles in Q3 2022, and now stands at 10.53 per 100 miles (Q2 2025). But

[5] Pittsburgh Water has also tested out a satellite leak detection system (ASTERRA) but ultimately did not pursue that because it was not confirmed that the technology was any more effective than traditional leak detection or the use of a leak logger system.

without funding to maintain these efforts, metrics such as leak history per mile and number of leaks repaired will surely rise.

The regulations also mention education, water audits, and metering. 52 Pa. Code § 65.20(1), (2), (6). Pittsburgh Water is actively involved in education regarding water conservation efforts, including participation in national water conservation events—such as the One Water Summit 2025, which was held in Pittsburgh in July 2025 and showcased Pittsburgh's water story to global water leaders. Pittsburgh Water promotes water conservation generally through its "Water Wise" initiative, which encourages customers to save water and money, especially during summer months. The "Water Wise" initiative helps customers conserve water and save money on their bills. Pittsburgh Water's Customer Advantage Portal additionally provides a customer with education about their own usage, including by allowing customers to check water usage, pay bills, and manage accounts while also providing current and historical water usage data and trends. Importantly, the Customer Advantage Portal also sends alerts for higher-than-expected consumption, which is a key part of educating customers about leaks they might not otherwise know are occurring. The Water Wise initiative also encourages the use of Water Conservation Tools that help detect water leaks, evaluate potential upgrades to more efficient appliances and fixtures, and offer guided recommendations for saving water. The Water Wise initiative embraces water saving tips that include: turning off faucets while lathering soap, shaving, washing hands, and doing dishes; taking shorter showers; running dishwashers and washing machines less often; and sweeping instead of

hosing off outdoor areas.[6] In addition, as a high-level aspect of Pittsburgh Water's public education efforts, Pittsburgh Water's five-year capital project list is maintained for public viewing with over $53 million in capital projects assigned to improve, maintain, or replace components of the water distribution system which can contribute to UFW.

With respect to audits, Pittsburgh Water routinely performs review and reporting of water withdrawal, production, and usage data. This information is utilized to understand and benchmark water supply trends, including unaccounted for water.

Reporting and tracking include:

Monthly Operating Report:

- Internal Pittsburgh Water Report issued monthly providing a summary of daily water production data including (IFE, CFE, Backwash, Total Water Produced at the Water Treatment Plant)

Monthly Water Withdrawal Report:

- DEP monthly report on daily water withdrawal from Allegheny River.

Annual Water Allocation Permit Compliance Report:

- DEP annual report, including metering data, meter counts, leakage/loss control, valve/hydrant, water conservation, etc.

Annual Chapter 110 Primary Facility Report:

- DEP annual Primary (Pittsburgh Water) and secondary (interconnected systems) reports, including summary of connection/meter data, water use, metered, unmetered, water loss.

Annual Water Audit Validity Evaluation (WAVE) Report:

- Since 2019, the Commission has required Pittsburgh Water to complete an annual water audit to quantify and track water losses within the water distribution system and identify areas for improved efficiency and cost recovery.
- The intent of the WAVE Report is to both reflect upon the past and look toward the future. Data Visualization displays water audit results since 2019.
- Potential Improvements contains action items that will either improve the Data Validity Score, which thereby increases

[6] For additional guidance from Pittsburgh Water on water conservation, *see Water Conservation*, Pittsburgh Water, https://www.pgh2o.com/residential-commercial-customers/tips-maintenance-prevention/water-conservation.

the reliability of our results, or directly address the water loss issues.

Annual PUC Form 500:

- Summary of water usage and calculation of unaccounted for water submitted annually to PUC.

AWWA Water Audit:

- Annual water loss audit utilizing AWWA's water auditing spreadsheet to quantify and track water losses associated with the water distribution system and identify areas for improved efficiency and cost recovery.

With respect to metering, Pittsburgh Water maintains an active water meter program performing repairs and or replacement of small diameter (customer) meters. These meters are used for accurate billing purposes and better understand water usage and loss. Water meters for all known Pittsburgh City services have been installed as of June 2023. As of September 2025, Pittsburgh water has replaced or repaired 6,786 small water meters for the year with a target of 7,497 replacements.

Pittsburgh Water has capital projects in progress which will improve flow metering of super-systems to better understand water usage and loss. Implementation of projects to provide sub-metering in the distribution system can be used in conjunction with artificial intelligence ("AI") technologies to understand where to focus leak detection activities. Projects include:

i. Herron Hill Booster Disinfection – Flow metering on Herron Hill Reservoir outlet (completed June 2024)
ii. Lincoln Pump Station – Flow metering on new pump station discharge to Lincoln system (completed April 2025)
iii. Lanpher Booster Disinfection – Flow metering on Lanpher Reservoir outlet (construction in progress)
iv. Highland Reservoir Pump Station – Flow metering on Highland 2 Reservoir Outlet and pumping to Garfield system (construction in progress)
v. Aspinwall Pump Station – Flow metering on pump station discharge to Lanpher supersystem (construction starting)

vi. Bruecken Pump Station – Flow metering on pump station discharge to Highland 1 supersystem and Highland 2 Reservoir (construction starting)

Pittsburgh Water Witness Barry King's testimony (Pittsburgh Water St. No. 3R) further highlights that meter replacement is a key part of Pittsburgh Water's plan to reduce UFW and ultimately conserve water.

Q. WOULD AN INCREASE IN THE DSIC CAP FOR WATER ALSO SUPPORT PITTSBURGH WATER'S EFFORTS TO ADDRESS UFW?

A. Yes. As explained by Pittsburgh Water Witness Barry King, the Small Diameter Water Replacement Program ("SDWRP") is an on-going effort to address the aging, and at times undersized, small-diameter mains that are in fragile condition to minimize the rate of failures of these water mains through the service areas. (Pittsburgh Water St. No. 3 at 47–51). Further, as Pittsburgh Water Witness Ed Barca testified, approval of the requested water DSIC cap increase to 7.5% could result in an additional 5,400 linear feet of small-diameter water main replaced in FPFTY and $386,485 in FY 2027. Replacing these mains is another significant step Pittsburgh Water can take toward addressing UFW, but funding for this project is needed to realize the goal.

Q. IS PITTSBURGH WATER MAKING PROPOSALS TO HELP ADDRESS CUSTOMER LEAKS THAT CONTRIBUTE TO UFW?

A. Yes. As I explained previously, the "small" leaks on a customer-owned line can be problematic when considered on a broader, system-wide basis. However, if the customer is not experiencing any significant issue with the leak and elects not to take action to fix it, then Pittsburgh Water's options become limited in addressing the problem. As Pittsburgh Water Witness Julie Mechling discussed in her direct testimony, Pittsburgh Water is proposing to make permanent and enhance its Line Repair and Water Conservation Pilot Program to provide plumbing repairs of leaks for qualifying

individuals to fix leaks they are experiencing and offer credit for leaks fixed by the customer. (Pittsburgh Water St. No. 6 at 33–35, 38). In addition, as explained in my direct testimony, Pittsburgh Water is proposing to take ownership of water service lines two inches and smaller from the main to the curb stop within the right-of-way so that Pittsburgh Water can control any leaks from these types of lines. (Pittsburgh Water St. No. 5 at 8–9). Service lines can be a significant source of UFW due to leakage prior to metering; Pittsburgh Water recognizes this and has a nationally recognized lead service line replacement program in place—with over 13,000 public and 10,000 private lead lines replaced since June 2016. Finally, as explained by Pittsburgh Water Witness Ed Barca, Pittsburgh Water has partnered with a third-party provider to offer optional warranty coverage for a customer's water line, sewer line, and in-home plumbing. (Pittsburgh Water St. No. 2 at 24–25). All of these efforts are aimed at tackling the problem of fixing leaks in the system to address and mitigate the overall UFW situation.

Q. WHAT DO YOU CONCLUDE REGARDING MR. SAKAYA'S PROPOSED ADJUSTMENT FOR UFW?

A. Mr. Sakaya's $5.7 million adjustment for UFW is not reasonable or constructive. There is no basis for suggesting that any amount of UFW over 20% is imprudent or unreasonable. Instead, it should be viewed as an indication that the utility should be taking steps to support water conservation and to reduce the levels of UFW. Pittsburgh Water is doing that, taking a number of steps to achieve that result. To the extent that the adjustment is intended to somehow "incentivize" Pittsburgh Water to decrease UFW, this is not realistic given the costs that are involved in Pittsburgh Water's efforts to address UFW. Disallowing these expenses will only make it more difficult for Pittsburgh Water to investigate and address leaks in its system. Without the necessary resources to inspect,

repair, or replace leaking pipes, Pittsburgh Water will not be able to address aging infrastructure at a pace necessary to reduce UFW to a level that is acceptable to the Commission.

III. CONCLUSION

Q. DOES THAT COMPLETE YOUR REBUTTAL TESTIMONY?

A. Yes; however, I do reserve the right to supplement this testimony as may be appropriate.

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VERIFICATION

I, William J. McFaddin, hereby state that: (1) I am the Director of Operations for The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water; (2) the facts set forth in my testimony are true and correct (or are true and correct to the best of my knowledge, information and belief); and, (3) I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Dated: 9/30/2025

DocuSigned by:
William McFadden
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William J. McFaddin
Director of Operations
The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

REBUTTAL TESTIMONY OF

JULIE A. MECHLING

ON BEHALF OF
THE PITTSBURGH WATER AND SEWER
AUTHORITY D/B/A PITTSBURGH WATER

Docket Nos.
R-2025-3055010 Water
R-2025-3055011 Wastewater
R-2025-3055012 Stormwater

TOPICS:
Removal of Minimum Allowance
Affordability of Rate and Rate Increases
Low-Income Customer Assistance Programs
Customer Service Subjects
Electronic Billing Credit
Payment Responsibility for Convenience Fees
Public Input Hearing Testimony

September 30, 2025

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TABLE OF EXHIBITS

JAM-20	Estimated Additional Lost Base Rate Revenue Resulting from OCA and OWT BDP Percentage Bill Discount Proposals
JAM-21	Estimated Additional Lost Base Rate Revenue Resulting from OWT Proposed Fixed Discount Credits
JAM-22	Letter to Adrienne Ciuccio

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND CURRENT POSITION.

A. My name is Julie A. Mechling. My position with Pittsburgh Water is Director of Customer Service.

Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS PROCEEDING?

A. Yes. I prepared direct testimony, marked as St. No 6 with accompanying Exhibits JAM-1 through JAM-19, which was filed on June 4, 2025 as part of the rate filing package. Proposed Tariff Supplement Numbers 16 (water), 15 (wastewater), and 7 (stormwater) were included with my exhibits.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. Yes. The exhibits I am proposing are set forth in the Table of Exhibits following the Table of Contents of this testimony.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to respond to the testimony of Office of Consumer Advocate ("OCA") witnesses LeeAnn Wise, Roger Colton and Barbara Alexander, as well as the testimony of Pittsburgh United's Our Water Table ("OWT") witness Patrick Cicero.

Q. DOES YOUR LACK OF RESPONSE TO ANY PARTICULAR ISSUE RAISED BY THE OTHER PARTIES INDICATE YOUR ACCEPTANCE OF THEIR TESTIMONY?

A. No. While I have attempted to respond to the specific statements and recommendations made by the other parties' witnesses within the scope of my subject matter area, the failure to address a specific issue should not be viewed as my acceptance of that testimony. Rather, it reflects my belief that a further response in this rebuttal testimony is not warranted, either because it was adequately addressed in my direct testimony, is

being addressed by another witness in their rebuttal testimony, or because it is a legal matter that is better addressed by counsel in briefs or other pleadings.

Q. PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY.

A. First, I will respond to concerns from OCA and OWT about Pittsburgh Water's proposal to remove the minimum allowance component of its rates including why Pittsburgh Water continues to recommend this change occur in 2027. Pittsburgh Water Witnesses Ed Barca and Harold Smith will also be addressing this issue. Second, I will discuss Pittsburgh Water's need to balance affordability concerns with the ability to continue to receive sufficient funding to provide safe and adequate services. Pittsburgh Water Witness Rocky Craley will dive deeper into measuring affordability. Third, I will respond to proposed revisions to Pittsburgh Water's low-income customer assistance programs including: enrollment, the new Arrearage Forgiveness Program ("AFP"), the Bill Discount Program ("BDP), Hardship Grant funding, the Line Repair Water and Conservation Program and proposed new leak credit. Fourth, I will respond to customer service issues raised by OCA Witness Alexander. Fifth, I will discuss OWT Witness Cicero's suggested revision to our newly proposed electronic billing credit. Sixth, I will discuss issues regarding payment responsibility for convenience fees. Finally, I will discuss how Pittsburgh Water has worked to address specific customer issues raised during the public input hearings (whether on the record or because customers reached out directly to me).

II. REMOVAL OF MINIMUM ALLOWANCE

Q. PLEASE EXPLAIN PITTSBURGH WATER'S PROPOSED RATE STRUCTURE CHANGE TO REMOVE THE MINIMUM ALLOWANCE AND RELY MORE ON VOLUMETRIC CHARGES TO RECOVER COSTS.

A. Pittsburgh Water proposes to overhaul its current rate structure so that the existing "minimum charge" no longer includes a usage component. Pittsburgh Water St. No. 8 at 58. The amount of usage included in the current minimum charge varies by meter size. Below is a snapshot from our tariffs which shows how much usage (or wastewater conveyance) is included in the current minimum charges:

Table 1: Current Minimum Charge Usage/Conveyance Component[1]

Meter Size	Minimum Gallons
5/8"	1,000
3/4"	2,000
1"	5,000
1 ½"	10,000
2"	17,000
3"	40,000
4"	70,000
6"	175,000
8"	325,000
10" or Larger	548,000

Q. WHY DOES PITTSBURGH WATER PROPOSE TO MAKE THIS RATE STRUCTURE CHANGE IN 2027 INSTEAD OF THE 2026 EFFECTIVE DATE OF RATES RESULTING FROM THIS PROCEEDING?

A. Because the removal of the usage component from the minimum charge shifts cost responsibility among customers so that some customers will see increases while some will not. By gradually shifting to a greater reliance on volumetric rates in 2026, Pittsburgh Water's proposal is intended to smooth out some of the rate swings that would occur if a wholesale change was made in 2026. In addition, once Pittsburgh Water has

[1] *See* Tariff Water – Pa. P.U.C. No. 1, Page No. 8 and Tariff Wastewater – Pa.P.U.C. No. 1, Page No. 9.

final resolution from the Commission, then it can focus on necessary testing within its billing system to ensure that 1) the rate structure change will be properly implemented, and 2) appropriate customer education about the upcoming change can be designed and communicated over time. Pittsburgh Water St. No. 2 at 66–67; Pittsburgh Water St. No. 6 at 25–26.

Q. DO PARTIES OPPOSE THE SPECIFIC MECHANICS OF HOW PITTSBURGH WATER PROPOSES TO REVISE ITS RATE STRUCTURE TO REMOVE THE USAGE COMPONENT OF THE MINIMUM CHARGE?

A. No. OCA supports Pittsburgh Water's approach to removing the usage component of its minimum charge but recommends that the Commission "heavily scrutinize the Authority's compliance" with the 2023 rate case settlement because it proposes to implement the rate structure change in 2027. OCA St. No. 4 at 13–14, 19–20 and OCA St. No. 1 at 37–40. Similarly, OWT Witness Cicero claims that "Pittsburgh Water continues to kick the can down the road on all these changes by delaying planning and implementation" and recommends that the rate structure change should occur with the rate effective date in 2026 following this proceeding. OWT St. No. 1 at 56.

Q. HAS PITTSBURGH WATER ACTED IN BAD FAITH OVER THE YEARS REGARDING THIS ISSUE AND WITH ITS PROPOSAL IN THIS RATE CASE?

A. Absolutely not. While counsel will address legal arguments regarding Pittsburgh Water's compliance with the 2023 rate case settlement, we have included a clear proposal here to implement the rate structure change along with a reasonable transition plan to get there as part of the multiyear rate proposal.

Q. CAN YOU EXPLAIN WHY THIS RATE STRUCTURE CHANGE IS MORE SIGNIFICANT THAN JUST A REGULAR CHANGE IN RATES RESULTING FROM A RATE CASE?

A. Yes. Including a minimum allowance component in our minimum charge, which various by meter size, has been a factor of our rate structure for decades. As such, it is important to ensure that we are accurately explaining to our customers what the shift away from the usage component in the future service charge will mean for them. As explained more fully by Pittsburgh Water Witness Harold Smith in his rebuttal testimony, the impacts of this change are complex and will have differing impacts on customer bills. Pittsburgh Water St. No. 8R. Mr. Smith also presents the below table to illustrate the bill impacts of removing the usage component in FY 2026 at the projected 2025 revenue level.

Table 2: Bill Impacts of Minimal Allowance Removal

Bill Impacts After Removal of Minimum Allowance – Combined						
% Increase on Customer Bill (FY26 Revenues)	Residential	% of class	CAP-BDP	% of class	Non-Residential	% of class
Bill Decrease	14,423	21.9%	1,272	26.6%	3,143	38.7%
0%–20%	51,295	77.9%	2,942	61.5%	4,327	53.3%
20%–40%	167	0.3%	148	3.1%	637	7.8%
>40%	-	0.0%	425	8.9%	11	0.1%
Total Customers	65,885	100%	4,787	100%	8,118	100%

Q. PLEASE EXPLAIN HOW THIS TABLE ILLUSTRATES PITTSBURGH WATER'S CONCERN ABOUT EDUCATING CUSTOMERS REGARDING THE REMOVAL OF THE MINIMUM ALLOWANCE.

A. As the table shows, for residential customers:

- 21.9% would see a bill decrease
- 77.9% would see a 0–20% increase
- .3% would see a 20%–40% increase.

Similar variances occur for BDP participants and non-residential customers as well. The proposed rate structure change is unlike a traditional rate increase where the rate structure remains the same and all customers served by the rate experience some level of increase. To remove the minimum allowance component, members of the rate classes will have different experiences regarding whether or not their rates will increase or decrease. To successfully manage this transition, Pittsburgh Water determined that it first needed Commission approval of its plan to restructure the rates and then a reasonable opportunity to ensure that the resulting rates from the new structure of charges are correctly determined and effectively communicated to customers. I would also like to point out that, while parties in this proceeding have all accepted our proposed approach to the rate structure change, there are certainly other ways that could have been offered to revise our approach and there is a risk too that the Commission may direct us to do something differently. So long as uncertainty exists about the "how" to achieve removal of the minimum allowance embedded in our rates, it is not reasonable to expect Pittsburgh Water to use ratepayer money and staff resources to design an unused program.

III. AFFORDABILITY OF RATES AND RATE INCREASES

Q. DO PITTSBURGH WATER'S RATE PROPOSALS INCLUDE MEASURES INTENDED TO MITIGATE THE IMPACT OF THE PROPOSED RATE INCREASES FOR CUSTOMERS?

A. Yes. As discussed in my direct testimony, Pittsburgh Water carefully considered the need for additional revenue to support its on-going operations and capital projects with considerations of how increases could impact our ratepayers. With this in mind, Pittsburgh Water's proposals include the introduction of an electronic billing credit, removal of the minimum allowance with additional credits to the discounts offered

through the low-income customer assistance Bill Discount Program, and various enhancements to the current suite of programs offered to qualifying low-income customers. (Pittsburgh Water St. No. 6 at 24–39).

Q. DID THE PARTIES AGREE THAT PITTSBURGH WATER'S PROPOSALS ACHIEVE "AFFORDABLE" RATES?

A. No; witnesses for both OCA and OWT claimed that Pittsburgh Water's rates are "unaffordable" and offered proposals intended to reduce the amount that low-income customers would be required to pay.

Q. WHAT IS YOUR RESPONSE TO THIS CRITICISM?

A. A balance needs to be achieved between what customers are able to pay for their utility services and what revenue Pittsburgh Water must receive to be able to continue to operate its systems safely and reliably. Determining how to achieve that balance, however, is difficult. Both Mr. Colton and Mr. Cicero begin by considering the "affordability" of Pittsburgh Water's rates for residential customers with each concluding that more needs to be done. As Pittsburgh Water Witness Rocky Craley explains more fully, there are different ways to evaluate affordability and I do not agree that Pittsburgh Water has failed in its effort such that Mr. Colton or Mr. Cicero's recommendations must be adopted. *See* Pittsburgh Water St. No. 9R. While I recognize the good faith efforts of both Mr. Colton and Mr. Cicero to justify the need for their additional proposals to reduce what low-income customers must pay for Pittsburgh Water's utility services, both have failed to carefully consider the consequences of their recommendations on the system and all other ratepayers, rendering proposals impractical and unsupportable.

Q. PLEASE ELABORATE.

A. A utility cannot provide free service for its customers because doing so would leave the utility unable to fund capital projects or operations. Also, asking a utility's other ratepayers to bear a substantial portion of the costs to provide discounted or free service for some customers is ill-advised for the long-term sustainability of the utility for all customers. When customers stop paying their bills or are not asked to pay a significant portion of their bills, Pittsburgh Water experiences lost revenue. When anticipated revenue is not received, Pittsburgh Water has no other source of revenue. In this situation, Pittsburgh Water must consider what expenses need to be reduced and doing so can only be achieved by either reducing capital expenses or funding operations. Thus, the greater the lost revenue, the more Pittsburgh Water's ability to continue to provide adequate, efficient, safe and reasonable services is jeopardized.

Q. ARE YOU CONCERNED THAT THE RECOMMENDATIONS OF OCA AND OWT COULD HAVE NEGATIVE IMPACTS?

A. Yes, and I will discuss the various recommendations later in this testimony but want to emphasize that I am concerned that these recommendations – alone and combined with proposals to severely reduce Pittsburgh Water's rate request[2] – will seriously threaten Pittsburgh Water's ability to maintain its service at current levels.

Q. DOES PITTSBURGH WATER VIEW ITS PROPOSALS AS A REASONABLE EFFORT TO ADDRESS AFFORDABILITY CONCERNS?

A. Yes, we do. Our PGH2O Cares team has made great strides to enroll all eligible customers while simultaneously looking for ways to enhance our customer assistance

[2] It must not be forgotten that all other parties in this proceeding, whether directly or through various technical recommendations, are taking the view that Pittsburgh Water's rate request amount should be significantly decreased. Pittsburgh Water Witness Ed Barca discusses this issue in his rebuttal testimony. *See* Pittsburgh Water St. No. 2R.

programs to aid financially struggling customers, including keeping abreast of Federal Poverty Levels utilized by community-based and other utility-provided programs. Moreover, Pittsburgh Water's proposals also consider the administrative costs of the programs and the potential revenue impacts of shifting cost responsibility for incurred costs to achieve a reasonable balance of these issues.

IV. ENROLLMENT IN BILL DISCOUNT PROGRAM AND NUMBERS OF ESTIMATED AND CONFIRMED LOW-INCOME CUSTOMERS

Q. WHAT DOES OWT WITNESS CICERO CONCLUDE ABOUT THE ENROLLMENT RATES OF PITTSBURGH WATER'S LOW-INCOME CUSTOMER ASSISTANCE PROGRAMS?

A. Mr. Cicero concludes that they are "undersubscribed" by comparing the estimate of low-income customers provided in the Updated Household Affordability Analysis of 26,834[3] to the number of enrollees in Pittsburgh Water's Bill Discount Program. OWT St. No. 1 at 47–51.

Q. DO YOU AGREE WITH MR. CICERO'S STARTING POINT TO ESTIMATE THE NUMBER OF LOW-INCOME CUSTOMERS IN PITTSBURGH WATER'S SERVICE TERRITORY?

A. I do not. Mr. Cicero attempts to use this estimate as an "absolute" number of the "confirmed" low-income customers in Pittsburgh Water's service territory eligible for enrollment in its low-income customer assistance programs. Notably, he does this even while also remarking that the Updated Household Affordability Analysis "provides limited insight into low-income consumers in Pittsburgh Water's service territory." OWT St. No. 1 at 46.

As explained in the Updated Household Affordability Analysis, Pittsburgh Water does

[3] *See* Pittsburgh Water Exh. JAM-12 at 39 ("…this study estimates there could be approximately 26,834 residential water, wastewater conveyance, and stormwater customers in the service area who could be eligible based on poverty and customer location statistics.").

not collect actual household incomes of every customer.[4] The number was derived by cross referencing data from the American Community Service ("ACS")[5] with residential customer addresses from Pittsburgh Water's customer database to arrive at customers who could be eligible based on poverty and customer location statistics.[6] Importantly, ACS only publishes data down to the census tract level. As stated in a publication by the United States Census Bureau titled, *The Post-Enumeration Survey: Measuring Coverage Error* (The Post-Enumeration Survey: Measuring Coverage Error):

> "Although we undertake extensive efforts to accurately count everyone in the decennial census, sometimes people are missed or duplicated. Census errors can result in a smaller or larger population count than the actual number of people."

Because the accumulation of census tract data is not an exact science, the number of low-income customers as identified in the Analysis should be viewed as it was intended, an *estimate* of potential enrollees, and should not be used as the enrollment number Pittsburgh Water must achieve to determine that its programs are a success. For these reasons, I do not agree with Mr. Cicero that the success of our low-income customer assistance programs can be measured by using the census data as an absolute determinate of the financial status of our customers.

Q. ARE OWT WITNESS CICERO AND OCA WITNESS COLTON CRITICAL OF PITTSBURGH WATER'S DATA REGARDING ITS RESIDENTIAL CUSTOMERS' LOW-INCOME STATUS?

A. Yes. As explained in his testimony, Mr. Cicero sought data in discovery about Pittsburgh Water's "estimated" low-income customer counts and its "confirmed" low-income

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4 Pittsburgh Water Exh. JAM-12 at 11.

5 ACS is an ongoing survey by the U.S. Census Bureau that collects socioeconomic data from several million Americans each year. The last year of published 5-year census data available was 2022.

6 Pittsburgh Water Exh. JAM-12 at 26.

customer accounts and, based on the data provided, concluded that Pittsburgh Water has "inconsistent and seemingly unreliable information available about the actual number of confirmed low-income customers." OWT St. No. 1 at 16-18. Similarly, Mr. Colton, based on his review of Pittsburgh Water's responses to his very specific data driven discovery requests about residential customers' specific household income information, concluded that "Pittsburgh Water maintains no mechanism by which it might reasonably identify a customer as low-income outside the enrollment of that customer in one of Pittsburgh Water's customer assistance programs." OCA St. No. 6 at 37–38.

Q. WHAT DOES OCA WITNESS COLTON RECOMMEND REGARDING PITTSBURGH WATER'S COLLECTION OF RESIDENTIAL CUSTOMER HOUSEHOLD INFORMATION?

A. Mr. Colton seeks more granular and specific information about our residential customers' actual household income. To that end, he recommends that Pittsburgh Water "develop and utilize a mechanism by which it identifies customers on its system for whom Pittsburgh Water has reasonable information to indicate that the customer is a low-income customer." OCA St. No. 6 at 37 and 40–41.

Q. PLEASE EXPLAIN HOW PITTSBURGH WATER INTERNALLY TRACKS OR NOTES THE LOW-INCOME STATUS OF RESIDENTIAL CUSTOMERS.

A. The PGH2O Cares team records the income and number of household occupants for each Bill Discount Program applicant via the notes section of its electronic common application at the time of application.[7] This information is also copied and pasted into the customer account notes within Pittsburgh Water's Customer Information System ("CIS"); however, the data is in a free form text field that is not associated with a

[7] See https://www.pgh2o.com/residential-commercial-customers/customer-assistance-programs/apply-bill-discount-program-winter for the electronic application form.

reporting mechanism. The corresponding percentage of FPL is recorded in a reportable user-defined field within the CIS. Finally, a Confirmed Low-Income flag or alert is applied to the customer's account.

Q. DOES PITTSBURGH WATER COLLECT OR MAINTAIN DATA ABOUT EACH OF ITS CUSTOMERS' ACTUAL HOUSEHOLD INCOMES?

A. No. Doing so would be intrusive and would require a significant amount of employee time to reach out to more than 116,000 customers, implement some type of verification method, and ensure that the information is updated regularly.

Q. DOES PITTSBURGH WATER SUPPORT MR. COLTON'S RECOMMENDATION TO IMPLEMENT A MECHANISM IN ITS CUSTOMER INFORMATION SYSTEM WHICH WOULD ALLOW PITTSBURGH WATER TO IDENTIFY CUSTOMERS FOR WHOM IT HAS INFORMATION REASONABLY INDICATING THAT THE CUSTOMER IS LOW-INCOME? (OCA ST. NO. 6 AT 40).

A. I do not support changes to Pittsburgh Water's current tracking of confirmed low-income customers as described above.

Q. WHICH RECOMMENDATIONS DOES MR. CICERO OFFER TO ADDRESS HIS CONCERN ABOUT ENROLLMENT IN THE LOW-INCOME CUSTOMER ASSISTANCE PROGRAMS?

A. Mr. Cicero recommends that Pittsburgh Water "implement additional overarching metrics to increase enrollment." More specifically, he recommends that Pittsburgh Water implement "annual enrollment metrics and goals on an ongoing basis" that target an annual year over year increase of 10% of its BDP program. He also recommends that Pittsburgh Water work with the Low Income Assistance Advisory Committee ("LIAAC") "to determine additional enrollment goals and metrics." OWT St. No. 1 at 50–51.

Q. DO YOU AGREE THAT SETTING METRICS FOR ENROLLMENT IS AN EFFECTIVE WAY TO INCENTIVIZE PITTSBURGH WATER TO ENROLL CUSTOMERS IN ITS LOW-INCOME CUSTOMER ASSISTANCE PROGRAMS?

A. No. While I want to note that setting an annual target has been a practice of Pittsburgh Water in the past two calendar years, I do not agree that having these targets is necessary to incentivize Pittsburgh Water to enroll more residential customers into its low-income programs. Importantly, there are many reasons – well beyond Pittsburgh Water's control or understanding – why customers may elect not to enroll in a program. In fact, as I discuss later, many of the consumers who raised concerns during the public input hearings have failed to follow-up with our efforts to address their concerns. In my view, this demonstrates the difficulties facing Pittsburgh Water in getting customers to enroll. For this reason, the better course is to support Pittsburgh Water's efforts to reach customers and let them know about our programs rather than creating artificial metrics that it must attain.

Q. DESCRIBE THE COMMUNITY OUTREACH THAT THE PGH2O CARES TEAM CONDUCTS TO ATTEMPT TO CONTINUALLY INCREASE ENROLLMENT IN PITTSBURGH WATER'S SUITE OF CUSTOMER ASSISTANCE PROGRAMS.

A. The PGH2O Cares team conducts the following activities to continually grow enrollment in its low-income assistance programs:

1. **Translation of Customer Assistance Program Materials** [8 languages]
    a. Determined common languages spoken by Pittsburgh Water customers through telephone translation service reporting
    b. Printed in color, delivered upon request, and left at community centers after events
2. **Food Distributions**
    a. Pittsburgh Water provides customer assistance program flyers for inclusion in food boxes distributed by the Greater Pittsburgh Community Food Bank.

3. **Real-time Enrollment**

   a. On-the-spot enrollment using web-based applications

4. **Community Meetings** [53 in 2024; usually tabling events with some speaking opportunities]

   a. Meetings held at neighborhood community centers

   b. Events sponsored by the municipalities in Pittsburgh Water's territory

   c. Events sponsored by the county that Pittsburgh Water serves

   d. Community engagement events sponsored by other utilities who serve Pittsburgh Water customers

   e. Church sponsored resource fairs

   f. Accessible resource events for persons with disabilities

   g. Pittsburgh Water speaking events (State of Pittsburgh Water, Water Workshops, Construction Project meetings, etc.)

5. **Neighborhood Canvassing**

   a. Door knocking in neighborhoods with high populations of low-income residents per census tract data

   b. Home visits with customers who request assistance with enrollment in-person (typically elderly or disabled)

6. **Building Partner Relationships**

   a. City (Office of Community Health and Safety, Neighborhood Planners)

   b. County (Allegheny County Area Agency on Aging, Department of Human Services)

   c. Community Based Organizations (CBOs partnering with Dollar Energy Fund, CBO's at large)

7. **Outbound Calls and Text Messages**

   a. Cross-enrollment

   b. Recertification

   c. Changes in FPL

8. **Bill Messaging**

   a. Descriptions of customer assistance programs with PGH2O Cares' contact information on every monthly Pittsburgh Water bill

   b. Bill onsert content (which is printed inline with the bill)

Q. BASED ON THESE ACTIVITIES, WHAT DO YOU CONCLUDE ABOUT MR. CICERO'S RECOMMENDATION THAT PITTSBURGH WATER ESTABLISH ENROLLMENT METRICS AS A WAY TO INCENTIVIZE ENROLLMENT?

A. Respectfully, I do not find it useful. Pittsburgh Water is performing an extensive amount of customer outreach concerning its low-income customer assistance programs – that it has voluntarily established – and we consistently rely on the feedback of our LIAAC members regarding what we have done and request ideas for future improvements of our efforts to reach customers. Ultimately, the responsibility for enrollment lies with the customer.

Q. WHICH RECOMMENDATION DOES MR. COLTON PROPOSE IN AN EFFORT TO ADDRESS HIS ENROLLMENT CONCERNS REGARDING PITTSBURGH WATER'S LOW-INCOME CUSTOMER ASSISTANCE PROGRAMS?

A. Mr. Colton recommends that Pittsburgh Water add new stand-alone "Plain Language" notices about the availability of the Bill Discount Program and Arrearage Forgiveness Program to encourage further enrollment: (1) at the time a customer enrolls in a payment arrangement; and, (2) when a residential customer accrues an unpaid balance of $300 prior to the disconnection of service for nonpayment. OCA St. No. 6 at 36–37.

Q. DO YOU AGREE ADDITIONAL CUSTOMER NOTICES ARE NECESSARY?

A. I do not. Pittsburgh Water has a robust public education campaign to promote and provide information to customers about its low-income customer assistance programs. In addition to the community outreach efforts I discussed previously, Customer Service personnel answering customers' calls in a variety of queues are trained to identify

customers who are struggling financially, inform them of the programs available, and warm transfer them to our PGH2O Cares team to continue the enrollment conversation. Program information is also regularly provided on Pittsburgh Water's social media platforms. In addition, Pittsburgh Water provides notices above and beyond what I understand to already be required by the Commission's regulations, including confirmation of payment arrangements and numerous notices involving landlord properties. As I noted in my direct testimony, in 2024, 96.98% of our customers receiving our current communications responded. Pittsburgh Water St. No. 6 at 10-11. In 2025 year to date, Pittsburgh Water Collections personnel have mailed just under 80,000 courtesy notices and have issued over 106,000 email/text electronic communications to past due customers. Based on the number of these accounts that remain eligible for termination due to non-payment within our CIS, it is evident that customers tend to wait until closer to the time of termination to address their delinquency, regardless of the number of advanced notices and outreach efforts provided by Pittsburgh Water. Mr. Colton does not provide any support for his view that additional customer notices are necessary to support our collection efforts or to increase customer enrollment in our low-income customer assistance programs. In our view, adding more customer notices not required by regulation would cause other ratepayers to shoulder the burden of the following increased costs:

- CIS vendor development to automate notices upon payment plan creation, disconnection for non-payment, and to shut off occupied properties;
- Vendor printing, mailing, and postage; and
- Labor hours of Collections personnel to monitor automated notice mailing and compile reporting.

V. ARREARAGE FORGIVENESS PROGRAM PROPOSED CHANGES

Q. PLEASE DESCRIBE PITTSBURGH WATER'S CURRENT ARREARAGE FORGIVENESS PROGRAM ("AFP").

A. As described in my direct testimony, Pittsburgh Water's current AFP is available for customers at or below 200% of FPL and offers $40 of past arrearage forgiveness for each on-time payment in an active, income-based payment plan. Pittsburgh Water St. No. 6 at 31.

Q. PLEASE DESCRIBE THE CHANGES TO THE CURRENT ARREARAGE FORGIVENESS PROGRAM THAT PITTSBURGH WATER IS PROPOSING WITH THIS RATE CASE.

A. With the new AFP, Pittsburgh Water proposes to freeze a customer's debt and reduce the customer's account balance by $1/24^{th}$ of the original pre-program balance amount with on-time payments of monthly billed charges. Participants will not be required to make payment towards the pre-program frozen arrears; however, they will be required to stay current on future bills. Customers failing to remain current will be given two opportunities to catch up on their missed payments of charges billed within the 24 months to achieve forgiveness of their frozen, pre-program arrears. Pittsburgh Water St. No. 6 at 25–26.

A. Payment of Prior Arrears

Q. IS MR. COLTON CORRECT THAT GOING FORWARD, PITTSBURGH WATER WILL REQUIRE PARTICIPANTS IN THE FUTURE ARREARAGE FORGIVENESS PROGRAM TO MAKE PAYMENTS ON PRIOR ARREARS?

A. No. Mr. Colton's conclusion that customers enrolling in the new AFP will be required to enter into a payment arrangement for their pre-existing arrears is mistaken and appears to be based on discovery responses regarding the current AFP. OCA St. No. 6 at 48. As explained previously, the new AFP is consistent with the 2023 Rate Case Settlement

requirement that Pittsburgh Water will not require participants to make a co-payment towards the pre-program frozen arrears. I would also note that Pittsburgh Water's proposal is more beneficial to customers than the commitments of the 2023 Rate Case Settlement because the proposal will allow forgiveness of the pre-program arrears over a 24-month period rather than the 36-month period agreed to in the settlement. This is an advantage to customers who will be able to have their debt forgiven a year sooner.

Q. WHICH CONCERNS DOES MR. CICERO EXPRESS RELATED TO PITTSBURGH WATER'S PROPOSED TARIFF LANGUAGE TO IMPLEMENT THE NEW AFP?

A. Mr. Cicero notes the references to "payment plans" in Pittsburgh Water's proposed revisions to current Rider AFP of its water and wastewater tariffs[8] and concludes that these "provisions retain current requirements that AFP participants must enter and maintain a payment arrangement to receive the benefits of the program." OWT St. No. 1 at 61.

Q. DO YOU AGREE WITH MR. CICERO THAT THESE REFERENCES SHOULD BE REMOVED?

A. Yes; I understand the confusion that has been created by keeping reference to payment arrangements in our proposed tariff supplement revisions for the new AFP. An element of the AFP development in our CIS will be to mark the account with an AFP payment arrangement to track payment of current charge *only* and to write off the entire debt in 1/24th increments. We will remove references to payment arrangements as part of the final compliance tariffs to eliminate any confusion.

[8] *See* Pittsburgh Water Exh JAM-17, Tariff Wastewater Supplement No. 15 at Second Revised Page No. 17A (red-lined) and Pittsburgh Water Exh. JAM-14, Tariff Water Supplement No. 14 at Fourth Page No. 19A (red-lined).

B. Catch-Up Payments

Q. HOW DOES PITTSBURGH WATER PROPOSE TO ADDRESS MISSED CURRENT PAYMENTS IN THE NEW AFP?

A. Consistent with our current programming and requirements of the existing AFP, Pittsburgh Water proposes to permit customers to make two catch-up payments to continue to receive the forgiveness of pre-existing debt through the new AFP. Also, if a customer is removed from the new AFP, they will be eligible to reenter the program if they make missed payments incurred during their prior enrollment in the AFP. These provisions are consistent with the program rules for the current AFP.

Q. WHICH CHANGES REGARDING CATCH-UP AND TIMELY PAYMENTS DO MR. CICERO AND MR. COLTON PROPOSE?

A. Mr. Cicero recommends that Pittsburgh Water allow new AFP participants to receive forgiveness for each in-full payment regardless of whether it is made on time and that the restriction allowing two catch-up payments before being removed from AFP be eliminated. OWT St. No. 1 at 63–64. Similarly, Mr. Colton opines that requiring "on-time" payments as part of the new AFP "may serve as a disincentive for customer participation." OCA St. No. 6 at 61.

Q. DO YOU SUPPORT THESE PROPOSED CHANGES REGARDING PAYMENT CONDITIONS FOR THE NEW AFP?

A. No, and for three reasons. Firstly, our proposed program rules for the new AFP are consistent with our current program requirements and our system programming. Making changes would create additional costs. Secondly, it is important to encourage customers to pay their obligations when they become due to avoid the accumulation of debt while supporting the reliability of service. Allowing customers to catch up on unpaid current charges at any point in the 24-month period would remove the incentive to consistently

pay a monthly bill, eliminating an elemental benefit of an AFP. Finally, customers participating in the new AFP are eligible for the significant discounts offered through the BDP and, therefore, Pittsburgh Water has taken reasonable steps to make paying the current bills achievable. Providing arrearage forgiveness on the condition that current bills are paid on time and in full is intended to be a further incentive for customers to structure their household budget to consistently pay their monthly bill. For these reasons, we believe it is important to continue to incentivize customers to pay their bills on time and in full as a means of receiving the benefits of arrearage forgiveness.

C. <u>Auto-Enrollment – Existing AFP and BDP Participants</u>

Q. WHAT RECOMMENDATION DOES MR. CICERO MAKE REGARDING CURRENT AFP AND BDP PARTICIPANTS?

A. Mr. Cicero concludes that Pittsburgh Water plans to enroll current BDP participants with arrearages at the time of their two-year recertification. OWT St. No. 1 at 65. Mr. Cicero does not support delaying the provision of the new AFP benefits for these customers and recommends that all BDP participants who have arrears and are not enrolled in the current AFP be enrolled in the new AFP within 60 days of the effective date of the final Commission-approved rates in this proceeding. Mr. Cicero also recommends that Pittsburgh Water be directed to work with its LIAAC to develop outreach and education. OWT St. No. 1 at 66.

Q. HOW DOES PITTSBURGH WATER PLAN TO TRANSITION EXISTING AFP PARTICIPANTS TO THE NEW AFP?

A. Pittsburgh Water plans to transition existing AFP participants to the newly established AFP at the program launch. Educational materials will be mailed to affected customers so that they are aware of this transition and have the option to remove themselves from the program should they not agree with the new terms. Pittsburgh Water also plans to

communicate directly with customers in the BDP who are not already in the current AFP to provide them with information and encourage enrollment in the new AFP.

Q. WHICH RECOMMENDATIONS DO OCA WITNESS COLTON AND OWT WITNESS CICERO MAKE REGARDING AUTO-ENROLLMENT IN THE NEW AFP?

A. Mr. Colton recommends that Pittsburgh Water modify its proposed new AFP to automatically enroll both: (1) customers who are enrolling in the Bill Discount Program with pre-existing arrears; and, (2) customers who are receiving a Hardship Grant. OCA St. No. 6 at 55–59. Similarly, Mr. Cicero recommends that all qualifying customers with arears who are enrolling in the BDP following the effective date of the changes approved in this proceeding, should be automatically enrolled in the new AFP without additional application and without additional steps. OWT St. No. 1 at 66.

Q. DOES PITTSBURGH WATER SUPPORT THE PROPOSAL FOR AUTOMATIC ENROLLMENT IN THE NEW AFP?

A. No. Pittsburgh Water is already very diligent about ensuring cross-enrollment of customers in all eligible customer assistance programs. To that end, when the Cares team is working with a customer, they discern their eligibility for enrollment in Pittsburgh Water's suite of assistance programs and assist with cross-enrollment as eligible. Therefore, a customer with pre-existing debt who is eligible for the new AFP will be assessed to determine eligibility for the BDP because the AFP encourages consistent payment of current charges. I do not agree with Mr. Cicero's characterization that Pittsburgh Water "operates its AFP separately from its BDP" because AFP is only available for customers who qualify for BDP. OWT St. No. 1 at 64. Likewise, customers receiving a Hardship Grant are already automatically assessed to determine their eligibility for Pittsburgh Water's other assistance programs. Adding automatic-

enrollment requirements and processes into our current system would force customers into a program without their knowledge or consent, setting them up for a failed AFP experience.

D. Data Tracking

Q. WHICH RECOMMENDATIONS DOES MR. CICERO MAKE REGARDING TRACKING DATA FOR THE NEW AFP?

A. Mr. Cicero takes the view that Pittsburgh Water has not previously "tracked a significant amount of data necessary to assess the effectiveness of the AFP" and recommends that it implement a mechanism to track and report the various data points he discusses, including removal from the AFP, forgiveness dollars provided to customers, fully forgiven arrears, average balance of arrears per calendar quarter and length of time to retire mean arrearage balances. OWT St. No. 1 at 67.

Q. DO YOU SUPPORT THE COMMISSION DIRECTING PITTSBURGH WATER TO TRACK AND MEASURE THESE SPECIFIC DATA POINTS?

A. No. Pittsburgh Water fully supports determining the best ways to measure and track the performance of its various programs, and we have a history of working collaboratively with stakeholders to develop these metrics. I appreciate Mr. Cicero identifying the metrics he believes are important. In my experience, though, a collaborative effort with *all* stakeholders is the better way to reach mutual agreement about what Pittsburgh Water can and should track.

VI. BILL DISCOUNT PROGRAM PROPOSALS

Q. WHAT CHANGES TO PITTSBURGH WATER'S BILL DISCOUNT PROGRAM (BDP) ARE BEING PROPOSED?

A. As explained in my direct testimony, Pittsburgh Water is proposing to introduce new fixed discount credits for BDP participants in 2026 with the amount of the credits to be

increased in 2027. The reason for this multi-year BDP revision proposal is to smooth out the transition for customers to the 2027 proposed rate structure change, which removes the minimum allowance and shifts greater reliance to the recovery of volumetric charges to satisfy Pittsburgh Water's revenue requirements. Pittsburgh Water St. No. 6 at 26–29. Below is a chart detailing Pittsburgh Water's current BDP program and its proposed future changes:

Table 3 Pittsburgh Water Bill Discount Program Current and Proposed Future Changes

BDP Program Elements	Pittsburgh Water CURRENT	Pittsburgh Water 2026 Proposal	Pittsburgh Water 2027 Proposal
Percentage Bill Discounts	**0–200% FPL** • 100% discount Minimum Charge (w & ww) • 85% discount off SW charge • 50% discount off PENNVEST Charge (w/ww/sw)	**0–200% FPL** • 100% discount Minimum Charge (w & ww) • 85% discount off SW charge • 50% discount off PENNVEST Charge (w/ww/sw)	**0–200% FPL** • 100% discount Service Charge (w & ww) • 85% discount off SW charge • 50% discount off PENNVEST Charge (w/ww/sw)
	0–50% FPL 60% discount consumption/conveyance charge	**0–50% FPL** 60% discount consumption/conveyance charge	**0–50% FPL** 60% discount consumption/conveyance charge
Fixed Discount Bill Credit		**51%–200% FPL** • $5.00 (w) • $2.50 (ww)	**51%–200% FPL** • $23.00 (w) • $9.00 (ww
		0–50% FPL • $0.00 (w) • $0.00 (ww)	**0–50% FPL** • $8.35 (w) • $2.98 (ww)
Recertification	Every two years	Every five years for customers on fixed incomes of social security and/or retirement benefits	Every five years for customers on fixed incomes of social security and/or retirement benefits

Q. PLEASE SUMMARIZE THE PROPOSED REVISIONS OFFERED BY OCA AND OWT REGARDING PITTSBURGH WATER'S BDP.

A. Table 4 below compares Pittsburgh Water's proposed 2026 BDP with recommendations of OCA and OWT. Table 5 compares Pittsburgh Water's proposed 2027 BDP with the same recommendations of OCA and OWT because both parties appear to support their recommendations being implemented with the rate effective date of this proceeding.

Notably, no party objects to Pittsburgh Water's proposed revisions regarding recertification or to the proposed addition of fixed discount bill credits.

Table 4 Table 1 Pittsburgh Water BDP Comparison Proposed 2026 Changes

Bill Discount Program Elements	Pittsburgh Water 2026 Proposal	OCA 2026 Proposal	OWT 2026 Proposal
Percentage Bill Discounts	**0–200% FPL** • 100% discount Minimum Charge (w & ww) • 85% discount off SW charge • 50% discount off PENNVEST Charge (w/ww/sw)	**0–200% FPL** • 100% discount Minimum Charge (w & ww) • 85% discount off SW charge • 50% discount off PENNVEST Charge (w/ww/sw)	**0–200% FPL** • 100% discount Minimum Charge (w & ww) • 85% discount off SW charge • 50% discount off PENNVEST Charge (w/ww/sw)
	0–50% FPL 60% discount consumption charge	**51–100% FPL** **30%** discount consumption charges **0–50% FPL** 75% discount consumption/conveyance charges	**0–100% FPL** 60% discount consumption/conveyance charge
	Pittsburgh Water	**OCA**	**OWT**
Fixed Discount Bill Credits	**51%–200% FPL** • $5.00 (w) • $2.50 (ww)	(no testimony, offered – assume PW proposal)	**51–100% FPL** • $8.35 (ww) • $2.98 (w) **101–200% FPL** • $23 (w) • $9 (ww)
	0–50% FPL • $0.00 (w) • $0.00 (ww)	(no testimony, offered – assume PW proposal)	**0–50% FPL** • $16.70 (w) • $5.96 (ww)
Recertification	Every five years for customers on fixed incomes of social security and/or retirement benefits	(no testimony, offered – assume PW proposal)	(no testimony, offered – assume PW proposal)

Table 5: Pittsburgh Water BDP Comparison Proposed 2027 Changes

	Pittsburgh Water 2027 Proposal	OCA 2027 Proposal (same as 2026 proposal)	OWT 2027 Proposal (same as 2026 proposals)
Percentage Bill Discount	**0–200% FPL** • 100% discount Service Charge (w & ww) • 85% discount off SW charge • 50% discount off PENNVEST Charge (w/ww/sw)	**0–200% FPL** • 100% discount Minimum Charge (w & ww) • 85% discount off SW charge • 50% discount off PENNVEST Charge (w/ww/sw)	**0–200% FPL** • 100% discount Minimum Charge (w & ww) • 85% discount off SW charge • 50% discount off PENNVEST Charge (w/ww/sw)
	0–50% FPL 60% discount consumption/conveyance charge	**51–100% FPL** **30%** discount consumption/conveyance charges **0–50% FPL** 75% discount consumption charges	**0–100% FPL** 60% discount consumption/conveyance charge
	Pittsburgh Water	**OCA**	**OWT**
Fixed Discount Bill Credits	**51%–200% FPL** • $23.00 (w) • $9.00 (ww)	(no testimony, offered – assume PW proposal)	**51–100% FPL** • $8.35 (ww) • $2.98 (w) **101–200% FPL** • $23 (w) • $9 (ww)
	0–50% FPL • $8.35 (w) • $2.98 (ww)	(no testimony, offered – assume PW proposal)	**0–50% FPL** • $16.70 (w) • $5.96 (ww)
Recertification	Every five years for customers on fixed incomes of social security and/or retirement benefits	(no testimony, offered – assume PW proposal)	(no testimony, offered – assume PW proposal)

Q. DOES PITTSBURGH WATER SUPPORT ANY OF THESE PROPOSED REVISIONS?

A. We do not. While I will discuss each one further below, Pittsburgh Water does not support any of these revisions as each of them would require significant billing software changes to implement. Pittsburgh Water would also incur costs to retrain its Customer Service personnel and to revise its current materials. In addition, the changes would require Pittsburgh Water to offer steeper discounts to some customers that would need to be paid for by other customers. As I have discussed previously, the risk of asking

customers to pay more for reducing the bills of other customers and to pay for the costs involved in setting up the programs increases the risk that Pittsburgh Water will receive less revenue. With less revenue, Pittsburgh Water would have to readjust its ability to invest in its infrastructure and operations, thereby jeopardizing our ability to furnish and maintain adequate, efficient, safe and reasonable services and facilities for our ratepayers.

A. <u>Percentage Bill Discounts</u>

Q. PITTSBURGH WATER IS PROPOSING TO MAINTAIN THE SAME PERCENTAGE BILL DISCOUNTS FOR CUSTOMERS WHO ARE AT OR BELOW 200%; DO ANY PARTIES DISAGREE WITH THAT?

A. No. Both OCA and OWT agree with Pittsburgh Water's proposal to maintain the current percentage of bill discounts for customers who are at or below 200%, which includes 100% off the fixed charge (currently referred to as the minimum charge to be reidentified as a service charge once the usage component is removed), 85% off the stormwater charge, and 50% off the PENNVEST Charge.

Q. WHICH REVISIONS DOES OCA OFFER REGARDING PITTSBURGH WATER'S PROPOSAL TO MAINTAIN THE CURRENT 60% DISCOUNT OFF CONSUMPTION/CONVEYANCE CHARGES FOR CUSTOMERS WITH 0–50% FPL?

A. On behalf of OCA, Mr. Colton makes two recommendations. First, he recommends that Pittsburgh Water increase the consumption/conveyance volumetric discount from 60% to 70% for customers with an FPL at or below 50%. Second, he recommends that Pittsburgh Water introduce a new "tier" of volumetric discounts for customers between 51–100% of FPL and set that discount at 30%. OCA St No. 6 at 29–36.

Q. DO YOU AGREE WITH MR. COLTON'S SUGGESTION TO INCREASE THE VOLUMETRIC DISCOUNT FOR CUSTOMERS WHO ARE ≤ 50% OF THE FPL FROM 60 TO 75%?

A. I do not. As shown in Pittsburgh Water Exh. JAM-20, an estimate of an additional $143,644 loss in base rate revenue is likely if Mr. Colton's proposal were adopted. However, this does not include loss in Distribution System Improvement Charge ("DSIC") revenue or the costs of programming that would be needed to implement the proposal. In addition, the risk exists that fluctuations in covered customer water usage may lead to larger volumes of lost revenue. As I stated earlier in this rebuttal testimony, the lack of endorsement of rates requested in this case leads me to believe that the rate increase necessary to increase the volumetric discount in the BDP by 15% would not be approved.

Q. DO YOU AGREE WITH MR. COLTON'S SUGGESTION TO CREATE A NEW INCOME TIER AND NEW VOLUMETRIC DISCOUNT FOR CUSTOMERS BETWEEN 51–100% FPL?

A. No. Creating a new income tier would require new software programming as well as billing system revisions to be able to identify, track, and apply the new discount for qualifying customers. In addition, Pittsburgh Water's proposed removal of the minimum allowance is a significant rate structure change that will impact the bills of its customers—some quite significantly as I discuss in the next section—such that we will need to focus resources on education as well as billing system changes to correctly implement that change. I do not support adding new system changes in addition to what is already being proposed. My position minimizes any costly development and takes into consideration our CIS vendor's commitment to Pittsburgh Water's proposals amidst a planned system upgrade in 2026, which will require implementation of the system that requires time-consuming testing for all existing and pre-planned processes. Moreover,

based on our calculations, this proposal would result in an additional $365,747 in lost revenue that Pittsburgh Water would have to recover from other ratepayers in rates since it has no shareholders. *See* Pittsburgh Water Exh. JAM-20

Q. WHAT PROPOSAL DOES MR. CICERO, ON BEHALF OF OWT, MAKE REGARDING PITTSBURGH WATER'S VOLUMETRIC DISCOUNT?

A. Mr. Cicero recommends that Pittsburgh Water increase the eligibility for its current and future proposed 60% discount off consumption/conveyance charges to include customers with a FPL at 51%–100%. OWT St. No. 1 at 57–58.

Q. DO YOU AGREE WITH MR. CICERO'S PROPOSAL REGARDING INCREASING THE FEDERAL POVERTY LEVEL GUIDELINES FOR THE VOLUMETRIC DISCOUNT PORTION OF THE BILL DISCOUNT PROGRAM?

A. I do not. Pittsburgh Water has FPL information for newly enrolled BDP participants from 2022 to June 2025 to include those between 51% and 100% of FPL. Based on this data, an additional $731,493 in lost base rate revenue would need to be included in rates to cover the cost of not requiring customers to pay. *See* Pittsburgh Water Exh. JAM-20. As a municipal authority, Pittsburgh Water does not have shareholder dollars to fund its low-income customer assistance programs. Mr. Cicero's dismissal of the rates requested in this case leads me to believe that he would also not approve the rates necessary to absorb the impact of his proposal.

Q. WHAT DOES PITTSBURGH WATER CALCULATE WOULD BE THE FULL COST OF ADOPTING MR. COLTON AND MR. CICERO'S PROPOSED CHANGES TO THE PERCENTAGE BILL DISCOUNT COMPONENT OF THE BDP?

A. These three changes would result in $1,240,884 of lost base rate revenue. Agreeing to this much in lost base rate revenue is not reasonable when taking into consideration the overall picture of Pittsburgh Water's ability to provide safe and reasonable service. Moreover, though termed "lost" base rate revenue, it is important to remember that

Pittsburgh Water has no other source of funding as a municipal authority because its rates do not include any return on equity from which to draw. Therefore, the loss of this revenue would need to be managed by Pittsburgh Water either through deferring or cancelling capital projects, reducing amounts invested in operations or, ultimately, increasing rates.

B. New Fixed Discount Bill Credits

Q. DO ANY PARTIES DISAGREE WITH THE ADDITION OF FIXED DISCOUNT BILL CREDITS?

A. No. On behalf of OCA, Mr. Colton does not offer any proposed revisions to Pittsburgh Water's proposed new Fixed Discount Bill Credits to be introduced in 2026 and increased in 2027. Similarly, Mr. Cicero does not disagree with this proposal but does recommend that the credits be increased.

Q. PLEASE DESCRIBE MR. CICERO'S RECOMMENDATIONS RELATED TO THE NEW FIXED DISCOUNT BILL CREDITS.

A. Mr. Cicero supports the proposed new fixed discount bill credits but recommends that: (1) they be increased; and (2) an additional income tier between 101–150% of FPL be created with a separate fixed discount bill credit. Mr. Cicero also recommends that the new credits in the amounts he proposes be implemented with the effective date of the rates in this proceeding in 2026. OWT St. No. 1 at 57–58.

Q. WHAT SUPPORT DOES MR. CICERO OFFER FOR HIS PROPOSAL TO SIGNIFICANTLY INCREASE THE NEW FIXED DISCOUNT BILL CREDITS ABOVE PITTSBURGH WATER'S PROPOSAL?

A. A part of Mr. Cicero's justification for proposing his significantly increased fixed discount bill credits is his recommendation that Pittsburgh Water's rate structure change to remove the minimum allowance be implemented in 2026 rather than 2027 as proposed by Pittsburgh Water. OWT St. No. 1 at 56–57.

Q. DOES PITTSBURGH WATER AGREE WITH MR. CICERO THAT ITS RATE STRUCTURE CHANGE SHOULD BE IMPLEMENTED IN 2026 RATHER THAN 2027?

A. No and while I will discuss this issue in further detail in the next section of my testimony, it is important to point out here, as I explained in my direct testimony, that Pittsburgh Water elected to introduce the fixed discount bill credits in advance of the rate structure change to "smooth the transition to the new rate structure in 2027." Pittsburgh Water St. No. 6 at 26–29. Table One in my direct testimony compares the bill impact for the typical BDP customer with a 5/8" meter, 3,000 gallons monthly usage, and Tier 2 ERU for 2026 and 2027 with and without the proposed new fixed discount bill credit. As the first half of this table shows, introducing the new fixed discount credit in 2026 in advance of the rate structure change in 2027 offers a more significant benefit in 2026 prior to the greater benefit offered in 2027.[9] Based on this analysis, if Pittsburgh Water were to implement the rate structure change in 2026 and offer the level of fixed discount bill credits proposed for 2027, then it would experience a much more significant increase in the amount of forgone revenue other ratepayers would be required to bear.[10]

Q. HOW MUCH DOES MR. CICERO PROPOSE TO INCREASE THE FIXED DISCOUNT BILL CREDITS?

A. Mr. Cicero recommends that Pittsburgh Water's proposed fixed discount bill credits be increased as set forth below.

[9] The bill reduction for this typical BDP customer with no changes would be $53.34 for 2026 and $23.94 for 2027. Introducing the new fixed discount bill credit in 2026 results in a bill reduction of $67.70 for 2026 and $74.69 in 2027. Pittsburgh Water St. No. 6 at 27-28.

[10] The typical BDP customer's bill reductions would go from $50.33 in 2026 to $74.69 in 2027.

Table 6 Comparison Pittsburgh Water BDP Fixed Discount Credits with OWT Proposed Revisions

BDP Program Element	Pittsburgh Water 2026 Proposal	OWT 2026 Proposal
Fixed Discount Bill Credits	**51%–200% FPL** • $5.00 (w) • $2.50 (ww)	**51–100% FPL** • $8.35 (ww) • $2.98 (w) **101–200% FPL** • $23.00 (w) • $9.00 (ww)
	0–50% FPL • $0.00 (w) • $0.00 (ww)	**0–50% FPL** • $16.70 (w) • $5.96 (ww)

Q. WHAT WOULD BE THE COST IMPLICATIONS OF ADOPTING MR. CICERO'S PROPOSALS?

A. In addition to the need to update our billing software to accommodate a second tier as he proposes here, there would be significant costs involved with updating our training materials, educating our Customer Service personnel about the new credits and creating customer-facing materials to educate our customers. Further, adopting Mr. Cicero's proposal in 2026 as he recommends would result in an additional $1,134,090 in lost base rate revenue. *See* Pittsburgh Water Exh. JAM-21.

Q. DOES PITTSBURGH WATER SUPPORT THESE PROPOSED INCREASES TO THE NEW FIXED DISCOUNT BILL CREDITS?

A. No. For the same reasons I discussed previously, creating a new income tier with a different amount of fixed discount bill credits for customers between 101–150% of FPL would require billing system changes to be able to identify, track and apply the new discount for qualifying customers. In addition, Pittsburgh Water would need to revise its training materials, public-facing educational materials, and ensure that its processes and systems are updated to implement the new tier. All of these actions have costs associated with them in addition to the additional loss in revenue that would be incurred from the increased bill discounts. As I have stated previously, the increased costs associated with

these proposals along with the increase loss in revenue combined with the parties' unwillingness to support an increase in rates make this proposal unreasonable and untenable.

VII. HARDSHIP FUNDING

Q. WHAT DID PITTSBURGH WATER PROPOSE RELATED TO ITS HARDSHIP GRANT PROGRAM?

A. In its rate filing, Pittsburgh Water proposed to begin automatically enrolling customers receiving Hardship Grants in the Bill Discount Program. Pittsburgh Water did not propose other changes to the Hardship Grant Program. Pittsburgh Water St. No. 6 at 33.

Q. DID THE PARTIES MAKE PROPOSALS REGARDING THE HARDSHIP GRANT PROGRAM IN THEIR DIRECT TESTIMONY?

A. Yes, they did. Mr. Cicero supports Pittsburgh Water's proposal to automatically enroll customers receiving Hardship Grants in the BDP. However, Mr. Cicero claims that the Hardship Fund is underfunded and underspent compared to the arrearage levels of Pittsburgh Water's low-income customers. Mr. Cicero argues that Pittsburgh Water should modify its Hardship Grant program to allow households to apply and qualify for a grant twice per year, regardless of whether the grant is applied to their water or wastewater account. OWT St. 1 at 73. He also recommends that Pittsburgh Water revise its policies and procedures to give customers clearer information about how to access Hardship Grants, including screening customers for eligibility and revising training and scripts for Customer Service personnel to provide customers with information and a referral to the Hardship Fund if they have a past due balance, are facing termination or already have had service terminated. OWT St. 1 at 73. Finally, Mr. Cicero argues that Pittsburgh Water should track additional metrics related to the number of Hardship Grant

applicants and recipients by FPL range, and the number of BDP customers who have accessed Hardship Grants. OWT St. 1 at 74.

Q. DO YOU AGREE WITH MR. CICERO'S ASSERTION THAT HARDSHIP FUNDS HAVE BEEN UNDERFUNDED AND UNDERSPENT?

A. No, I do not. As shared with the LIAAC as recently as March 21, 2025, 1,100 grants were issued in 2024 in the amount of $556,345, which was a 107% increase in grant volume and a 315% increase in dollars granted as compared to the grants processed in 2023, largely due to improving granting from one to two separate annual grants (one for water service and one for wastewater service) per the settlement of Pittsburgh Water's 2023 base rate case.

I would also note that profits from Pittsburgh Water's new warranty offering to customers will be dedicated to providing additional funding for Hardship Grants going forward.

Q. DO YOU AGREE WITH MR. CICERO'S SUGGESTION TO OFFER HARDSHIP GRANTS MORE THAN ONCE ANNUALLY?

A. No, I do not. As I explained above, Pittsburgh Water has very recently expanded its Hardship Grants to offer two separate annual grants as a result of the 2023 rate case settlement. Additionally, offering grants more than once annually would undermine the proposed AFP. Because we are planning to institute the proposed AFP, which will allow customers at the same FPL as offered for the Hardship Grant to have their debt fully expunged over 24 months, increasing granting frequency to more than annually will detract from the elemental benefit of the AFP to allow customers to structure their monthly budget to accommodate paying for water/wastewater conveyance/stormwater services. Permitting additional waivers of past due charges via more than one annual grant will perpetuate delinquency, and other customers will be unfairly required to

shoulder the burden for these uncollectible amounts in the form of increased rates without the eligibility for assistance programs.

Importantly, Pittsburgh Water has no shareholders to provide funding for Hardship Grants. The program funds come from Pittsburgh Water's ratepayers. Mr. Cicero's proposal ignores the additional costs that increasing the frequency (and thus the volume) of Hardship Grants could impose on Pittsburgh Water's customers, whose dollars are the primary source of funding these grants.

Q. HOW DO YOU RESPOND TO MR. CICERO'S PROPOSAL TO CHANGE PITTSBURGH WATER'S POLICIES AND PROCEDURES TO FURTHER PROMOTE HARDSHIP GRANTS?

A. I do not agree that Mr. Cicero's proposed changes are necessary to further promote Hardship Grants. Again, we already have strong participation, particularly since modifying the program to allow for two separate annual grants. Additionally, Hardship Grants are intended to assist a more limited subset of customers in specific situations. I do not agree that it is appropriate to screen all customers for Hardship eligibility or to heavily promote enrollment in the way we promote BDP enrollment, for example.

Q. DO YOU AGREE THAT PITTSBURGH WATER SHOULD BEGIN TRACKING THE ADDITIONAL METRICS THAT MR. CICERO IDENTIFIED?

A. No, I do not. The additional tracking that Mr. Cicero recommends would add costs and administrative burden for Pittsburgh Water, with little or no benefit to Pittsburgh Water's customers. It is also unclear how Mr. Cicero believes this information will benefit customers.

Q. WHAT DOES OCA WITNESS COLTON RECOMMEND REGARDING THE HARDSHIP GRANT PROGRAM?

A. Mr. Colton recommends that Pittsburgh Water automatically enroll recipients of a Hardship Grant in the new Arrearage Forgiveness Program. OCA St. No. 6 at 55.

Q. WILL ADOPTION OF PITTSBURGH WATER'S PROPOSAL TO AUTOMATICALLY ENROLL HARDSHIP GRANT RECIPIENTS IN THE BDP ADDRESS THIS ISSUE?

A. Yes. Our new AFP will be integrated with the BDP so that customers qualifying for BDP with outstanding arrearages will be qualified to enter the new AFP. Therefore, approving the proposal to automatically enroll customers in the BDP who receive a Hardship Grant from one of the community-based organizations partnering with Dollar Energy Fund will result in screening them for entry into the new AFP, if they have outstanding debt.

VIII. LINE REPAIR AND WATER CONSERVATION PROGRAM AND PROPOSED NEW LEAK CREDIT

Q. HAS PITTSBURGH WATER PROPOSED CHANGES TO ITS LINE REPAIR AND WATER CONSERVATION PILOT AS PART OF THIS RATE CASE?

A. Yes. As I explained in my direct testimony, Pittsburgh Water is proposing to convert the Line Repair and Water Conservation ("LRC") Pilot to a permanent low-income assistance program, and to increase the per-property program benefit from $1,356 to $1,600. Pittsburgh Water has included $150,000 for the FPFTY and FY 2027 to continue this program after the Pilot is complete. Pittsburgh Water St. No. 6 at 33–35.

Q. WHICH POSITIONS DID OWT WITNESS CICERO TAKE REGARDING PITTSBURGH WATER'S LINE REPAIR AND WATER CONSERVATION PROPOSAL?

A. OWT supports Pittsburgh Water's proposal to make the Line Repair and Water Conservation Pilot a permanent program. OWT St. 1 at 76. However, Mr. Cicero argues that several changes should be made to the program. Mr. Cicero argues that the $1,600 per-property program benefit should be a target or an average cost per job rather than a strict limit. Mr. Cicero also believes that Pittsburgh Water should develop "comprehensive improvements" to the program to include comprehensive fixes to plumbing issues, water conservation kits, and service line repair and replacement. OWT

St. 1 at 81–82. He argues that Pittsburgh Water should work with the LIAAC to develop a more comprehensive program. Mr. Cicero also wants Pittsburgh Water to eliminate the requirement that customers be enrolled in the BDP to participate in the LRC program, but for customers who are enrolled in the BDP he believes that Pittsburgh Water should target high usage low-income customers for the program. Finally, Mr. Cicero argues that Pittsburgh Water should be required to coordinate with other utilities' energy efficiency and conservation programs to reduce customers' overall water and energy usage. Mr. Cicero wants all of these changes to be implemented within 6 months of the effective date of rates in this proceeding. OWT St. No. 1 at 82.

Q. WHAT IS YOUR OVERALL RESPONSE TO MR. CICERO'S TESTIMONY ON THE LRC PROGRAM?

A. I do not agree that Mr. Cicero's recommendations are necessary for Pittsburgh Water's voluntarily offered program as many of them are already embedded into the current program structure which has been developed over the course of several rate proceedings as well as a settlement of Pittsburgh Water's initial petition to pilot the program. Pittsburgh Water first petitioned the Commission for authorization to implement the pilot program in January 2022 and the details for the pilot were approved in the Commission's March 2, 2023 Order adopting without modification a full settlement of the petition.[11] Pittsburgh Water has implemented the program consistent with those initial terms, which specifically addressed many of Mr. Cicero's recommendations here including:[12]

[11] *Petition of The Pittsburgh Water and Sewer Authority for Pilot Private Service Line Leak Repair and Expanded Conservation Program for Eligible Low Income Customers and Authorization to Track Costs As a Regulatory Asset for Future Base Rate Recovery*, Docket No. P-2022-3030253, Order entered March 2, 2023.

[12] *Id* at Recommended Decision dated January 25, 2023 approving settlement without modification at 5–9.

- Collaborating with the LIAAC to identify opportunities to coordinate with the Low Income Usage Reduction Programs at local electric and gas utilities and the federal Weatherization Assistance Program;
- Coordinating with any other known home repair programs; and,
- Referring eligible customers with health and safety issues to local, state and/or federal programs that may perform repairs.

Q. IS A COMMISSION DIRECTIVE TO COORDINATE SERVICE DELIVERY WITH OTHER UTILITIES IN THE SERVICE TERRITORIES NECESSARY?

A. No. Per the Commission agreed-to settlement terms listed above, Pittsburgh Water is already doing this.

Q. DO YOU AGREE THAT THE PROGRAM SHOULD BE "OFFERED IN A MORE COMPREHENSIVE MATTER" TO ADDRESS BROADER AND MORE COMPREHENSIVE ISSUES? (OWT ST. NO. 1 AT 81).

A. No. The current structure is providing real value as it is operating and it already embeds flexibility for Pittsburgh Water to consider broader measures on a case-by-case basis. The purpose of the LRC Program is to offer no-cost repair for private service line leaks for eligible residential low-income customers to further Pittsburgh Water's broader water conservation goals while also lowering the cost of service for eligible customers and lessening the burden of uncollectible expense for all ratepayers. Eligible customers may receive needed repairs to leaks on exposed plumbing, installation of water saving devices, including aerators, low flow shower heads, low flow toilets and replacement of failing valves at the predefined, not-to-exceed property cost with the potential for additional services based on further review of the specific circumstances and availability of program funds. Attempting to identify a specific list of all the property specific issues that could be contributing to leaks and then identifying the cost and potential for addressing them is not an efficient use of time or resources given the built-in flexibility already existing in the program to further review and address specific circumstances as warranted. Further, I

am concerned that attempting to expand the scope of work could result in difficulties finding a contractor who would be able to perform the expanded services.

Q. DO YOU HAVE ANY OTHER OBSERVATIONS REGARDING MR. CICERO'S RECOMMENDATIONS?

A. Yes, unlike electric and natural gas distribution companies, I am advised by counsel that water companies do not have statutory or regulatory requirements to offer programs such as we offer. I do not agree with Mr. Cicero's claims that the program should be significantly expanded, particularly given that Pittsburgh Water's other ratepayers must pay the costs of the program. Also, I would note that customers are not required to be enrolled in the BDP to be eligible for consideration of services from the LRC and, because the FPL requirements are the same, the BDP does serve as a pathway to identifying eligible customers for LRC services.

Q. DO YOU AGREE WITH MR. CICERO'S SUGGESTION THAT PITTSBURGH WATER DEPLOY CONSERVATION KITS?

A. No, I do not. Based on my experience of reviewing invoices and repair images in the LRC Pilot, it would be a far more productive use of ratepayer dollars to convert the Pilot to a permanent program and increase the amount allotted for each property repair. Low-income customers struggle with many aspects of daily life. Water is a natural resource that is essential to our existence. When water is left uncontrolled outside of a customer's internal plumbing system, the results are typically increased monthly bills and damage to property. Providing the skillset of a plumber at no cost to low-income customers has a transformative impact on customers' lives. In the proposed conservation kit suggestion, the onus is placed on the financially struggling customer to implement the tools provided in the kit. In my opinion, asking our most vulnerable customers to perform these tasks would add undue hardships in the form of increased stressors in their daily lives.

Beyond questioning the efficacy of conservation kits, I would like to point out that our current contractor in the Pilot has extensive knowledge of the conservation programs of other utilities and Action Housing. When the contractor sees that a customer needs a replacement hot water tank, furnace, or other home improvement, they refer the customer to those programs during their first visit to the property. I would note that Pittsburgh Water had difficulty identifying a contractor with this type of experience to carry out the program. Our initial Request for Proposals received no bids, and Pittsburgh Water had to identify and pursue a contractor on its own to provide this specialized level of knowledge and service on conservation measures to customers.

Q. DID MR. CICERO ALSO PROVIDE RELATED TESTIMONY ON PITTSBURGH WATER'S PROPOSAL TO IMPROVE LEAK CREDIT REQUESTS?

A. Yes, he did. As discussed in my direct testimony, Pittsburgh Water is proposing to implement a new process to enable customers to request a reduction of Pittsburgh Water billed water usage and/or wastewater conveyance to decrease their water and/or wastewater conveyance charges when the charges are due to a leak that has been fixed and the customer has enrolled in all of the free leak alerts available from Pittsburgh Water. Pittsburgh Water St. No. 6 at 38.[13]

Mr. Cicero supports this proposed process to streamline the leak report process, but he argues that the leak credit offering should be "better integrated" into the LRC such that a low-income customer with high usage would be referred to both the LRC Program and receive a leak credit after repairs are made. OWT St. No. 1 at 82–84.

[13] This would be in addition to the existing ALCOSAN Leak Credit program which can lead to a credit of the ALCOSAN wastewater treatment billed. Pittsburgh Water does not establish these ALCOSAN charges, they are passed through on the Pittsburgh Water bill.

Q. PLEASE RESPOND TO MR. CICERO'S COMMENTS ON THE PROPOSED NEW LEAK CREDIT PROGRAM.

A. Mr. Cicero's recommendation is unnecessary as the LRC Program and leak credit processes are already fully integrated. The same tools apply to these programs, resulting in a natural integration. When participating customers are income-eligible, leak repairs are already facilitated through the LRC. Additionally, the Cares team looks at these programs comprehensively to ensure that eligible customers receive repairs through the LRC and then request a leak credit from ALCOSAN once the repairs have been completed. If Pittsburgh Water's proposed new leak credit is approved, then it will be seamlessly integrated into the process and, because Pittsburgh Water will be the entity reviewing the request, not just ALCOSAN, the process will be completed in a more timely manner. It is unclear to me what further integration Mr. Cicero desires, but it appears that his recommendation is moot as these programs are already fully integrated and coordinated.

Q. DID OCA WITNESS COLTON ADDRESS THE LINE REPAIR AND WATER CONSERVATION PROPOSAL IN HIS DIRECT TESTIMONY?

A. Yes. Mr. Colton also supports converting the LRC Pilot into a permanent program but proposes a number of changes. First, he argues that Pittsburgh Water should include in its tariff the process for a tenant to follow when landlord approval has not been obtained and when the tenant is not authorized to provide the required written consent, and to consult with the LIAAC to determine how to streamline the process for landlords to provide consent when the landlord is not the customer. OCA St. 6 at 69. Second, Mr. Colton believes there is confusion about who is eligible for the LRC program and proposes to clarify any scripts, checklists or other communications to provide that any customer with income at or below 200% of FPL is eligible for the LRC Program, regardless of whether

they are enrolled in BDP. He also identifies various means to establish income eligibility. OCA St. 6 at 71. Third, Mr. Colton proposes to double Pittsburgh Water's proposed funding for the LRC program, increasing it by $150,000 to a total of $300,000. OCA St. 6 at 72.

Q. ARE CUSTOMERS REQUIRED TO BE BDP PARTICIPANTS AS A CONDITION OF PARTICIPATING IN THE LRC PROGRAM AS MR. COLTON CONCLUDES? (OCA ST. NO. 6 AT 70).

A. No. BDP enrollment is a path, and not a barrier, to enrollment in the proposed permanent LRC program. Eligibility for both the BDP and the LRC is open for customers who have incomes at or below 200% of the Federal Poverty Level. Pittsburgh Water St. No. 6 at 31. Therefore, screening customers for BDP eligibility or current participation in the BDP is a shorthand way of also assessing their eligibility for the LRC. Pittsburgh Water will review current internal training materials and address anything that may create confusion about this point.

Q. DO YOU AGREE WITH MR. COLTON THAT LANGUAGE SHOULD BE ADDED TO THE TARIFF EXPLAINING THE PROCESS FOR TENANTS TO FOLLOW WHEN LANDLORD APPROVAL HAS NOT BEEN OBTAINED FOR PARTICIPATION IN THE LCR PROGRAM?

A. I do not. As explained in my direct testimony (Pittsburgh Water St. No. 6 at 35), the purpose of the proposed tariff language on the LCR Program is to identify the availability of the program, the eligibility requirements, and the benefits available. The proposal specifically does not include all details of the functions of the program in the tariff, as Pittsburgh Water needs to maintain flexibility over those details. This is reasonable as this will be a new permanent program, and this approach will give Pittsburgh Water flexibility to evolve the specific details as it gains more experience with the program.

Pittsburgh Water will certainly provide detailed information to our customers, and to tenants who are not customers, on our website and in regular communications.

Q. CAN YOU DESCRIBE THE EXPERIENCE OF TENANTS IN THE LINE REPAIR AND WATER CONSERVATION PILOT PROGRAM?

A. Yes. When a tenant speaks with a PGH2O Cares Analyst regarding participation in the Line Repair and Water Conservation Pilot Program, they are first advised that the owner of record must sign the agreement to permit Pittsburgh Water's contractor to work on the private plumbing within the property. If a tenant is unable to reach the property owner to obtain their signature, the Cares team will try to reach the owner by telephone and email. If the property owner is unable to complete the agreement electronically, the Cares team will perform a personal visit to either the property or the owner's residence to obtain a signature. The last step in the owner connection process is to collaborate with Neighborhood Legal Services Association who have extensive experience in tenant-landlord dispute resolution. As discussed previously, this process is consistent with the Commission approved settlement terms which first established the pilot program.[14]

Q. DO YOU AGREE WITH MR. COLTON'S PROPOSAL TO INCREASE PROGRAM FUNDING FROM $150,000 TO $300,000 ANNUALLY?

A. No. As I previously explained, this program is currently a Pilot that Pittsburgh Water is now proposing to make a permanent program for the first time. Based on our to-date experience, including $150,000 in our revenue requirements for 2026 and 2027 will sufficiently accommodate our abilities to identify eligible candidates, work with them to

[14] *Petition of The Pittsburgh Water and Sewer Authority for Pilot Private Service Line Leak Repair and Expanded Conservation Program for Eligible Low Income Customers and Authorization to Track Costs As a Regulatory Asset for Future Base Rate Recovery*, Docket No. P-2022-3030253, Order entered March 2, 2023 adopting Recommended Decision dated January 25, 2023 approving settlement without modification at 6–7.

secure services, and coordinate the provisioning of services with our contractor. Pittsburgh Water recognizes the problems created by high usage and has many tools by which it attempts to address this problem and to assist customers to proactively address it. Lastly, the Pilot continues to operate, now in its 24th month, and 255 customers have received program benefits with funds still available from the original budget. Based on historical spend, $150,000 per year will be sufficient to perpetuate these benefits.

IX. CUSTOMER SERVICE ISSUES

A. Continuing To Meet Reasonable Customer Service and Service Quality Performance as Condition of Approving Rate Increase

Q. PLEASE DESCRIBE MS. ALEXANDER'S CONCERNS RELATED TO PITTSBURGH WATER'S COMMITMENT TO MEETING REASONABLE CUSTOMER SERVICE AND QUALITY PERFORMANCE METRICS IF A MULTI-YEAR RATE INCREASE WERE APPROVED.

A. Ms. Alexander recommends that Pittsburgh Water's request for a multi-year rate increase not be approved because "Pittsburgh Water has not provided any meaningful assurance or mechanism to meet reasonable customer service and service quality performance." OCA St. No. 7 at 7. Ms. Alexander opines that approving a two-year rate adjustment "would set in motion the potential for deterioration in service quality and customer service during a period with rate increases that reflect certain costs and expenses but does not include any evaluation of service quality or customer service performance." OCA St. No. 7 at 7. Moreover, Ms. Alexander derides simply reporting performance without any consequence for deterioration in performance or the failure to meet internal objections as an unreasonable "bargain for consumers." OCA St. No. 7 at 8–9.

Q. ARE YOU AWARE OF ANY REQUIREMENT THAT PITTSBURGH WATER'S RATE REQUEST CAN ONLY BE APPROVED UPON THE CONDITIONING OF ACHIEVING A SPECIFIC PERFORMANCE STANDARD?

A. No. In fact, I am advised by counsel that, following a litigated rate case proceeding, the Commission has not directed performance standard measures as a condition of approving a rate case.[15] Counsel further informs me that the statutory authority permitting multi-year rate plans has no specific requirements that performance standard measures must be a part of the grant of a multi-year rate plan.

Q. SETTING ASIDE HER VIEWS REGARDING THE PROPOSED MULTI-YEAR RATE INCREASE, DOES MS. ALEXANDER STILL TAKE THE VIEW THAT ANY INCREASE IN PITTSBURGH WATER'S RATES MUST LINK MEETING INTERNAL STANDARDS AS A CONDITION OF APPROVAL?

A. Yes. Ms. Alexander recommends that, as a condition of any rate increase approved by the Commission, Pittsburgh Water be directed to conform to its own internal quarterly call center performance standards of a call answering rate of 1 minute or less and an abandonment rate of 3% or less for each of its call center queues, particularly those queues that relate to billing, metering, collection, dispatch and stormwater issues. According to Ms. Alexander, "whether a one year or multi-year rate case, Pittsburgh Water should not be able to deteriorate in performance. . . if a rate increase is allowed." OCA St. No. 7 at 13.

[15] While I recognize that other utilities may have voluntarily agreed to such terms as part of a settlement of their base rate cases, I understand from counsel that a settlement approved by the Commission is different from a Commission directive after a litigated proceeding. I also understand from counsel that cases where utilities voluntarily agreed to performance standards as a condition of settlement and most on a forward looking basis agreeing to various reporting requirements. It is my understanding that if a party wanted to challenge any of these utilities' performance, they would have to file a separate proceeding seeking to enforce the terms of settlement.

Q. DO YOU AGREE WITH THIS RECOMMENDATION?

A. I do not agree that Pittsburgh Water's request for additional revenues to support its capital projects and operations should be conditional upon attaining customer service performance metrics. Pittsburgh Water has demonstrated the reasons for its revenue request and has presented significant testimony and information about its operations, including customer services. I am particularly proud of the great strides Pittsburgh Water has made since first coming under the Commission's jurisdiction in 2018 to build a more positive relationship with our customers. I recognize that requests for rate increases are difficult for our customers, and that concerns about a deterioration in customer service are not unreasonable, but Ms. Alexander has not presented any compelling support to validate her concerns that Pittsburgh Water's customer service is going to suddenly deteriorate with an influx of additional revenue to justify mandating specific customer service metrics that must be met to receive a rate increase. I would also point out that, given the oversight of Pittsburgh Water's customer service by the Commission and the rights consumers are provided to raise concerns, any deterioration in customer service would become immediately known and addressed through these channels. Establishing arbitrary metrics and requiring Pittsburgh Water to constantly evaluate its performance regarding those metrics creates additional costs and burdens which detract from the ability of Pittsburgh Water to focus on customers and systems to best serve their needs.

A. <u>Updated Root Cause Analysis</u>

Q. DID PITTSBURGH WATER UPDATE ITS ROOT CAUSE ANALYSIS AS REQUIRED BY THE PRIOR RATE CASE SETTLEMENT?

A. Yes; the 2022 Root Cause Analysis was updated this year, filed with the Commission on January 21, 2025, and included as Pittsburgh Exh. JAM-11 with my direct testimony.

Pittsburgh Water St. No. 6 at 45. This updated analysis resulted in eight recommendations to decrease disputes and complaints, enhance data tracking, and enhance training for Customer Service staff. Below is the current status of Pittsburgh Water's progress on these recommendations:

Table 7 Pittsburgh Water's Actions In Response to Updated Root Cause Analysis

Updated Root Cause Analysis Recommendation	Actions Taken in Response	Implementation Status	Expected Impact of Recommendation
Retrain Customer Service Representatives on high consumption and meter testing and establish an annual training schedule.	All Customer Service Representatives completed high consumption retraining via the learning management system.	All representatives were retrained as of July 2025.	Allows representatives to review common questions and inquiries related to high consumption and the meter testing process.
Add meter testing bench tours and training to all new hire schedules.	New hire training schedules were altered to include an in-person tour and training of the meter testing bench and procedures.	Completed as of the 3rd quarter of 2024.	Allows newly hired representatives to see the meter testing process in a hands-on approach.
Enhance data tracking for dispute to complaint conversion rates.	Excel spreadsheets were updated to include the addition of unique clarification case identifiers to analyze dispute-to-complaint conversation rates.	Completed as of the 1st quarter of 2025.	This will allow for better data tracking and analysis.
Update payment arrangement training SOPs for Customer Service Representatives.	Representatives received retraining related to payment arrangement requests. These trainings were done during team meetings in preparation of the 2025 Winter Moratorium ending.	Team trainings were completed, but SOP development is still in progress to expand on the situations that may impact payment arrangement requests.	Decrease the number of payment arrangement requests filed with the PUC in error.
Develop specific training to identify and properly handle disputes and complaints.	Pittsburgh Water developed the SOP specific to dispute investigations as the first stage of the quality assurance implementation.	In progress and will require multiple SOPs to be developed to properly document identifying and handling all types of customer disputes.	Increase efficiency of investigation process and decrease the amount of time it takes to respond to customer complaints.

Updated Root Cause Analysis Recommendation	Actions Taken in Response	Implementation Status	Expected Impact of Recommendation
Enhance data tracking for complaint types.	Excel spreadsheets were updated to include the addition of complaint type classifications.	Completed as of the 1st quarter of 2025.	This will allow for better data tracking and analysis.
Update non-registering water meter account listing.	Pittsburgh Water's Billing department provided updated data listings of properties receiving at least 6 consecutive months of zero consumption meter readings. These updated accounts were added to the Compliance listing to identify potential non-registering water meters.	Completed as of the 2nd quarter of 2025.	This decreases the length of time that accounts with non-registering water meters are in service and allows for Pittsburgh Water to better minimize potential back-billing.
Initiate Utility Report quality assurance reviews.	Pittsburgh Water developed the SOP specific to dispute investigations as the first stage of the quality assurance implementation.	In progress.	Increase efficiency of the investigation process and decrease the amount of time it takes to respond to customer complaints.

Q. WHICH RECOMMENDATIONS DOES OCA WITNESS ALEXANDER MAKE PITTSBURGH WATER'S UPDATED ROOT CAUSE ANALYSIS?

A. Ms. Alexander recommends that Pittsburgh Water continue to track and evaluate customer complaints and include the most recent BCS findings of "infractions." In addition, Ms. Alexander recommends that Pittsburgh Water "formally track the recommendations, document system-wide steps taken in response to those recommendations, and evaluate on an ongoing basis whether or how the steps and implementation taken in response to the root cause evaluation have achieved their intended purpose." OCA St. No. 7 at 20.

Q. DO YOU AGREE WITH MS. ALEXANDER'S PROPOSALS RELATED TO THE ROOT CAUSE ANALYSIS?

A. No, I do not. In general, these proposals are administratively burdensome, may not be feasible, and are unnecessary.

Q. PLEASE EXPAND ON WHY PITTSBURGH WATER SHOULD NOT BE REQUIRED TO TRACK AND REPORT ON EACH STEP TAKEN AS A RESULT OF THE ROOT CAUSE ANALYSIS.

A. Ms. Alexander's proposal would be administratively burdensome. Pittsburgh Water is already short staffed in a way that has delayed its ability to carry out some of the recommendations themselves; attempting to gather data and report on each recommendation would add significant burden to this process. Additionally, this seems to be a solution in search of a problem. Ms. Alexander has not identified any specific areas that would make this additional tracking and reporting useful or necessary. Ms. Alexander has not shown that this recommendation is required, necessary, or justifies the cost and administrative burden. Lastly, tracking of steps taken to address the recommendations in the Updated Root Cause Analysis is already the responsibility of Pittsburgh Water's internal PUC Compliance team. It was this tracking that facilitated the on-time completion of the Updated Root Cause Analysis.

B. <u>Personal Contact Prior to Service Termination</u>

Q. PLEASE EXPLAIN PITTSBURGH WATER'S PROCESS FOR ATTEMPTING PERSONAL CONTACT PRIOR TO SERVICE TERMINATION.

A. Pittsburgh Water's processes require that notices be personally delivered to customers' properties during the 8:00 AM to 5:00 PM timeframe, excluding Friday, observed holidays, and the weekend. Field Technicians must attempt to hand deliver the Pittsburgh Water shut off notice to a responsible adult, 18 years old or older, at the property to advise of the termination of water services. Field Technicians must also provide Pittsburgh Water's customer assistance program flyer and explain that payment arrangements are available. If a resident advises that someone at the property has a medical issue that would be aggravated due to termination of water service, Field

Technicians must place a hold on the termination and then provide the person with Pittsburgh Water's Customer Service number. Pittsburgh Water's work order and asset management system requires the Field Techniction to document each door knock, customer interaction, and notice posting with the date, time and contact information of the adult with whom personal contact was made. The Field Technician must then note the conversation details, and, if the termination is halted, the Field Technician must select the reason why using the approved menu options.

Q. PLEASE EXPLAIN OCA WITNESS ALEXANDER'S REVIEW OF THIS INFORMATION AND RECOMMENDATION.

A. Ms. Alexander does not raise concerns about our process and notes that the information we have about these interactions is valuable. However, she questions the availability of data as to why the termination was not implemented. OCA St. No. 7 at 27. Therefore, she recommends that Pittsburgh Water develop a method of categorizing the reasons when a hold is ordered to enable Pittsburgh Water to evaluate the potential for additional communications or other actions. OCA St. No. 7 at 28.

Q. DO YOU AGREE THAT MS. ALEXANDER'S RECOMMENDATION IS NECESSARY?

A. I do not. The reasons that a termination is halted are already reviewed by Pittsburgh Water Collections personnel, who take steps to attempt further connection with the customer if the actions that the customer agreed to take are not completed within two weeks after the halted termination.

C. Payment Arrangements

1. Evaluation and Tracking

Q. DOES MS. ALEXANDER PROPOSE TO INCLUDE ADDITIONAL ISSUES AS PART OF PITTSBURGH WATER'S EVALUATION PROCESS?

A. Yes. Based on her review of data provided in the Pennsylvania Public Utility Commission's 2023 Utility Consumer Activities Report and Evaluation Report ("UCARE Report"), Ms. Alexander focuses on Pittsburgh Water's Payment Arrangement Requests rate increase from 2021 to 2023 and concludes that it is a "red flag" indicator of potential utility performance issues. OCA St. No. 7 at 14 and 19.

Q. DOES THE UCARE REPORT ITSELF IDENTIFY THE DATA RELATED TO PITTSBURGH WATER AS AN ISSUE OF CONCERN?

A. No. The UCARE Report provides data for all utilities but does not specifically indicate any data that is problematic or needs to be addressed by the utility.

Q. BASED ON HER IDENTIFICATION OF THE INCREASED NUMBER OF PAYMENT ARRANGEMENT REQUESTS AS A CONCERN, WHAT DOES MS. ALEANDER RECOMMEND?

A. Ms. Alexander recommends that Pittsburgh Water develop a methodology to track and evaluate the success and failure of a statistically valid number of payment plans negotiated by Pittsburgh Water. She suggests that the starting point could be an evaluation of the Payment Arrangement Requests resolved by BCS. OCA St. No. 7 at 19–20.

Q. DO YOU AGREE WITH MS. ALEXANDER'S PROPOSAL TO DEVELOP A METHOD TO TRACK AND EVALUATE THE SUCCESS OR FAILURE OF PAYMENT PLANS?

A. No, I do not.

Q. WHY DID PAYMENT ARRANGEMENT REQUESTS INCREASE BETWEEN 2021 AND 2023?

A. Pittsburgh Water paused collection efforts and resulting terminations of service from July 2022 through February 2023 following implementation of a new billing system. During this period, Pittsburgh Water noticed a significant decrease in complaints and payment arrangement requests. Once the 2023 Winter Moratorium period ended, Pittsburgh Water resumed its normal collection efforts with service terminations for water customers. Normal collection efforts with service terminations for wastewater only customers resumed in May 2023. Once these efforts resumed, the number of complaints and payment arrangement requests drastically increased in response. In addition, as I described in my direct testimony, Pittsburgh Water has significantly increased its efforts to reach customers with past due balances. In 2024, Collections management personnel began making attempts to reach customers in advance of issuing a courtesy 5-day letter. In November 2024, Pittsburgh Water initiated payment plan email and text messaging campaigns with the goal of encouraging customers to contact Pittsburgh Water to determine eligibility for a payment plan. In January 2025, in addition to the average 150 weekly personal collection calls to customers, Pittsburgh Water expanded its use of electronic communication methods, sending text and email notifications to customers who were past due on their payment plans. Pittsburgh Water St. No. 6 at 7–9. I believe the resuming of our normal collections activities along with the very significant effort we have made to reach customers who would benefit from a payment plan explains the increase in payment arrangement requests.

Q. WOULD YOU AGREE THAT AN INCREASE IN PAYMENT ARRANGEMENT REQUESTS IS AN INDICATOR OF PROBLEM?

A. No. Customers reaching out for payment arrangements is a positive result of collection activities because then Pittsburgh Water can work directly with them to address their specific financial situation to receive payment for services rendered without undertaking the costly and stressful effort to terminate service for non-payment. Apart from labeling this increase in payment arrangement requests, Ms. Alexander does not explain or present any reasons why this increase should be viewed as problematic.

Q. WHAT ARE SOME IMPEDIMENTS TO PITTSBURGH WATER'S INFLUENCE ON THE SUCCESS OR FAILURE OF CUSTOMER PAYMENT PLANS?

A. As I described in my direct testimony, Pittsburgh Water initiated engagement of past due customers to offer payment arrangements and options to catch up on past due payment plans via email and text message. Additionally, Customer Service team members are trained to work with customers to create payment plans that customers indicate they can afford, so they can be added to their household budget, and to allocate new arrangements with a change in circumstance. Once a plan is established or revised, it is then the customer's responsibility to make every effort to remain active in their plan. It is important to note that Pittsburgh Water previously worked with its CIS vendor to ensure that each monthly bill for a customer on an active payment plan includes a description of the monthly amount due, comprised of the current charges plus the monthly plan amount, in a box at the top right of the bill. It is my experience that a customer's personal decisions drive their payment plan success or failure. As their water/wastewater conveyance/stormwater utility, we do not have the information to determine the "why". Did they forget the plan? Did they not set aside money from within their pay period to meet the due date of the plan? Did they decide to make a purchase in lieu of plan

payment? Pittsburgh Water has no influence over these factors, and nor should we. The best that we should do as their utility is to continue to set the customer up for success by negotiating a plan that they indicate they can afford.

Q. WHAT DO YOU CONCLUDE?

A. I conclude that because Pittsburgh Water has no influence over the factors that affect whether a customer maintains their payment plan, it is unnecessary and a waste of limited resources to require Pittsburgh Water to develop a methodology to evaluate the success or failure of payment plans as Ms. Alexander proposes. Further, I am not aware of any legal or regulatory requirement that Pittsburgh Water do so.

2. Special Payment Arrangement Letters

Q. PLEASE EXPLAIN THE SPECIAL PAYMENT ARRANGEMENT CONFIRMATION LETTERS ISSUED BY PITTSBURGH WATER.

A. Pittsburgh Water provides written confirmation to the customer of all agreed-to payment arrangements, which letter includes the terms of the payment plan agreed to by the customer in their conversation with Pittsburgh Water personnel.

Q. WHAT DID OCA WITNESS ALEXANDER SAY IN HER DIRECT TESTIMONY REGARDING PITTSBURGH WATER'S SPECIAL PAYMENT ARRANGEMENT LETTERS?

A. Ms. Alexander recommends that Pittsburgh Water should go a step further and include language on this written notice about the customer's right to dispute the terms of the payment plan. OCA St. 7 at 20–21.

Q. PLEASE RESPOND TO MS. ALEXANDER'S POSITION ON THE PAYMENT ARRANGEMENT CONFIRMATION LETTERS.

A. I do not agree that Pittsburgh Water should be required to include additional language in its written confirmation of payment agreement. Though Pittsburgh Water has elected to provide this document to customers, I am advised by counsel that there is no requirement

that Pittsburgh Water issue a written confirmation letter after negotiating a payment plan with a customer. Furthermore, all bills issued to customers include the directive to "Please register any questions or complaints about your bill prior to the due date." While deferring to legal counsel regarding what is required, Ms. Alexander states in a footnote that Pittsburgh Water should include this statement as a "policy matter." OCA St. 7 at 21, fn. 23. I do not see what value can be gained in expending the time and resources that would be needed to add more language to this voluntary letter about rights that are well explained by our customer service representatives, on our bills and in nearly all of the other collection notices we are required to share with customers prior to a scheduled termination of service.

3. Medical Certificates and Payment Arrangements

Q. WHAT CONCERN DOES OWT WITNESS CICERO RAISE REGARDING PITTSBURGH WATER'S MEDICAL CERTIFICATE POLICIES?

A. Mr. Cicero states that he is concerned that Pittsburgh Water's procedures for issuing payment arrangements for customers with medical certifications is "not appropriately flexible." OWT St. No. 1 at 98. Mr. Cicero recommends that Pittsburgh Water develop clear guidelines to allow more flexible payment arrangement standards and prioritize outreach to customers with medical certificates to negotiate these agreements. Mr. Cicero also proposes that Pittsburgh Water be required to allow households with medical certificates to access payment arrangements, even if they have broken payment arrangements in the past and recommends that Pittsburgh Water "should follow the factors outlined in the Commission's regulations regarding disputes in section 56.151(3)." OWT St. No. 1 at 100.

Q. DOES PITTSBURGH WATER SUPPORT MR. CICERO'S RECOMMENDED CHANGES TO PAYMENT ARRANGEMENT PLANS FOR CUSTOMERS WITH MEDICAL CERTIFICATES?

A. No. Pittsburgh Water's policies regarding payment arrangements for households with medical certificates are consistent with the Commission's requirements. I am advised that there are no regulatory requirements to offer more "flexible" payment arrangements to households with medical certificates. To revise current policies and procedures to create more "flexible" payment arrangements for this particular group of customers would be a time-consuming and costly undertaking that would not result in any measurable benefit. I would point out that in 2024, Pittsburgh Water restored water service upon receipt of medical certifications for a total of 15 households, which is less than 1% of our residential customer accounts. Finally, Pittsburgh Water does follow the "factors" outlined in the Commission's regulations at Section 56.151(3) to "negotiate a reasonable payment arrangement" with customers who initiate a dispute. I do not agree that Mr. Cicero's payment plan recommendations for customers with a medical certificate are necessary or that they would be a reasonable use of ratepayer funds to pursue.

D. <u>Speech Analytics</u>

Q. PLEASE EXPLAIN PITTSBURGH WATER'S CURRENT EXPLORATION OF SOFTWARE TO ENGAGE IN SPEECH PATTERN ANALYTICS TO REVIEW CUSTOMER CALLS.

A. In August 2025, Pittsburgh Water's Technology Governance Committee began consideration of what would be the first use of such a tool by our organization. The product offering from our telephony system vendor is Mitel Interaction Recording Insights AI. The committee approved this software enhancement, which will replace the subjective and time-intensive manual evaluation of a limited amount of customer call recordings by providing dashboard insights with objective evaluations of all calls into

Customer Service. Management personnel will train the tool to recognize our Call Sequencing Model, including the regulatory requirements, to discover if a customer is satisfied at the end of every call, along with the programming of key words and a sentiment analysis of both our Customer Service personnel and our customers.

Q. WHICH RECOMMENDATIONS DOES OCA WITNESS MS. ALEXANDER MAKE REGARDING FUTURE USE OF A SPEECH ANALYTICS TOOL?

A. Ms. Alexander does not oppose our exploration of the use of this tool. If Pittsburgh Water elects to go forward, however, she recommends that we report and discuss the results of the pilot with the LIAAC "prior to any longer term implementation." She recommends that the analysis documents and compares the software's tools to determine customer satisfaction, compliance with regulatory requirements, and impact on internal training and call times with the more traditional method. OCA St. No. 7 at 28–29.

Q. WHAT ARE YOUR THOUGHTS ABOUT MS. ALEXANDER'S RECOMMENDATIONS?

A. I am advised by counsel that there is no requirement that Pittsburgh Water's request for increased rates be conditioned on the recommendations as offered by Ms. Alexander regarding a planned enhancement to Pittsburgh Water's telephony system. Additionally, the LIAAC is an advisory-only committee with a defined focus on Pittsburgh Water's administration of its suite of low-income customer assistance programs. As such, the LIAAC members should not be called upon to evaluate or approve an application that promotes enhanced development of Pittsburgh Water's personnel.

X. ELECTRONIC BILLING CREDIT

Q. WHAT DOES PITTSBURGH WATER PROPOSE REGARDING ELECTRONIC BILLING?

A. Pittsburgh Water is proposing a one-time bill credit of $15 per account for customers who enroll in paperless billing and agree to remain in paperless billing for six months. The credit will only be applied once per Pittsburgh Water account for customers receiving multiple utility services from Pittsburgh Water. OCA St. No. 6 at 24–25.

Q. WHAT CHANGE TO THIS PROPOSAL DOES OWT WITNESS CICERO RECOMMEND?

A. Mr. Cicero supports the proposal but does not agree that a six-month prohibition from returning to a mailed paper bill is appropriate although he recognizes the reasons for the prohibition. As an alternative, Mr. Cicero recommends providing the bill credit in installments of $2.50 per month for six months and any customer electing to return to paper billing during this six-month period would not continue to receive the credit. OWT St. No. 1 at 94.

Q. DO YOU SUPPORT THIS RECOMMENDATION?

A. I do not support this recommendation for the reasons that 1) the programming of the credit would be exponentially more expensive to Pittsburgh Water customers, 2) breaking down the credits creates five additional points of failure in the identification of eligible customers and the posting of the credit, and 3) any customer who fails to receive a monthly bill electronically may access their bill via Pittsburgh Water's free Customer Advantage portal or may call Customer Service to receive a mailed or emailed copy of the monthly bill.

XI. PAYMENT RESPONSIBILITY FOR CONVENIENCE FEES

1. Credit and Debit Card Processing Fees for Residential Customers

Q. IS PITTSBURGH WATER PROPOSING TO REQUIRE THAT CUSTOMERS WHO INCUR THIRD-PARTY PROCESSING FEES PAY THEM RATHER THAN HAVE THOSE COSTS RECOVERED FROM ALL OTHER RATEPAYERS?

A. Yes. All Pittsburgh Water ratepayers currently pay convenience fees for the residential customer class (and not for commercial customer classes). In an effort to treat all customer classes the same, Pittsburgh Water's proposal is to pass on the credit and debit fee of $2.01 per payment to the residential customer who incurs the fee beginning with the effective date of the rates approved in this proceeding. The fee of $2.01 per payment reflects the amount that Pittsburgh Water's payment processor charges. As explained by Pittsburgh Water Witness Ed Barca, the cost for all ratepayers to subsidize these convenience fees is approximately $500,000 per year.[16] By requiring the residential ratepayers who incur these costs to pay them, Pittsburgh Water has eliminated this amount from its revenue requirements. Pittsburgh Water St. No. 2 at 26.

Q. DO PARTIES OPPOSE THIS PROPOSAL?

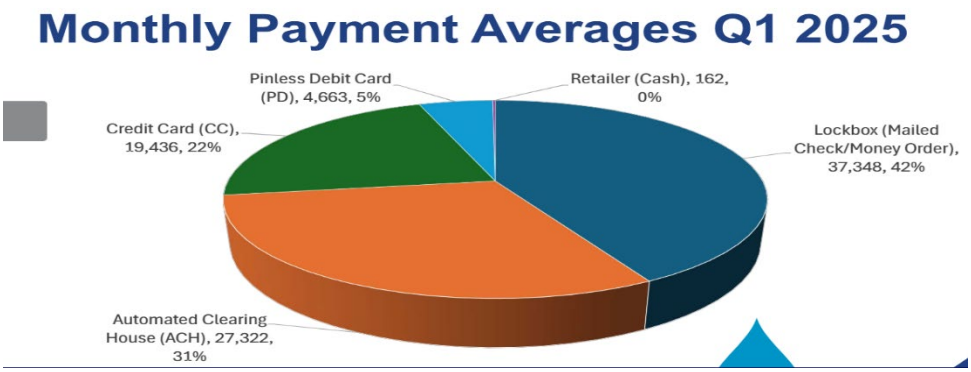
A. Yes. According to OCA Witness Alexander, low-income customers who face termination of service make use of credit/debit card payments to avoid further or more serious collection penalties. As such, she is concerned about the impact on these vulnerable customers of requiring them to pay additional costs to avoid service termination. OCA St. No. 7 at 22–25. Mr. Cicero expresses similar concern of the

[16] Pittsburgh Water is not proposing to make any change to its current policy of passing on the costs of the ACH payment fee to all customers. Thus, residential customers would continue to pay no specific (or additional) fee if they make their payment via ACH. They can also make their payment via check without a processing fee.

impact of this proposal on low-income customers and further claims that removing the amount of these convenience fees from Pittsburgh Water's revenue requirements is "illusory" because customers are not "saving $500,000 per year." OWT St. No. 1 at 91–92.

Q. DOES PITTSBURGH WATER AGREE THAT IT SHOULD WITHDRAW ITS PROPOSAL TO REQUIRE CUSTOMERS ELECTING TO USE CREDIT OR DEBIT CARDS FOR PAYMENT TO PAY THE PROCESSING COSTS?

A. No. While I recognize the concerns expressed by Ms. Alexander and Mr. Cicero, as I testified earlier, Pittsburgh Water must take into consideration the complete picture of what is reasonable in terms of revenue collection to support its operations and service. Based on the below snapshot of monthly payment averages for the first quarter of 2025, approximately 73% of Pittsburgh Water's customers do not pay by credit or debit card.



By removing this component from Pittsburgh Water's revenue requirements, these customers would benefit by removing one cost factor, which makes up the overall calculation of rates they will be required to pay. While, as Mr. Cicero states, the customers electing to make payments in this manner will now be required to pay the processing fees, they do have the option to avoid these fees by electing another payment option that does not include processing fees. Also, the assessment of processing fees for credit or debit card merchant and service purchases is not unusual. A recent JD Power

survey found that 1/3rd of small businesses charge a fee to use a credit and/or debit card.[17] Pittsburgh Water's proposal to have residential customers pay their own credit and/or debit card fees when they elect that payment method for their Pittsburgh Water bills aligns with the practices of many other businesses.

Q. WHAT ARE PITTSBURGH WATER'S GOALS REGARDING PAYMENT PROCESSING FEES?

A. Pittsburgh Water's goal is to enroll all customers in ACH payments in the future, which will save all ratepayers credit card fees, credit card interest charges, fees/labor for processing paper checks, and paper waste. Customers using ACH or sending paper checks are not assessed any additional processing fees. Requiring customers to pay processing fees for credit or debit transactions will act as an incentive to select a free payment option if they are unable to afford those fees. Also worth pointing out again is that only the residential customers have these processing fees paid by all other customers. Commercial customers pay their credit or debit card processing fees when they elect to make payment using those methods.

2. Application Based Payment Methods

Q. DOES MR. CICERO RECOMMEND OTHER FORMS OF PAYMENT THAT PITTSBURGH WATER SHOULD EXPLORE?

A. Yes, Mr. Cicero recommends that Pittsburgh Water explore additional means of encouraging use of other forms of payment from commonly used payment applications like Venmo, CashApp, Zelle, Paypal and the like. No later than its next rate case, Mr. Cicero recommends that Pittsburgh Water present a proposal to accept payment by non-

[17] *See* https://www.paymentsdive.com/news/third-of-us-small-businesses-add-credit-card-surcharges/739018/#:~:text=The%20findings%20of%20a%20J.D.,consumer%20satisfaction%20with%20the%20transaction.&text=A%20third%20of%20small%20businesses,a%20recent%20J.D.%20Power%20survey.

bank payment applications like these without a customer having to incur a fee. OWT St. 1 at 93.

Q. WHAT IS PITTSBURGH WATER'S PROGRESS ON OFFERING A VARIETY OF PAYMENT METHODS?

A. In March 2025, Pittsburgh Water launched the Pay by Link option, wherein Customer Service personnel can send a link to a customer via email and/or text message that, when clicked, allows the customer to pay Pittsburgh Water charges via Apple Pay or Google Pay. Regarding the payment services referenced by Mr. Cicero, Venmo, CashApp and Paypal, payment processing fees are still incurred. Additionally, the Zelle platform charges fees to the banks associated with transactions, and banks then have the option of passing those fees onto their customers.

3. Third-Party Authorized Payment Agent Fees

Q. WHAT DOES MR. CICERO RECOMMEND REGARDING FEES INCURRED BY CUSTOMERS AT AUTHORIZED THIRD-PARTY RETAILERS TO SUBMIT PAYMENT ON THEIR BILLS?

A. Mr. Cicero recommends that Pittsburgh Water "begin covering the cost of making cash payments at authorized retailers" rather than the current process of the customer electing to pay in that manner and directly paying any additional third-party fees assessed by the retailer. OWT St. No. 1 at 92. Mr. Cicero cites to Philadelphia Gas Works' "Pay With Cash" partnership with various third party retailers whereby the customer can present their bill, a bar code is scanned and payment is made with cash without any additional fee. Mr. Cicero recommends that Pittsburgh Water implement a similar option for its customers. OWT St. No. 1 at 93.

Q. DOES PITTSBURGH WATER SUPPORT REIMBURSING CUSTOMERS FOR FEES ASSESSED BY A THIRD-PARTY AUTHORIZED PAYMENT AGENT TO MAKE A CASH PAYMENT ON THEIR UTILITY BILL?

A. No. These fees are determined and assessed by the third-party retailers and are appropriately assessed directly to the customer electing to use this payment method. Importantly, the customer may avoid this fee by selecting a payment option that does not incur fees. To implement Mr. Cicero's proposal, processes would have to be developed to pass on that cost to all other ratepayers. This would utilize valuable staff resources and ratepayer funds to implement an unnecessary process and increase rates for our ratepayers. I appreciate Mr. Cicero's example of how other utilities have partnered with third party retailers for which customers are not required to pay processing fees, however, Pittsburgh Water does not have the resources to pursue whether this is truly a fee-free solution at this time.

XII. PUBLIC INPUT HEARING TESTIMONY

Q. DID YOU REVIEW THE TESTIMONY PROVIDED AT THE PUBLIC INPUT HEARINGS IN THIS PROCEEDING ON AUGUST 12–13, 2025, AS WELL AS THE RATE COMPLAINTS FILED WITH THE COMMISSION?

A. Yes. I was present at both the in-person and telephonic hearings, and I reviewed the Formal Complaints filed with the Commission.

Q. PLEASE SUMMARIZE THE TESTIMONY FROM THE PUBLIC INPUT HEARINGS AND RATE COMPLAINTS TO WHICH YOU WILL RESPOND.

A. I will broadly respond to concerns raised about the: (1) affordability of the proposed rate increase; (2) impact of the proposed rate increase to residential customers with a 1" water meter; and (3) practice of billing in thousands of gallons.

Q. PLEASE RESPOND TO THE COMMENTS RECEIVED ABOUT THE AFFORDABILITY OF RATES.

A. Pittsburgh Water understands and appreciates customers' concerns about affordability of rates. As I discussed in my direct testimony, Pittsburgh Water has carefully considered the impact of the proposed rate increases on future affordability and has offered several proposals to mitigate the impact. See Pittsburgh Water St. No. 6 at 24–39. This includes proposals to enhance Pittsburgh Water's customer assistance programs, provide an electronic billing credit, remove the minimum allowance, and reduce usage charges related to repaired leaks. In his direct testimony, Mr. Pickering also explains the continuation of a once-in-a-generation effort to replace antiquated infrastructure as well as meet regulatory obligations and maintain or improve Pittsburgh Water's bond rating.

Q. HAS PITTSBURGH WATER PURSUED OTHER FUNDING OR FINANCING OPPORTUNITIES BEFORE PROPOSING THE RATE INCREASE?

A. Yes. Pittsburgh Water's efforts are discussed in detail in Mr. Barca's direct testimony, which explains that, since 2018, Pittsburgh Water has obtained $714.0 million in low-interest loans and $94.5 million in grants for a total of $808.5 million from PENNVEST and will continue to apply for either PENNVEST/WIFIA loans or publicly issued Revenue Bonds each year for the foreseeable future.

Q. HOW IS PITTSBURGH WATER PROPOSING TO ADDRESS THE IMPACT OF THE PROPOSED RATE INCREASE ON RESIDENTIAL CUSTOMERS WITH LARGER THAN A 5/8" WATER METER?

A. For reasons I have outlined in my testimony, Pittsburgh Water is proposing to implement the removal of the minimum allowance effective January 1, 2027. Doing so will permit 1) rate mitigation efforts to smooth out rate change impacts, 2) scheduling of the CIS development so as not to interfere with a planned functional upgrade, and 3) provision of

a reasonable opportunity for Pittsburgh Water to educate customers about changes in their rate structure before they appear on bills.

Q. HAS PITTSBURGH WATER CONSIDERED BILLING FOR WATER CONSUMPTION AT LESS THAN ONE THOUSAND-GALLON INCREMENTS?

A. No; Pittsburgh Water has not considered billing in less than one thousand-gallon increments. There are technical limitations with many older water meters in Pittsburgh Water's service territory, as these legacy meters are only able to record usage in 1,000-gallon increments. Pittsburgh Water has a program to replace those meters with models that would facilitate capturing usage down to the tenth of a gallon. Pittsburgh Water has committed to upgrading 8,000 water meters per year until its backlog of over 25,000 water meters is cleared. Additionally, there are two water providers in Pittsburgh Water's territory who do not currently provide usage in hundreds of gallons. Analyzing options to bill usage differently now when doing so is not technically possible for some customers would not be an efficient use of Pittsburgh Water Customer Service management's time.

I would also point out that the practice of billing in 1,000-gallon increments is an industry standard practice. A variety of water utilities regulated by the Commission bill in 1,000-gallon increments for some or all customers, include the following examples: City of Bethlehem,[18] City of Lancaster,[19] Columbia Water Company,[20] Community Utilities of

[18] City of Bethlehem, Tariff Water Pa. P.U.C. No. 6, Page No. 5, *available at* https://www.bethlehem-pa.gov/CityOfBethlehem/media/WSRMedia/Files/Water-Tariff-June-2021.pdf.

[19] City of Lancaster, Tariff Water – Pa. P.U.C. No. 6, Page No. 4, *available at* https://www.cityoflancasterpa.gov/wp-content/uploads/2019/08/City-of-Lancaster-Water-Tariff-Suppl.-No.-48-Effective-June-29-2022.pdf.

[20] Columbia Water Company, Tariff – Water Pa. P.U.C. No. 7, Page No. 4, *available at* https://www.columbiawaterco.com/wp-content/uploads/2025/08/Columbia-Water-Company-FULL-TARIFF-TARIFF-Suppl.-132-DSIC-effective-August-1-2025.pdf.

Pennsylvania,[21] Hanover Municipal Water Works,[22] Newtown Artesian Water Company,[23] and York Water Company.[24]

Q. PLEASE DISCUSS THE NOTICE AND OUTREACH PITTSBURGH WATER PROVIDED REGARDING THE PUBLIC INPUT HEARINGS.

A. Pittsburgh Water provided significant outreach regarding the public input hearings, which also received substantial coverage by major news outlets. This is in addition to any promotion done by the Commission or other parties. For the public input hearings held on August 12–13, 2025, notice was published in the Pittsburgh Post-Gazette and the New Pittsburgh Courier on July 27, 2025, and an event listing was published on Pittsburgh Water's website. On July 29, 2025, Pittsburgh Water issued a press release regarding the hearings, which was also posted to Pittsburgh Water's website, and Pittsburgh Water began to share information through their social media channels. On July 31, 2025, Pittsburgh Water sent a targeted newsletter to community groups that included information about the hearings. Pittsburgh Water promoted the four public input hearings on Pittsburgh Water's Facebook, X, Bluesky, Threads, LinkedIn, and Instagram between July 29, 2025 and August 13, 2025. A total of 45 posts were made to Pittsburgh Water's 14,000+ followers across all social media platforms. Posts included links to Pittsburgh

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21 Community Utilities of Pennsylvania, Inc., Tariff Water-Pa. P.U.C. No. 1, Page Nos. 4, 5, 7, 11, *available at* https://www.myutility.us/docs/default-source/pennsylvania/cupa-water-tariff---effective-8-9-2024.pdf?sfvrsn=abd83a5b_0.

22 Hanover Municipal Water Works, Tariff Water-Pa. P.U.C. No. 3, Page No. 4, *available at* https://www.hanoverboroughpa.gov/DocumentCenter/View/1190/PUC-Tariff-March-28-2022.

23 Newtown Artesian Water Company, Tariff Water-PA P.U.C. No. 9, Page No. 8, *available at* https://newtownwater.com/documents/Tariff.Through%20Supplement%20No.%20164.2025-04-18.Clean%20v2.pdf.

24 The York Water Company, Tariff Water-Pa. P.U.C. No. 14, Page No. 42, *available at* https://www.yorkwater.com/wp-content/uploads/tariff.pdf.

Water's press release inviting customers to participate in the public hearings, and links to individual hearings on the Event & Meetings page and the One Water Future page. Prior to the August hearings, there was media coverage by KDKA (radio, television, and website), the Pittsburgh Post-Gazette, WPGH, Tribune Review, WESA, and PA Environment Digest Blog. Once the hearings were in progress, there was additional coverage by WTAE, KDKA (radio and television), WPCW, CBS Pittsburgh, and Pittsburgh's Public Source.

Q. HOW DID PITTSBURGH WATER ADDRESS CONCERNS RAISED BY CUSTOMERS WHO TESTIFIED DURING THE PUBLIC INPUT HEARINGS?

A. Pittsburgh Water addressed issues raised by customers concerning service issues for their own water/wastewater conveyance/stormwater service in the following manner:

1. After the initial hearing on August 12, 2025, Elizabeth Pickett complained to me about water quality at her property. This complaint was memorialized in Pittsburgh Water's asset management application, and Water Quality personnel contacted Ms. Pickett to sample the water in her home. Water quality reached out to the customer and left a voicemail on August 21, 2025. Ms. Pickett's neighbor, Donna Howze, reached out on Ms. Pickett's behalf in the week of August 25, 2025, stating that she would ask Ms. Pickett to reach out to Pittsburgh Water directly. Ms. Pickett has not directly contacted anyone on the Water Quality team since her attendance at the public input hearing.
2. After the initial hearing on August 12, 2025, Donna Howze complained to me about water quality at her property. This complaint was memorialized in Pittsburgh Water's asset management application, and Water Quality personnel contacted Ms. Howze to sample the water in her home. Water Quality spoke with Ms. Howze on August 21, 2025 and attempted to schedule a sample to be taken. A chemist reached out again on August 22, 2025 to schedule the sampling; however, Ms. Howze stated that the faucet she wished for us to test was broken and she did not want us to test her water until it was fixed. The Water Quality team has yet to hear back from Ms. Howze on this matter.
3. Anna Dekleva testified that there are five people in her home and they drastically cut back on usage, including adding rain barrels, but her bill hasn't changed. Pub. Input Hr'g. Tr. (Aug. 12, 2025 at 6:00 p.m.) at 82–83. Ms. Dekleva also stated that she had a plumber check the property for leaks and found none. *Id.* at 84. Ms. Dekleva was advised to speak with Pittsburgh Water personnel; however, she left the input hearing without doing so. On August 13, 2025, PGH2O Cares Analyst Eve Kopicki called Ms. Dekleva and determined that she is eligible for

the Winter Moratorium. Eve set Winter Moratorium protections on Ms. Dekleva's account. On August 14, 2025, after further review of this complaint, PGH2O Cares Analyst Collin Farone called and left a message for Ms. Dekleva. When she returns his call, Collin will explain how to add a cell phone to the Customer Advantage portal to receive leak alerts via text, as well as help the customer set an unplanned use notification to be notified of any usage when the family will be away from the property. As of September 16, 2025, Ms. Dekleva has not returned Collin's call.

4. Laura Vincent testified that her bills are $167 to $185, the bills are hard to read, and she doesn't understand our rates. Pub. Input Hr'g. Tr. (Aug. 12, 2025 at 6:00 p.m.) at 116. On August 14, 2025, PGH2O Cares Analyst Collin Farone called and left a message for Ms. Vincent. When she returns his call, Collin will assist Ms. Vincent with understanding her monthly Pittsburgh Water bill and will explain how to set usage and leak alerts via email/text message in the Customer Advantage portal. As of September 16, 2025, Ms. Vincent has not returned Collin's call.

5. Gabriel Gray testified that a request to terminate service to the property in early 2025 was delayed several times by Pittsburgh Water. Pub. Input Hr'g. Tr. (Aug. 12, 2025 at 6:00 p.m.) at 119–20. Additionally, Ms. Gray had concerns about whether her water meter was working properly. *Id.* at 118–19. After the hearing, PUC Compliance Manager, Reginald Brown spoke with Ms. Gray at length and advised her to have the leak at the property repaired and submit an ALCOSAN Leak Credit Request to reduce the sewage treatment and wastewater conveyance portions of the high consumption bills. Mr. Brown then took these steps to resolve the customer's complaint:

    - On August 20, 2025, Mr. Brown review the account for the above-mentioned service and attempted to call Ms. Gray to 1) share his findings, and 2) follow through on any lingering questions Ms. Gray had, but there was no answer. Mr. Brown mailed the ALCOSAN Leak Credit Request Form, daily consumption report, and copies of the two high consumption bills.

    - On September 15, 2025, Mr. Brown placed a second call to Ms. Gray, and this call went unanswered as well. He left a detailed message asking 1) if Ms. Gray had received the documents that he had mailed, and 2) requesting a return call to further discuss the matter.

6. Monique Olivis testified that her tenant was permitted to place the account in her name, and then she accumulated thousands of dollars in unpaid service charges without a termination of her service. Pub. Input Hr'g. Tr. (Aug. 12, 2025 at 6:00 p.m.) at 126–28. I spoke with Ms. Olivis after the hearing, asking for a list of all of her properties to review them for any error on the part of Pittsburgh Water. I explained that *if* Pittsburgh Water failed to attempt to collect unpaid charges in a timely manner from any of her tenants who had become customers, I would respond with settlement offers for any of the affected properties now back in her name as owner. Ms. Olivis and I corresponded via email August 14, 2025.

Following receipt of the list of properties from Ms. Olivis on August 18, 2025, Pittsburgh Water Collections management reviewed all of the accounts. I then emailed Ms. Olivis with our findings on August 24, 2025 and again on August 28, 2025 when the analysis of the four accounts with outstanding balances was available. Ms. Olivis and I also communicated via telephone on August 28, 2025 to discuss the account reviews and to resolve the lingering questions that Ms. Olivis had regarding allowing tenants to become customers. One account was recommended for settlement by Pittsburgh Water, and Ms. Olivis made the greatly reduced settlement payment to satisfy that outstanding account balance on September 2, 2025.

7. Natalie Greene testified that she does not qualify for assistance (Pub. Input Hr'g. Tr. (Aug. 12, 2025 at 6:00 p.m.) at 133–34); however, Ms. Greene responded in cross examination that she is unfamiliar with water programs (*Id.* at 134–35). PGH20 Cares Coordinator, Sarah Viszneki spoke with Ms. Greene after the hearing. Ms. Viszneki provided Ms. Greene with a Pittsburgh Water customer assistance program flyer, explained all of the program benefits, and gave Ms. Greene her business card.

8. Adrienne Ciuccio testified that she received a non-access notice when the deadline given in the notice had expired. Pub. Input Hr'g. Tr. (Aug. 13, 2025 at 1:00 p.m.) at 166. Then, after she had contacted Pittsburgh Water and made an appointment to provide access to her water meter, a termination notice for non-access was taped to her door. *Id.* at 166–67. On August 13, 2025, Senior AMI and Billing Manager, Tracy Willy called and spoke with Ms. Ciuccio. Ms. Willy apologized for both the delayed notice and the fact that a Pittsburgh Water Field Technician had posted Ms. Ciuccio's property in error. Ms. Willy assured Ms. Ciuccio that service would not be terminated for non-access both verbally and in writing. Please see Pittsburgh Water Exhibit JAM-21 Letter to Adrienne Ciuccio.

9. Christa Caparelli testified that Pittsburgh Water made numerous return trips to investigate two properties adjacent to her own that she had purchased and torn down. Pub. Input Hr'g. Tr. (Aug. 13, 2025 at 1:00 p.m.) at 182–83. On August 14, 2025, Senior Collections Manager, Sharon Gottschalk called and spoke with Ms. Caparelli who expressed that she appreciated the call. Ms. Gottschalk took the details of Ms. Caparelli's permitting experience. Ms. Gottschalk is working with Pittsburgh Water Development Services and Field Operations to improve the flow of work orders in the permitting process. Development Services continues to attempt to work with the City of Pittsburgh Department of Permits, Licenses, and Fees to better coordinate tap termination and demolition permits for city of Pittsburgh residents.

10. Adolph Sims testified that he is a senior citizen, does not qualify for Pittsburgh Water's assistance programs, and he and his wife are in a gray area where there are no assistance programs for them. Pub. Input Hr'g. Tr. (Aug. 13, 2025 at 6:00 p.m.) at 239. Mr. Sims stated that his bill is $144 per month, which is representative of average usage for two adults with all Pittsburgh Water services plus Allegheny County Sanitary Authority (ALCOSAN) sewage treatment charges. *Id.* at 238. On September 15, 2025, PGH2O Cares Analyst Sarah Hall

left a message for Mr. Sims to determine if he is eligible for any assistance program. As of September 16, 2025, Mr. Sims has not returned Sarah's call.

Q. HOW DOES OCA WITNESS LEANN WISE VIEW THE PUBLIC INPUT TESTIMONY?

A. After summarizing all the testimony provided at the public input hearings, Ms. Wise concludes that the concerns raised by these consumers "are not isolated" and "reflect a broad pattern of hardship and frustration." OCA St. No. 5 at 10. Ms. Wise does not provide any additional supporting information for her conclusion and, in discovery, cited a few additional press releases. Ms. Wise requests that Pittsburgh Water explain in rebuttal testimony how these issues have been addressed.

Q. BASED ON PITTSBURGH WATER'S SPECIFIC EXPERIENCE OF ATTEMPTING TO RESOLVE THE ISSUES OF CUSTOMER'S RAISED DURING THE PUBLIC INPUT HEARING AS WELL AS YOUR OVERALL EXPERIENCE DEALING WITH CONSUMERS ON A DAY-TO-DAY BASIS, WHAT DO YOU CONCLUDE?

A. As can be gleaned from the examples provided above, dealing with consumer's specific issues can be difficult at times as most resolutions rely upon the customer to remain in communication with Pittsburgh Water and/or to take additional action following the registration of their complaint. This is, obviously, not something within Pittsburgh Water's control. Regarding the broader concerns raised about our rate proposals and impacts to specific customers, Pittsburgh Water has given this serious consideration in the development of its proposals in this case so as to ensure that it can furnish and maintain adequate, efficient, safe, and reasonable service for the safety of its ratepayers, employees and the public. Notwithstanding Ms. Wise's conclusionary statement, there has been no evidence presented that the concerns raised by the customers at the public

input hearing are "not isolated." If, in fact, that was the case, then Ms. Wise should have presented data in support of her statement.

XIII. CONCLUSION

Q. DOES THAT COMPLETE YOUR REBUTTAL TESTIMONY?

A. Yes; however, I do reserve the right to supplement this testimony as may be appropriate.

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VERIFICATION

I, Julie A. Mechling, hereby state that: (1) I am the Director of Customer Service for The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water; (2) the facts set forth in my testimony are true and correct (or are true and correct to the best of my knowledge, information and belief); and, (3) I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: 9/30/25

Signed by:
Julie A. Mechling
00802B35EAA54E3...

Julie A. Mechling
Director of Customer Service
The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water

Exhibit JAM-20

Pittsburgh Water Exh. JAM-20 Estimated Additional Lost Base Rate Revenue Resulting from OCA and OWT BDP Percentage Bill Discuont Proposals
Based on Pittsburgh Water Discovery Attachment OWT-1-9 Bill Discount Program Applicants by FPL

2022	January	February	March	April	May	June	July	August	September	October	November	December
Federal Poverty Level												
0%-50%	66	75	55	45	43	54	81	55	42	42	42	51
50.01%-100%	151	134	99	83	99	64	107	74	65	69	55	84
100.01%-150%	137	149	87	96	79	56	80	81	54	57	52	84
150.01%-200%	0	0	1	0	0	0	0	0	0	0	0	0

1084 0.516928946
2097

2023												
Federal Poverty Level												
0%-50%	49	44	58	53	76	66	38	84	42	67	68	86
50.01%-100%	68	72	83	67	124	110	88	137	111	121	105	134
100.01%-150%	77	61	84	88	103	95	49	130	97	94	111	113
150% - 200%	15	13	18	12	21	13	7	23	15	21	25	17
200% - 250%	6	13	8	3	10	8	5	11	8	11	3	12
250% - 300%	8	6	1	1	3	0	1	1	4	3	6	2
300% or greater	5	6	9	1	0	8	3	2	3	6	4	5

50.01%-100%	1220
50.01%-200%	2522

48.4%

2024												
Federal Poverty Level												
0% - 50%	99	105	68	116	105	59	81	88	57	89	67	53
>50% - 100%	163	99	119	170	131	81	124	107	86	97	94	58
>100% - 150%	202	84	149	143	122	79	96	105	77	123	82	62
>150% - 200%	34	70	90	51	47	32	53	49	40	57	34	32
>200% - 250%	9	13	7	11	7	6	3	4	2	9	16	10
>250% - 300%	6	2	4	4	0	1	2	1	2	7	9	6
>300%	12	3	6	8	7	1	6	6	6	3	18	8

50.01%-100%	1329
50.01%-200%	3242

41.0%

2025												
Federal Poverty Level												
0% - 50%	92	97	86	103	83	51	n/a	n/a	n/a	n/a	n/a	n/a
>50% - 100%	149	116	139	124	89	114	n/a	n/a	n/a	n/a	n/a	n/a
>100% - 150%	124	95	102	100	95	100	n/a	n/a	n/a	n/a	n/a	n/a
>150% - 200%	53	49	54	67	51	44	n/a	n/a	n/a	n/a	n/a	n/a
>200% - 250%	12	6	5	8	8	8	n/a	n/a	n/a	n/a	n/a	n/a
>250% - 300%	12	1	3	6	1	2	n/a	n/a	n/a	n/a	n/a	n/a
>300%	8	6	6	7	2	3	n/a	n/a	n/a	n/a	n/a	n/a

50.01%-100%	731
50.01%-200%	1665

43.9%

OCA Proposal to give 30% discount to customers 50.1%-100% FPL

		COLTON Calculations
Average Percent 50.01%-100% out of 50.01%-200%	**44.4%**	**48.5%**
	FY 2026	
Residential - CAP (Excluding < 50FPL) 50.01-200%FPL Customers		
Water Revenue	$ 1,737,391	$ 1,735,600
Wastewater Revenue	$ 1,006,983	$ -
Total CAP Revenue for 50.01%-200%	**$ 2,744,374**	$ 1,735,600
Percent 50.01%-100% out of 50.01%-200%	44.4%	48.5%
Resulting Revenue from 50.01%-100%FPL CAP Customers	$ 1,219,156	$ 841,766
Proposed Volumetric Discount	30.0%	30.0%
Loss Revenue to Utility from Expanded Discount	**$ 365,747**	**$ 252,530**

OWT Proposal to give 60% discount to customers 50.1%-100% FPL

Average Percent 50.01%-100% out of 50.01%-200%	**44.4%**
	FY 2026
Residential - CAP (Excluding < 50FPL) 50.01-200%FPL Customers	
Water Revenue	######
Wastewater Revenue	######
Total CAP Revenue for 50.01%-200%	**$2,744,374**
Percent 50.01%-100% out of 50.01%-200%	44.4%
Resulting Revenue from 50.01%-100%FPL CAP Customers	######
Proposed Volumetric Discount	60.0%
Loss Revenue to Utility from Expanded Discount	**$731,493**

OCA Proposal to increase current 60% discount for 0-50% FPL to 75%

Revenue if no discount

Water Revenue	**$ 614,395.85**
Wastewater Revenue	**$ 343,230.30**

Residential - CAP 50FPL 0.00%-50.00%	Revenue with 60% Discount (40% of Full Revenue)	Revenue with 75% Discount (25% of Full Revenue)
Water Revenue	$ 245,758	$ 153,599
Wastewater Revenue	$ 137,292	$ 85,808
	$ 383,050	**$ 239,407**
Amount of Increase to Lost Revenue	$ 143,644	

Total Additional Lost Revenue of OCA Proposed Changes to Percentage Bill Discounts	$ 509,391
Sum of OWT Proposed Changes to Percentage Bill Discounts	$ 731,493

Total of both parties proposals to Percentage Bill Discounts	**$ 1,240,884**

**Note losses calculated on base rates only, do not factor in loss of DSIC revenues which are billed as a percentage of base rates
**These changes only address the Percentage Bill Disconts proposed for BDP and not the Fixed Discount Bill Credit proposal of OWT

Exhibit JAM-21

JAM-21 Estimated Additional Lost Base Rate Revenue Resulting from OWT Proposed Fixed Discount Credits
Based on Pittsburgh Water Discovery Attachment OWT-1-9 Bill Discount Program Applicants by FPL

2022	January	February	March	April	May	June	July	August	September	October	November	December	Totals	BDP elitigble				
Federal Poverty Level														2748				
0%-50%	66	75	55	45	43	54	81	55	42	42	42	51			651			
50.01%-100%	151	134	99	83	99	64	107	74	65	69	55	84	1084		1084		1084	0.516928946
100.01%-150%	137	149	87	96	79	56	80	81	54	57	52	84			1013		2097	
150.01%-200%	0	0	1	0	0	0	0	0	0	0	0	0						
2023																		
Federal Poverty Level																		
0%-50%	49	44	58	53	76	66	38	84	42	67	68	86		3253	731			
50.01%-100%	68	72	83	67	124	110	88	137	111	121	105	134	1220		1220	50.01%-100%	1220	48.4%
100.01%-150%	77	61	84	88	103	95	49	130	97	94	111	113			1302	50.01%-200%	2522	
150% - 200%	15	13	18	12	21	13	7	23	15	21	25	17						
200% - 250%	6	13	8	3	10	8	5	11	8	11	3	12						
250% - 300%	8	6	1	1	3	0	1	1	4	3	6	2						
300% or greater	5	6	9	1	0	8	3	2	3	6	4	5						
2024																		
Federal Poverty Level																		
0% - 50%	99	105	68	116	105	59	81	88	57	89	67	53		4229	987			
>50% - 100%	163	99	119	170	131	81	124	107	86	97	94	58	1329		1329	50.01%-100%	1329	41.0%
>100% - 150%	202	84	149	143	122	79	96	105	77	123	82	62			1913	50.01%-200%	3242	
>150% - 200%	34	70	90	51	47	32	53	49	40	57	34	32						
>200% - 250%	9	13	7	11	7	6	3	4	2	9	16	10						
>250% - 300%	6	2	4	4	0	1	2	1	2	7	9	6						
>300%	12	3	6	8	7	1	6	6	6	3	18	8						
2025																		
Federal Poverty Level																		
0% - 50%	92	97	86	103	83	51	n/a	n/a	n/a	n/a	n/a	n/a		2177	1024			
>50% - 100%	149	116	139	124	89	114	n/a	n/a	n/a	n/a	n/a	n/a	731		1462	50.01%-100%	731	43.9%
>100% - 150%	124	95	102	100	95	100	n/a	n/a	n/a	n/a	n/a	n/a			1868	50.01%-200%	1665	
>150% - 200%	53	49	54	67	51	44	n/a	n/a	n/a	n/a	n/a	n/a						
>200% - 250%	12	6	5	8	8	8	n/a	n/a	n/a	n/a	n/a	n/a						
>250% - 300%	12	1	3	6	1	2	n/a	n/a	n/a	n/a	n/a	n/a						
>300%	8	6	6	7	2	3	n/a	n/a	n/a	n/a	n/a	n/a						
													4364	12407				

Average Percent 50.01%-100% out of 50.01%-200%	**44.4%**

Pittsburgh Water Fixed Discount Proposal	**# of Bills**	**fixed discount**	**Total lost revenue**
Residential - CAP 50FPL 0.00%-50.00%			
Water	13,656	$ -	$ -
Wastewater	20,064	$ -	$ -
Residential - CAP (Excluding < 50FPL) 50.01-100%FPL Customers			
Water	20,566	$ 5.00	$ 102,832
Wastewater	29,544	$ 2.50	$ 73,859
Residential - CAP (Excluding < 50FPL) 100.01-200%FPL Customers			
Water	25,730	$ 5.00	$ 128,648
Wastewater	36,960	$ 2.50	$ 92,401
			$ 397,740

OWT Fixed Discount Proposal	**# of Bills**	**fixed discount**	**Total lost revenue**
Residential - CAP 50FPL 0.00%-50.00%			
Water	13,656	$ 16.70	$ 228,055
Wastewater	20,064	$ 5.96	$ 119,581
Residential - CAP (Excluding < 50FPL) 50.01-100%FPL Customers			
Water	20,566	$ 8.35	$ 171,730
Wastewater	29,544	$ 2.98	$ 88,040
Residential - CAP (Excluding < 50FPL) 100.01-200%FPL Customers			
Water	25,730	$ 23.00	$ 591,780
Wastewater	36,960	$ 9.00	$ 332,644
			$ 1,531,830

From Model Number of FPFTY BILLS	Water	Wastewater
Residential - CAP 50FPL 0.00%-50.00%	13,656	20,064
Residential - CAP (Excluding < 50FPL) 50.01-200%FPL Customers	46,296	66,504
Total	**59,952**	**86,568**
Percent 50.01%-100% out of 50.01%-200%	44.4%	44.4%
Residential - CAP 50FPL 0.00%-50.00%	13,656	20,064
Residential - CAP (Excluding < 50FPL) 50.01-100%FPL Customers	20,566	29,544
Residential - CAP (Excluding < 50FPL) 100.01-200%FPL Customers	25,730	36,960
Total	**59,952**	**86,568**

Additional Lost Revenue of OWT Proposal $ 1,134,090

**Note losses calculated on base rates only, do not factor in loss of DSIC revenues which are billed as a percentage of base rates
**These changes only address the Fixed Discount Bill Credit proposals of OWT and not Percentage Bill Discounts proposed for BDP

Exhibit JAM-22

PGH2O | PITTSBURGH WATER

August 13, 2025

Adrienne Ciuccio
[redacted]
Pittsburgh, PA 15212

Account Number: [redacted]
Service Address: [redacted]

Dear Ms. Ciuccio:

It was a pleasure to speak with you today. Please know that you have my sincerest apologies for your recent negative experience with upgrading your water meter, specifically a delayed non-access notice mailing and misapplied posting notice.

This letter serves as my written confirmation that the water service to your above-mentioned property will not be terminated for non-access as was described in the shut-off notice that you received in error. If you have any issues with your scheduled appointment on September 27, 2025, or any meter or billing-related issues moving forward, please contact me at 412-255-2123 or by email to twilly@pgh2o.com.

Maintaining your water meter will allow you, our customer, to monitor your daily usage and set usage alerts via email and/or text message to diagnose leaks before they become costly. Visit https://myaccount.pgh2o.com/ to enroll in our *free* Customer Advantage Portal today!

We look forward to continuing our Mission to support our region by protecting public health and the environment through the delivery of safe and reliable water services with a commitment to future generations.

Sincerely,

Tracy Willy

Tracy Willy
Senior AMI and Billing Manager

cc: Julie Mechling, Director of Customer Service
Shawn Cusick, Manager of Field Operations

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

REBUTTAL TESTIMONY OF

CHRISTINE M. FAY

ON BEHALF OF
THE PITTSBURGH WATER
AND SEWER AUTHORITY d/b/a Pittsburgh Water

Docket Nos.
R-2025-3055010 (Water)
R-2025-3055011 (Wastewater)
R-2025-3055012 (Stormwater)

Topics:
Multi-Year Rate Plan
Debt Service Expense
Distribution System Improvement Charge Rate Increase
Debt Service Coverage Ratio and Days Cash on Hand
Credit Rating Agencies' Perspectives on Affordability

September 30, 2025

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TABLE OF EXHIBITS

CF-12 (Corrected)	Moody's Rating Scorecard for Pittsburgh Water - CORRECTED
CF-13 (Corrected)	S&P Rating Scorecard for Pittsburgh Water – CORRECTED
CF-14	Pittsburgh Water St. No. 7 – Testimony of Christine M. Fay – CORRECTED
CF-15	Pittsburgh Water Rate Case PAYGO Impact Analysis
CF-16	Moody's Rating Scorecard with I&E and OCA DSCR and DCOH
CF-17	S&P Rating Scorecard with I&E and OCA DSCR and DCOH
CF-18	S&P Global Ratings, North America Regulated Utilities, dated January 9, 2024
CF-19	Moody's Investor Service, Pittsburgh Water Credit Opinion, dated October 15, 2018

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND POSITION FOR THE RECORD.

A. Christine M. Fay. I am a Senior Managing Director and Partner with Public Resources Advisory Group, Inc. ("PRAG").

Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS PROCEEDING?

A. Yes, I submitted Direct Testimony, Pittsburgh Water St. No. 7 on June 4, 2025, which accompanied the rate filing.

Q. DO YOU HAVE ANY CORRECTIONS TO YOUR DIRECT TESTIMONY?

A. Yes. My corrected Direct Testimony is included as Exhibit CF-14, which adjusts projected Days Cash on Hand (DCOH) in FY 2027 from 42 to negative 103 days. My corrected testimony includes corresponding corrections to projected credit ratings for Pittsburgh Water for FY 2027 for rating agencies Moody's Investors Service and S&P Global, previously provided as Exhibits CF-12 and CF-13, respectively.

Q. WHAT ARE THE IMPACTS, IF ANY, OF THE CORRECTIONS TO YOUR DIRECT TESTIMONY?

A. For reference, Pittsburgh Water's current credit ratings are A2 from Moody's, considered "upper-medium grade," and A+ from S&P, corresponding to "strong capacity to meet financial commitments." Correcting FY 2027 DCOH from 42 to negative 103 days reduces Pittsburgh Water's projected Moody's credit rating from Baa3 or four (4) notches lower previously to Ba1 or five (5) notches lower, and projected S&P credit rating from BBB/BBB- or four (4)/five (5) notches lower previously to BB+/BB or six (6)/seven (7) notches lower. Importantly, these corrected projected ratings are now below investment grade, or what both rating agencies refer to as "speculative grade," and colloquially are referred to as "junk." Speculative grade credit ratings will result in a significantly higher

borrowing cost compared to investment grade credit ratings. With these corrections this further exacerbates the concerns raised in my Direct Testimony in the response provided to the question on line 2 page 24 of Pittsburgh Water St. No. 7 related to the expected results of a notable deterioration of the Authority's DCOH and impact on the Authority's credit ratings and the need for a substantial rate increase.

Q. WHAT IS YOUR ROLE WITH PITTSBURGH WATER?

A. My firm, PRAG, is the Registered Municipal Advisor to Pittsburgh Water, and as a Municipal Advisor Representative I provide Pittsburgh Water fiduciary advice and recommendations related to the issuance of municipal securities.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my Rebuttal Testimony is to respond to certain portions of the direct testimony submitted by the Bureau of Investigation and Enforcement ("I&E") and the Office of Consumer Advocate ("OCA" and together, the "Interveners" or the "Parties"). Specifically, my Rebuttal Testimony will respond statements from Mr. Patel, the witness for I&E, and Mr. Walters, the witness for the OCA, regarding the Multi-Year Rate Plan ("MYRP"), Debt Service Expense, Distribution System Improvement Charge ("DSIC") Rate Increase, DSCR and DCOH, and Credit Rating Agencies' Perspectives on Affordability.

Q. PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY.

A. My Rebuttal Testimony:

1. Reaffirms support for Pittsburgh Water's MYRP proposal, rejects Mr. Patel's selection of the years from 2020 to 2023 as indicative of chronic capital underspending by Pittsburgh Water based on my experience working with municipal utilities during this period, challenges Mr. Patel's characterization of the rating

agencies' perception of the benefit of the Pennsylvania Public Utility Commission's (the "Commission" or "PUC") oversight, provides direct testimony on rating agencies' views of a MYRP, and counters Mr. Patel's argument that the Authority's management team has not had sufficient time to establish credibility with the Commission to allow for a MYRP by pointing to the rating agencies' validation of the strength of the management team.

2. Reaffirms Pittsburgh Water's assumption of a 7% borrowing cost and 7% premium, and corrects Mr. Walters' interpretations of both borrowing costs relative to municipal rate benchmarks and bond premium estimates, but concedes that in the near term, i.e., only for a prospective bond issuance during the FPFTY, given the general decrease in interest rates and economic outlook since Pittsburgh Water's initial testimony was submitted, it is reasonable to assume a 6.5% instead of 7% borrowing cost.

3. Reaffirms support for Pittsburgh Water's DSIC request, rejects Mr. Patel's evaluation of pay-as-you-go (PAYGO) funding, and provides an analysis demonstrating PAYGO funding as the most cost-effective approach for both Pittsburgh Water and its customers on a present value basis and over the long term, and avoids further overleveraging of the system.

4. Reaffirms support for Pittsburgh Water's DSCR and DCOH targets, and rejects both Mr. Walters' and Mr. Patel's claims that I&E's and OCA's proposed targets for both metrics will not risk ratings downgrades by demonstrating significant projected downgrades from their respective revenue recommendations using a scorecard analysis.

5. Rejects Mr. Walters' suggestion of significantly reducing Pittsburgh Water's rate request over rating agency concerns about customer "affordability," arguing instead that the rating agencies are concerned primarily with "regulatory risk," i.e., that regulatory agencies such as the Commission will use affordability concerns to limit or prevent necessary rate increases to keep up with growing operating expenses and large capital programs.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. Yes. I am sponsoring the following exhibits:

- **Exh. CF-12:** Moody's Rating Scorecard for Pittsburgh Water - CORRECTED
- **Exh. CF-13:** S&P Rating Scorecard for Pittsburgh Water – CORRECTED
- **Exh. CF-14:** Pittsburgh Water St. No. 7 – Testimony of Christine M. Fay – CORRECTED
- **Exh. CF-15:** Pittsburgh Water Rate Case PAYGO Impact Analysis
- **Exh. CF-16:** Moody's Rating Scorecard with I&E and OCA DSCR and DCOH
- **Exh. CF-17:** S&P Rating Scorecard with I&E and OCA DSCR and DCOH
- **Exh. CF-18:** S&P Global Ratings, North America Regulated Utilities, dated January 9, 2024
- **Exh. CF-19:** Moody's Investor Service, Pittsburgh Water Credit Opinion, dated October 15, 2018

II. MULTI-YEAR RATE PLAN (MYRP)

Q. HOW DOES MR. PATEL CHARACTERIZE PITTSBURGH WATER'S CAPITAL SPENDING FROM 2020 THROUGH 2024?

A. On line 8 of page 10 of I&E Statement No. 1, Mr. Patel provides a table of Pittsburgh Water's budgeted vs. actual capital expenditures, showing an average underspend of $78,419,290 or 35.24% per year from 2020 through 2024.

Q. IS IT REASONABLE TO EXTRAPOLATE A PATTERN OF CAPITAL UNDERSPENDING USING THE PERIOD FROM 2020 THROUGH 2024?

A. No. From my experience working with municipal issuers during this period, 2020 through 2022 encompassed the COVID-19 pandemic, which was characterized by lockdowns, work stoppages and mass unemployment, followed by unprecedented construction backlogs, supply chain bottlenecks and disruptions, and significant wage and materials price inflation. These issues were only starting to be resolved by 2023, and as demonstrated by the table in Mr. Patel's testimony, by 2024 Pittsburgh Water's capital spending was almost $19 million or over 10% over budget; likewise, pages 22-23 of Mr. Barca's testimony in Pittsburgh Water St. No. 2, the Authority's capital spend for FY 2025 is 6.5% over 2024 for the same period , and on line 20-22 of page 10 the balance on Pittsburgh Water's line of credit is projected to reach its $150,000,000 limit by the end of FY 2025. The line of credit may only be used to interim finance capital expenditures.

Q. DO YOU HAVE CONCERNS ABOUT USING PRIOR CAPITAL UNDERSPEND AS JUSTIFICATION FOR FUTURE CAPITAL UNDERSPEND?

A. Yes. During the period from 2020 to 2023 when the Authority was not keeping pace with its capital plan, the rating agencies were concerned. They questioned the reasons for the underspend and inquired about plans to resolve the issues which the Pittsburgh Water management team detailed and executed in 2024 as evidenced by the increased capital

spend. With many of the post pandemic pressures subsiding, the rating agencies will expect to see the Authority's capital spend increase commensurate with its capital needs. Mr. Patel's argument of using prior capital underspend relative to budget as a justification for denying rate increases risks raising alarms with the rating agencies and resulting in them potentially lowering their assessment of Pittsburgh Water's management and eventually its ratings as a result.

Q. HOW DOES MR. PATEL CHARACTERIZE THE RATING AGENCIES' PERCEPTION OF THE PUC'S OVERSIGHT?

A. Mr. Patel suggests that the rating agencies view PUC's oversight is uniformly supportive of Pittsburgh Water's credit rating, stating in lines 9-12 on page 24 of I&E Statement No. 7 that "both [Moody's and S&P] appear confident that that the Authority's recently established (April 1, 2018) relationship with the Commission and being subjected to regulatory oversight will yield positive results in strengthening its financial position" and on lines 15-17, stating "Notably, the Authority's financial position has been trending favorably since coming under the Commission's jurisdiction, which is illustrated by the improving financial metrics and both Moody's and S&P's bond rating upgrades."

Q. IS MR. PATEL'S CHARACTERIZATION OF THE RATING AGENCIES' VIEWS OF PUC OVERSIGHT CORRECT?

A. No. While the rating agencies generally speak positively regarding the potential value of the Commission's oversight, a careful reading of their feedback suggests this is because the rating agencies expect the Commission to approve regular and significant rate increases necessary to facilitate Pittsburgh Water's capital plan, as discussed in detail on pages 7 and 8 of my Direct Testimony, Pittsburgh Water St. No. 7. Nothing in the rating agency reports suggests that an annual frequency of rate cases is preferable, and in fact

Moody's (Exhibit CF-8) suggests a concern of the length of the Commission's process needed for a rating increase, stating "The PUC's approval process is a lengthy 270 days."

Q. IS THERE OTHER EVIDENCE THE RATING AGENCIES WOULD CONSIDER A MYRP TO BE A CREDIT POSITIVE?

A. Yes. Exhibit CF-7 of Pittsburgh Water St. No. 7 contains S&P's rating criteria for water and sewer utilities. Table 13 on page 16 includes S&P's "Rate Setting Practice Assessment," which provides four ratings for a utility's practices from "Strong" to "Vulnerable." The "Strong" rating states "When rate increases have been needed, the decision-making body has been supportive and timely, *even to the extent that multiyear, preapproved rate increases are common, if not standard* [emphasis added]." Likewise, on page 18 of S&P's criteria, in the discussion of "Significant additional upcoming debt" in "Factors that affect the risk profile," S&P states that "Compelling factors that would likely *preserve credit quality include preapproved rate adjustments multiple years into the future* [emphasis added]."

Q. HAVE THE RATING AGENCIES CHANGED THEIR ASSESSMENT OF PITTSBURGH WATER MANAGEMENT THROUGH THE YEARS?

A. Yes. Back in 2018, the same year Pittsburgh Water came under the regulation of the PUC, as demonstrated in Exhibit CF-19, Moody's downgraded Pittsburgh Water to A3 and placed the Authority's outlook on negative, in part due to concerns over the management team. In this report, Moody's explained "Continued turnover at the senior managing level of the authority is a considerable credit concern and, in our view, has negatively impacted the authority's ability to provide accurate and timely information. Management volatility is particularly concerning here, since the system has overwhelming capital needs, not only in its infrastructure, but also in its technology systems. Strong leadership will be critical given the proposed plan."

In December 2024, as seen in Exhibit CF-9, Moody's Investor Service upgraded the Authority's credit to A2 citing strong financial management as one of the Authority's credit strengths and rationale for the upgrade.

Q. GIVEN THAT THE RATING AGENCIES HAVE CHANGED THEIR PERCEPTION OF THE PITTSBURGH WATER MANAGEMENT TEAM, DO YOU THINK IT IS UNREASONABLE FOR THE PUC TO BE REJECTING THE MYRP ON THE PREMISE THAT PITTSBURGH WATER IS NEW TO THE COMMISSION'S OVERSIGHT AND IS STILL DEVELOPING A RECORD OF FINANCIAL RESPONSIBILITY WITH THE COMMISSION?

A. Yes. As demonstrated above, Moody's took action to downgrade the Authority in 2018 citing concerns, among others, about the management team, which is the same year the Authority came under regulation by the PUC. Since this time, as evidenced by the Moody's upgrade in Exhibit CF-9, Pittsburgh Water's management team has taken incremental steps to build credibility with the rating agencies and, according to Moody's, "The system has solid financial strategy and risk management, as well as management credibility and track record considerations." Given the nature of their business, rating agencies have a reputation for a long memory of failures and a high threshold to regain credibility once it is lost. In the same six year plus period it has been under PUC oversight, the Pittsburgh Water management team has overcome this threshold with the rating agencies. The management of the system has changed from a perceived credit weakness and reason for downgrade to a perceived credit positive and support for an upgrade. The past six years of PUC oversight has given the Commission and Authority plenty of time to build rapport and trust based on a record of financial responsibility These factors support the Authority being granted a MYRP which will be viewed as a credit positive by the rating agencies.

III. DEBT SERVICE EXPENSE

Q. WHAT ARE SOME OF OCA'S OBJECTIONS TO PITTSBURGH WATER'S DEBT SERVICE EXPENSE ASSUMPTIONS?

A. In OCA Statement No. 3, pages 15 through 21, Mr. Walters objects to Pittsburgh Water's borrowing rate assumption of 7%, stating that 5.5% should be used instead. Mr. Walters also objects to Pittsburgh Water's assumption of premium equivalent to 7% of principal amount, suggesting that premium should instead be 8.44% of principal.

Q. WHAT IS A MARKET CONVENTION FOR EXPRESSING BORROWING COST FOR A MUNICIPAL BOND ISSUE?

A. A widely-understood convention for expressing the borrowing cost associated with a municipal bond issue is the "all-in true interest cost" or "all-in TIC," which is a yield, expressed on a semiannual, 30/360 day count basis that reflects the single rate that present-values all of the principal and interest payments associated with a bond issue to the value of the bond proceeds received by the issuer on the closing date, net of all underwriter's expenses, costs of issuance, and credit enhancement.

Q. WHAT BORROWING COST HAS PITTSBURGH WATER ASSUMED IN PRIOR RATE CASES?

A. In its rate case submitted May 9, 2023, Pittsburgh Water assumed a borrowing cost of 5%, which reflected the assumed Municipal Market Data (MMD) index and spread, plus issuance costs, credit enhancement and underwriter's costs.

Q. WHY DID PITTSBURGH WATER INCREASE ITS HISTORICAL RATE ASSUMPTION?

A. Pittsburgh Water increased its previous assumption for interest rate risk management purposes due to unprecedented market volatility and overall uncertainty due following the April 2025 "Liberation Day" tariffs and federal policies generally, starting from a much higher prevailing rate level than prior years.

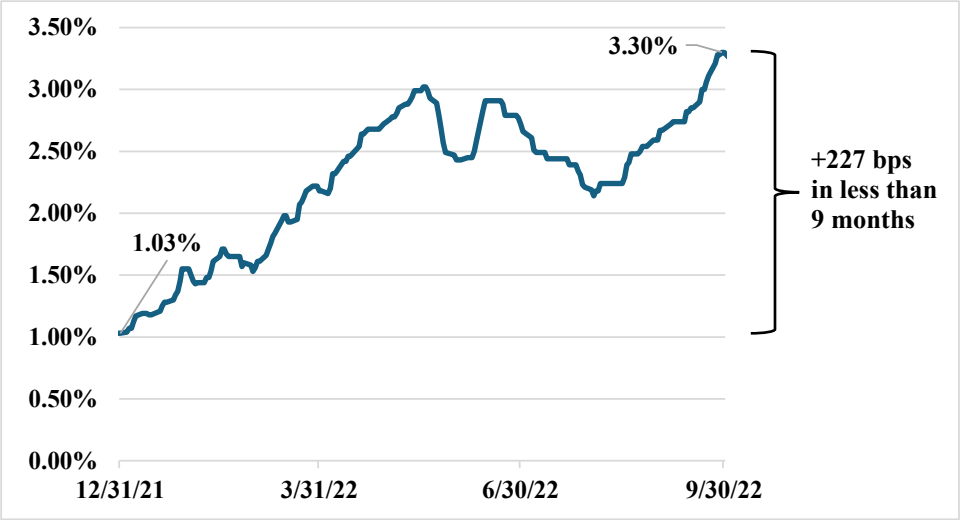
Q. WHAT HAPPENED TO MUNICIPAL BOND INTEREST RATES FOLLOWING THE "LIBERATION DAY" TARIFF ANNOUNCEMENTS ON APRIL 2, 2025?

A. During a three-day period from April 7 through April 9, 2025, municipal bond interest rates experienced a cumulative increase of between 85 and 100 basis points (i.e., 0.85% to 1.00 %), as shown in the table below.

Tenor	Year	April 7 (bps)	April 8 (bps)	April 9 (bps)	Total (bps)	Total (pct)	Tenor	Year	April 7 (bps)	April 8 (bps)	April 9 (bps)	Total (bps)	Total (pct)
1	2026	30	25	42	**97**	**0.97%**	16	2041	35	20	35	**90**	**0.90%**
2	2027	30	25	42	**97**	**0.97%**	17	2042	35	20	32	**87**	**0.87%**
3	2028	30	25	42	**97**	**0.97%**	18	2043	35	20	30	**85**	**0.85%**
4	2029	30	25	42	**97**	**0.97%**	19	2044	35	20	30	**85**	**0.85%**
5	2030	33	25	42	**100**	**1.00%**	20	2045	35	20	30	**85**	**0.85%**
6	2031	35	25	40	**100**	**1.00%**	21	2046	35	20	30	**85**	**0.85%**
7	2032	35	25	38	**98**	**0.98%**	22	2047	35	20	30	**85**	**0.85%**
8	2033	35	25	36	**96**	**0.96%**	23	2048	35	20	30	**85**	**0.85%**
9	2034	35	25	35	**95**	**0.95%**	24	2049	35	20	30	**85**	**0.85%**
10	2035	35	22	35	**92**	**0.92%**	25	2050	35	20	30	**85**	**0.85%**
11	2036	35	20	35	**90**	**0.90%**	26	2051	35	20	30	**85**	**0.85%**
12	2037	35	20	35	**90**	**0.90%**	27	2052	35	20	30	**85**	**0.85%**
13	2038	35	20	35	**90**	**0.90%**	28	2053	35	20	30	**85**	**0.85%**
14	2039	35	20	35	**90**	**0.90%**	29	2054	35	20	30	**85**	**0.85%**
15	2040	35	20	35	**90**	**0.90%**	30	2055	35	20	30	**85**	**0.85%**

Q. IS THERE A RECENT EXAMPLE OF A SUSTAINED PERIOD OF INCREASED INTEREST RATES?

A. Yes. In the nine (9) months beginning just before the start of the Federal Open Market Committee's cycle of Fed Funds Rate increases in March 2022, the 10-year MMD rate increased 227 basis points or 2.27% as shown in the chart below.



Q. GIVEN THE RECENT EXAMPLES OF LARGE INCREASES IN INTEREST RATES OVER BOTH SHORT AND SUSTAINED PERIODS OF TIME, AND THE LENGTH OF TIME UNTIL PITTSBURGH WATER'S NEXT BOND ISSUES, IS PITTSBURGH WATER'S PLANNING ASSUMPTION OF A 7% ALL-IN TRUE INTEREST COST REASONABLE?

A. Yes. Given the very large single-day, multiple-day and sustained periods of rate increases observed just over the past several years, it is reasonable and prudent for Pittsburgh Water to assume a 7% interest rate for the purposes of long-term planning. However, since interest rates have come down approximately 50 bps (0.50%) since the submission of testimony on June 4, and assuming Pittsburgh Water's upcoming bond sale in the FPFTY happens in the near future, it may be reasonable to assume a somewhat lower rate, e.g., to 6.50%, for that sale only. In Mr. Barca's response to OCA-XXII-2 (which is attached as part of PW Exhibit EB-22), changing the interest rate assumption from 7.00% to 6.50% decreases the debt service in the FPFTY from $11,241,803 to $10,682,553, a reduction of $559,250, plus 25% for coverage, for a total of $699,063.

Q. WHAT IS PREMIUM IN THE CONTEXT OF A MUNICIPAL BOND ISSUE?

A. Premium is additional sale proceeds above the principal amount of bonds sold that results when bonds are sold at prices greater than $100. For example, $1,000,000 principal amount of bonds sold at a price of $101 would generate $10,000 of premium.

Q. WHAT ARE THE FACTORS AFFECTING PREMIUM?

A. Premium arises when the yield at which a bond is sold is less than the fixed coupon on the bond. For example, a 7% coupon bond sold at a yield less than 7% would generate premium. Premium also increases with a bond's maturity date, so a 2-year bond with a 7% coupon sold at a 6% yield generates more premium than a 1-year bond sold on the same date with the same coupon and yield.

Q. IS PITTSBURGH WATER'S ASSUMPTION OF PREMIUM EQUIVALENT TO 7% OF PRINCIPAL AMOUNT REASONABLE?

A. Yes. Premium is a function of municipal market yields and investor demand for coupons at the time a bond priced. There is no way to know this far in advance what those levels will be with certainty, and any premium generated will be deposited to the project fund and adjust downward the par amount issued, ultimately having a de minimis impact on the annual debt service. Further, a higher level of premium in a given market environment requires a higher coupon level, so any debt service savings from the higher premium generated will likely be offset by the higher coupon rate and will balance out each other. As such, Mr. Walters' conclusions regarding premium, and arguments for increasing it, are not relevant in actual market practice.

IV. DISTRIBUTION SYSTEM IMPROVEMENT CHARGE (DSIC) RATE INCREASE

Q. WHAT IS MR. PATEL'S RATIONALE FOR REJECTING PITTSBURGH WATER'S REQUEST TO INCREASE THE DSIC FROM 5% TO 7.5%?

A. On pages 17 through 19 of I&E statement No. 1, Mr. Patel cites a number of reasons, including the availability of WIFIA and PENNVEST funding, Pittsburgh Water's capital line of credit, and Pittsburgh Water's historic capital underspending relative to budget.

Q. ARE THERE ANY PROBLEMS WITH MR. PATEL'S CITED REASONS FOR REJECTING THE DSIC INCREASE?

A. Yes. First, serving as it does as a source of pay-as-you-go (PAYGO) funding, the DSIC provides a lower cost of capital than Pittsburgh Water's other financing alternatives including publicly issued revenue bonds, WIFIA, PENNVEST and its interim line of credit. As demonstrated in Exhibit CF-15: Pittsburgh Water Rate Case PAYGO Impact Analysis, an assumed 7.5% DSIC and related revenue requirement of $18.8 million in the FPFTY and $20.2 million in FY 2027 and thereafter for the next 30 years aggregates to total cost of $606.8 million. Those same amounts instead financed over a 30-year term by public issuance of revenue bonds, PENNVEST or WIFIA would comparatively result in $1,404.9 million, $810.1 million, $1,261.4 million, respectively in debt service and coverage costs, calculated based on the Authority's Rate Covenant of 1.25 times for senior debt, 1.10 times for subordinate debt and 1.00 times for all debt (including PENNVEST and LOC). When considered on a present value basis, based on a discount rate of 2.5%, there is still a considerable benefit of PAYGO over senior debt of $275.8 million and over subordinate debt of $204.5 million, however PENNVEST would be slightly cheaper – $19.6 million – than PAYGO. That is why Pittsburgh Water sees PENNVEST as an attractive borrowing option given the subsidized borrowing rate and

only 1.00 times coverage requirement, however there are only limited PENNVEST funds available and Pittsburgh Water has been active in aggressively pursuing this financing alternative. It is not reasonable to assume PENNVEST could be a substitute for DSIC financing. Moreover, the DSIC provides a needed alternative to debt of any sort. So, increasing DSIC will be better for financial diversity and save money for rate payers over the long term.

Q. HOW DO YOU BELIEVE THE RATING AGENCIES WOULD VIEW AND INCREASE IN THE DSIC?

A. The rating agencies would view an increase to the DSIC positively. The rating agencies are concerned about the Authority's high leverage and extensive capital needs, as cited by S&P in Exhibit CF-10, stating "The rating is limited by extremely high leverage with $1.17 billion in capital commitments identified through fiscal 2029 that are likely to continue to pressure the financial profile." Given the Authority's already high leverage it is imperative that the Authority fund its capital needs, in part, through DSIC to reduce its reliance on debt and avoid further overleveraging the system.

V. <u>DEBT SERVICE COVERAGE RATIO (DSCR) AND DAYS CASH ON HAND (DCOH)</u>

Q. WHAT DOES PITTSBURGH WATER ESTIMATE THE PARTIES' DSCR AND DCOH TO BE FOR THE FPFTY AND FY 2027?

A. Pittsburgh Water projects the following DSCRs and DCOH for each of the respective parties, as shown in Mr. Barca's testimony Pittsburgh Water Statement No. 2-R, pages 5-6:

Parties Financial Metrics W/O Normalization			
FPFTY	**Pittsburgh Water**	**I&E**	**OCA**
Recommended Rate Increase	$64.43 M	$17.25 M	$18.50 M
Senior (1.25x requirement)	1.65	1.28	1.34
Total (1.1x requirement)	1.21	0.98	1.02
DCOH	247.6	86.8	109.1[1]
DCOH with ALCOSAN	145.0	50.2	63.7

Both I&E and OCA reject Pittsburgh Water's MYRP proposal, so levels for DSCR and DCOH for FY 2027 were not provided.

Q. HOW DO I&E AND OCA CHARACTERIZE THE DSCR RESULTING FROM THEIR REVENUE PROPOSALS?

A. Both I&E and OCA assert that the DSCRs resulting from their revenue proposals will support Pittsburgh Water's ratings. On lines 20 and 21 of page 39 and line 1 of page 40 of I&E Statement No. 1, Mr. Patel claims "the DSCRs and DCOH [resulting from I&E's revenue recommendation] will afford Pittsburgh Water the opportunity to cover necessary expenses, pay its debt, *and continue to improve its current financial position and credit ratings* [emphasis added]." Likewise in the conclusion to his testimony on pages 23 and 24 of OCA Statement No. 3, Mr. Walters claims, "*My recommended Total and Senior DSC ratios are: 1. Consistent with Pittsburgh Water's recently realized ratios that have provided strong stable credit ratings and access to capital.* 2. Consistent with Pittsburgh Water's previously requested ratios in prior rate cases. 3. Produce DCOH metrics that are higher than Pittsburgh Water's proposed after all of OCA's adjustments are incorporated [emphasis added]."

[1] Note that, as Mr. Barca explains, OCA has made an error in calculating its DCOH. Pittsburgh Water St. No. 2-R at 5-6. The corrected days of cash are shown in this table.

Q. ARE I&E'S AND OCA'S CHARACTERIZATIONS OF THE RATING IMPLICATIONS OF THE DSCR RESULTING FROM THEIR RESPECTIVE REVENUE PROPOSALS CORRECT?

A. No. The actual levels of DSCR combined with the corresponding DCOH – adjusting them to take out the artificial effects of normalizing all of Pittsburgh Water's FPFTY expenses and assuming that Pittsburgh Water will not incur those budgeted levels – would be catastrophic and most certainly will result in ratings downgrades. Additionally, the adjustment I&E applied to expenses to back into these figures will raise a red flag with the rating agencies. They will question how the Authority will keep up with operational expenses with such a significant cut to their operations budget (which is what the I&E testimony implies that Pittsburgh Water should do). From a scorecard perspective, with I&E's revenue recommendation and resulting DSCR and DCOH, using Moody's scorecard I estimate Pittsburgh Water would be downgraded by four (4) notches from A2 currently to Baa3, as shown in Exhibit CF-16. Using S&P's scorecard, I estimate Pittsburgh Water would be downgraded from its current A+ by three (3) to four (4) notches to BBB+/BBB, as shown in Exhibit CF-17. Likewise, for OCA's revenue recommendation and resulting DSCR and DCOH, using Moody's scorecard I estimate Pittsburgh Water would be downgraded by three (3) notches from A2 currently to Baa2, as shown in Exhibit CF-16. Using S&P's scorecard, I estimate Pittsburgh Water would be downgraded from its current A+ by one (1) to two (2) notches to A/A-, as shown in Exhibit CF-17.

VI. CREDIT RATING AGENCIES' PERSPECTIVES ON AFFORDABILITY

Q. HOW DOES MR. WALTERS CHARACTERIZE THE RATING AGENCIES' PERSPECTIVES ON AFFORDABILITY?

A. In pages 8 through 10 of OCA Statement No. 3, Mr. Walters cites reports from Moody's, S&P and Fitch highlighting the rating agencies' concerns about affordability to customers.

Q. ARE THERE PROBLEMS WITH MR. WALTERS' CHOICE OF RATING REPORTS?

A. Yes. The three reports Mr. Walter's cites are for gas and electric utilities, which have different cost drivers (e.g., the price of gas) and therefore different affordability considerations from those of water and wastewater utilities. Further, the most recent report Mr. Walters cites, from S&P, is from January 9, 2024, almost two years ago, with the other reports from 2023 (Fitch) and 2022 (Moody's). Finally, Mr. Walters cites a report from Fitch, which does not rate Pittsburgh Water's bonds.

Q. ARE THERE OTHER CONCERNS WITH HOW MR. WALTERS' CHARACTERIZES THE RATING AGENCIES' CONCERNS REGARDING AFFORDABILITY?

A. Yes. While Mr. Walters is correct that rating agencies identify affordability as a concern, their primary concern pertains to whether utilities will be able to raise rates sufficiently within the regulatory framework. For example, in the S&P report cited by Mr. Walters, included as Exhibit CF-18, the single mention of "affordability" occurs under the heading "Effective management of regulatory risk;" with the specific sentence on page 8 stating "*To manage regulatory risk*, the industry must maintain the affordability of the customer bill [emphasis added]." Exhibit CF-4 in my testimony Pittsburgh Water St. No. 7 contains Moody's sector outlook for U.S. water and sewer utilities – perhaps more relevant than the rating reports Mr. Walters cites as it (a) pertains to Pittsburgh Water's industry, (b) is

the outlook for 2025 and (c) Moody's rates Pittsburgh Water – provides a similarly instructive assessment vis-à-vis affordability, stating, "Rate affordability will remain a challenge for utilities in the next 12 months and over the longer term. With the sector facing rising operating and capital costs, new regulatory requirements, aging infrastructure and water conservation goals, among other challenges, *rate increases will remain the most used funding mechanism to address these concerns*. Although water and sewer utilities typically have autonomous rate-setting authority, *there are practical limits on the amount of costs that can be absorbed by rate payers*." In conclusion, and contrary to Mr. Walters' characterization, the rating agencies are not concerned with affordability of the customer's bill per se, but rather in the context of whether a utility will be able to raise rates sufficiently to meet expenses. By using "affordability" as an implicit rationale to significantly reduce the Authority's requested rate increase, OCA is actualizing the rating agencies' concerns regarding regulatory risk, and risking potentially negative credit rating consequences as a result.

VII. CONCLUSION

Q. WHAT DO YOU BELIEVE THE COMMISSION SHOULD CONCLUDE?

A. The Commission should conclude that Pittsburgh Water has fully justified a rate award that grants all, or substantially all, of its requested rate increase. The risk of granting the Intervener's rate recommendation, and assumed haircut to operating expenses, with lower debt metrics most certainly would lead to a credit rating downgrade and increased borrowing costs for the Authority.

The Commission should also grant the requested increase in DSIC from 5% to 7.5% since it provides a lower cost of capital than the alternative debt options and provides greater diversity in capital funding options.

Lastly, given the strength of the Pittsburgh Water management team and the positive financial track record of the system under their leadership I believe that the Commission should allow for a MYRP which will save the Authority significant time and expense and the rate predictability will be viewed very positively by the rating agencies.

Q. DOES THAT COMPLETE YOUR REBUTTAL TESTIMONY?

A. Yes; however, I do reserve the right to supplement this testimony as may be appropriate.

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VERIFICATION

I, Christine Fay hereby state that: (1) I am Senior Managing Director and Partner with Public Resources Advisory Group, Inc.; (2) I have been retained by The Pittsburgh Water and Sewer Authority and am authorized to present testimony on its behalf; (3) the facts set forth in my testimony are true and correct (or are true and correct to the best of my knowledge, information and belief); and (4) I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C .S. § 4904 (relating to unsworn falsification to authorities).

9/30/25

Signed by:
Christine Fay
E1C03447089F49E...

Dated

Christine Fay, Senior Managing Director and Partner
Public Resources Advisory Group, Inc.

Consultant to:
The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water

Exhibit CF-12

Pittsburgh Water Moody's Scorecard		FY 2024				FY 2027 with Rate Increase				FY 2027 without Rate Increase			
MOODY'S INVESTORS SERVICE	Weight	Statistics	Score		Weighted Score	Statistics	Score		Weighted Score	Statistics	Score		Weighted Score
System Characteristics (30%)													
Asset Condition (Remaining Useful Life)	10%	36	Aa	2	0.20	36	Aa	2	0.20	36	Aa	2	0.20
System Size (O&M)	7.5%	$213,213	Aaa	1	0.08	$213,213	Aaa	1	0.08	$213,213	Aaa	1	0.08
Service Area Wealth (Median Family Income)	12.5%	93.0%	Aa	2	0.25	93.0%	Aa	2	0.25	93.0%	Aa	2	0.25
Financial Strength (40%)													
Annual Debt Service Coverage	15%	1.6x	A	3	0.45	1.4x	A	3	0.45	0.7x	Ba	5	0.75
Days Cash on Hand	15%	137	A	3	0.45	116	A	3	0.45	**-103**	B	6	0.90
Debt to Operating Revenues	10%	3.75	Aa	2	0.20	3.75	Aa	2	0.20	4.65	A	3	0.30
Management (20%)													
Rate Management	10%	Adequate	Baa	4	0.40	Adequate	Baa	4	0.40	Insufficient	B	6	0.60
Regulatory Compliance and Capital Planning	10%	Moderate	A	3	0.30	Moderate	A	3	0.30	Limited	Baa	4	0.40
Legal Provisions (10%)													
Rate Covenant	5%	1.10x	Baa	4	0.20	1.10x	Baa	4	0.20	1.10x	Baa	4	0.20
Debt Service Reserve Requirement	5%	Aa	Aa	2	0.10	Aa	Aa	2	0.10	Aa	Aa	2	0.10
Total Score	**100%**				**2.63**				**2.63**				**3.78**
Unadjusted Indicated Rating					***A1***				***A1***				***Baa1***
Notch Down: Outsized Capital Needs					***-1***				***-1***				***-1***
Notch Down: Coverage Below ABT or 1.00x													***-1***
Notch Down: Weak Management/Oversight													***-1***
Adjusted Indicated Rating					***A2***				***A2***				***Ba1***
Current Rating					***A2***								
Outlook					Stable								

Sources: Pittsburgh Water's FY 2024 ACFR; Pittsburgh Water's most recent Moody's report (1/23/2025); Moody's US Municipal Utility Revenue Debt Methodology (3/7/2024).

Exhibit CF-13

Exhibit CF-13
Corrected

Pittsburgh Water S&P Scorecard			FY 2024			FY 2027 with Rate Increase			FY 2027 without Rate Increase		
STANDARD &POOR'S RATINGS SERVICES **Enterprise Risk Profile**	**Weight**	**Metric**	**Statistic**	**Score**	**Weighted Score**	**Statistic**	**Score**	**Weighted Score**	**Statistic**	**Score**	**Weighted Score**
Economic fundamentals	45%	MHHEBI I GDP Rate	80% I within 1% of U.S.	3	1.35	80% I within 1% of U.S.	3	1.35	80% I within 1% of U.S.	3	1.35
Industry risk	20%	Macro Factors	Very Low	1	0.20	Very Low	1	0.20	Very Low	1	0.20
Market position	25%	Avg. Bill/MHHEBI I Poverty Rate	3.2% I 11.3%	3	0.75	3.2% I 11.3%	3	0.75	3.2% I 11.3%	3	0.75
Operational management assessment	10%	Management Review	Good	2	0.20	Good	2	0.20	Good	3	0.30
Total	100%				2.50			2.50			2.60
Financial Risk Profile											
All-in coverage	40%	All-in Coverage	1.3x	3	1.20	1.4x	3	1.20	0.7x	6	2.40
Liquidity and reserves	40%	Reserves I DCOH	$100 MM I 175 days	1	0.40	$68 MM I 116 days	2	0.80	**($63 MM)I-103 days**	6	2.40
Debt and liabilities	10%	Debt to Capitalization	92%	6	0.60	92%	6	0.60	92%	6	0.60
Financial management assessment	10%	Financial Performance	Good	2	0.20	Good	2	0.20	Good	2	0.20
Total	100%				2.40			2.80			5.60
Scorecard Indicated Rating					***A+***			***A+/A***			***BB+/BB***
Current Rating					***A+***						

Sources: Pittsburgh Water's 2024 ACFR; Pittsburgh Water's most recent S&P report (12/19/2024); S&P's U.S. Municipal Water, Sewer, and Solid Waste Utilities: Methodologies and Assumptions (4/14/2022); and the U.S. Bureau of Economic Analysis.

Exhibit CF-14

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

TESTIMONY OF

CHRISTINE M. FAY

ON BEHALF OF
THE PITTSBURGH WATER
AND SEWER AUTHORITY d/b/a Pittsburgh Water

Docket Nos.
R-2025-3055010 (Water)
R-2025-3055011 (Wastewater)
R-2025-3055012 (Stormwater)

Topics:
Support for Proposed Rate Increase
Financial Policies and Goals
Capital Markets and Rating Consideration
Peer Review of Financial Metrics
Impact of Multi-Year Rate Increase

June 4, 2025

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TABLE OF EXHIBITS

Appendix A	Information regarding Public Resources Advisory Group (PRAG)'s Experience in Water and Sewer Financing and Representative Client List
CF-1	Summary of Pittsburgh Water's Rate Covenant and Flow of Funds Provisions
CF-2	Peer Ratings and Comparative Financial Information
CF-3	Moody's Investors Service, Sector Profile 21 October 2024: Water and Sewer Utilities – US. Medians – Net revenues grow, supporting improved liquidity and stable coverage
CF-4	Moody's Investors Service, 11 December 2024: Water and Sewer Utilities - US 2025 Outlook – Stable as higher costs will be absorbed by rate increases
CF-5	S&P Global Ratings, January 15, 2025: U.S. Not-For-Profit Utilities 2025 Outlook: Rough Water Likely Will Underscore Credit Trends
CF-6	Moody's Investors Service, 7 March 2024: Rating Methodology – US Municipal Utility Revenue Debt
CF-7	S&P Global Ratings, April 14, 2022: U.S. Municipal Water, Sewer and Solid Waste Utilities: Methodology and Assumptions
CF-8	Moody's Investors Service, 29 May 2023: Credit Opinion – Pittsburgh Water, PA
CF-9	Moody's Investors Service, 16 December 2024: Credit Opinion – Pittsburgh Water, PA
CF-10	S&P Global Ratings, December 19, 2024: Pittsburgh Water; Water/Sewer
CF-11	S&P Global Ratings, November 5, 2024: U.S. Municipal Water and Sewer Utilities Navigate a New Environment as Performance Drops
CF-12	Moody's Rating Scorecard for Pittsburgh Water - CORRECTED
CF-13	S&P Rating Scorecard for Pittsburgh Water - CORRECTED

- **Exh. CF-5:** Exhibit CF-5 contains S&P Global Ratings, January 15, 2025: U.S. Not-For-Profit Utilities 2025 Outlook: Rough Water Likely Will Underscore Credit Trends
- **Exh. CF-6:** Exhibit CF-6 contains Moody's Investors Service, 7 March 2024: Rating Methodology – US Municipal Utility Revenue Debt
- **Exh. CF-7:** Exhibit CF-7 contains S&P Global Ratings, April 14, 2022: U.S. Municipal Water, Sewer and Solid Waste Utilities: Methodology and Assumptions
- **Exh. CF-8:** Exhibit CF-8 contains Moody's Investors Service, 29 May 2023: Credit Opinion – Pittsburgh Water, PA
- **Exh. CF-9:** Exhibit CF-9 contains Moody's Investors Service, 16 December 2024: Credit Opinion – Pittsburgh Water, PA
- **Exh. CF-10:** Exhibit CF-10 contains S&P Global Ratings, December 19, 2024: Pittsburgh Water; Water/Sewer
- **Exh. CF-11:** Exhibit CF-11 contains S&P Global Ratings, November 5, 2024: U.S. Municipal Water and Sewer Utilities Navigate a New Environment as Performance Drops
- **Exh. CF-12:** Moody's Rating Scorecard for Pittsburgh Water - CORRECTED
- **Exh. CF-13:** S&P Rating Scorecard for Pittsburgh Water - CORRECTED

II. FINANCIAL POLICIES AND GOALS

Q. PLEASE SUMMARIZE THE CREDIT AGENCIES' VIEW OF THE PITTSBURGH WATER'S DEBT PROFILE.

A. The rating agencies recognize that Pittsburgh Water's debt profile is large and complex, consisting of senior, subordinate and third liens, publicly issued bonds, federal Water Infrastructure Finance and Innovation Act (WIFIA) and Pennsylvania Infrastructure Investment Authority (PENNVEST) loans, a Capital Line of Credit, variable rate bonds and interest rate swaps. A summary of Pittsburgh Water's debt portfolio is provided in Mr. Barca's testimony as Pittsburgh Water Exhibit EB-6, and Pittsburgh Water Exhibit CF-8 & CF-9 and CF-10 provide the most recent ratings reports from Moody's Investors Service ("Moody's") and S&P Global Ratings ("S&P"), the two rating agencies that rate Pittsburgh Water's Revenue Bonds.

In addition to the overall complex nature of the debt portfolio, Pittsburgh Water is also highly leveraged compared to other systems. As stated in Exhibit CF-10, S&P's

stabilizing the utility's financial position at an adequate level, the authority is likely to report narrow coverage and hold weaker liquidity than peers for the foreseeable future." Moody's most recent report quantifies both the positive and negative thresholds for days cash on hand, listing "Liquidity consistently exceeding 200 days" among "Factors that could lead to an upgrade," and "Liquidity below 100 days" among "Factors that could lead to a downgrade." Without improvement in Pittsburgh Water's DCOH, Pittsburgh Water will continue to be rated A2 and pay higher borrowing costs.

Pittsburgh Water's Financial Management Policy is to "[m]aintain cash reserves, including the operating reserves, rate stabilization fund, and revenue fund at a level of 100 days cash on hand with the goal of increasing to over 300 days over the next five (5) years." This goal has been communicated to the rating agencies and the agencies annually request an update on progress made towards meeting these goals.

As described in Exhibit EB-1 to Mr. Barca's testimony, Pittsburgh Water's DCOH based on existing rates is projected to drop off significantly from budgeted FY 2025 levels to ~~118~~ 26 days in FPFTY (FY 2026) and ~~42~~ 103 days in FY 2027, as summarized in the table below which will cause significant concerns with the rating agencies and result in rating downgrades.

	FY 2024	*FY 2025*	*FY 2026 (FPFTY)*	*FY 2027*
Days Cash on Hand ("DCOH")	*~~115~~ 136 DCOH*	*~~124~~ 130 DCOH*	*~~118~~ 26 DCOH*	*~~42~~ 103 DCOH*

It is important to know that the Capital Line of Credit is a federally tax-exempt facility, which means that it can only be used for capital purposes and therefore is not available for operating liquidity support, i.e., it cannot be included toward DCOH.

As shown in Pittsburgh Water Exhibit EB-2, after accounting for the requested rate increase, the days cash on hand is projected to be 118 days for FPFTY (FY 2026) and 116 days for FY 2027, which is still a deterioration from the FY 2025 budgeted level and is lower than Pittsburgh Water's Financial Policy target, rating agencies medians (as discussed previously), and the majority of peer utilities (as discussed later in my testimony).

	FY 2024	*FY 2025*	*FY 2026 (FPFTY)*	*FY 2027*
Days Cash on Hand ("DCOH")	~~*115*~~ *136* DCOH	~~*124*~~ *130* DCOH	*118 DCOH*	*116 DCOH*

Q. PLEASE EXPLAIN THE IMPORTANCE OF THE RATE STABILIZATION FUND.

A. Certainly. In my professional opinion, given the significant uncertainty in the economic outlook with the application of tariffs and potential impact to operating and capital costs it is increasingly important for municipal utilities to bolster reserves to protect against such future uncertainties. The Rate Stabilization Fund's ("RSF") current balance and requested contributions of $6 million, with $3 million in the FPFTY and another $3 million in FY 2027, will provide a nominal level of protection against such uncertainties and assist in maintaining Pittsburgh Water's credit ratings.

Q. PLEASE DESCRIBE THE FRAMEWORK THE RATING AGENCIES USE TO ASSESS PITTSBURGH WATER'S OVERALL CREDIT RATING.

A. Both Moody's and S&P publish rating criteria for water and sewer utilities, the most recent publications of which are included as Exhibit CF-6 and Exhibit CF-7, respectively. In addition to their rating criteria, both agencies have over the past several years implemented the use of a "scorecard" approach to their respective methodologies. While the methodologies are unique to each rating agency, they are similar in approach in

Water's scorecard ratings to drop ~~four (4)~~five (5) notches by Moody's, from A2 to ~~Baa3~~Ba1, and ~~four (4) or five (5)~~ six (6) or seven (7) notches by S&P, from A+ to ~~BBB~~ BB+ or ~~BBB-~~BB, by FY 2027~~.~~; in all cases these ending ratings are considered below investment grade or speculative grade. These rating scorecard outcomes are illustrated in Exhibit CF-12 for Moody's, and Exhibit CF-13 for S&P.

Q. PLEASE DESCRIBE HOW THE CREDIT RATING AGENCIES VIEW TO THE OUTLOOK FOR WATER AND SEWER UTILITIES GENERALLY.

A. At the end of 2024 and beginning of 2025, Moody's and S&P published their respective annual outlook reports the water and/or sewer sector (provided as Exhibit CF-4, Exhibit CF-5 and Exhibit CF-11). Moody's maintains a stable outlook on the water and sewer utilities sector, citing the biggest credit risk being a decline in liquidity of greater than 10%. S&P's outlook is more pessimistic, with a negative sector outlook with capital and operating costs outpacing the general level of inflation, and rating downgrades exceeding rating upgrades for the sector.

Q. PLEASE DESCRIBE HOW THE CREDIT RATING AGENCIES VIEW PITTSBURGH WATER'S PROPOSED PENNVEST CHARGE (PVC) EXPANSION.

A. I believe the credit rating agencies would view the expansion of the PENNVEST Charge (PVC) as a credit positive. To date, the rating agencies have viewed the PUC and Pittsburgh Water relationship as positive to neutral to Pittsburgh Water's credit rating and this view has been predicated on the agencies understanding of the PUC approving rates sufficient for Pittsburgh Water to fund operations and continue to finance its capital plan. The PUC granting approval to Pittsburgh Water to expand the reconcilable charge to pass through the costs of opportunities of securing low-cost PENNVEST loans over the next two year period without the need to file rate cases will be further demonstration to

covenant in FY 2026 and 2027 as well as having insufficient funds to pay its debt service obligations in both years.

If Pittsburgh Water fails to comply with the rate covenant, Pittsburgh Water is legally required to engage a consultant to prepare a report to remedy the failure and to make recommendations. Pittsburgh Water has 180 days after the tested fiscal year to revise rates, fees and charges or to petition the PUC to establish the necessary rates, fees and charges to address the rate covenant failure. If, after this time period, Pittsburgh Water continues to fail the rate covenant, then an Event of Default under the Trust Agreement will have occurred. An event of default results in certain remedies available to bond holders, including acceleration of principal. An event of default would likely result in an emergency request to the PUC to allow Pittsburgh Water to raise rates and would likely lead to a downgrade of Pittsburgh Water's credit ratings, making future borrowing more problematic and costly and requiring increased rate revenue to cover Pittsburgh Water's higher cost of borrowing. In terms of days cash on hand, without a rate increase, days cash on hand falls to ~~118~~ 26 days in FPFTY (FY 2026) and to ~~42~~ 103 days in FY 2027.

Q. WHAT WOULD BE THE EFFECT ON THE "ADDITIONAL BONDS TEST" OF THE FAILURE TO APPROVE A RATE INCREASE.

A. As explained in Mr. Barca's testimony, prior to issuing additional senior or subordinate lien debt under the Indenture Pittsburgh Water needs to pass an Additional Bonds Test ("ABT") which is a three-part test of senior lien coverage at 1.25x, subordinate coverage at 1.1x and total coverage at 1x. As Financial Advisor to Pittsburgh Water, and a third-party consultant as required by the Indenture, PRAG is tasked with preparing the ABT test prior to closing on Pittsburgh Water's senior and subordinate bond issuance. For purposes of providing this certification we need to provide an analysis demonstrating that

Management Policy related to debt service coverages and Liquidity (measured in days cash on hand) are provided below:

Pittsburgh Water's Historical and Projected Financial Metrics with Rate Increase				
	FY 2024	FY 2025	FY 2026	FY 2027
Senior Debt Service Coverage	1.82	1.57	1.85	1.87
Total Debt Service Coverage	1.40	1.22	1.42	1.39
Days Cash on Hand	~~115~~136	~~124~~130	118	116
Pittsburgh Water's Historical and Projected Financial Metrics without Rate Increase				
	FY 2024	FY 2025	FY 2026	FY 2027
Senior Debt Service Coverage	1.82	1.57	**1.22**	**1.09**
Total Debt Service Coverage	1.40	1.22	**0.94**	**0.81**
Days Cash on Hand	~~115~~136	~~124~~130	~~118~~26	~~42~~-103
Bond Indenture -- Rate Covenant Coverage Requirement				
	FY 2024	FY 2025	FY 2026	FY 2027
Senior Debt Service Coverage	1.25	1.25	1.25	1.25
Total Debt Service Coverage	1.10	1.10	1.10	1.10
Pittsburgh Water's Financial Management Policy				
	FY 2024	FY 2025	FY 2026	FY 2027
Senior Debt Service Coverage	1.35	1.35	1.35	1.35
Total Debt Service Coverage	1.15	1.15	1.15	1.15
Days Cash on Hand	100-300	100-300	100-300	100-300

As shown in table above, with the proposed rate increase, the debt service coverage metrics improve in FY 2026 and FY 2027 putting Pittsburgh Water on more stable ground. The proposed rates will permit Pittsburgh Water to have the funds it needs throughout the Forecast Period to satisfy all of its financial obligations. Projected Total Debt Service coverage in FY 2025 is 1.22, just above the legal, required coverage is 1.10 times, with rate increases Pittsburgh Water moves coverages positively away from the legal limit.

IV. PEER REVIEW OF FINANCIAL METRICS

impediment to needed rate increases. As demonstrated in the scorecards as Exhibit CF-12 and Exhibit CF-13 such assessment could result in ~~several~~ multiple notch downgrades by the rating agencies, possibly to below investment grade or speculative grade.

Peer Utilities: Pittsburgh Water has selected certain large city municipal peer systems to provide important benchmarking critical to organizational best practices. While systems have their own characteristics based on regions, size, and service area, the selected peers are of similar size, service areas of industrial urban centers and are located largely in the mid-Atlantic and Midwestern regions of the country. Peer comparisons and benchmarking performance indicators are a component of best practices and have been incorporated into Pittsburgh Water's financial policies. Data gathered on peer systems is provided by recent Moody's Credit Opinion reports for each respective peer.

Below are charts which indicate that Pittsburgh Water, as compared to its peers, remains on the weaker side of certain key financial metrics. It is important to note that viewing data for peer systems should be used to provide a general perspective, since each system has its own characteristics. Please see Exhibit CF-2 for additional financial data on the peer systems.

Provided below is a peer comparison chart of debt service coverage levels that compares Pittsburgh Water to other large city water and sewer entities. Higher debt service coverage levels are looked upon more favorably by the rating agencies because it indicates a better ability to pay debt service and issue further debt while maintaining a strong financial position. Pittsburgh Water's debt service coverage levels at the end of 2023 are among the lowest of its peer utilities and also compared unfavorably to Moody's overall and "A" and "Aa" rated utility medians.

Exhibit CF-15

Pittsburgh Water 2025 Rate Case
PAYGO (DSIC) vs. Alternative Financing Options

Debt Service Comparison

		A	B	C	D
		$1,123,908,189.41	$810,124,130.61	$1,146,761,764.56	$606,759,864.00
FY		Public[1]	Pennvest[2]	WIFIA[3]	DSIC
2025	12/31/2025	$0.00	$0.00	$0.00	$0.00
2026	12/31/2026	$977,971.20	$761,924.83	$1,003,268.07	$18,898,544.00
2027	12/31/2027	$2,222,377.75	$1,661,079.32	$2,273,184.80	$20,271,080.00
2028	12/31/2028	$3,480,976.16	$2,566,181.47	$3,557,175.45	$20,271,080.00
2029	12/31/2029	$4,739,574.57	$3,471,283.61	$4,841,166.10	$20,271,080.00
2030	12/31/2030	$5,998,172.98	$4,376,385.76	$6,125,156.75	$20,271,080.00
2031	12/31/2031	$7,256,771.39	$5,281,487.91	$7,409,147.40	$20,271,080.00
2032	12/31/2032	$8,515,369.80	$6,186,590.06	$8,693,138.05	$20,271,080.00
2033	12/31/2033	$9,773,968.21	$7,091,692.20	$9,977,128.71	$20,271,080.00
2034	12/31/2034	$11,032,566.62	$7,996,794.35	$11,261,119.36	$20,271,080.00
2035	12/31/2035	$12,291,165.04	$8,901,896.50	$12,545,110.01	$20,271,080.00
2036	12/31/2036	$13,549,763.45	$9,806,998.64	$13,829,100.66	$20,271,080.00
2037	12/31/2037	$14,808,361.86	$10,712,100.79	$15,113,091.31	$20,271,080.00
2038	12/31/2038	$16,066,960.27	$11,617,202.94	$16,397,081.96	$20,271,080.00
2039	12/31/2039	$17,325,558.68	$12,522,305.08	$17,681,072.61	$20,271,080.00
2040	12/31/2040	$18,584,157.09	$13,427,407.23	$18,965,063.26	$20,271,080.00
2041	12/31/2041	$19,842,755.50	$14,332,509.38	$20,249,053.91	$20,271,080.00
2042	12/31/2042	$21,101,353.91	$15,237,611.52	$21,533,044.56	$20,271,080.00
2043	12/31/2043	$22,359,952.32	$16,142,713.67	$22,817,035.21	$20,271,080.00
2044	12/31/2044	$23,618,550.73	$17,047,815.82	$24,101,025.86	$20,271,080.00
2045	12/31/2045	$24,877,149.14	$17,952,917.96	$25,385,016.51	$20,271,080.00
2046	12/31/2046	$26,135,747.55	$18,858,020.11	$26,669,007.16	$20,271,080.00
2047	12/31/2047	$27,394,345.97	$19,763,122.26	$27,952,997.82	$20,271,080.00
2048	12/31/2048	$28,652,944.38	$20,668,224.40	$29,236,988.47	$20,271,080.00
2049	12/31/2049	$29,911,542.79	$21,573,326.55	$30,520,979.12	$20,271,080.00
2050	12/31/2050	$31,170,141.20	$22,478,428.70	$31,804,969.77	$20,271,080.00
2051	12/31/2051	$32,428,739.61	$23,383,530.84	$33,088,960.42	$20,271,080.00
2052	12/31/2052	$33,687,338.02	$24,288,632.99	$34,372,951.07	$20,271,080.00
2053	12/31/2053	$34,945,936.43	$25,193,735.14	$35,656,941.72	$20,271,080.00
2054	12/31/2054	$36,204,534.84	$26,098,837.28	$36,940,932.37	$20,271,080.00
2055	12/31/2055	$37,463,133.25	$27,003,939.43	$38,224,923.02	$20,271,080.00
2056	12/31/2056	$36,499,353.91	$26,247,962.26	$37,235,728.87	$0.00
2057	12/31/2057	$35,240,755.50	$25,342,860.11	$35,951,738.22	$0.00
2058	12/31/2058	$33,982,157.09	$24,437,757.96	$34,667,747.57	$0.00
2059	12/31/2059	$32,723,558.68	$23,532,655.82	$33,383,756.92	$0.00
2060	12/31/2060	$31,464,960.27	$22,627,553.67	$32,099,766.27	$0.00
2061	12/31/2061	$30,206,361.86	$21,722,451.52	$30,815,775.62	$0.00
2062	12/31/2062	$28,947,763.45	$20,817,349.38	$29,531,784.97	$0.00
2063	12/31/2063	$27,689,165.04	$19,912,247.23	$28,247,794.32	$0.00
2064	12/31/2064	$26,430,566.63	$19,007,145.08	$26,963,803.67	$0.00
2065	12/31/2065	$25,171,968.22	$18,102,042.94	$25,679,813.01	$0.00
2066	12/31/2066	$23,913,369.81	$17,196,940.79	$24,395,822.36	$0.00
2067	12/31/2067	$22,654,771.39	$16,291,838.64	$23,111,831.71	$0.00
2068	12/31/2068	$21,396,172.98	$15,386,736.50	$21,827,841.06	$0.00
2069	12/31/2069	$20,137,574.57	$14,481,634.35	$20,543,850.41	$0.00
2070	12/31/2070	$18,878,976.16	$13,576,532.20	$19,259,859.76	$0.00
2071	12/31/2071	$17,620,377.75	$12,671,430.06	$17,975,869.11	$0.00
2072	12/31/2072	$16,361,779.34	$11,766,327.91	$16,691,878.46	$0.00
2073	12/31/2073	$15,103,180.93	$10,861,225.76	$15,407,887.81	$0.00
2074	12/31/2074	$13,844,582.52	$9,956,123.61	$14,123,897.16	$0.00
2075	12/31/2075	$12,585,984.11	$9,051,021.47	$12,839,906.51	$0.00
2076	12/31/2076	$11,327,385.70	$8,145,919.32	$11,555,915.86	$0.00
2077	12/31/2077	$10,068,787.29	$7,240,817.17	$10,271,925.21	$0.00
2078	12/31/2078	$8,810,188.88	$6,335,715.03	$8,987,934.56	$0.00
2079	12/31/2079	$7,551,590.46	$5,430,612.88	$7,703,943.90	$0.00
2080	12/31/2080	$6,292,992.05	$4,525,510.73	$6,419,953.25	$0.00
2081	12/31/2081	$5,034,393.64	$3,620,408.59	$5,135,962.60	$0.00
2082	12/31/2082	$3,775,795.23	$2,715,306.44	$3,851,971.95	$0.00
2083	12/31/2083	$2,517,196.82	$1,810,204.29	$2,567,981.30	$0.00
2084	12/31/2084	$1,258,598.41	$905,102.15	$1,283,990.65	$0.00

Coverage Revenue Requirement

		E	F	G	H
		1.25x	1.00x	1.10x	1.00x
		$1,404,885,236.76	$810,124,130.61	$1,261,437,941.01	$606,759,864.00
FY		Public	Pennvest	WIFIA	DSIC
2025	12/31/2025	$0.00	$0.00	$0.00	$0.00
2026	12/31/2026	$1,222,464.00	$761,924.83	$1,103,594.88	$18,898,544.00
2027	12/31/2027	$2,777,972.19	$1,661,079.32	$2,500,503.28	$20,271,080.00
2028	12/31/2028	$4,351,220.20	$2,566,181.47	$3,912,893.00	$20,271,080.00
2029	12/31/2029	$5,924,468.21	$3,471,283.61	$5,325,282.71	$20,271,080.00
2030	12/31/2030	$7,497,716.23	$4,376,385.76	$6,737,672.43	$20,271,080.00
2031	12/31/2031	$9,070,964.24	$5,281,487.91	$8,150,062.14	$20,271,080.00
2032	12/31/2032	$10,644,212.25	$6,186,590.06	$9,562,451.86	$20,271,080.00
2033	12/31/2033	$12,217,460.27	$7,091,692.20	$10,974,841.58	$20,271,080.00
2034	12/31/2034	$13,790,708.28	$7,996,794.35	$12,387,231.29	$20,271,080.00
2035	12/31/2035	$15,363,956.29	$8,901,896.50	$13,799,621.01	$20,271,080.00
2036	12/31/2036	$16,937,204.31	$9,806,998.64	$15,212,010.72	$20,271,080.00
2037	12/31/2037	$18,510,452.32	$10,712,100.79	$16,624,400.44	$20,271,080.00
2038	12/31/2038	$20,083,700.34	$11,617,202.94	$18,036,790.15	$20,271,080.00
2039	12/31/2039	$21,656,948.35	$12,522,305.08	$19,449,179.87	$20,271,080.00
2040	12/31/2040	$23,230,196.36	$13,427,407.23	$20,861,569.59	$20,271,080.00
2041	12/31/2041	$24,803,444.38	$14,332,509.38	$22,273,959.30	$20,271,080.00
2042	12/31/2042	$26,376,692.39	$15,237,611.52	$23,686,349.02	$20,271,080.00
2043	12/31/2043	$27,949,940.40	$16,142,713.67	$25,098,738.73	$20,271,080.00
2044	12/31/2044	$29,523,188.42	$17,047,815.82	$26,511,128.45	$20,271,080.00
2045	12/31/2045	$31,096,436.43	$17,952,917.96	$27,923,518.17	$20,271,080.00
2046	12/31/2046	$32,669,684.44	$18,858,020.11	$29,335,907.88	$20,271,080.00
2047	12/31/2047	$34,242,932.46	$19,763,122.26	$30,748,297.60	$20,271,080.00
2048	12/31/2048	$35,816,180.47	$20,668,224.40	$32,160,687.31	$20,271,080.00
2049	12/31/2049	$37,389,428.48	$21,573,326.55	$33,573,077.03	$20,271,080.00
2050	12/31/2050	$38,962,676.50	$22,478,428.70	$34,985,466.74	$20,271,080.00
2051	12/31/2051	$40,535,924.51	$23,383,530.84	$36,397,856.46	$20,271,080.00
2052	12/31/2052	$42,109,172.52	$24,288,632.99	$37,810,246.18	$20,271,080.00
2053	12/31/2053	$43,682,420.54	$25,193,735.14	$39,222,635.89	$20,271,080.00
2054	12/31/2054	$45,255,668.55	$26,098,837.28	$40,635,025.61	$20,271,080.00
2055	12/31/2055	$46,828,916.56	$27,003,939.43	$42,047,415.32	$20,271,080.00
2056	12/31/2056	$45,624,192.39	$26,247,962.26	$40,959,301.76	$0.00
2057	12/31/2057	$44,050,944.38	$25,342,860.11	$39,546,912.04	$0.00
2058	12/31/2058	$42,477,696.36	$24,437,757.96	$38,134,522.33	$0.00
2059	12/31/2059	$40,904,448.35	$23,532,655.82	$36,722,132.61	$0.00
2060	12/31/2060	$39,331,200.34	$22,627,553.67	$35,309,742.90	$0.00
2061	12/31/2061	$37,757,952.32	$21,722,451.52	$33,897,353.18	$0.00
2062	12/31/2062	$36,184,704.31	$20,817,349.38	$32,484,963.46	$0.00
2063	12/31/2063	$34,611,456.30	$19,912,247.23	$31,072,573.75	$0.00
2064	12/31/2064	$33,038,208.28	$19,007,145.08	$29,660,184.03	$0.00
2065	12/31/2065	$31,464,960.27	$18,102,042.94	$28,247,794.32	$0.00
2066	12/31/2066	$29,891,712.26	$17,196,940.79	$26,835,404.60	$0.00
2067	12/31/2067	$28,318,464.24	$16,291,838.64	$25,423,014.88	$0.00
2068	12/31/2068	$26,745,216.23	$15,386,736.50	$24,010,625.17	$0.00
2069	12/31/2069	$25,171,968.22	$14,481,634.35	$22,598,235.45	$0.00
2070	12/31/2070	$23,598,720.20	$13,576,532.20	$21,185,845.74	$0.00
2071	12/31/2071	$22,025,472.19	$12,671,430.06	$19,773,456.02	$0.00
2072	12/31/2072	$20,452,224.18	$11,766,327.91	$18,361,066.31	$0.00
2073	12/31/2073	$18,878,976.16	$10,861,225.76	$16,948,676.59	$0.00
2074	12/31/2074	$17,305,728.15	$9,956,123.61	$15,536,286.87	$0.00
2075	12/31/2075	$15,732,480.14	$9,051,021.47	$14,123,897.16	$0.00
2076	12/31/2076	$14,159,232.12	$8,145,919.32	$12,711,507.44	$0.00
2077	12/31/2077	$12,585,984.11	$7,240,817.17	$11,299,117.73	$0.00
2078	12/31/2078	$11,012,736.09	$6,335,715.03	$9,886,728.01	$0.00
2079	12/31/2079	$9,439,488.08	$5,430,612.88	$8,474,338.29	$0.00
2080	12/31/2080	$7,866,240.07	$4,525,510.73	$7,061,948.58	$0.00
2081	12/31/2081	$6,292,992.05	$3,620,408.59	$5,649,558.86	$0.00
2082	12/31/2082	$4,719,744.04	$2,715,306.44	$4,237,169.15	$0.00
2083	12/31/2083	$3,146,496.03	$1,810,204.29	$2,824,779.43	$0.00
2084	12/31/2084	$1,573,248.01	$905,102.15	$1,412,389.72	$0.00

Present Value of Revenue Requirement

		I	J	K	L
				Global Discount Rate:	2.500000%
		$698,738,098.29	$403,301,754.60	$627,431,959.06	$422,940,576.06
FY		Public	Pennvest	WIFIA	DSIC
2025	12/31/2025	$0.00	$0.00	$0.00	$0.00
2026	12/31/2026	$1,192,647.80	$743,341.30	$1,076,677.93	$18,437,603.90
2027	12/31/2027	$2,644,113.92	$1,581,039.21	$2,380,015.02	$19,294,305.77
2028	12/31/2028	$4,040,540.51	$2,382,954.60	$3,633,510.13	$18,823,712.95
2029	12/31/2029	$5,367,275.80	$3,144,811.63	$4,824,443.31	$18,364,598.00
2030	12/31/2030	$6,626,888.63	$3,868,087.32	$5,955,120.66	$17,916,680.97
2031	12/31/2031	$7,821,864.04	$4,554,210.47	$7,027,773.04	$17,479,688.75
2032	12/31/2032	$8,954,605.72	$5,204,563.14	$8,044,558.31	$17,053,354.88
2033	12/31/2033	$10,027,438.62	$5,820,482.06	$9,007,563.59	$16,637,419.40
2034	12/31/2034	$11,042,611.25	$6,403,260.04	$9,918,807.42	$16,231,628.68
2035	12/31/2035	$12,002,298.10	$6,954,147.31	$10,780,241.88	$15,835,735.30
2036	12/31/2036	$12,908,601.89	$7,474,352.84	$11,593,754.60	$15,449,497.85
2037	12/31/2037	$13,763,555.76	$7,965,045.58	$12,361,170.78	$15,072,680.83
2038	12/31/2038	$14,569,125.44	$8,427,355.72	$13,084,255.09	$14,705,054.47
2039	12/31/2039	$15,327,211.32	$8,862,375.86	$13,764,713.53	$14,346,394.60
2040	12/31/2040	$16,039,650.47	$9,271,162.21	$14,404,195.26	$13,996,482.54
2041	12/31/2041	$16,708,218.57	$9,654,735.68	$15,004,294.35	$13,655,104.92
2042	12/31/2042	$17,334,631.86	$10,014,082.97	$15,566,551.49	$13,322,053.58
2043	12/31/2043	$17,920,548.95	$10,350,157.69	$16,092,455.64	$12,997,125.44
2044	12/31/2044	$18,467,572.63	$10,663,881.30	$16,583,445.64	$12,680,122.38
2045	12/31/2045	$18,977,251.58	$10,956,144.17	$17,040,911.76	$12,370,851.10
2046	12/31/2046	$19,451,082.08	$11,227,806.55	$17,466,197.23	$12,069,123.03
2047	12/31/2047	$19,890,509.63	$11,479,699.47	$17,860,599.71	$11,774,754.17
2048	12/31/2048	$20,296,930.55	$11,712,625.68	$18,225,372.67	$11,487,565.05
2049	12/31/2049	$20,671,693.52	$11,927,360.56	$18,561,726.85	$11,207,380.53
2050	12/31/2050	$21,016,101.04	$12,124,652.91	$18,870,831.53	$10,934,029.79
2051	12/31/2051	$21,331,410.94	$12,305,225.84	$19,153,815.85	$10,667,346.14
2052	12/31/2052	$21,618,837.73	$12,469,777.58	$19,411,770.11	$10,407,166.96
2053	12/31/2053	$21,879,553.98	$12,618,982.22	$19,645,746.93	$10,153,333.62
2054	12/31/2054	$22,114,691.67	$12,753,490.51	$19,856,762.50	$9,905,691.34
2055	12/31/2055	$22,325,343.43	$12,873,930.60	$20,045,797.69	$9,664,089.11
2056	12/31/2056	$21,220,487.80	$12,208,316.10	$19,050,778.05	$0.00
2057	12/31/2057	$19,989,021.30	$11,499,843.60	$17,945,224.07	$0.00
2058	12/31/2058	$18,805,002.62	$10,818,668.19	$16,882,266.55	$0.00
2059	12/31/2059	$17,666,849.80	$10,163,879.78	$15,860,485.28	$0.00
2060	12/31/2060	$16,573,029.83	$9,534,596.42	$14,878,504.02	$0.00
2061	12/31/2061	$15,522,057.21	$8,929,963.48	$13,934,989.13	$0.00
2062	12/31/2062	$14,512,492.51	$8,349,152.84	$13,028,648.37	$0.00
2063	12/31/2063	$13,542,941.05	$7,791,362.14	$12,158,229.66	$0.00
2064	12/31/2064	$12,612,051.53	$7,255,813.97	$11,322,519.86	$0.00
2065	12/31/2065	$11,718,514.78	$6,741,755.14	$10,520,343.66	$0.00
2066	12/31/2066	$10,861,062.48	$6,248,455.98	$9,750,562.41	$0.00
2067	12/31/2067	$10,038,465.96	$5,775,209.64	$9,012,073.09	$0.00
2068	12/31/2068	$9,249,535.03	$5,321,331.37	$8,303,807.18	$0.00
2069	12/31/2069	$8,493,116.82	$4,886,157.93	$7,624,729.69	$0.00
2070	12/31/2070	$7,768,094.65	$4,469,046.89	$6,973,838.14	$0.00
2071	12/31/2071	$7,073,387.00	$4,069,376.03	$6,350,161.55	$0.00
2072	12/31/2072	$6,407,946.41	$3,686,542.75	$5,752,759.60	$0.00
2073	12/31/2073	$5,770,758.49	$3,319,963.45	$5,180,721.59	$0.00
2074	12/31/2074	$5,160,840.93	$2,969,073.00	$4,633,165.65	$0.00
2075	12/31/2075	$4,577,242.51	$2,633,324.17	$4,109,237.82	$0.00
2076	12/31/2076	$4,019,042.20	$2,312,187.08	$3,608,111.26	$0.00
2077	12/31/2077	$3,485,348.25	$2,005,148.68	$3,128,985.38	$0.00
2078	12/31/2078	$2,975,297.29	$1,711,712.29	$2,671,085.08	$0.00
2079	12/31/2079	$2,488,053.48	$1,431,397.04	$2,233,659.99	$0.00
2080	12/31/2080	$2,022,807.71	$1,163,737.43	$1,815,983.74	$0.00
2081	12/31/2081	$1,578,776.75	$908,282.87	$1,417,353.16	$0.00
2082	12/31/2082	$1,155,202.50	$664,597.22	$1,037,087.68	$0.00
2083	12/31/2083	$751,351.22	$432,258.36	$674,528.57	$0.00
2084	12/31/2084	$366,512.79	$210,857.73	$329,038.33	$0.00

Footnotes:
1. Tax-exempt rates as of 9/24/2025. Public Credit Spreads assume bond insurance.
2. Pennvest rates assumed to be 2.00%.
3. WIFIA rates assumed to be 4.69%, representing a 19 year average life SLG rate plus 1 basis point.
4. Cost of Issuance assumed to be $9 per bond for all 3 financing options.

Exhibit CF-16

Pittsburgh Water Moody's Scorecard		FY 2024				FPFTY with I&E Revenue				FPFTY with OCA Revenue			
MOODY'S INVESTORS SERVICE	Weight	Statistics	Score		Weighted Score	Statistics	Score		Weighted Score	Statistics	Score		Weighted Score
System Characteristics (30%)													
Asset Condition (Remaining Useful Life)	10%	36	Aa	2	0.20	36	Aa	2	0.20	36	Aa	2	0.20
System Size (O&M)	7.5%	$213,213	Aaa	1	0.08	$213,213	Aaa	1	0.08	$213,213	Aaa	1	0.08
Service Area Wealth (Median Family Income)	12.5%	93.0%	Aa	2	0.25	93.0%	Aa	2	0.25	93.0%	Aa	2	0.25
Financial Strength (40%)													
Annual Debt Service Coverage	15%	1.6x	A	3	0.45	0.98x	Ba	5	0.75	1.00x	Ba	5	0.75
Days Cash on Hand	15%	137	A	3	0.45	86.8	A	3	0.45	109.0	A	3	0.45
Debt to Operating Revenues	10%	3.75	Aa	2	0.20	3.75	Aa	2	0.20	3.75	Aa	2	0.20
Management (20%)													
Rate Management	10%	Adequate	Baa	4	0.40	Insufficient	B	6	0.60	Below Avg	Ba	5	0.50
Regulatory Compliance and Capital Planning	10%	Moderate	A	3	0.30	Limited	Baa	4	0.40	Limited	Baa	4	0.40
Legal Provisions (10%)													
Rate Covenant	5%	1.10x	Baa	4	0.20	1.10x	Baa	4	0.20	1.10x	Baa	4	0.20
Debt Service Reserve Requirement	5%	Aa	Aa	2	0.10	Aa	Aa	2	0.10	Aa	Aa	2	0.10
Total Score	**100%**				**2.63**				**3.23**				**3.13**
Unadjusted Indicated Rating					***A1***				***A3***				***A2***
Notch Down: Outsized Capital Needs					***-1***				***-1***				***-1***
Notch Down: Coverage Below ABT or 1.00x									***-1***				***-1***
Notch Down: Weak Management/Oversight									***-1***				***-1***
Adjusted Indicated Rating					***A2***				***Baa3***				***Baa2***
Current Rating					***A2***								
Outlook					Stable								

Sources: Pittsburgh Water's FY 2024 ACFR; Pittsburgh Water's most recent Moody's report (1/23/2025); Moody's US Municipal Utility Revenue Debt Methodology (3/7/2024).

Exhibit CF-17

Pittsburgh Water S&P Scorecard			FY 2024			FPFTY with I&E Revenue			FPFTY with OCA Revenue		
STANDARD & POOR'S RATINGS SERVICES **Enterprise Risk Profile**	**Weight**	**Metric**	**Statistic**	**Score**	**Weighted Score**	**Statistic**	**Score**	**Weighted Score**	**Statistic**	**Score**	**Weighted Score**
Economic fundamentals	45%	MHHEBI I GDP Rate	80% I within 1% of U.S.	3	1.35	80% I within 1% of U.S.	3	1.35	80% I within 1% of U.S.	3	1.35
Industry risk	20%	Macro Factors	Very Low	1	0.20	Very Low	1	0.20	Very Low	1	0.20
Market position	25%	Avg. Bill/MHHEBI I Poverty Rate	3.2% I 11.3%	3	0.75	3.2% I 11.3%	3	0.75	3.2% I 11.3%	3	0.75
Operational management assessment	10%	Management Review	Good	2	0.20	Good	2	0.20	Good	2	0.20
Total	100%				2.50			2.50			2.50
Financial Risk Profile											
All-in coverage	40%	All-in Coverage	1.3x	3	1.20	0.98x	6	2.40	1.00x	5	2.00
Liquidity and reserves	40%	Reserves I DCOH	$100 MM I 175 days	1	0.40	86.8 days	3	1.20	109	2	0.80
Debt and liabilities	10%	Debt to Capitalization	92%	6	0.60	92%	6	0.60	92%	6	0.60
Financial management assessment	10%	Financial Performance	Good	2	0.20	Good	2	0.20	Good	2	0.20
Total	100%				2.40			4.40			3.60
Scorecard Indicated Rating					***A+***			***BBB+/BBB***			***A/A-***
Current Rating					***A+***						

Sources: Pittsburgh Water's 2024 ACFR; Pittsburgh Water's most recent S&P report (12/19/2024); S&P's U.S. Municipal Water, Sewer, and Solid Waste Utilities: Methodologies and Assumptions (4/14/2022); and the U.S. Bureau of Economic Analysis.

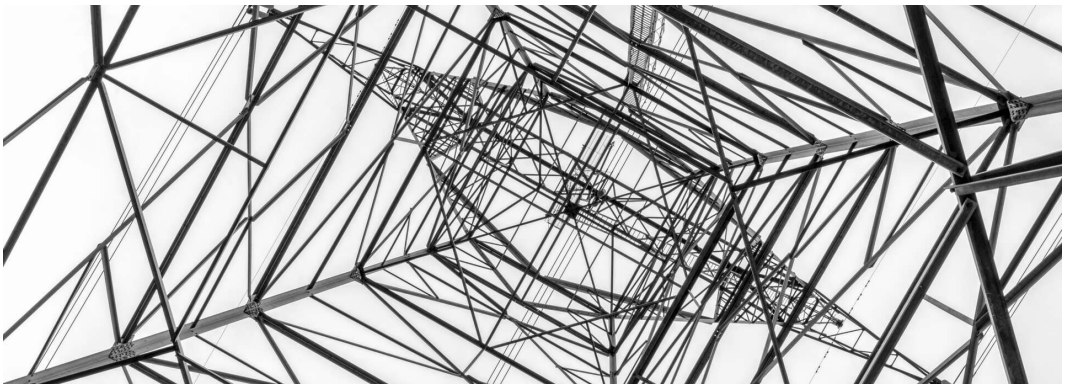
Exhibit CF-18

North America Regulated Utilities

Credit quality remains pressured

January 9, 2024

This report does not constitute a rating action.



What's changed?

Expansion of wildfire risks across Western North America.

Common equity issuance was significantly below our base case expectations.

Credit quality erosion. For the fourth consecutive year, downgrades outpaced upgrades. It is conceivable that 2024 may be the fifth.

What are the key assumptions for 2024?

High capital spending for North America's investor-owned regulated electric, gas, and water utilities.

Robust dividends at about $45 billion, reflecting a dividend payout ratio of about 60%.

Consistent access to the capital markets is necessary for the industry to fund its debt maturities and cash flow deficits.

What are the key risks around the baseline?

Timely recovery of prudently spent capital and operation and maintenance (O&M) costs is necessary for the industry to maintain credit quality.

Minimal financial cushion. About 35% of the industry is operating with limited ability to absorb unexpected events beyond their base case.

Inflation. S&P Global's economists expect the consumer price index (CPI) to decrease to below 3% by year-end 2024.

Contacts

Gabe Grosberg
New York
+1 212 438 6043
gabe.grosberg@spglobal.com

Gerrit Jepsen
New York
+1 212 438 2529
gerrit.jepsen@spglobal.com

Obioma Ugboaja
New York
+1 212 438 7406
obioma.ugboaja@spglobal.com

Matthew O'Neill
New York
+1 212 438 4295
matthew.oneill@spglobal.com

Ratings Trends: North America Regulated Utilities

Chart 1

Ratings distribution

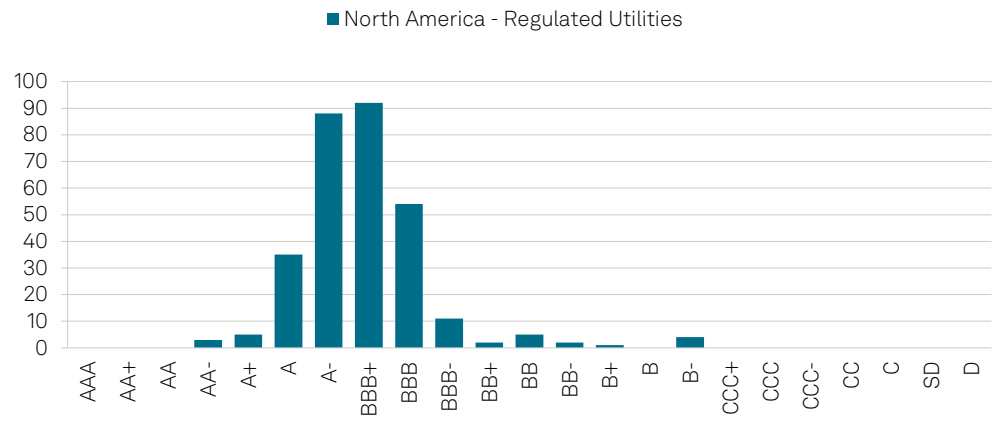


Chart 2

Ratings outlooks

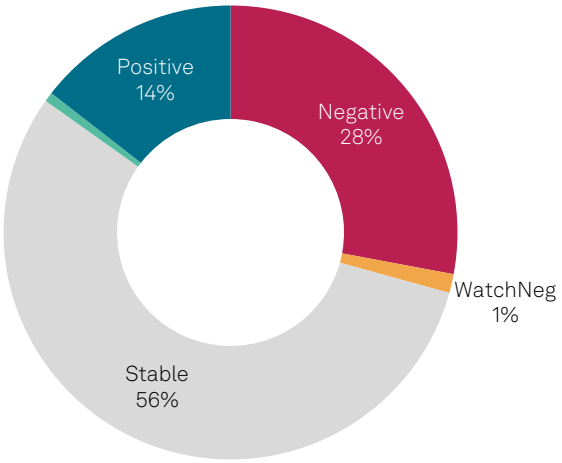
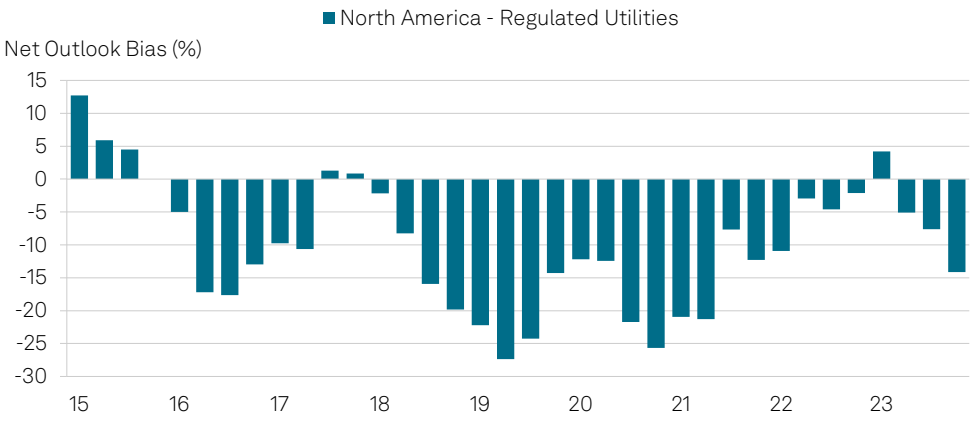


Chart 3

Ratings outlook net bias



Source: S&P Global Ratings. Ratings data measured at quarter-end.

Industry Credit Metrics: North America Regulated Utilities

Chart 4

Debt / EBITDA (median, adjusted)

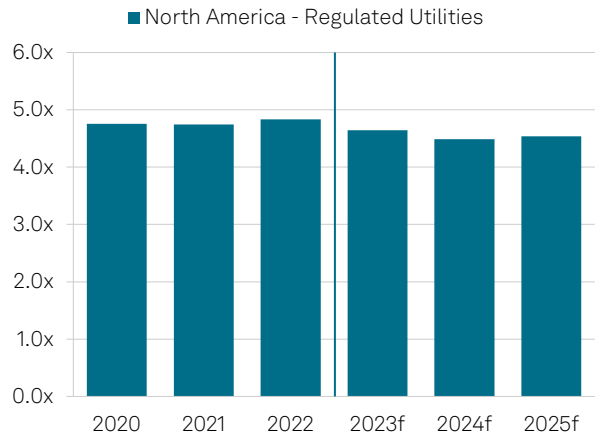


Chart 5

FFO / Debt (median, adjusted)

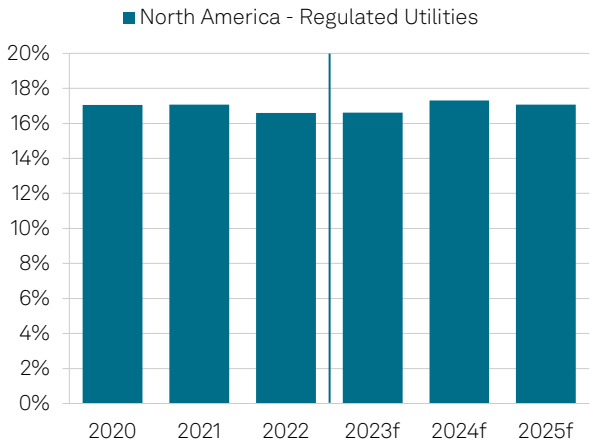


Chart 6

Cash flow and primary uses

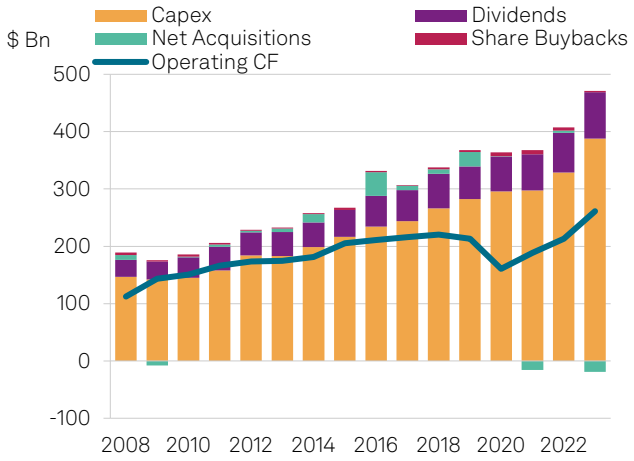
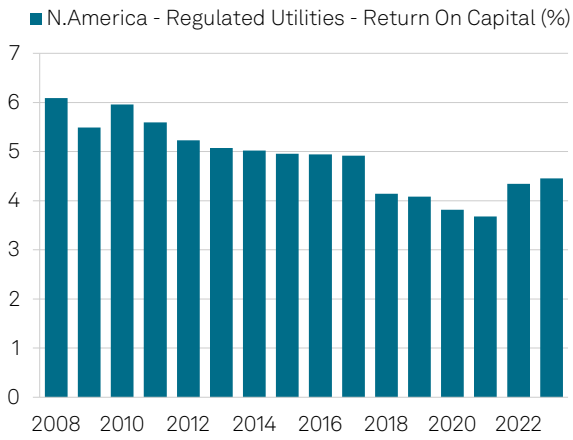


Chart 7

Return on capital employed



Source: S&P Global Ratings, S&P Capital IQ.
Revenue growth shows local currency growth weighted by prior-year common-currency revenue share. All other figures are converted into U.S. dollars using historic exchange rates. Forecasts are converted at the last financial year-end spot rate. FFO—Funds from operations. Most recent (2023) figures for cash flow and primary uses and return on capital employed use the last 12 months' data.

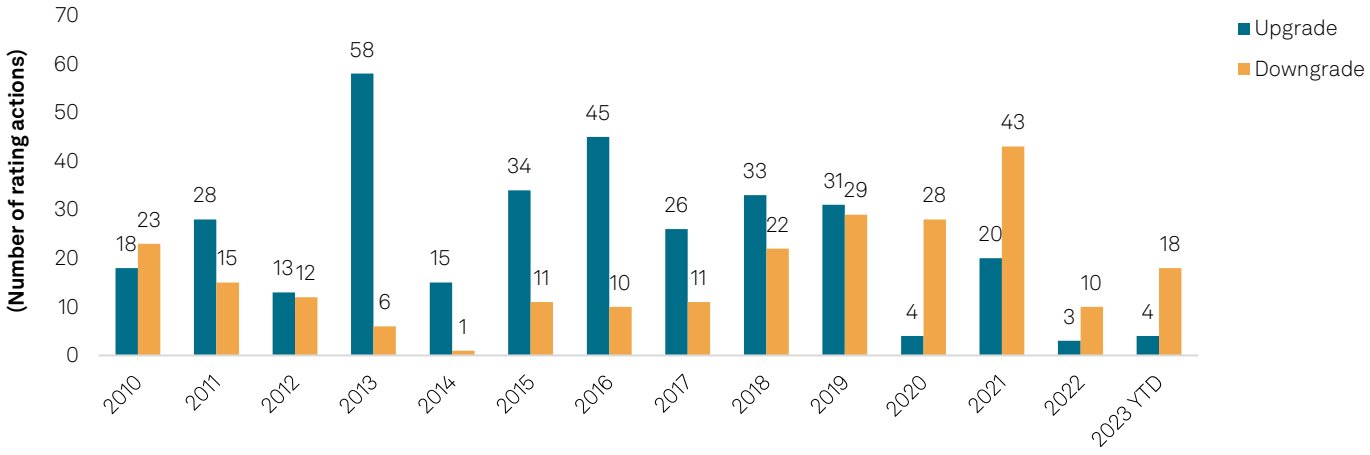
Industry Outlook

Ratings trends and outlook

For the fourth consecutive year downgrades significantly outpaced upgrades by more than 3:1 (see chart 8). Most of the 2023 downgrades were directly attributable to rising physical risks and rising leverage because of robust capital spending. We expect 2024 will remain challenging for the industry's credit quality, given the relatively high percentage of negative outlooks.

Chart 8

North America regulated utilities upgrades and downgrades



YTD—Year to date. Data as of Dec. 12, 2023. Source: S&P Global Ratings.

Main assumptions about 2024 and beyond

1. Climate change

Climate change is increasing the frequency of extreme and devastating hurricanes, storms, and wildfires, which is heightening credit risks for North America's investor-owned utilities (IOUs).

2. Record capital spending

While the industry's robust capital spending is necessary for prudent investments in safety, reliability, and energy transition, it is directly leading to high cash flow deficits. If these deficits are not funded with debt and equity in a balanced manner, credit quality will likely weaken.

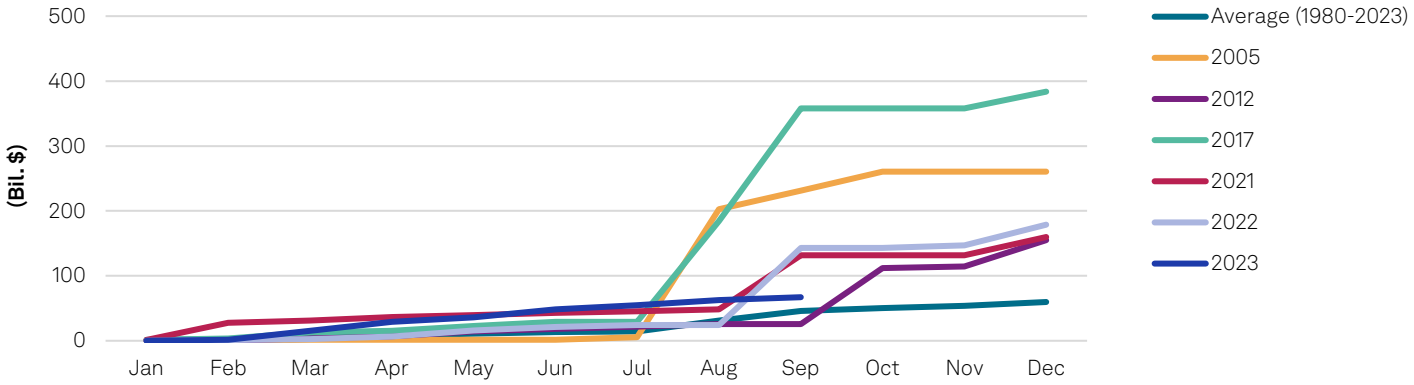
3. Management of regulatory risk

Given the significant capital spending, effective management of regulatory risk is important for the industry's credit quality. This includes constructive rate case orders, minimizing regulatory lag, earning its authorized return on equity, and managing the customer bill impact.

Utilities' exposure to physical risks is increasing. According to the National Oceanic and Atmospheric Administration (NOAA), on an inflation-adjusted basis, 2021 and 2022 represent two of the top five most destructive years for extreme weather events since 1980 (see chart 9). Our base case assumes these trends will persist, magnifying physical risks for the utility industry.

Chart 9

U.S. billion dollar weather disaster year-to-date event cost (CPI-adjusted)



Source: National Ocean and Atmospheric Administration.

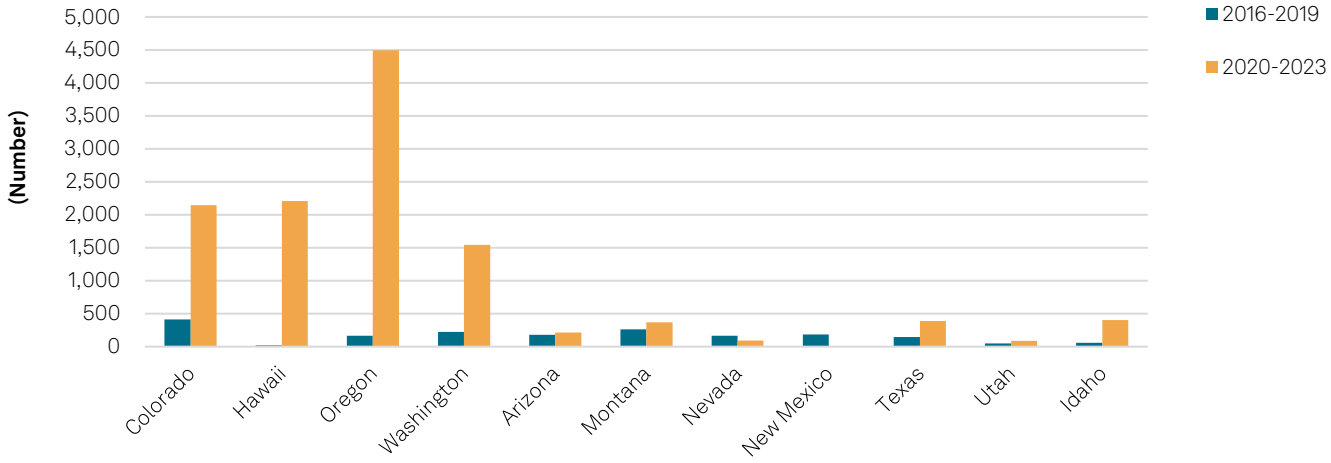
Warmer temperatures increase the humidity, leading to stronger winds and more-devastating tropical storms and hurricanes. Also, drier and hotter weather is a primary cause for more-severe wildfires--as temperatures rise, the vegetation dries up and the landscape becomes more combustible. When high winds are added, the probability of a catastrophic wildfire significantly escalates. As such, areas designated as high-fire-risk have grown across the U.S. This is already taking a toll on credit ratings.

For example, during 2023 we lowered the ratings on Hawaiian Electric Industries Inc. by multiple notches after the most destructive wildfire in Hawaii's history, with nearly 100 fatalities and about 2,200 structures damaged or destroyed. Also during 2023, an Oregon jury awarded 17 plaintiffs in a 2020 wildfire-related class action lawsuit against PacifiCorp about $5.3 million per plaintiff, which was materially above our base case of about $1 million per structure. The jury also found that a broader absent class affected by the fires could bring claims against the company. Accordingly, we downgraded PacifiCorp by two notches and revised the outlook to negative.

Furthermore, since 2020 the number of structures destroyed by wildfires in Colorado, Hawaii, Idaho, Oregon, Washington, and Texas increased by more than 100% compared to the 2016-2019 period (see chart 10). Meanwhile, Arizona, Montana, and Utah have each experienced increases of at least 20% over the same timeframe.

Chart 10

Structures destroyed by wildfires



Source: Headwaters Economics and National Fire and Aviation Management FAMWEB.

Wildfire mitigation plans. In light of these trends, we expect IOUs--especially those in the western U.S.--will develop detailed wildfire mitigation plans that reduce damages, minimize litigation risk, and expand capabilities for cost recovery. While it may take considerable time and investments for the industry to fully implement these strategies, the solutions are largely predicated on already-developed and in-use technologies.

System hardening is one investment that improves resiliency, reducing damages and risk. Because our modern economy is so dependent on electricity, system hardening also allows for the faster restoration of operations, decreasing total economic impacts. While system hardening is often expensive and can take many years to fully implement, its long-term benefits typically outweigh its shorter-term costs. Examples include undergrounding powerlines, adding cover conductors--which is the insulation of bare electrical wires with durable long-lived materials that reduce the probability of an electrical fault or spark--and replacing wood poles with steel and concrete.

To reduce the likelihood of a catastrophic wildfire, many utilities have incorporated weather stations that collect data to forecast weather conditions, including high-wind events. Some have incorporated artificial intelligence (AI) and machine learning into their data analysis, high-definition (HD) cameras, satellite and aerial imaging, remote sensing, and drones to enhance their forecasting capabilities. Utilities have also improved communication with state agencies and fire departments, coordinating specific locations that have either encountered or could be highly susceptible to a wildfire.

Critical to reducing wildfire risks is the implementation of a public safety power shutoffs (PSPS) program. PSPS is the proactive de-energizing of power lines in extreme weather conditions, especially in high-wind events. The decision to de-energize is extraordinarily challenging because it could have serious health and safety ramifications for some customers. Accordingly, an effective PSPS program establishes a consistent protocol when drastic measures are required that is approved by regulators and adequately communicated well in advance of the event. We view a PSPS program that establishes such a formal process as credit-supportive for IOUs.

Another crucial component of wildfire prevention is vegetation management, which is the removing or modifying of live and dead vegetation to reduce the potential ignition and spread of wildfire. This ongoing maintenance is essential for reducing the likelihood of debris coming in contact with powerlines, causing a spark that could lead to a wildfire. To further reduce wildfire risks, utilities have implemented enhanced power safety setting systems (EPSS) that automatically shut off power within a tenth of a second if they detect a potential ignition source. Such systems include downed conductor detection, early fault detection, open phase detection, and partial voltage force-out.

Because of the different service territories and topographies, we don't expect the strategies implemented by utilities will be uniform. As such, we expect utility wildfire mitigation plans will be customized but with the consistent goal of reducing risk.

Litigation risk. Because utilities operate under potentially hazardous conditions that include safety as well as environmental risks, they have always been susceptible to litigation. However, in recent years, as the climate changes and wildfires increase, litigation and class action civil lawsuits against utilities have intensified. Currently, plaintiffs have filed civil lawsuits against nine utilities because of wildfires. Additionally, an increasing number of class action lawsuits have been filed against water utilities regarding PFAS (per-and poly-fluoroalkyl) contamination. Should the industry's litigation risk continue to increase, credit quality would likely suffer.

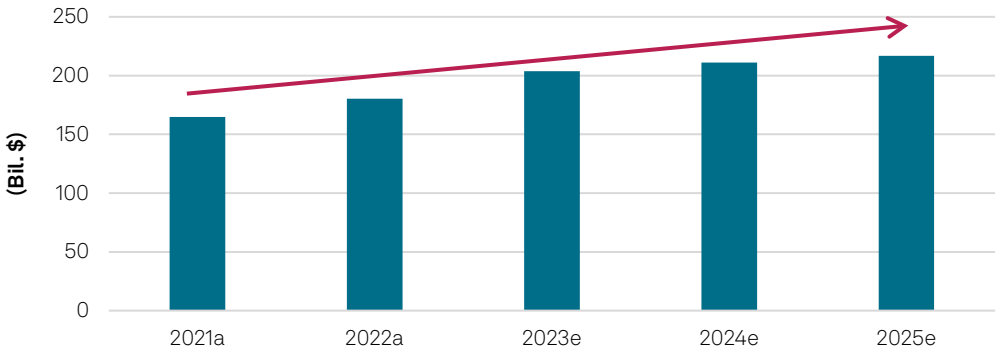
Securitization. More recently, utilities have increased their use of securitization, which we assess as supportive of credit quality. Securitization allows for the issuance of debt secured by a

non-bypassable charge to the customer's bill, allowing the utility to fully recover its costs at a lower interest rate for customers. Because the debt is secured by the high likelihood of customers paying their bills, the associated interest costs are typically lower. We often deconsolidate such debt, resulting in stronger IOU credit measures.

Record capital spending. The industry's capital spending on safety, reliability, and energy transition continues to grow at record levels. We expect the 2023 capital spending for North America's electric, gas, and water utilities to approximate $205 billion and rise to about $210 billion and $215 billion in 2024 and 2025, respectively (see chart 11). Under our base case, we expect that the industry's capital spending will continue to grow for at least the next decade.

Chart 11

North America regulated utilities' rising capital expenditures



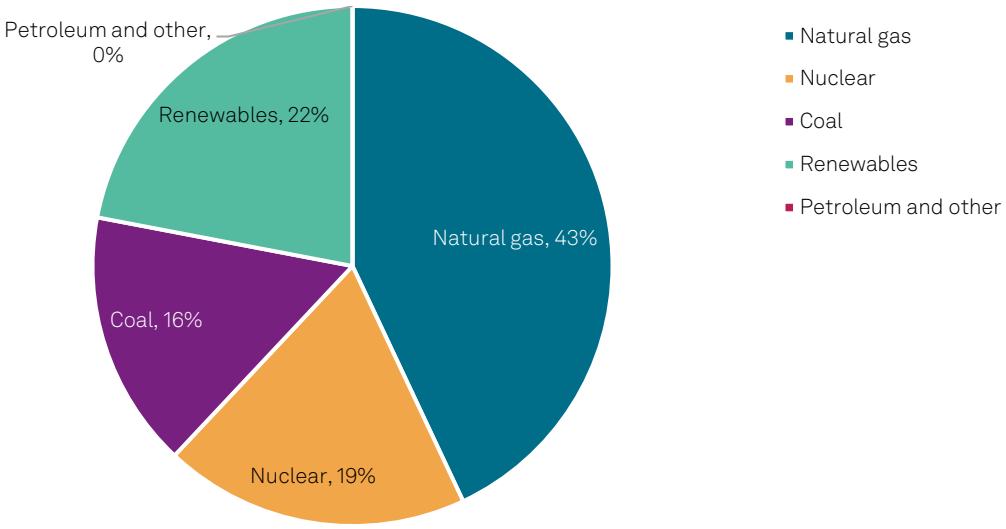
a—Actual. e—Estimate. Data as of Nov. 8, 2023. Capital expenditures represent North American investor-owned electric gas, and water utilities. Source: S&P Global Ratings.

Energy transition. The industry's reliance on coal generation has decreased by about 60% over the past decade, and we expect the vast majority of North America's IOUs will close their remining coal generation by 2035. This transition will reduce the industry's environmental risks but also requires a thoughtful multi-decade strategy to expand renewable energy and battery storage, while simultaneously aligning depreciation and the retirement of coal generation to avoid stranded assets.

Renewable energy will eventually account for more than 50% of the industry's generation portfolio. While renewable energy only accounts for about 25% of the industry's electric generation portfolio, over the next decade renewable energy will likely double (see chart 12). The industry's funding of renewable energy will benefit from the Inflation Reduction Act (IRA), which includes significant tax incentives for renewable energy and permits for the transferability of such credits. Transferability allows tax credits that cannot be used on a company's own consolidated tax return because it has insufficient income to be transferred to a third-party. We expect the IOUs will be among the primary beneficiaries of these tax credits. Ultimately, we expect utility regulators will mandate that transferred tax credits are refunded back to customers, and as such we expect the growth of renewable energy will likely be less impactful on the customer bill.

Chart 12

2023 U.S. generation (through August)



Data as of Dec. 12, 2023. Source: U.S. Energy Information Administration.

Inflation. Although the rate of inflation has slowed from 2022 levels, it remains elevated relative to historical levels. We anticipate this will result in higher O&M costs that could weaken financial performance. While some utilities have interim mechanisms that reduce the regulatory lag, most will have to file rate cases on a more frequent basis should inflation remain high over the longer term.

Because of rising costs and higher capital spending, rate case filings have significantly increased. In 2019 and 2020, U.S. annual rate case filings averaged about $6 billion but have since increased by 2.5x to an annual average of about $16 billion. This elevates the industry's reliance on managing regulatory risks. Additionally, because about 35% of the industry is managing with only minimal financial cushion--reflecting funds from operations (FFO) to debt that is less than 100 basis points above the downgrade threshold--the ability to absorb unexpected events beyond their base case is limited. Accordingly, should rate case filings be delayed or rate case orders be less than constructive, financial performance and credit quality could weaken.

Effective management of regulatory risk. We assess all of North America's regulatory jurisdictions as credit supportive or better, reflecting the industry's generally stable and predictable cash flows (see chart 13). Over the past decade, most of the industry has implemented some combination of decoupling, formula rate plans, forward test years, multiyear rate cases, interim rates, and regulatory riders to significantly improve cash flow stability while minimizing regulatory lag, which is the timing difference between when a utility incurs costs and when it's recovered from ratepayers. Our view of the industry's regulatory constructs supports the industry's mostly investment-grade ratings despite the industry continuing to operate with material cash flow deficits.

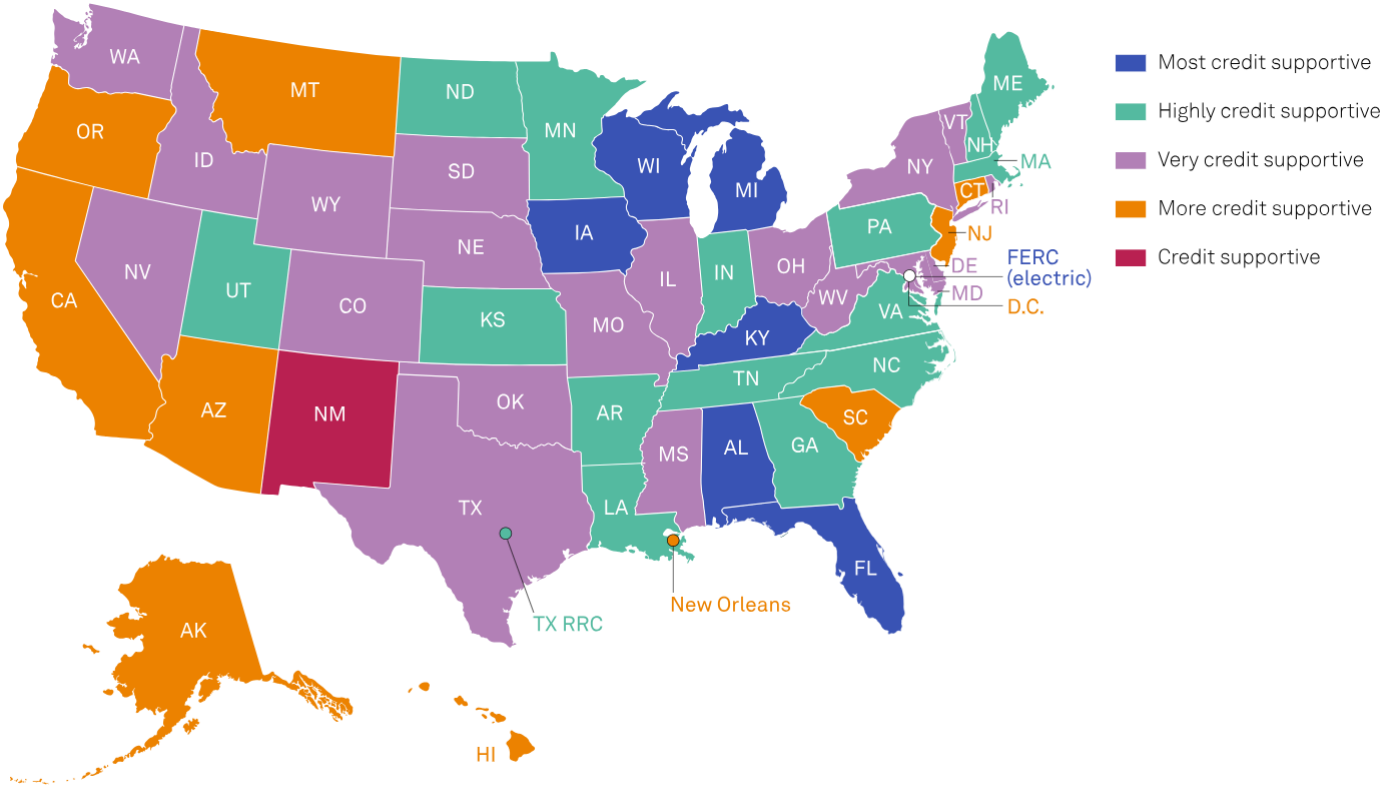
To manage regulatory risk, the industry must maintain the affordability of the customer bill. While the average U.S. electric bill accounts for less than 2.5% of the median U.S. household income, the 2022 average electric bill increased by about 13% primarily because of rising commodity prices. In 2022, the average monthly price for natural gas was $6.40/MMbtu, or nearly double the average price for the prior 13 years. Subsequently, prices have retreated to about $2-$4/MMbtu. Had commodity prices remained high, we believe it would have weakened the industry's ability to manage regulatory risk, pressuring credit quality.

In 2023, several utilities experienced negative regulatory developments that could be indicative of longer-term risks. For example, earlier in 2023 we revised the outlooks on most of Ontario's local distribution companies (LDC) regulated by the Ontario Energy Board to negative, primarily reflecting the increasing regulatory lag associated with transmission costs and wholesale market rates. The lag affected the LDC's earned return on equity and financial performance.

Chart 13

Regulatory assessment by state

As of November 2023



Source: S&P Global Ratings.
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More recently, we revised the outlooks on most of Connecticut's utilities to negative, reflecting the possibility of less cash flow predictability. In June 2023, Senate Bill 7 was signed into law, which gave Connecticut's Public Utilities Regulatory Authority (PURA) greater latitude in determining whether companies over-earn, prohibits PURA from reauthorizing the electric system improvements charge, and allows PURA's discretion over the use of decoupling. We believe this law decreases utilities' cash flow predictability and increases regulatory lag. Additionally, recent 2023 PURA rate orders for Aquarion Co. and The United Illuminating Co. (UI) significantly deviated from our base case expectations, increasing regulatory lag for these utilities. These rate orders did not approve the multiyear rate plans filed, and included material disallowances, penalties for UI, and below-average returns on equity. Should these risks persist, it could result in an increase of regulatory lag and a weakening of utility cash flow predictability for all of Connecticut's regulated utilities, which would be negative for credit quality.

Credit metrics and financial policy

Despite our expectations that the industry's 2024 capital spending will increase to about $210 billion, we expect generally consistent financial measures, reflecting FFO to debt of about 15%. Our base case is predicated on the industry funding its approximate $85 billion of cash flow deficits with about $40 billion in asset sales and equity issuance. For 2023 the industry's actual equity issuance was considerably below our expectations, resulting in weakening of financial performance. Should this trend persist in 2024, it would likely pressure credit quality.

Key risks or opportunities around the baseline

1. Interest rates stabilize.

Since 2022, rising interest rates have increased costs for North America's IOUs, weakening financial performance and credit quality. Our economists expect federal funds rate will peak in 2023 and then modestly decrease in 2024. Accordingly, we generally expect that as interest rates stabilize it will put less pressure on IOU's financial performance and credit metrics.

2. Sales growth will return.

Electricity sales growth stagnation has challenged the North America investor-owned electric regulated utility industry's ability to manage regulatory risk and credit quality. Over the next three years we expect sales growth trends to improve.

3. Complex projects increase risk.

During 2023, several offshore wind projects were delayed or canceled because of rising costs for these more challenging projects. To maintain credit quality, we generally expect the industry will focus on lower-risk and smaller projects.

Interest rates. IOUs have considerable near-term debt maturities that must be refinanced, and rising discretionary cash flow deficits that are mostly fund with debt. Because of regulatory lag, rising interest rates weakens financial performance. S&P Global economists expect the federal funds rate will peak in 2023 at about 5.5% and then modestly decrease to about 5.3% in 2024. Accordingly, as interest rates stabilize it will put less pressure on the industry's financial performance.

Spreads narrowing. Despite the 10-year treasury increasing by about 300 basis points over the last three years to about 4.5% from about 1.5% at year-end 2020, the average authorized return on equity has essentially remained flat at about 9.5% over this same timeframe. The narrowing of this spread directly affects the industry's financial performance. Most IOUs employ double leverage, issuing significant debt at both the holding company level and at the operating utility. The industry is reliant on cash flows from its operating utilities to service its debts at the holding company. As these spreads narrow, financial performance weakens, pressuring credit quality.

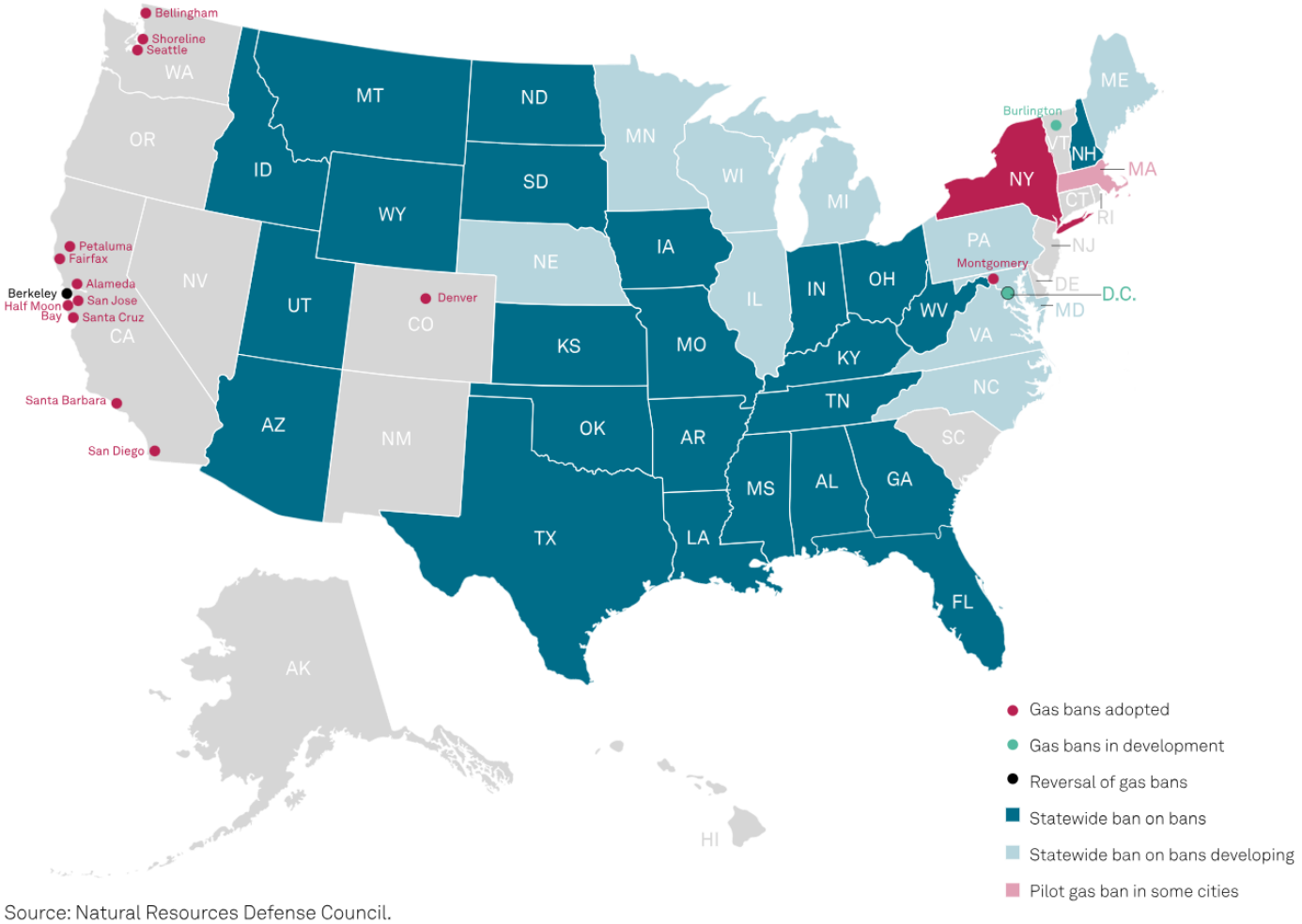
Sales growth. Electricity sales growth has been flat to negative over the past decade because of conservation, challenging North America's IOU's credit quality. Sales growth increases revenues, EBITDA, and FFO without necessitating a rate increase. This enhances the industry's capacity to maintain its financial measures without depending on a regulator's consistently constructive rate case order. We expect sales to grow in the short term, driven by the onshoring of manufacturing and data centers, and over the medium-term because of increased electrification and electric vehicles. Overall, we view this development as supportive of the industry's credit quality.

Full electrification. We expect the longer-term credit quality for some natural gas local distribution companies (LDC) will become increasingly challenging, especially for utilities that

operate in warmer climates or whose cities/states have banned new gas connections, severely limiting the growth of the natural gas LDCs. While most of the city bans have occurred in the Western U.S. states, in 2023 New York State banned natural gas and other fossil fuels in most new buildings (see chart 14). Offsetting some of this risk is that a near-majority of states have imposed a ban on the ban of new gas connections. Furthermore, gas LDCs are attempting to reduce their environmental risks by decreasing their carbon footprint through investing in renewable natural gas, blending hydrogen, and initiating various hydrogen infrastructure projects.

Chart 14

Ban on new gas connections



Source: Natural Resources Defense Council.
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Technology. The industry generally embraces technology to reduce its O&M costs by leveraging in-use technologies, a practice we view as generally prudent. Examples include the industry's wide use of drone technology that reduces the cost of pole and wire inspections; battery technology, which reduces fuel costs; and advanced metering infrastructure, which reduces labor costs.

Currently, many gas LDCs and electric generation utilities are testing the blending of hydrogen with natural gas to further reduce carbon emissions. Many of these pilot programs are looking to reduce the cost of hydrogen and are testing the maximum allowable hydrogen that would be compatible with downstream appliances. We expect the industry will benefit from hydrogen tax

credits or other government grants allowed under the IRA, likely incorporating about 5%-10% of hydrogen by 2035.

However, periodically the industry invests in higher-risk larger projects that rely on newer technologies, often resulting in a weakening of credit quality. For example, while Southern Co.'s recent commercial operations of nuclear power plant, Vogtle Unit 3, was a significant achievement, we already downgraded the company by two notches since it began pre-construction activities in 2009, reflecting the higher construction risks associated with this complex project. Also, we expect Ørsted--which partnered with many U.S. utilities to build offshore wind in the U.S.--to write-off as much as $6 billion associated with these higher risk projects. Additionally, we downgraded Eversource Energy by two notches since it announced its offshore wind power generation joint venture, reflecting the higher risks associated with this newer technology and longer-term project. Overall, we expect the industry will reduce its technological risks by generally maintaining its focus on smaller and lower risk projects.

Alternative minimum tax. The IRA of 2022 includes a 15% corporate alternative minimum tax (AMT) that we expect will weaken the financial measures of about 10% of the utility industry. The AMT is only applicable to corporations with at least $1 billion of income. Most fully integrated large utilities with a growing or significant renewable generation portfolio will generally be able to use the renewable tax credits to minimize or eliminate the AMT. However, the financial measures of large electric transmission and distribution utilities, gas LDCs, and large water utilities could all be weakened by the AMT.

Cybersecurity. The recent 2023 suspected cyberattacks against water and wastewater treatment facilities in Texas and Pennsylvania underscores the industry's ongoing cybersecurity risks. Because critical infrastructure assets tend to have higher exposure, the industry's ongoing vigilance in this area is critical to maintaining credit quality.

Municipalization. Municipalization is the transferring of a privately owned utility to a public ownership. While such occurrences are infrequent and rare, in 2023 two ballot proposals explored these options. In both instances, the city of El Paso, Texas, and the state of Maine soundly rejected such proposals. Other cities, including San Diego, continue to explore these alternatives and we will continue to monitor these developments, including their impact on credit quality.

Related Research

- North American Utility Regulatory Jurisdictions: Some Notable Developments, Nov. 10, 2023
- A Storm Is Brewing: Extreme Weather Events Pressure North American Utilities' Credit Quality, Nov. 9, 2023
- Regulatory Friction Is Constraining Cost Recovery For North American Investor-Owned Utilities, Nov. 6, 2023
- Plugged In: How EVs Supercharge Growth For North America's Investor-Owned Electric Regulated Utilities, Oct. 31, 2023
- A Closer Look At The Three Major California Investor-Owned Electric Utilities Amid The 2023 Wildfire Season, Oct. 24, 2023
- Credit FAQ: What's Behind Our Recent Actions On Investor-Owned Utilities In Connecticut?, Sept. 28, 2023
- Record Capex Fuels Growth Along With Credit Risk For North American Investor-Owned Utilities, Sept. 12, 2023
- Although Commodity Costs Are A Pass Through For Utilities, They Still Affect Credit Quality, Sept. 6, 2023

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Exhibit CF-19

MOODY'S INVESTORS SERVICE

CREDIT OPINION
15 October 2018

Rate this Research

Contacts

Nicole Serrano +1.212.553.4143
VP-Senior Analyst
nicole.serrano@moodys.com

Orlie Prince +1.212.553.7738
VP-Sr Credit Officer/Manager
orlie.prince@moodys.com

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
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Pittsburgh Water & Sewer Authority, PA

Update following downgrade to A3; outlook negative

Summary

Pittsburgh Water & Sewer Authority, PA's credit profile is highly constrained by its narrow cash position, with roughly 60 days' cash on hand expected at the close of 2018, well below average for similarly sized peers. While we expect definitive improvements to operations and controls given Pennsylvania Public Utility Commission oversight, effective as of April 2018, the Authority is also pressured by the need for major capital spending. The system's infrastructure has been impaired by years of disinvestment. Coupled with a substantial consent decree through ALCOSAN and elevated lead levels in the city's water, the Authority will necessarily add to its already high leverage in the near term.

Moody's downgraded Pittsburgh Water & Sewer Authority, PA's First Lien Revenue Bonds to A3 from A2 on October 15, 2018. Approximately $570 million of first lien revenue debt was affected by the rating action. The outlook remains negative.

Credit strengths

» Diverse, urban Pittsburgh (A1 stable) service area, supported by strong "eds & meds" presence

» Considerable size; system assets include water conveyance and treatment, and sewer conveyance that ties to ALCOSAN

» Significant rate increase just implemented; PUC oversight should bring improvements and controls

Credit challenges

» Substantial debt burden; debt ratio is 116%

» Narrow coverage and liquidity

» Long term inadequate maintenance of infrastructure has led to severe inefficiencies and has contributed to a projected $2.3 billion in capital improvement needs; plan to be implemented over ten years

» Projected doubling (roughly) of the capital budget within one year's time presents further challenges to planning and administration

» Exposure to a large regional consent decree through ALCOSAN

» Elevated lead levels in water persist

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Rating outlook

The negative outlook reflects our concern that historical operating and maintenance inefficiencies will continue, posing a challenge to full implementation of a much needed capital improvement plan. While the PUC has taken on an oversight role, and we expect the effects of regulation to be generally positive, PWSA is still in the beginning stages of addressing its major capital needs and operating deficiencies.

In the absence of substantially improved maintenance of the Authority's infrastructure, and a substantially improved liquidity position, the negative outlook reflects our expectation of continued downward rating pressure.

Factors that could lead to an upgrade

» Meaningful reduction in leverage

» Substantial improvement in liquidity that is maintained over several reporting periods.

Factors that could lead to a downgrade

» Further narrowing of debt service coverage and liquidity position

» Inability to raise rates with necessary frequency to meet debt service coverage covenants while also funding significant deferred capital improvements

» New revenues not deployed effectively to address near term infrastructure and operating needs

» Escalation of environmental concerns, particularly lead levels in treated drinking water

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

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Key indicators

Exhibit 1

System Characteristics					
Asset Condition (Net Fixed Assets / Annual Depreciation)	43 years				
System Size - O&M (in $000s)	$157,220				
Service Area Wealth: MFI % of US median	87.1%				
Legal Provisions					
Rate Covenant (x)	1.10				
Debt Service Reserve Requirement	DSRF funded at lesser of standard 3-prong test (Aa)				
Management					
Rate Management	A				
Regulatory Compliance and Capital Planning	Baa				
Financial Strength					
	2013	2014	2015	2016	2017
Operating Revenue ($000)	$142,657	$164,255	$174,164	$180,727	$202,996
System Size - O&M ($000)	$109,254	$125,766	$131,694	$148,593	$173,392
Net Revenues ($000)	$47,112	$53,014	$57,455	$49,174	$47,071
Net Funded Debt ($000)	$761,001	$756,321	$747,615	$727,526	$817,394
Annual Debt Service ($000)	$43,770	$47,519	$58,346	$59,380	$57,818
Annual Debt Service Coverage (x)	1.08	1.12	0.98	0.83	0.81
Cash on Hand	113 days	91 days	78 days	53 days	23 days
Debt to Operating Revenues (x)	5.3x	4.6x	4.3x	4.0x	4.0x

Source: Moody's Investors Service and Pittsburgh Water & Sewer Authority audited financial statements

Profile

PWSA is an authority of the city of Pittsburgh, providing water treatment and conveyance to 84% of the city's population and sewer conveyance for the entire city.

Detailed credit considerations

Service Area and System Characteristics: Large and Stable Pittsburgh Service Area; Considerable Aged Infrastructure Concerns

The authority provides water distribution and wastewater collection and conveyance for the city of Pittsburgh and neighboring municipalities. The city's healthy and growing economy, as well as its exposure to the strong "eds & meds" presence from healthcare and higher education institutions, are positives for the authority.

The authority's 10 largest customers (33% of revenues) include Riverbend Properties (formerly Bay Valley Foods), Fox Chapel Authority (Aa3 no outlook), University of Pittsburgh (Aa1 stable), Carnegie Mellon University, Allegheny County (A1 positive), the city's public housing authority, and a state prison. All of the authority's five largest customers have been in the city for at least 75 years.

The authority continues to maintain an ample water supply, providing water to a population of approximately 306,000. The system is permitted to draw up to 100 million gallons per day (MGD) from the Allegheny River, its sole water source, though average demand for water is well below that level, at 70 MGD. The authority treats drinking water at one plant located on the river, as well as a microfiltration plant at one of its reservoirs. The authority has capacity to store approximately 3 days' worth of finished water for uninterrupted supply to its customers.

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The authority does not treat wastewater. It transmits all of its sewage to the Allegheny County Sanitary Authority (ALCOSAN, revenue bonds rated A1). There is no contractual limit to the amount of sewage that can be conveyed, however, during wet weather events, the existing system frequently overflows.

The system currently experiences unusually large water loss. The authority estimates that it loses close to 50% of its pumped water annually due to its aged infrastructure and insufficient maintenance. This is perhaps an over-estimate, but definitive loss is not currently calculable, as key points of the system are not metered. A modernization of the metering system with mapping is a crucial part of the authority's latest five year Capital Improvement Plan (CIP). Other important improvements include engaging enough personnel to carry out maintenance of the system's general infrastructure up to current industry standards. These kinds of ordinary updates and infrastructure improvements are sorely lacking today, adding to cost inefficiencies, and exacerbating the natural wear and tear on an already aged system.

In April of 2016, the authority was ordered by the Pennsylvania Department of Environmental Protection (PADEP) to test for lead in the drinking water treated by PWSA, related to an unauthorized use of alternative corrosion control chemicals. Samples from 100 homes in June 2016 found lead of 22 parts per billion (ppb) at the 90th percentile. The EPA action level for lead at the 90th percentile is 15ppb, at which level additional testing in terms of frequency and number of samples is required and mitigation efforts are needed. About 83% of sample results were below the action level and some were non-detect. The authority believes these lead readings are due to lead in the pipes bringing water to individual homes, rather than lead in system mains. The largely random dispersion of where high lead levels have been found seems to support this hypothesis.

In June 2018, the authority had its first lead level reading below the EPA threshold in two years, at 10ppb at the 90th percentile. The authority continues to comply with pipe replacement requirements, and will continue to test for lead through December 2018.

Debt Service Coverage and Liquidity: Rate Increase To Strengthen Debt Service Coverage

Liquidity and reserve levels continue to narrow, with the authority reporting an $11 million operating deficit in 2017, reducing cash to $11 million at year end 2017, or a very narrow 29 days' cash on hand in the operating fund. When reserve funds are included, the days cash calculation improves to 54 days, though this is well below the authority's own historical operating norms as well as deficient versus similarly sized peers. Median days' cash on hand for Moody's-rated water and sewer systems in the US generating revenues of more than $100 million annually is 392 days.

Also as of audited 2017 financials, debt service coverage absent the use of free cash is below one time, at 0.81x, falling below the previous years' coverage of 0.96x. We note that PWSA is not in violation of its bond covenants, as its indenture allows for the use of free cash to meet debt service requirements through fiscal year 2018. Beginning in 2019, however, the authority must meet a 1.10x coverage test on its consolidated debt service and a 1.25x coverage test on its senior debt service without the use of free cash. Notably, median debt service coverage for the above referenced peer group is 2.2x as of fiscal 2017, again well above PWSA's coverage ratio.

The authority implemented a 28% rate increase in early 2018 in order to meet its new covenant requirements. It also applied for a subsequent 17% rate increase with the PUC in July, thought the commission has 270 days to approve or deny the request, which could delay further revenue increases until the first quarter of 2019. The authority has publicly projected a -$7.5 million operating deficit for fiscal 2018. We believe this estimate to be conservative, largely due to the fact that the authority has not begun several projects that it had originally budgeted for the year. This should provide PWSA with a reserve cushion that is more favorable than current projections indicate, but the deferred projects are necessary and integral to the system's basic operations; continued delays to system maintenance are a strong credit negative.

The authority's substantial fixed cost burden also continues to pose credit concern. Total debt service, including ordinary swap payments, was a considerable $52 million during fiscal year 2017, or 39% of total operating revenue. Debt service is the second largest expense the authority has after its “direct operating expense” of $70 million. This level of fixed costs is problematic, as it reduces financial flexibility and crowds out other spending. The authority will necessarily increase its debt burden in the near term to address the beginning stages of its $2.3 billion CIP.

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We further note that at the time of our last review, the authority had expected 2017 to end with a surplus, while the actual result was a material deficit. The authority's fiscal challenges continue to be exacerbated by poor management and high turnover in senior administration. Unreliable information will also continue to pose negative credit pressure for the authority.

LIQUIDITY

The authority has projected ending days' cash on hand for 2018 to be a narrow 56.8 days' including reserve monies, and a meager 8.8 days' when reserves are excluded. Our best estimates, based on year-to-date financials as of October 2018, show a somewhat more favorable cash position. Should the authority's original projections actually be realized, liquidity concerns would further pressure the credit profile.

Liquidity for capital expenditures is supported by an $150 million revolving credit facility with JP Morgan Chase Bank, NA (Aa2 (cr)). An emergency $20 million liquidity line is in place with PNC Bank, NA (A2 (cr)).

Debt and Legal Covenants

The authority introduced a new indenture in 2017, which strengthened the rate covenant. The new requirement is 125% of senior debt service coverage plus 110% of subordinate debt service coverage. Free cash will no longer be used to increase coverage under the new indenture. The new test is effective for fiscal year 2019.

DEBT STRUCTURE

The additional borrowing implied by the authority's capital needs will increase an already elevated debt burden. The authority's total debt is equal to 116% of fixed assets, well above similarly sized peers. The outstanding debt amortizes slowly, with only 36% of principal scheduled to be repaid in the next 10 years.

The authority maintains pronounced risks associated with its debt profile in the face of already-narrow coverage levels. The authority's $675 million of bonded debt includes $570 million of senior-lien bonds, and $104 million of privately placed subordinate-lien bonds. The authority also maintains $33 million outstanding in PennVest loans and an $80 million revolving credit facility, of which $52 million is currently drawn. With the 2017 indenture, the PennVest loans and JPM revolving credit facility, previously third lien debt, will now be allowable as parity to the subordinate bonds.

All of the subordinate-lien bonds and roughly $219 million of senior-lien bonds are variable rate (approximately 48% of total bonds outstanding). The 48% rate is down from a high of 55%. Assured Guaranty Municipal Holdings Inc. (Baa2 stable / A2 insurance financial strength) insures much of the authority's variable rate bonds and all of the authority's swaps, and provides the surety policy for all debt service reserve funds. This counterparty concentration may adversely impact the authority should AGM's credit quality deteriorate. In addition, the authority's VRDO debt requiring liquidity and credit support is provided by Bank of America, N.A. (23%, A1 (cr)), and PNC Bank, N.A. (45%, A1 (cr)). The remaining variable rate debt is privately placed.

DEBT-RELATED DERIVATIVES

The authority has entered into floating-to-fixed rate swaps in connection with all of its variable rate debt ($322 million) under ISDA Master Agreements with JPMorgan (64%) and Merrill Lynch and Co., Inc. (36%, Baa1 RUR), whereby the authority pays a fixed interest rate semi-annually (4% on average) and receives SIFMA monthly.

AGM provides swap insurance for all swaps and, despite a negative $91 million aggregate mark-to-market as of October 2017, no collateral is required to be posted unless an Insurer Event occurs. The amortization schedule for each swap mirrors that of the corresponding bonds and the swaps terminate at bond maturity. For all of the swaps, per the 2017 indenture, regularly scheduled swap payments are subordinate to subordinate bond debt service. Early termination is optional for the authority only, and termination by the counterparty depends upon specified termination events, including the downgrade of PWSA's underlying rating below investment grade. An authority termination payment would be subordinate to first and second lien debt service payments.

PENSIONS AND OPEB

The authority's employees participate in the city's pension program. However, the authority itself is under no obligation to the city to fund any portion of the city pension plan.

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Management and Governance

Continued turnover at the senior managing level of the authority is a considerable credit concern and, in our view, has negatively impacted the authority's ability to provide accurate and timely information.

Management volatility is particularly concerning here, since the system has overwhelming capital needs, not only in its infrastructure, but also in its technology systems. Strong leadership will be critical given the proposed plan. In order to achieve the improvements set out in the CIP, even if only near term projects are considered, the authority will require consultants, extensive planning, and sizeable staff increases. Without strong governance, continued unresolved inefficiencies are a major concern. The authority also manages an extensive swap portfolio and a relatively tight liquidity position; strong governance of its finances is also crucial to the authority's future success.

The authority is currently managed by a seven member board, with at least six members appointed by the mayor and one by the city council. The authority provides water at no cost to city-owned buildings and public areas. The city and authority are in the process of renegotiating their cooperation agreement to more accurately reflect the exchange of services provided.

Pennsylvania's Public Utility Commission began oversight of the authority in April 2018. The PUC is responsible for regulating the authority's rate making, operating effectiveness, and debt issuance. We expect that the PUC will help to bring standardization and effective governance to the authority's future operations. While we expect the PUC to approve rate increases that will help PWSA to comply with its bondholder covenants, but the approval process for increases can be lengthy, and could pose short term pressures for the authority.

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BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

REBUTTAL TESTIMONY OF

HAROLD J. SMITH

ON BEHALF OF
THE PITTSBURGH WATER AND SEWER AUTHORITY d/b/a Pittsburgh Water

Docket Nos.
R-2025-3055010 (Water)
R-2025-3055011 (Wastewater)
R-2025-3055012 (Stormwater)

TOPICS:
Class Cost of Service Study

September 30, 2025

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HJS-1 to HJS-2(Rebuttal)	Allocation of Total System FPFTY Revenue Requirements Schedules
HJS-1W to HJS-25W(Rebuttal)	Water Cost of Service Allocation and Rate Design Methodology Schedules
HJS-1WW to HJS-24WW(Rebuttal)	Wastewater Conveyance Cost of Service Allocation and Rate Design Methodology Schedules
HJS-1SW to HJS-13SW(Rebuttal)	Stormwater Cost of Service Allocation and Rate Design Methodology Schedules

I. INTRODUCTION AND PURPOSE OF TESTIMONY

Q. PLEASE STATE YOUR NAME.

A. My name is Harold J. Smith.

Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS PROCEEDING?

A. Yes, I submitted direct testimony sponsoring The Pittsburgh Water and Sewer Authority's ("Pittsburgh Water") class cost of service study ("CCOSS"). The primary purpose of my direct testimony was to describe the principles, methodology, and data utilized in Pittsburgh Water's CCOSS (the "Original CCOSS").

Q. HAVE YOU REVIEWED THE TESTIMONY SUBMITTED BY THE OTHER PARTIES IN THIS RATE CASE?

A. Yes, specifically, I have reviewed the testimony submitted by Mr. Patel, representing the Bureau of Investigation and Enforcement ("I&E"); Mr. Mierzwa and Mr. Deupree, representing the Office of the Consumer Advocate ("OCA"); and Mr. Kubas, representing the Office of Small Business Advocate ("OSBA"). I have also reviewed responses to discovery requests from other parties.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. In my rebuttal testimony, I will first address the changes to the CCOSS model that have been incorporated as a result of issues identified through the discovery process. I will then respond to the direct testimony of other witnesses in the following areas:

- Allocation of Customer Assistance Program ("CAP") - Bill Discount Program ("BDP") costs.
- Forecast of the number of water and wastewater customers.
- Impact of the elimination of the minimum allowance on customer bills.
- Role of Distribution System Improvement Charge ("DSIC") funding for capital projects.

In the event that an issue raised in the testimony of others is not addressed in my rebuttal testimony, this should not be viewed as my acceptance of their testimony. Rather, it

reflects my belief that a further response in this rebuttal testimony is not warranted, either because it was adequately addressed in my direct testimony, is being addressed by the rebuttal testimony of another Pittsburgh Water witness, or because it is a legal matter that is better addressed by counsel in briefs or other pleadings.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. Yes, attached to my testimony is a complete set of schedules generated by the CCOSS model similar to the schedules that were submitted with my direct and supplemental testimony.

II. MODIFICATIONS OF THE CCOSS MODEL

Q. PLEASE PROVIDE A BRIEF DESCRIPTION OF THE CHANGES MADE TO THE CCOSS MODEL.

A. As a result of the discovery and direct testimony of others, we have made some modifications to the CCOSS model (i.e. the Rebuttal CCOSS model).

1. **Wholesale Revenue:** The filed CCOSS model did not accurately account for the impact of wholesale rate adjustments that do not coincide with the beginning of a fiscal year. The corrected calculations lead to an increase in wholesale revenue projections of $40,985 in FY 2026 and $40,025 in FY 2027. The detailed calculations can be seen in the workbook, "Wholesale Revenues Revised," which was provided in response to discovery question OSBA-I-7.
2. **Bill Labeling:** The filed CCOSS model did not accurately label 2022-2024 customer bills as actuals. That error has been corrected in response to discovery question OSBA I-1. There is no impact from this change on model results.
3. **Usage Labeling:** The filed CCOSS model did not accurately label 2023-2024 customer usage as actual. That error has been corrected in response to discovery question OSBA I-3. There is no impact from this change on model results.
4. **Filing Schedules 53.52(b)(3)_25&26:** As filed, these tabs were not accurately representing wholesale revenue due in part to the above-mentioned issue and in part due to not correctly tracking a change in wholesale revenue

calculations for Fox Chapel that was made elsewhere in the model. These changes do not impact model results.

5. **Future Debt Issuances – 1:** Pittsburgh Water's debt issuance calculations had incorrectly maintained the same principal to interest ratio in the first two years of debt service associated with the planned FY 2027 issuance. This change, now corrected, did not affect total debt payments or model results, only the ratio between interest and principal in the payment.

6. **Future Debt Issuances – 2:** Pittsburgh Water anticipates a slight decrease in the interest rate for the FY 2026 debt issuance of $150,000,000. It now expects to secure a 6.5% interest rate, rather than the previously expected 7.0% interest rate. This change leads to a slight decrease in debt service and debt service coverage capital costs in the FPFTY and in FY 2027. At the request of Pittsburgh Water, the difference of approximately $670,000 has been transferred to the "Other Transfers to Reserves" revenue requirement. This change maintains the total revenue requirement and calculated revenues nearly identical to what they were, accounting for the other changes that have been incorporated into this version of the model. (Rounding built into the model's rate calculation prevents exact parity).

7. **PennVEST Surcharge Allocation Method in Rate Design:** In the water and wastewater rate design tabs, the cost of service adjustment allocation method for the PennVEST Surcharge was incorrectly labeled as "Unadjusted Cost of Service." This mistake has been corrected with the appropriate label, "Billable Units." The calculations were functioning correctly; they were labeled incorrectly. This correction has no impact on proposed rates.

8. **Forgone Revenue Tracking in Allocations Tab:** In the COS>Allocations tab, cell G429 was inaccurately labeled as "2027" when it should have been labeled "2026." This error has been corrected. Forgone revenue tracking was also added for 2027. This section of the sheet is for tracking purposes only; it has no impact on model results.

9. **Debt Coverage Tracking Calculation:** In the "Sufficiency" tab, the previous model did not properly account for the impact of stormwater credits on revenues available for debt service. Given that the foregone revenue from credits is small, the resulting change is minimal.

Q. WHAT ARE THE IMPACTS OF THESE CHANGES?

A. The impact of the changes can be seen in the revised CCOSS schedules I am attaching to this testimony. Ultimately, the overall change to the proposed rates and charges, as well as the proposed allocation of the rate increase to individual rate classes, is minimal.

III. ALLOCATION OF THE CAP-BDP COSTS

Q. PLEASE DESCRIBE THE RECOMMENDATION OF OSBA WITNESS KUBAS TO ALLOCATE ALL OF THE COSTS OF THE CAP-BDP TO THE RESIDENTIAL CLASS.

A. Mr. Kubas recommends that the costs of the CAP-BDP should be recovered solely by the Residential customer class, claiming that the CAP-BDP program only benefits residential customers. OSBA St. No. 1 at 19.

Q. DO YOU AGREE WITH MR. KUBAS'S RECOMMENDATION?

A. No, I do not. Pittsburgh Water has always recovered the costs of its CAP-BDP from all customer classes and should be allowed to continue doing so. The CAP-BDP benefits the entire Pittsburgh community, including businesses, by helping to ensure that all residents located in Pittsburgh Water's service area are able to afford water for essential uses, such as drinking, cooking, and cleaning. These residents comprise the workforce that area businesses rely on to keep their operations running, and the BDP-CAP helps ensure that employees are able to meet their most basic nutrition and hygiene needs. If all CAP costs were recovered by residential customers only, then the corresponding residential volumetric rate would increase by $2.48 per kgal, which would bring the bill increase from FY 2025 to FY 2026 for a standard residential customer (5/8" meter, 3kgal per month, Tier 2 stormwater charge) to 28.0%. That would have a meaningful impact compared to the currently proposed 22.7% increase and would likely result in additional hardship for residential customers compared to other classes.

Q. DO ANY OTHER UTILITIES REGULATED BY THE PA PUC RECOVER THE COSTS ASSOCIATED WITH THEIR CUSTOMER ASSISTANCE PROGRAM FROM ALL CUSTOMER CLASSES?

A. Philadelphia Gas Works ("PGW") recovers the costs associated with its Customer Responsibility Program through rates assessed to all customer classes and has done so through several base rate filings. In fact, OSBA specifically litigated the allocation of customer assistance program costs for a municipal utility in PGW's 2017 base rate proceeding and the Commission rejected OSBA's position. *See Pennsylvania Public Utility Commission v. Philadelphia Gas Works*, Docket No. R-2017-2586783, Opinion and Order, November 8, 2017.

IV. FORECAST OF WATER AND WASTEWATER ACCOUNTS

Q. PLEASE DESCRIBE THE RECOMMENDATION OF THE OSBA REGARDING THE FORECAST OF THE NUMBER OF WATER AND WASTEWATER ACCOUNTS.

A. Mr. Kubas recommends that Pittsburgh Water increase the number of forecast accounts based on the average annualized difference between accounts for each customer class in FY 2024 compared to FY 2021, the most recent year for which there is data in the CCOSS. For example, Mr. Kubas's method results in an increase of 331 residential water accounts per year and 385 residential – CAP water accounts per year between FY 2024 and FY 2027.[1] This change results in lower rates for most customer classes in both FY 2026 and FY 2027, due to the revenue being recovered from a larger projected customer base.

[1] OSBA St. No. 1 at 6.

Q. DO YOU AGREE WITH MR. KUBAS'S RECOMMENDATION?

A. No, I do not. First, in FY 2022 Pittsburgh Water transitioned its billing system from the prior Cogsdale system to the current SAP system. During the transition the customer account data was "cleaned" to remove erroneous data with the result being a more accurate record of accounts by customer class. There are only two full years of actual customer data in the CCOSS model from the current system, FY 2023 and FY 2024. This data indicates that total water and wastewater bills actually declined slightly between FY2023 and FY2024. In FY 2023, there were 955,584 water bills; in FY 2024, total bills declined to 952,944. On the wastewater side, there were 1,271,304 bills in FY 2023 and 1,267,944 bills in FY 2024. Given the "built-out" nature of the city of Pittsburgh and the slight decrease seen in water and wastewater bills between the two years for which we have consistent customer billing system data, we do not believe that it is prudent to forecast bill or account growth in either the Future Test Year, Fully-Projected Future Test Year, or as part of the multi-year rate plan ("MYRP") in FY 2027.

Q. DO YOU HAVE ANY COMMENTS REGARDING MR. KUBAS'S RECOMMENDATIONS REGARDING DELINQUENT ACCOUNTS?

A. Yes, I do. Relating to delinquent stormwater and unlisted tenant accounts, Mr. Kubas recommended that Pittsburgh Water assume that it will recover 2% of past due charges via collections based on recovery rates from prior years.[2] Mr. Kubas also recommended that Pittsburgh Water list the full amount of the $154,545 owed by the West View Water Authority ("WVWA") as a miscellaneous revenue in the FPFTY (or spread across the FPFTY and FY 2027 if the MYRP is approved). He states that WVWA likely has

[2] *Id.* at 10.

sufficient liquidity to pay Pittsburgh Water since it is an operating system that bills its customers.[3]

Q. DO YOU AGREE WITH MR. KUBAS'S RECOMMENDATIONS?

A. No, I do not. There is too much uncertainty present in each of the issues noted by Mr. Kubas to reasonably assume that Pittsburgh Water can recover revenue from these customers. Once delinquent accounts are turned over to collections agencies, the process is almost entirely outside of the control of Pittsburgh Water. There is no guarantee that any revenue will be collected or that such revenue will be provided to Pittsburgh Water during the fiscal year. It is only sound ratemaking practice to list miscellaneous revenues when there is strong confidence, preferably backed by years of evidence, that revenue will continue along similar patterns. Otherwise, there is a risk of offsetting base rates by more than is likely to be realized, which could lead to under-recovering needed revenue to maintain the health and reliability of the system.

Very similar logic is applicable to the WVWA delinquent revenue issue. There are 52 delinquent WVWA accounts that receive service in the city of Pittsburgh, with a collective $154,545 owed. In order to provide termination notices, the WVWA requires Pittsburgh Water to provide $100 per property that is set to receive a notice. Pittsburgh Water views this arrangement as an unjust use of ratepayer funds. Instead, Pittsburgh Water plans to turn these accounts over to collections,[4] which is subject to the same uncertainty, and the same reason for not including the expected revenue in the FPFTY, as in the case of the delinquent stormwater and unlisted accounts. Additionally, Mr. Kubas's

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3 *Id.* at 11.

4 Pittsburgh Sater St. No. 6 at 18-19.

assertion that WVWA bills its customers is incorrect. Rather, it provides Pittsburgh Water with meter reads and customer data; Pittsburgh Water then bills the customers directly and receives the payments. It is not simply a matter of requesting a payment from WVWA itself. A direct payment from WVWA would circumvent the agreed-upon process for customer payments. It is also unclear that WVWA would have the necessary reserves to make the delinquent payment. They have not received the $154,545 that Pittsburgh Water is owed.

V. BILL IMPACTS OF THE REMOVAL OF THE MINIMUM ALLOWANCE

Q. PLEASE EXPLAIN SOME OF THE RATE IMPACTS OF REMOVING THE MINIMUM ALLOWANCE IN ISOLATION FROM CHANGES TO THE REVENUE REQUIREMENT?

A. Yes, I will. Mr. Cicero of OWT recommended that the minimum charge removal be implemented in FY 2026 instead of FY 2027.[5] While Pittsburgh Water believes that the removal should be delayed until FY 2027 in order to allow for adequate time to change the billing system and notify customers of the change,[6] an analysis of what rates would look like if the minimum charge were removed under the FY 2026 revenue requirement was performed. The resulting rates and customer impacts are shown on the table below. This table demonstrates the number of water and sewer customers, categorized as residential, BDP participants, or non-residential, that would see increases or decreases to their bills under a revenue-neutral removal of the minimum allowance. The average bill decrease is of larger magnitude than the average bill increase, primarily because some customers use substantially less than the minimum allowance.

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5 OWT St. No. 1 at 56-57.

6 Pittsburgh Water Witness Julie Mechling discusses this issue further in her rebuttal testimony. See Pittsburgh Water St. No. 6R.

Bill Impacts After Removal of Minimum Allowance – Combined						
% Increase on Customer Bill (FY26 Revenues)	Residential	% of class	CAP-BDP	% of class	Non-Residential	% of class
Bill Decrease	14,423	21.9%	1,272	26.6%	3,143	38.7%
0%-20%	51,295	77.9%	2,942	61.5%	4,327	53.3%
20%-40%	167	0.3%	148	3.1%	637	7.8%
>40%	-	0.0%	425	8.9%	11	0.1%
Total Customers	65,885	100%	4,787	100%	8,118	100%

Q. WHAT DO YOU CONCLUDE BASED ON YOUR ANALYSIS AND THE ABOVE TABLE?

A. Overall, the impacts of the minimum allowance removal are complex, given that rates differ based on both meter size and class, which are impacted differently by the change. First, the overall percentage of revenue that is to be recovered from the new service charges is substantially lower than what is currently recovered under the minimum charges. The service charges only recover the costs that are associated with meters, customer billing, and a portion of public fire charges. This change leaves a higher amount of revenue to be recovered by the volumetric rates. However, the resulting rates are offset by the fact that total usage is now billed. Taken in isolation, the reduction in fixed revenue from the new service charge would tend to drive an increase in the volumetric rate; however, the fact that all usage is now billed works to decrease the volume rate as the costs are recovered from a larger number of billable units than is the case when the minimum allowance is in effect. Whether the resulting volumetric rate for a particular customer class is higher or lower than it is under the minimum allowance depends on the customer class and the ratio of billed to total usage for that class under the minimum allowance. While volumetric water rates generally increase slightly, most wastewater volumetric rates fall, with the exception of the industrial class.

Q. EXPLAIN THE ROLE OF USAGE ARISING FROM THE REMOVAL OF THE MINIMAL ALLOWANCE.

A. Across most customer classes, the primary bill impact benefits arising from the removal of the minimum allowance are to customers who use less than the minimum allowance. Residential customers with very high usage will also see slight decreases due to their combined volumetric rates (water and wastewater) being lower than under the minimum allowance. The high-usage threshold at which their bills become less expensive than they are under the minimum allowance is at 7,000 gallons of usage per month (assuming a 5/8" meter and a Tier 2 stormwater charge). This is the usage at which the lower volumetric rates and lower fixed charge offset the inflationary impact of all usage being billed.

Commercial customers who use at or above the minimum generally face higher bills, although the relative increases are lower at higher volumes. Unlike with residential classes, there is no high usage threshold at which commercial customer bills become less expensive than they are under the minimum allowance. Similarly, Industrial and Health and Education customers who are at or above the minimum allowance also face generally higher bills once the minimum allowance is removed. The relative impacts vary slightly depending on how much usage for each class was previously within the minimum allowance.

Though we have not run analyses of every feasible combination of meter size, volumetric usage, and stormwater EDU, the most common outcome is for customers below the minimum allowance to see lower bills (though this is not always the case for customers very close to the threshold), while customers at or above the minimum allowance see higher bills. As mentioned, there is one noticeable exception for residential customers,

who at very high usage see lowered bills due to a substantially lower wastewater volumetric rate that eventually offsets the impact of a slightly higher water volumetric rate.

Q. WHAT CONCLUSIONS DO YOU BELIEVE SHOULD BE DRAWN FROM THIS DISCUSSION?

A. First, the process of eliminating the minimum charge is complex and quality control is essential before the change goes live to customers. Such diligence will ensure that the new rates, which affect virtually all of Pittsburgh Water's customers, are calculated correctly. Second, the various effects of removing the minimum allowance are not easy to understand and will require thoughtful consideration as to how best to explain them to the public. Pittsburgh Water intends to engage in public education and outreach in order to help its customers understand these changes and the effects on their bills. In my experience, properly implementing this type of change can take 6–12 months. Attempting to accomplish all of this immediately after the Commission issues its order in February 2026 for rates effective in March 2026 would create a significant chance for errors and increased complaints.

VI. CONCLUSION

Q. DOES THAT COMPLETE YOUR REBUTTAL TESTIMONY?

A. Yes; however, I reserve the right to supplement this testimony as may be appropriate.

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VERIFICATION

I, Harold J. Smith, hereby state that: (1) I am a Vice President of Raftelis Financial Consultants, Inc.; (2) I have been retained by The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water and am authority to present testimony on its behalf; (3) the facts set forth in my rebuttal testimony are true and correct (or are true and correct to the best of my knowledge, information and belief); and, (4) I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

DocuSigned by:
Harold J. Smith
39798602E9BB445...

Dated: 9/30/25

Harold J. Smith, Vice President
Raftelis Financial Consultants, Inc.

Consultant to:
The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water

Exhibit HJS-1 – HJS-2
Rebuttal

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
FPFTY 2026 Revenue Requirements by Utility

Pittsburgh Water
Revenue Requirements by Utility

	FPFTY 2026			
Base Rate Revenue Requirements	*Water*	*Wastewater Conveyance*	*Stormwater*	*Total*
Operating Expenses				
Direct Operating Expenses				
Administrative Division				
Chief Executive Office	$ 2,546,673	$ 641,805	$ 392,353	$ 3,580,831
Customer Service	3,325,785	4,298,578	4,184,904	11,809,266
Technology Services	7,358,052	988,367	1,003,694	9,350,113
Finance	11,495,605	2,740,279	1,914,009	16,149,892
Human Resources	2,209,600	296,804	301,406	2,807,810
Legal	3,644,888	489,598	497,190	4,631,676
Safety & Security	2,120,671	284,858	289,276	2,694,805
Public Affairs	1,486,785	199,712	202,809	1,889,305
Operations Division				
Environmental Compliance	1,034,777	1,749,467	1,749,467	4,533,711
Warehouse	467,317	62,772	63,746	593,835
Laboratory	2,451,574	-	-	2,451,574
Water Treatment Plant	21,463,532	1,859,445	828,007	24,150,984
Sewer Operations	-	2,211,990	3,335,355	5,547,344
Water Operations	19,182,029	107,100	107,100	19,396,229
Engineering & Construction Division				
Engineering & Construction	20,879,180	11,326,951	7,919,659	40,125,790
Subtotal: Direct Operating Expenses	$ 99,666,467	$ 27,257,726	$ 22,788,974	$ 149,713,166
Other Operating Expenses				
Loss / (Gain) on ALCOSAN Billings	$ -	$ 2,383,047	$ -	$ 2,383,047
City Services	-	-	-	-
Non-City Water Payments	-	-	-	-
Covid Expenses	-	-	-	-
Subtotal: Other Operating Expenses	$ -	$ 2,383,047	$ -	$ 2,383,047
Subtotal: Operating Expenses	$ 99,666,467	$ 29,640,773	$ 22,788,974	$ 152,096,214
Debt Service				
Existing Debt				
Senior Debt Service	$ 46,517,270	$ 17,004,505	$ 10,164,108	$ 73,685,883
Subordinate Debt Service	15,316,971	6,246,457	1,102,441	22,665,869
Subtotal: Existing Debt	$ 61,834,241	$ 23,250,962	$ 11,266,549	$ 96,351,752
Proposed Debt				
Revolving Line of Credit Interest	$ 2,486,355	$ 444,299	$ 69,347	$ 3,000,000
Revenue Bonds	7,271,446	1,866,220	1,544,887	10,682,553
SRF Loans	302,669	129,715	-	432,384
Subtotal: Proposed Debt	$ 10,060,470	$ 2,440,234	$ 1,614,234	$ 14,114,937
Subtotal: Debt Service	$ 71,894,711	$ 25,691,196	$ 12,880,782	$ 110,466,689
Capital Expenditures & Transfers				
DSIC Capital	$ 13,903,179	$ 4,995,365	$ -	$ 18,898,544
Debt Coverage Capital - Existing Senior	11,062,153	3,679,659	3,679,659	18,421,471
Debt Coverage Capital - Existing Total	-	-	-	-
Debt Coverage Capital - Future Senior	2,213,385	395,520	61,733	2,670,638
Debt Coverage Capital - Future Total	-	-	-	-
Other Transfers to Reserves	2,319,564	939,779	410,656	3,670,000
Reimbursements from Municipalities	-	-	-	-
Remarketing & Liquidity Charges	-	-	-	-
Water and Wastewater Leak Credit	662,322	-	-	662,322
Rider AFP	140,047	140,047	-	280,094
Stormwater Credits Cost	-	-	288,016	288,016
Subtotal: Capital Expenditures & Transfers	$ 30,300,651	$ 10,150,370	$ 4,440,064	$ 44,891,085
Total: Base Rate Revenue Requirements	**$ 201,861,828**	**$ 65,482,339**	**$ 40,109,821**	**$ 307,453,988**
Bad Debt Costs	$ 3,300,954	1,202,969	1,693,736	$ 6,197,660
Total Revenue Requirement	**$ 205,162,782**	**$ 66,685,308**	**$ 41,803,557**	**$ 313,651,648**

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Utility Allocation Factor Summary

Pittsburgh Water
Allocation Factors - Between Utilities

Allocations to Utilities (Revenue Requirements & Assets)				
Code	*Description*	*Water*	*Sewer*	*Stormwater*
A	Water Only	100.0%	0.0%	0.0%
B	Wastewater Only	0.0%	100.0%	0.0%
C	Stormwater Only	0.0%	0.0%	100.0%
D	Customer Service - Meters	50.0%	50.0%	0.0%
E	Customer Bills	26.6%	35.5%	37.9%
F	Operations Cost	78.7%	10.6%	10.7%
G	Engineering and Construction	76.5%	15.6%	8.0%
H	Environmental Compliance	33.3%	33.3%	33.3%
I	Customer Service - Composite	28.2%	36.4%	35.4%
J	Wastewater - Conveyance	0.0%	50.0%	50.0%
K	Existing Debt Service - Assets	60.1%	20.0%	20.0%
L	2022-2024 Actual Revenue	63.2%	25.6%	11.2%

Sewer / Stormwater Allocation Factor Detail	**Sewer**	**Stormwater**
Conveyance	50.0%	50.0%
Debt Service	50.0%	50.0%

Exhibit HJS-1W to HJSW-25
Rebuttal

Water System Revenue Requirements	**2026 FPFTY Revenue Requirements**	**2027 Revenue Requirements**
Operating Expenses		
Direct Operating Expenses		
Administrative Division		
Chief Executive Office	$ 2,546,673	$ 2,546,673
Customer Service	3,325,785	3,325,785
Technology Services	7,358,052	7,358,052
Finance	11,495,605	11,495,605
Human Resources	2,209,600	2,209,600
Legal	3,644,888	3,644,888
Safety & Security	2,120,671	2,120,671
Public Affairs	1,486,785	1,486,785
Operations Division		
Environmental Compliance	1,034,777	1,034,777
Warehouse	467,317	467,317
Laboratory	2,451,574	2,451,574
Water Treatment Plant	21,463,532	21,463,532
Sewer Operations	-	-
Water Operations	19,182,029	19,182,029
Engineering & Construction		
Engineering & Construction	20,879,180	20,879,180
Total Operating Expenses	$ 99,666,467	$ 99,666,467
Debt Service		
Existing Debt	$ 61,834,241	67,287,997
Future Debt	10,060,470	15,480,150
Subtotal: Debt Service	$ 71,894,711	$ 82,768,147
Other Expenditures & Transfers		
DSIC Capital	$ 13,903,179	14,889,285
Debt Coverage Capital - Existing Senior	11,062,153	11,377,342
Debt Coverage Capital - Future Senior	2,213,385	4,380,738
Other Transfers to Reserves	2,319,564	2,319,564
Water and Wastewater Leak Credit	662,322	662,322
Rider AFP	140,047	140,047
Subtotal: Other Expenditures & Transfers	$ 30,300,651	$ 33,769,298
Total: Water System Revenue Requirements	**$ 201,861,828**	**$ 216,203,912**
Less: Capital Costs to be Recovered through DSIC	$ (13,903,179)	$ (14,889,285)
Add: Bad Debt Expense	3,300,954	3,300,954
Total: Water System Revenue Requirement (Excl DSIC)	**$ 191,259,603**	**$ 204,615,581**

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Assignment to Functional Categories

			Water Functional Categories								
Water Operating Costs	**FY 2026**	**Allocation**	*Supply*	*Treatment*	*Storage*	*Transmission*	*Distribution*	*Meters/Services*	*Billing*	*Fire Protection*	*Admin Support*
Operating Expenses	*FPFTY*										
Direct Operating Expenses											
Administrative Division											
Chief Executive Office	$ 2,546,673	W-H									100.0%
Customer Service	3,325,785	W-I						32.7%	67.3%		
Technology Services	7,358,052	W-H									100.0%
Finance	11,495,605	W-H									100.0%
Human Resources	2,209,600	W-H									100.0%
Legal	3,644,888	W-H									100.0%
Safety & Security	2,120,671	W-H									100.0%
Public Affairs	1,486,785	W-H									100.0%
Operations Division											
Environmental Compliance	1,034,777	W-H									100.0%
Warehouse	467,317	W-H									100.0%
Laboratory	2,451,574	W-H									100.0%
Water Treatment Plant	21,463,532	W-B		100.0%							
Sewer Operations	-	n/a									100.0%
Water Operations	19,182,029	W-K				34.7%	58.6%	6.7%			
Engineering & Construction Division											
Engineering & Construction	20,879,180	W-J		7.8%	34.3%	18.5%	31.3%	3.6%			4.5%
Subtotal: Direct Operating Expenses	$ 99,666,467										
Other Operating Expenses											
Loss / (Gain) on ALCOSAN Billings	-	n/a									100.0%
Total: Operating Expenses	**$ 99,666,467**										

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Assignment to Functional Categories

Water Operating Expenses	FY 2026	Allocation	Water Functional Categories								
			Supply	*Treatment*	*Storage*	*Transmission*	*Distribution*	*Meters/Services*	*Billing*	*Fire Protection*	*Admin Support*
Direct Operating Expenses	*FPFTY*										
Administrative Division											
Chief Executive Office	$ 2,546,673	W-H	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,546,673
Customer Service	3,325,785	W-I	-	-	-	-	-	1,086,092	2,239,692	-	-
Technology Services	7,358,052	W-H	-	-	-	-	-	-	-	-	7,358,052
Finance	11,495,605	W-H	-	-	-	-	-	-	-	-	11,495,605
Human Resources	2,209,600	W-H	-	-	-	-	-	-	-	-	2,209,600
Legal	3,644,888	W-H	-	-	-	-	-	-	-	-	3,644,888
Safety & Security	2,120,671	W-H	-	-	-	-	-	-	-	-	2,120,671
Public Affairs	1,486,785	W-H	-	-	-	-	-	-	-	-	1,486,785
Operations Division											
Environmental Compliance	1,034,777	W-H	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,034,777
Warehouse	467,317	W-H	-	-	-	-	-	-	-	-	467,317
Laboratory	2,451,574	W-H	-	-	-	-	-	-	-	-	2,451,574
Water Treatment Plant	21,463,532	W-B	-	21,463,532	-	-	-	-	-	-	-
Sewer Operations	-	n/a	-	-	-	-	-	-	-	-	-
Water Operations	19,182,029	W-K	-	-	-	6,651,427	11,246,022	1,284,580	-	-	-
Engineering & Construction Division											
Engineering & Construction	20,879,180	W-J	-	1,622,585	7,156,340	3,870,476	6,544,079	747,499	-	-	938,202
Subtotal: Direct Operating Expenses	$ 99,666,467		$ -	$ 23,086,117	$ 7,156,340	$ 10,521,903	$ 17,790,101	$ 3,118,171	$ 2,239,692	$ -	$ 35,754,143
Other Operating Expenses											
Loss / (Gain) on ALCOSAN Billings	-	n/a	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Allocated Water Operating Costs	**$ 99,666,467**		**$ -**	**$ 23,086,117**	**$ 7,156,340**	**$ 10,521,903**	**$ 17,790,101**	**$ 3,118,171**	**$ 2,239,692**	**$ -**	**$ 35,754,143**

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Assignment to Functional Categories

Allocated Water Assets			Water Functional Categories									
Row Labels	**Allocated Costs**	**Allocation**	*Supply*	*Treatment*	*Storage*	*Transmission*	*Distribution*	*Meters/Services*	*Billing*	*Fire Protection*	*Admin Support*	*Total*
Struc. and Improvements - Source of Supply and Pumping	5,043,183	W-A	100.00%									100.00%
Structures and Improvements - WTP	30,820,327	W-B		100.00%								100.00%
Structures and Improvements - Transmission and Distribution	-	W-D				37.16%	62.84%					100.00%
Pumping Equipment	41,426,307	W-D				37.16%	62.84%					100.00%
Water Treatment Equipment	112,111,497	W-B		100.00%								100.00%
Distribution Reservoirs and Standpipes	80,973,457	W-C			100.00%							100.00%
Transmission and Distribution Mains	470,080,781	W-K				34.68%	58.63%	6.70%				100.00%
Meters and Meter Installations	33,873,288	W-E						100.00%				100.00%
Fire Hydrants	16,914,413	W-G								100.00%		100.00%
Office Furniture and Equipment	117,283	W-H									100.00%	100.00%
Office Furniture and Equipment - Computer Hardware	3,293,295	W-H									100.00%	100.00%
Office Furniture and Equipment - ERP System	6,423,182	W-H									100.00%	100.00%
Transportation Equipment	9,779,694	W-H									100.00%	100.00%
Tools, Shop and Garage Equipment	292,770	W-H									100.00%	100.00%
Laboratory Equipment	124,112	W-B		100.00%								100.00%
Collection Sewers - Gravity	-	n/a										0.00%
Manholes	-	n/a										0.00%
Wastewater Plant	-	n/a										0.00%
Power Operated Equipment	-	n/a										
Total	**811,273,589**		$ 5,043,183	$ 143,055,936	$ 80,973,457	$ 178,397,652	$ 301,629,119	$ 65,353,605	$ -	$ 16,914,413	$ 19,906,224	**$ 811,273,589**
Allocation Factors for Capital Costs			**0.62%**	**17.63%**	**9.98%**	**21.99%**	**37.18%**	**8.06%**	**0.00%**	**2.08%**	**2.45%**	**100.00%**

		Supply	*Treatment*	*Storage*	*Transmission*	*Distribution*	*Meters/Services*	*Billing*	*Fire Protection*	*Admin Support*
Allocation of Capital Costs										
Debt Service	$ 71,894,711	$ 446,925	$ 12,677,555	$ 7,175,832	$ 15,809,522	$ 26,730,241	$ 5,791,608	$ -	$ 1,498,948	$ 1,764,081
Debt Coverage Capital - Existing Senior	11,062,153	68,767	1,950,645	1,104,117	2,432,548	4,112,876	891,132	-	230,637	271,432
Debt Coverage Capital - Future Senior	2,213,385	13,759	390,297	220,919	486,719	822,930	178,303	-	46,147	54,310
Other Transfers to Reserves	2,319,564	14,419	409,020	231,516	510,068	862,407	186,857	-	48,361	56,915
Bad Debt Expense (1)		-	-	-	-	-	-	-	-	-
Rider AFP	140,047	871	24,695	13,978	30,796	52,069	11,282	-	2,920	3,436
Water and Wastewater Leak Credit	662,322	4,117	116,790	66,107	145,643	246,249	53,355	-	13,809	16,251
Total: Allocated Capital Costs	$ 88,292,182	$ 548,858	$ 15,569,003	$ 8,812,469	$ 19,415,297	$ 32,826,772	$ 7,112,536	$ -	$ 1,840,822	$ 2,166,426

(1) Bad Debt Expense allocated directly to customer classes based on each classes responsibility for historical bad debt and included as an adjustment in Rate Design.

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Allocation to Base/Extra Capacity Categories

	FY 2026 FPFTY	Allocation	Water Cost Drivers: Base	Max Day	Peak Hour	Meters / Services	Bills	Fire Protection
Water Revenue Requirement								
Functional Categories								
Supply	$ 548,858	W-AA	100.00%					
Treatment	38,655,120	W-BB	70.73%	27.51%				1.75%
Storage	15,968,808	W-CC	54.12%	17.20%	20.30%			8.38%
Transmission	29,937,200	W-BB	70.73%	27.51%				1.75%
Distribution	50,616,872	W-CC	54.12%	17.20%	20.30%			8.38%
Meters/Services	10,230,707	W-DD				100.00%		
Billing	2,239,692	W-EE					100.00%	
Fire Protection	1,840,822	W-FF						100.00%
Admin Support	37,920,569	W-GG	56.72%	20.21%	9.01%	6.82%	1.49%	5.75%
Total: Water Revenue Requirements	$ 187,958,649							

	FY 2026 FPFTY	Allocation	Water Cost Drivers: Base	Max Day	Peak Hour	Meters / Services	Bills	Fire Protection
Water Revenue Requirement								
Functional Categories								
Supply	$ 548,858	W-AA	$ 548,858	$ -	$ -	$ -	$ -	$ -
Treatment	38,655,120	W-BB	27,342,238	10,635,354	-	-	-	677,527
Storage	15,968,808	W-CC	8,642,125	2,745,981	3,242,322	-	-	1,338,380
Transmission	29,937,200	W-BB	21,175,721	8,236,755	-	-	-	524,724
Distribution	50,616,872	W-CC	27,393,236	8,704,028	10,277,299	-	-	4,242,309
Meters/Services	10,230,707	W-DD	-	-	-	10,230,707	-	-
Billing	2,239,692	W-EE	-	-	-	-	2,239,692	-
Fire Protection	1,840,822	W-FF	-	-	-	-	-	1,840,822
Admin Support	37,920,569	W-GG	21,508,693	7,663,601	3,416,944	2,585,705	566,059	2,179,567
Total: Water Revenue Requirements	$ 187,958,649		$ 106,610,871	$ 37,985,718	$ 16,936,566	$ 12,816,412	$ 2,805,751	$ 10,803,329
Costs to Recover from Water Charges	**$ 187,958,649**		$ 106,610,871	$ 37,985,718	$ 16,936,566	$ 12,816,412	$ 2,805,751	$ 10,803,329
			56.7%	20.2%	9.0%	6.8%	1.5%	5.7%

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Allocation Factor Summary

Cost Functionalization: Water										
Code	*Description*	*Supply*	*Treatment*	*Storage*	*Transmission*	*Distribution*	*Meters/Services*	*Billing*	*Fire Protection*	*Admin Support*
W-A	Supply Only	100.00%								
W-B	Treatment Only		100.00%							
W-C	Storage Only			100.00%						
W-D	Transmission & Distribution Only				37.16%	62.84%				
W-E	Meters Only						100.00%			
W-F	Billing Only							100.00%		
W-G	Fire Protection Only								100.00%	
W-H	Admin Support Only									100.00%
W-I	Customer Service						32.66%	67.34%		
W-J	Engineering & Construction		7.77%	34.28%	53.46%					4.49%
W-K	Transmission, Distribution and Services				34.68%	58.63%	6.70%			

Allocation to Cost Drivers: Water								
Code	*Description*	*Base*	*Max Day*	*Peak Hour*	*Meters/Services*	*Bills*	*Readiness-to-Serve*	*Fire Protection*
W-AA	Base	100.00%						
W-BB	Maximum Day	70.73%	27.51%					1.75%
W-CC	Peak Hour	54.12%	17.20%	20.30%				8.38%
W-DD	Customer - Meters				100.00%			
W-EE	Customer - Billing					100.00%		
W-FF	Fire Protection							100.00%
W-GG	Admin Support (Composite)	56.72%	20.21%	9.01%	6.82%	1.49%	0.00%	5.75%
W-HH	Readiness-to-Serve						100.00%	

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Allocation Factor Detail

Factor Derivations - Allocation to Functional Categories & Cost Components					
Code(s)	*Description*	*Calculations*			
W-I WW-E	Customer Service - This factor allocates the 2026 customer service budget between meter- and billing-related costs.	2026 Customer Service Budget	FPFTY	Meter	Billing
		Salary Wages	4,779,622	30.00%	70.00%
		OT Premium Pay	128,750	30.00%	70.00%
		Shift Differential	12,000	30.00%	70.00%
		Holiday Pay	278,234	30.00%	70.00%
		Vacation Pay	410,188	30.00%	70.00%
		Personal Time Pay	232,808	30.00%	70.00%
		Fed Ins Contr Act Tx	360,538	30.00%	70.00%
		Medicare	84,688	30.00%	70.00%
		Med Health Ins	1,296,465	30.00%	70.00%
		Med Hlth Ins Waiver	8,800	30.00%	70.00%
		Short Term Disability	52,953	30.00%	70.00%
		Long Term Disability	8,396	30.00%	70.00%
		Life Ins <50k	6,146	30.00%	70.00%
		Accident Death Dismember	1,298	30.00%	70.00%
		Dental Ins	38,867	30.00%	70.00%
		Vision Insur	7,252	30.00%	70.00%
		Tuition Reimburse	20,000	30.00%	70.00%
		Retirement Benefit	105,621	30.00%	70.00%
		Misc Benefits	(14,520)	30.00%	70.00%
		Annual Software Support	52,458	50.00%	50.00%
		Customer CC Fees	-	0.00%	100.00%
		Postage	698,256	0.00%	100.00%
		Equip Rental	1,700	100.00%	0.00%
		Billing Contract	289,250	0.00%	100.00%
		Meter Services	765,740	100.00%	0.00%
		Prof Service Other	212,668	20.00%	80.00%
		Water Liens	105,000	50.00%	50.00%
		Office Supplies	2,000	50.00%	50.00%
		Uniforms	1,200	50.00%	50.00%
		TE Airfare	1,550	50.00%	50.00%
		TE Auto Rentals	825	50.00%	50.00%
		TE Lodging	2,575	50.00%	50.00%
		TE Training	2,060	50.00%	50.00%
		Customer Refund AP	750,000	0.00%	100.00%
		Education & Outreach	5,000	0.00%	100.00%
		Miscellaneous General Administrative Expense	900,000	50.00%	50.00%
		One Call	30,000	0.00%	100.00%
		Publication Subscription	3,600	0.00%	100.00%
		Non.City Water Reimburse	167,280	100.00%	0.00%
		Total	$ 11,809,266	$ 3,856,519	$ 7,952,747
		Allocation Factors		*32.66%*	*67.34%*

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Allocation Factor Detail

Factor Derivations - Allocation to Functional Categories & Cost Components		
Code(s)	*Description*	*Calculations*

W-D Water Pipe Inventory

- Allocate costs between transmission and distribution functional categories. Assumes Pipes less than or equal to 16" are Distribution-related.

Breakdown		
Distribution	35,272,466	62.8%
Transmission	20,861,796	37.2%
Total	56,134,262	100.0%

W-K Water Pipe Inventory with Service Lines

Allocate Water Distribution costs between Transmission, Distribution, and Service Lines
**No size records: assumption is all are 1"*

Breakdown		
Distribution	35,272,466	58.63%
Transmission	20,861,796	34.68%
Service Lines	4,029,007	6.70%
Total	60,163,269	100.00%

Inch-Foot Analysis		
Diameter (in)	*Linear Feet*	*Inch-Feet*
0.75	810	608
1	1,320	1,320
1.5	753	1,130
2	10,258	20,515
2.5	13	33
3	168	504
4	87,802	351,206
6	2,033,436	12,200,615
8	1,264,995	10,119,962
10	81,364	813,641
12	625,288	7,503,452
14	1,297	18,154
15	11,300	169,496
16	254,489	4,071,831
18	469	8,433
20	210,028	4,200,554
24	83,897	2,013,539
28	98	2,732
30	115,161	3,454,840
36	83,123	2,992,444
42	10,891	457,431
42.5	13,295	565,022
48	19,308	926,762
50	23,271	1,163,533
50.25	10,474	526,323
54	1,494	80,662
60	54,641	3,278,473
66	1,492	98,501
72	3,619	260,603
84	3,969	333,392
96	4,554	437,215
120	511	61,337
	5,013,588	56,134,262

Water Service Lines		
1	4,029,007	4,029,007

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Allocation Factor Detail

Factor Derivations - Allocation to Functional Categories & Cost Components

Code(s)	*Description*	*Calculations*

W-J Engineering & Construction

- This factor uses the 2026 Water CIP costs to allocate Engineering & Construction costs to the various functional categories.

2026 Water CIP Costs	$$ Amount	Allocation
Treatment	$ 22,116,205	7.77%
Storage	97,542,544	34.28%
Trans. & Distr.	152,141,343	53.46%
Admin	12,787,903	4.49%
Total Water CIP	$ 284,587,995	100.00%

W-BB Maximum Day

- Maximum day costs are allocated using a peak day determined using system daily production records. Fire demands are determined in HJS-7W.

Plant Production Data		
2022-2024 Avg Plant Production	64.43	mgd
2022-2024 Avg. Peak Day	82.16	mgd
Peak Hour Factor (1.6)	103.09	mgd

Base	70.73%
Maximum Day	27.51%
Fire Protection	1.75%

W-CC Peak Hour

- Peak hour costs are allocated using an estimated peak hour compared to system average and maximum day processed. Fire demands are determined in HJS-7W.

Plant Production Data		
2022-2024 Avg Plant Production	64.43	mgd
2022-2024 Avg. Peak Day	82.16	mgd
Peak Hour Factor (1.6)	103.09	mgd

Peak Hour / Avg	54.12%
Max Day (Plug)	17.20%
Peak Hr / Peak Day	20.30%
Fire Protection	8.38%

Equivalency Flow Ratios

- Used to escalate metering and readiness-to-serve costs, these ratios are industry standard and obtained from the American Waterworks Association

Equivalency Ratios

	Flow
5/8"	1.00
3/4"	1.50
1"	2.50
1 1/2"	5.00
2"	8.00
3"	16.00
4"	25.00
6"	50.00
8"	80.00
10"	115.00
Unmetered	1.00

	Fire Flow	Fire Equiv
1" or Less	2.50	1.00
1 1/2"-3"	8.00	6.19
4"	25.00	38.32
6" or Greater	50.00	111.31

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Allocation Factor Detail

Factor Derivations - Allocation to Functional Categories & Cost Components		
Code(s)	*Description*	*Calculations*

WW-DD Wastewater Pipe Inventory

- Allocate costs between conveyance and collection functional categories. Assumes Pipes less than or equal to 16" are Collection-related.

Breakdown		
Collection	57,630,168	50.7%
Conveyance	56,095,821	49.3%
Total	113,725,990	100.0%

Inch-Foot Analysis		
Diameter (in)	*Linear Feet*	*Inch-Feet*
4	1,220	4,881
6	8,404	50,423
8	814,960	6,519,681
9	40,085	360,768
10	96,454	964,544
12	633,952	7,607,422
13	71	928
14	264	3,700
15	2,804,878	42,073,176
16	2,790	44,645
18	594,732	10,705,177
20	243,154	4,863,074
21	25,299	531,282
22	1,366	30,049
23	51	1,168
24	357,856	8,588,555
26	1,383	35,960
27	17,864	482,325
28	1,635	45,774
29	360	10,439
30	142,595	4,277,850
31	1,382	42,848
33	22,202	732,674
34	675	22,934
35	287	10,047
36	205,322	7,391,598
37	889	32,889
38	411	15,619
39	8,494	331,264
39.5	1,334	52,700
40	3,826	153,058
42	90,722	3,810,329
44	265	11,680
45	5,037	226,666
46	45	2,079
48	98,876	4,746,029
50	2,168	108,418
51	2,665	135,896
52	395	20,538
53	2,498	132,392
54	49,666	2,681,944
56	671	37,599
57	7,950	453,127
58	493	28,614
60	49,017	2,941,035
64	1,023	65,494
66	23,731	1,566,254
68	8,026	545,802
69	1,720	118,707
72	60,124	4,328,927
74	157	11,653
75	1,446	108,427
78	18,830	1,468,760
81	3,428	277,680
84	16,551	1,390,274
85	1,109	94,299
87	658	57,250
88	607	53,435
90	6,946	625,155
92	899	82,706
96	32,723	3,141,431
99	4,480	443,481
102	6,944	708,286
108	7,636	824,708
114	1,509	172,023
120	5,567	668,047
121	162	19,576
132	2,854	376,735
135	6	868
138	471	65,037
144	1,526	219,756
155	1,028	159,382
156	6,010	937,623

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Water Units of Service

	Collection Factor	FY 2026 Consumption	Allocated Consumption	Average Day	Maximum Day Cap. Factor	Maximum Day Total Cap.	Maximum Day Extra Cap.	Peak Hour Cap. Factor	Peak Hour Total Cap.	Peak Hour Extra Cap.	Equivalent Meters	Total Bills	Fire Equivalents
Units of Service													
Retail Service													
Residential (1)	100.0%	2,468,974	2,468,974	6,764	130.0%	8,794	2,029	215.0%	14,543	5,750	844,302	780,780	-
Residential - CAP	100.0%	170,316	170,316	467	130.0%	607	140	215.0%	1,003	397	60,882	59,952	-
Commercial (1)	100.0%	2,869,903	2,869,903	7,863	140.0%	11,008	3,145	230.0%	18,084	7,076	390,708	86,484	-
Industrial	100.0%	180,447	180,447	494	175.0%	865	371	235.0%	1,162	297	9,006	396	-
Health or Education	100.0%	1,043,462	1,043,462	2,859	145.0%	4,145	1,286	240.0%	6,861	2,716	80,160	5,280	-
Municipal - Residential	100.0%	619	619	1.70	130.0%	2	1	215.0%	4	1	1,764	1,752	-
Municipal - Commercial	100.0%	119,961	119,961	328.66	140.0%	460	131	230.0%	756	296	6,438	1,176	-
Private Fire Systems	100.0%	7,364	7,364	20	230.0%	46	26	380.0%	77	30	54,894	17,124	42,466
Public Fire	100.0%	-	-	-	100.0%	-	-	100.0%	-	-	-	-	10,088,777
Subtotal: Retail Service		6,861,045	6,861,045	18,797		25,927	7,130		42,490	16,563	1,448,154	952,944	10,131,243
		12,072											
Wholesale & Bulk													
Wholesale	100.0%	773,084	773,084	2,118	130.0%	2,753	635	215.0%	4,554	1,800	1,170	84	
Bulk	100.0%	-	-	-	0.0%	-	-	0.0%	-	-	-	-	
Subtotal: Wholesale & Bulk		773,084	773,084	2,118		2,753	635		4,554	1,800	1,170	84	-
Total: Water Units of Service		7,646,201	7,634,129	20,915		28,681	7,765		47,044	18,363	1,449,324	953,028	10,131,243

(1) Includes unmetered units and equivalent usage.

	Maximum Day Class MM/AD	Maximum Day System MD/MM	Maximum Day Weekly Use Adjustment	Maximum Day **MD Peaking Factor (2)**	Peak Hour Estimated MH/MD	Peak Hour **MH Peaking Factor (2)**
Peaking Factors (1)						
Residential	1.13	1.14	1.00	**1.30**	1.66	**2.15**
Commercial	1.23	1.14	1.00	**1.40**	1.66	**2.30**
Industrial	1.56	1.14	1.00	**1.75**	1.33	**2.35**
Health or Education	1.25	1.14	1.00	**1.45**	1.66	**2.40**
Fire System	2.00	1.14	1.00	**2.30**	1.66	**3.80**
Wholesale	1.14	1.14	1.00	**1.30**	1.66	**2.15**

(1) Peaking factors determined using customer billing information from 2022-2024.
(2) Maximum Day and Maximum Hour peaking factors are rounded.

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Fire Protection Cost Allocation and Units of Service

Determination of Allocation Factors for Public & Private Fire Costs

Required Fire Flow	6,000	GPM
Required Duration for Fire Flow (Hours)	4	hours
Maximum Day - Fire	1,440,000	gallons
Maximum Day - System	82,156,655	gallons
% of Maximum Day for Fire	1.75%	
Peak Hour - Fire	360,000	gallons
Peak Hour - System	4,295,320	gallons
% of Maximum Day for Fire	8.38%	

Fire Service Units	Connections	Equivalent Factor	Equivalent Units	Percent
Allocation to Public/Private				
Public Hydrants	7,553	111.31	840,731	99.58%
Private Fire				
1" or Less	1,383	1.00	1,383	
1 1/2"-3"	24	6.19	149	
4"	3	38.32	115	
6" or Greater	17	111.31	1,892	
Subtotal: Private Fire	1,427		3,539	0.42%
Total	8,980		844,270	

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Water Unit Cost of Service

Development of Unit Costs of Service	FY 2026 FPFTY	Unit Costs					
		Base	Extra Capacity		Meters / Services	Bills	Fire Protection
			Max Day	Peak Hour			
Units of Service							
Retail		6,861,045	7,130	16,563	1,448,154	952,944	10,131,243
Wholesale		773,084	635	1,800	1,170	84	-
Total System Units		7,634,129	7,765	18,363	1,449,324	953,028	10,131,243
Units		*kgal*	*kgal/day*	*kgal/day*	*Eq. Cost Meter*	*Total Bills*	*Eq. Fire Cnx*
Allocated Revenue Requirement							
Supply	$ 548,858	$ 548,858	$ -	$ -	$ -	$ -	$ -
Treatment	38,655,120	27,342,238	10,635,354	-	-	-	677,527
Storage	15,968,808	8,642,125	2,745,981	3,242,322	-	-	1,338,380
Transmission	29,937,200	21,175,721	8,236,755	-	-	-	524,724
Distribution	50,616,872	27,393,236	8,704,028	10,277,299	-	-	4,242,309
Meters/Services	10,230,707	-	-	-	10,230,707	-	-
Billing	2,239,692	-	-	-	-	2,239,692	-
Fire Protection	1,840,822	-	-	-	-	-	1,840,822
Admin Support	37,920,569	21,508,693	7,663,601	3,416,944	2,585,705	566,059	2,179,567
Total: Revenue Requirements	$ 187,958,649	$ 106,610,871	$ 37,985,718	$ 16,936,566	$ 12,816,412	$ 2,805,751	$ 10,803,329
Revenue Offsets	(2,212,168)	$ (1,254,750)	$ (447,071)	$ (199,334)	$ (150,842)	$ (33,022)	$ (127,149)
Total: Costs of Service	**$ 185,746,481**	**$ 105,356,121**	**$ 37,538,648**	**$ 16,737,232**	**$ 12,665,570**	**$ 2,772,729**	**$ 10,676,180**
Gross Unit Cost		**$ 13.80**	**$ 4,834.20**	**$ 911.46**	**$ 8.74**	**$ 2.91**	**$ 1.05**
Unit Cost - Retail ($ / Unit) (Includes Distribution)		$ 14.20	$ 4,934.09	$ 972.30	$ 8.74	$ 2.91	$ 1.05
Unit Cost - Wholesale ($ / Unit) (Excludes Distribution)		$ 10.21	$ 3,713.30	$ 351.79	$ 8.74	$ 2.91	$ 1.05

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Cost Distribution to Customer Classes

Customer Class Cost of Service	Unit Costs						Total
	Base	Extra Capacity		Meters / Services	Bills	Fire Protection	
		Max Day	Peak Hour				
Residential							
Unit Costs ($/unit)	$ 14.205	$ 4,934.091	$ 972.296	$ 8.739	$ 2.909	$ 1.054	
Units of Service	2,468,974	2,029	5,750	844,302	780,780	-	
Cost of Service	$ 35,071,750	$ 10,012,720	$ 5,590,378	$ 7,378,313	$ 2,271,593	$ -	$ 60,324,755
Residential - CAP							
Unit Costs ($/unit)	$ 14.205	$ 4,934.091	$ 972.296	$ 8.739	$ 2.909	$ 1.054	
Units of Service	170,316	140	397	60,882	59,952	-	
Cost of Service	$ 2,419,332	$ 690,701	$ 385,637	$ 532,045	$ 174,424	$ -	$ 4,202,139
Commercial							
Unit Costs ($/unit)	$ 14.205	$ 4,934.091	$ 972.296	$ 8.739	$ 2.909	$ 1.054	
Units of Service	2,869,903	3,145	7,076	390,708	86,484	-	
Cost of Service	$ 40,766,942	$ 15,518,207	$ 6,880,428	$ 3,414,378	$ 251,616	$ -	$ 66,831,570
Industrial							
Unit Costs ($/unit)	$ 14.205	$ 4,934.091	$ 972.296	$ 8.739	$ 2.909	$ 1.054	
Units of Service	180,447	371	297	9,006	396	-	
Cost of Service	$ 2,563,243	$ 1,829,466	$ 288,407	$ 78,703	$ 1,152	$ -	$ 4,760,972
Health or Education							
Unit Costs ($/unit)	$ 14.205	$ 4,934.091	$ 972.296	$ 8.739	$ 2.909	$ 1.054	
Units of Service	1,043,462	1,286	2,716	80,160	5,280	-	
Cost of Service	$ 14,822,367	$ 6,347,511	$ 2,640,620	$ 700,514	$ 15,362	$ -	$ 24,526,374
Municipal - Residential							
Unit Costs ($/unit)	$ 14.205	$ 4,934.091	$ 972.296	$ 8.739	$ 2.909	$ 1.054	
Units of Service	619	1	1	1,764	1,752	-	
Cost of Service	$ 8,793	$ 2,510	$ 1,402	$ 15,416	$ 5,097	$ -	$ 33,218
Municipal - Commercial							
Unit Costs ($/unit)	$ 14.205	$ 4,934.091	$ 972.296	$ 8.739	$ 2.909	$ 1.054	
Units of Service	119,961	131	296	6,438	1,176	-	
Cost of Service	$ 1,704,039	$ 648,654	$ 287,599	$ 56,261	$ 3,421	$ -	$ 2,699,975
Private Fire System							
Unit Costs ($/unit)	$ 14.205	$ 4,934.091	$ 972.296	$ 8.739	$ 2.909	$ 1.054	
Units of Service	7,364	26	30	54,894	17,124	42,466	
Cost of Service	$ 104,601	$ 129,405	$ 29,423	$ 479,716	$ 49,820	$ 44,750	$ 837,716
Public Fire Protection							
Unit Costs ($/unit)	$ 14.205	$ 4,934.091	$ 972.296	$ 8.739	$ 2.909	$ 1.054	
Units of Service						10,088,777	
Cost of Service	$ -	$ -	$ -	$ -	$ -	$ 10,631,430	$ 10,631,430
Wholesale							
Unit Costs ($/unit)	$ 10.212	$ 3,713.299	$ 351.789	$ 8.739	$ 2.909	$ 1.054	
Units of Service	773,084	635	1,800	1,170	84		
Cost of Service	$ 7,895,054	$ 2,359,473	$ 633,338	$ 10,225	$ 244	$ -	$ 10,898,334
Bulk							
Unit Costs ($/unit)	$ 10.212	$ 3,713.299	$ 351.789	$ 8.739	$ 2.909	$ 1.054	
Units of Service	-	-	-				
Cost of Service	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total: Costs of Service	**$ 105,356,121**	**$ 37,538,648**	**$ 16,737,232**	**$ 12,665,570**	**$ 2,772,729**	**$ 10,676,180**	**$ 185,746,481**

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Adjustments to Allocated Cost of Service

COS Adjustments	Allocation Method	Residential	Residential - CAP	Commercial	Industrial	Health or Education	Municipal - Residential	Municipal - Commercial	Private Fire System	Public Fire Protection	Wholesale	Total
Adjustments to Cost of Service												
Public Fire (Title 66 § 1328)	Equivalent Meters	58.3%	4.2%	27.0%	0.6%	5.5%	0.1%	0.4%	3.8%			100.0%
Wholesale Contracts	Unadj. COS	36.9%	2.6%	40.9%	2.9%	15.0%	0.0%	1.7%				100.0%
BDP Forgone Revenue	Unadj. COS	37.9%		42.0%	3.0%	15.4%	0.0%	1.7%				100.0%
Pennvest Surcharge	Billable Units	29.3%	1.0%	38.7%	2.9%	15.4%	0.0%	1.9%	0.1%		10.63%	100.0%
Gradualism: Industrial Class	Unadj. COS	38.0%	2.6%	42.1%		15.5%	0.0%	1.7%				100.0%
Adjustment: Health & Education (2)	Unadj. COS	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%				100.0%
Cost of Service by Class												
Allocated Cost of Service (Unadjusted)		$ 60,324,755	$ 4,202,139	$ 66,831,570	$ 4,760,972	$ 24,526,374	$ 33,218	$ 2,699,975	$ 837,716	$ 10,631,430	$ 10,898,334	$ 185,746,481
% of COS		*32.5%*	*2.3%*	*36.0%*	*2.6%*	*13.2%*	*0.0%*	*1.5%*	*0.5%*	*5.7%*	*5.9%*	*100.0%*
Adjustments to Cost of Service	Adjustment											
Public Fire (Title 66 § 1328)	7,973,573	4,648,748	335,218	2,151,248	49,587	441,363	9,713	35,448	302,248	(7,973,573)	-	(0)
Wholesale Contracts	3,854,463	1,423,191	99,138	1,576,701	112,322	578,630	784	63,698	-	-	(3,854,463)	-
BDP Forgone Revenue	2,710,853	1,027,358	(2,710,853)	1,138,171	81,081	417,695	566	45,982	-	-	-	(0)
Pennvest Surcharge	(12,305,372)	(3,599,437)	(128,994)	(4,766,207)	(362,733)	(1,890,086)	(1,197)	(232,727)	(15,671)	-	(1,308,319)	(12,305,372)
Gradualism - Industrial (1)	140,000	53,244	3,709	58,987	(140,000)	21,648	29	2,383	-	-	-	0
Adjustment: Health & Education (2)	3,000,000	(3,000,000)	-	-	-	3,000,000	-	-	-	-	-	-
Total: Adjusted Cost of Service		**$ 60,877,859**	**$ 1,800,356**	**$ 66,990,470**	**$ 4,501,229**	**$ 27,095,624**	**$ 43,112**	**$ 2,614,759**	**$ 1,124,292**	**$ 2,657,858**	**$ 5,735,551**	**$ 173,441,109**
% of COS		*35.1%*	*1.0%*	*38.6%*	*2.6%*	*15.6%*	*0.0%*	*1.5%*	*0.6%*	*1.5%*	*3.3%*	*100.0%*

(1) Gradualism adjusted such that class increase does not exceed 1.5x overall water system increase
(2) Adjustment to mitigate impact to residential class

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Forgone Revenue Cost of the Bill Discount Program

Units	Bills	CAP Usage	CAP - 50FPL Usage	CAP Bills	CAP - 50FPL Bills
5/8"	58,896	89,556	31,670	45,468	13,428
3/4"	636	-	-	480	156
1"	408	-	-	336	72
Unmetered	12	n/a	n/a	12	-
	59,952	89,556	31,670	46,296	13,656

Forgone Revenue Cost	Revenue At Full Rates	Revenue at CAP Rates	Difference
Fixed Charges	$ 2,110,356	$ -	$ 2,110,356
Fixed Bill Discount	$ -	$ (231,480)	$ 231,480
Volume Charges	615,029	246,012	369,018
Total Forgone Revenue Cost	2,725,385	14,532	2,710,853

Volume Discount 60.0%

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Minimum Charge Calculation

Water	Min. Usage Proposed	COS Rate Build-Up - Test Year: 2026							
		Meters/Services	*Billing*	*Usage*	*Total COS Rates*	*Adjustments* Public Fire	Private Fire Adj	CAP-BDP	Proposed Rates
Minimum Charge									
5/8"	1	$ 8.74	$ 2.91	$ 17.18	$ 28.83	$ 5.50	$ -	$ -	34.33
3/4"	2	13.11	2.91	34.36	50.37	8.25	-	-	58.63
1"	5	21.85	2.91	85.89	110.65	13.75	-	-	124.40
1 1/2"	10	43.69	2.91	171.78	218.38	27.51	-	-	245.89
2"	17	69.91	2.91	292.03	364.85	44.01	-	-	408.86
3"	40	139.82	2.91	687.12	829.86	88.03	-	-	917.88
4"	70	218.47	2.91	1,202.47	1,423.85	137.54	-	-	1,561.39
6"	175	436.95	2.91	3,006.16	3,446.02	275.08	-	-	3,721.10
8"	325	699.12	2.91	5,582.88	6,284.90	440.13	-	-	6,725.03
10" & Above	548	1,004.98	2.91	9,413.59	10,421.48	632.68	-	-	11,054.16
Unmetered	1	8.74	2.91	17.18	28.83	5.50	-	-	34.33
Residential - CAP									
5/8"	1	$ 8.74	$ 2.91	$ 17.18	$ 28.83	$ 5.50	$ -	$ (34.33)	$ -
3/4"	2	13.11	2.91	34.36	50.37	8.25	-	(58.63)	-
1"	5	21.85	2.91	85.89	110.65	13.75	-	(124.40)	-
Unmetered	1	8.74	2.91	17.18	28.83	5.50	-	(34.33)	-

Monthly Fire Protection	*Meters/Services*	*Billing*	*Fire*	*Total*	*Adjustments* Public Fire	Private Fire Adj	CAP-BDP	Proposed Rates
Public								
Per Hydrant	$ -	$ -	$ 117.30	$ 117.30	$ (87.97)	$ -	$ -	$ 29.32
Private								
1" or Less	$ 21.85	$ 2.91	$ 1.05	$ 25.81	$ -	$ 15.49	$ -	$ 41.30
1 1/2"-3"	69.91	2.91	6.52	79.34	-	47.61	-	126.95
4"	218.47	2.91	40.38	261.76	-	157.06	-	418.82
6" or Greater	436.95	2.91	117.30	557.15	-	334.29	-	891.45

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Volume Charge Calculation

	Unadjusted COS-Based Rates				
	Unadjusted Revenue Requirement	Fixed Charge Revenue	Total Volumetric Rev Req	Billed Volume	Proposed Rates
Volume Charge (per kgal)					
Residential	$ 60,324,755	$ 25,767,137	$ 34,557,618	1,703,327	$ 20.29
Residential - CAP	4,202,139	1,372,065	2,830,074	121,262	23.34
Commercial	66,831,570	19,452,993	47,378,577	2,239,641	21.15
Industrial	4,760,972	648,587	4,112,385	170,445	24.13
Health or Education	24,526,374	4,667,109	19,859,265	888,132	22.36
Municipal - Residential	33,218	51,021	(17,804)	562	(31.66)
Municipal - Commercial	2,699,975	321,683	2,378,292	109,356	21.75
Private Fire System	837,716	574,286	263,429	7,364	35.77
Public Fire	10,631,430	10,631,430	-	-	n/a
Wholesale	10,898,334	-	10,898,334	773,084	14.10
Totals	185,746,481	63,486,312	122,260,169	6,013,173	$ 20.33

	Determination of Proposed Rates						
	Adjusted Revenue Requirement	Bad Debt	Total Adjusted Revenue Requirement	Fixed Charge Revenue	Total Volumetric Rev Req	Equivalent Volume (for Ratemaking)	Proposed Rates
Volume Charge (per kgal)							
Residential + CAP + City Res	$ 62,721,327	$ 2,776,813	$ 65,498,140	$ 30,474,378	$ 35,023,762	1,806,150	$ 19.40
Commercial + City Com	69,605,229	416,524	70,021,753	21,959,648	48,062,105	2,348,997	20.47
Industrial	4,501,229	6,058	4,507,286	698,134	3,809,152	170,445	22.35
Health or Education	27,095,624	60,487	27,156,111	5,108,113	22,047,998	888,132	24.83
Municipal - Commercial							
Municipal - Residential							
Private Fire System	1,124,292	41,071	1,165,364	918,910	246,454	7,364	33.47
Public Fire	2,657,858		2,657,858	2,657,448	410	-	n/a
Wholesale	9,590,014		9,590,014	-	9,590,014	773,084	12.41
Totals	$ 177,295,572	$ 3,300,954	$ 180,596,526	61,816,632	118,779,894	5,994,171	$ 19.82

	Adjusted Revenue Requirement	Bad Debt	Total Adjusted Revenue Requirement	Fixed Charge Revenue	Total Volumetric Rev Req	Equivalent Volume (for Ratemaking)	Proposed Rates
Pennvest Volume Surcharge (per kgal)							
Existing PENNVEST	$ 12,002,703	-	$ 12,002,703	$ -	$ 12,002,703	5,782,170	$ 2.08
Future PENNVEST	302,669	-	302,669	-	302,669	5,782,170	0.05
Total	$ 12,305,372	$ -	$ 12,305,372	$ -	$ 12,305,372		$ 2.13

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Proposed Rates

	2025 FTY Prior Tariff Rates	2026 FPFTY Calculated Rates	2026 FPFTY Proposed Rates
Existing & Proposed Rates			
Minimum Charge			
5/8"	$ 31.54	$ 34.33	$ 34.33
3/4"	55.26	58.63	58.63
1"	121.38	124.40	124.40
1 1/2"	240.01	245.89	245.89
2"	401.04	408.86	408.86
3"	911.28	917.88	917.88
4"	1,562.27	1,561.39	1,561.39
6"	3,774.85	3,721.10	3,721.10
8"	6,877.76	6,725.03	6,725.03
10" & Above	11,393.44	11,054.16	11,054.16
Minimum Charge - CAP (1)			
5/8"	$ -	$ -	$ -
3/4"	-	-	-
1"	-	-	-
Fire System Charges			
Private			
1" or Less	$ 31.39	$ 41.30	$ 41.30
1 1/2"-3"	97.60	126.95	126.95
4"	314.87	418.82	418.82
6" or Greater	654.54	891.45	891.45
Public			
Per Hydrant	$ 20.69	$ 29.32	$ 29.32
Volume Charge			
Residential	$ 16.38	$ 19.40	$ 19.40
Residential - CAP	16.38	19.40	19.40
Residential - CAP (<50% FPL)	6.55	7.76	7.76
Commercial	16.58	20.47	20.47
Industrial	16.50	22.35	22.35
Health or Education	20.70	24.83	24.83
Municipal - Residential	16.38	19.40	19.40
Municipal - Commercial	16.58	20.47	20.47
Fire System	27.11	33.47	33.47
Wholesale	12.96	12.41	12.41
Unmetered Charges (per Unit)			
Residential	$ 80.68	$ 92.53	$ 92.53
Residential - CAP	49.14	58.20	58.20
Commercial	97.86	116.21	116.21
DSIC (Applies to all retail customers)	5.0%	7.5%	7.5%

(1) Proposed 100% discount on Minimum Charge for CAP-BDP customers in all years.

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Comparison of Base Rate Revenues by Customer Class

	FPFTY Revenue at Existing Rates	FPFTY Indicated COS by Customer Class (1)	Percent Difference	Dollar Difference
Base Rate Revenues				
Residential	$ 56,108,058	$ 60,324,755	7.5%	$ 4,216,697
Residential - CAP	1,675,022	4,202,139	150.9%	2,527,117
Commercial	58,478,739	66,831,570	14.3%	8,352,831
Industrial	3,522,467	4,760,972	35.2%	1,238,504
Health or Education	23,503,188	24,526,374	4.4%	1,023,186
Municipal (Residential & Commercial)	2,231,231	2,733,192	22.5%	501,961
Private Fire System	893,548	837,716	-6.2%	(55,832)
Public Fire Protection	1,875,259	10,631,430	100.0%	8,756,171
Wholesale	4,850,542	10,898,334	124.7%	6,047,792
Total: Base Rate Revenues	**$ 153,138,054**	**$ 185,746,481**	**21.3%**	**$ 32,608,427**

	FPFTY Indicated COS by Customer Class	FPFTY Adjusted COS by Customer Class (2)	Percent Difference	Dollar Difference
Base Rate Revenues				
Residential	$ 60,324,755	$ 60,877,859	0.9%	$ 553,104
Residential - CAP	4,202,139	1,800,356	-57.2%	(2,401,783)
Commercial	66,831,570	66,990,470	0.2%	158,900
Industrial	4,760,972	4,501,229	-5.5%	(259,743)
Health or Education	24,526,374	27,095,624	10.5%	2,569,250
Municipal (Residential & Commercial)	2,733,192	2,657,871	-2.8%	(75,321)
Private Fire System	837,716	1,124,292	34.2%	286,577
Public Fire Protection	10,631,430	2,657,858	-75.0%	(7,973,573)
Wholesale	10,898,334	5,735,551	-47.4%	(5,162,782)
Total: Base Rate Revenues	**$ 185,746,481**	**$ 173,441,109**	**-6.6%**	**$ (12,305,372)**

	FPFTY Revenue at Existing Rates	FPFTY Adjusted COS by Customer Class (2)	Percent Difference	Dollar Difference
Base Rate Revenues				
Residential	$ 56,108,058	$ 60,877,859	8.5%	$ 4,769,801
Residential - CAP	1,675,022	1,800,356	7.5%	125,334
Commercial	58,478,739	66,990,470	14.6%	8,511,731
Industrial	3,522,467	4,501,229	27.8%	978,761
Health or Education	23,503,188	27,095,624	15.3%	3,592,435
Municipal (Residential & Commercial)	2,231,231	2,657,871	19.1%	426,640
Private Fire System	893,548	1,124,292	25.8%	230,744
Public Fire Protection	1,875,259	2,657,858	41.7%	782,599
Wholesale	4,850,542	5,735,551	18.2%	885,009
Total: Base Rate Revenues	**$ 153,138,054**	**$ 173,441,109**	**13.3%**	**$ 20,303,055**

	FPFTY Revenue at Existing Rates	FPFTY Revenue at Proposed Rates (3)	Percent Difference	Dollar Difference
Base Rate Revenues				
Residential	$ 56,108,058	$ 63,458,192	13.1%	$ 7,350,135
Residential - CAP	1,675,022	1,983,848	18.4%	308,826
Commercial	58,478,739	67,447,988	15.3%	8,969,250
Industrial	3,522,467	4,507,573	28.0%	985,105
Health or Education	23,503,188	27,160,439	15.6%	3,657,250
Municipal (Residential & Commercial)	2,231,231	2,667,258	19.5%	436,027
Private Fire System	893,548	1,165,372	30.4%	271,824
Public Fire Protection	1,875,259	2,657,448	100.0%	782,189
Wholesale	4,850,542	5,735,551	18.2%	885,009
Total: Base Rate Revenues	**$ 153,138,054**	**$ 176,783,669**	**15.4%**	**$ 23,645,615**

(1) Includes Pennvest surcharge, excludes bad debt
(2) Excludes Pennvest surcharge and bad debt
(3) Excludes Pennvest surcharge, includes bad debt and minor rounding adjustment

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Cost of Service Summary

	Unadjusted COS (1)		Revenue at Existing Rates		Revenue at Proposed Rates		Proposed Increase	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Base Rate Revenues								
Residential	$ 60,324,755	32.5%	$ 56,108,058	36.6%	$ 63,458,192	35.9%	$ 7,350,135	13.1%
Residential - CAP	4,202,139	2.3%	1,675,022	1.1%	1,983,848	1.1%	308,826	18.4%
Commercial	66,831,570	36.0%	58,478,739	38.2%	67,447,988	38.2%	8,969,250	15.3%
Industrial	4,760,972	2.6%	3,522,467	2.3%	4,507,573	2.5%	985,105	28.0%
Health or Education	24,526,374	13.2%	23,503,188	15.3%	27,160,439	15.4%	3,657,250	15.6%
Municipal - Residential	33,218	0.0%	65,038	0.0%	71,639	0.0%	6,600	10.1%
Municipal - Commercial	2,699,975	1.5%	2,166,193	1.4%	2,595,619	1.5%	429,427	19.8%
Private Fire System	837,716	0.5%	893,548	0.6%	1,165,372	0.7%	271,824	30.4%
Public Fire Protection	10,631,430	5.7%	1,875,259	1.2%	2,657,448	1.5%	782,189	41.7%
Wholesale & Bulk	10,898,334	5.9%	4,850,542	3.2%	5,735,551	3.2%	885,009	18.2%
Subtotal: Base Rate Revenues	**$ 185,746,481**	100.0%	**$ 153,138,054**	100.0%	**$ 176,783,669**	100.0%	**$ 23,645,615**	15.4%
Pennvest Surcharge Revenues								
Residential	n/a	n/a	$ -		$ 3,599,437		$ 3,599,437	
Residential - CAP	n/a	n/a	-		128,994		128,994	
Commercial	n/a	n/a	-		4,766,207		4,766,207	
Industrial	n/a	n/a	-		362,733		362,733	
Health or Education	n/a	n/a	-		1,890,086		1,890,086	
Private Fire System	n/a	n/a	-		15,671		15,671	
Municipal - Residential	n/a	n/a	-		1,197		1,197	
Municipal - Commercial	n/a	n/a	-		232,727		232,727	
Wholesale - Fox Chapel	n/a	n/a	-		1,308,319		1,308,319	
Subtotal: Pennvest Surcharge Revenues	n/a	n/a	**$ -**		**$ 12,305,372**		**$ 35,950,987**	
DSIC Revenues								
Residential	n/a	n/a	$ 2,805,403		$ 5,029,322		$ 2,223,919	
Residential - CAP	n/a	n/a	83,751		158,463		74,712	
Commercial	n/a	n/a	2,923,937		5,416,065		2,492,128	
Industrial	n/a	n/a	176,123		365,273		189,150	
Health or Education	n/a	n/a	1,175,159		2,178,789		1,003,630	
Private Fire System	n/a	n/a	44,677		88,578		43,901	
Municipal - Residential	n/a	n/a	3,252		5,463		2,211	
Municipal - Commercial	n/a	n/a	108,310		212,126		103,816	
Public Fire	n/a	n/a	-		-			
Wholesale - Fox Chapel	n/a	n/a	95,055		441,440		346,385	
Subtotal: DSIC Revenues	n/a	n/a	**$ 7,415,668**		**$ 13,895,519**		**$ 18,785,224**	
Total: User Charge Revenues	**$ 185,746,481**		**$ 160,553,722**		**$ 202,984,560**		**$ 42,430,838**	**26.4%**
Other Revenues								
Miscellaneous Revenues	2,212,168		2,212,168		2,212,168		-	0.0%
Total: Water Revenues	**$ 187,958,649**		**$ 162,765,890**		**$ 205,196,728**		**$ 42,430,838**	**26.1%**

(1) Difference between COS & proposed base rate revenue is attributed to BDE, the PVC charge, and rounding

Pittsburgh Water HJS-16W

FPFTY 2026 COS & Rate Design Model

Typical Bill Comparison

	Customer Usage	FTY Existing Rates	FPFTY Proposed Rates	Percent Difference	Dollar Difference
Customer Impacts (1)					
Residential					
5/8"	1 kgal	$ 33.12	$ 36.90	11.4%	$ 3.79
5/8"	3 kgal	67.52	83.19	23.2%	15.68
5/8"	5 kgal	101.91	129.48	27.0%	27.56
5/8"	7 kgal	136.31	175.76	28.9%	39.45
5/8"	12 kgal	222.31	291.48	31.1%	69.17
1"	20 kgal	385.43	480.87	24.8%	95.44
Commercial					
5/8"	3 kgal	$ 67.94	$ 85.49	25.8%	$ 17.56
5/8"	5 kgal	102.75	134.08	30.5%	31.32
5/8"	12 kgal	224.62	304.13	35.4%	79.51
1"	13 kgal	266.72	328.07	23.0%	61.35
2"	80 kgal	1,517.86	1,969.98	29.8%	452.13
4"	160 kgal	3,207.19	3,864.87	20.5%	657.67
Industrial					
1"	30 kgal	$ 560.57	$ 791.58	41.2%	$ 231.01
1"	60 kgal	1,080.32	1,581.00	46.3%	500.68
2"	100 kgal	1,859.07	2,623.59	41.1%	764.52
4"	680 kgal	12,208.63	17,730.05	45.2%	5,521.41
6"	400 kgal	7,861.72	9,920.84	26.2%	2,059.12
8"	800 kgal	15,451.02	19,728.57	27.7%	4,277.54
Health or Education					
5/8"	5 kgal	$ 120.06	$ 152.82	27.3%	$ 32.77
5/8"	10 kgal	228.73	297.72	30.2%	68.99
1"	40 kgal	888.17	1,148.03	29.3%	259.86
2"	50 kgal	1,138.35	1,395.87	22.6%	257.52
4"	200 kgal	4,465.93	5,445.90	21.9%	979.96
6"	650 kgal	14,287.72	17,765.69	24.3%	3,477.97

(1) Customer bills at existing rates include a 5% DSIC and proposed rates include a 7.5% DSIC.

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Water Revenue Proof

	2026 Revenue @ Existing Rates			2026 Revenue @ COS Rates			2026 Revenue @ Proposed Rates		
	Units	Rates	Revenue	Units	Rates	Revenue	Units	Rates	Revenue
Base Rate Revenues									
Minimum Charges									
Residential									
5/8"	715,644	$ 31.54	$ 22,571,412	715,644	$ 28.83	$ 20,629,455	715,644	$ 34.33	$ 24,568,059
3/4"	30,876	55.26	1,706,208	30,876	50.37	1,555,347	30,876	58.63	1,810,260
1"	29,376	121.38	3,565,659	29,376	110.65	3,250,371	29,376	124.40	3,654,374
1 1/2"	732	240.01	175,687	732	218.38	159,858	732	245.89	179,991
2"	156	401.04	62,562	156	364.85	56,916	156	408.86	63,782
Unmetered	3,996	80.68	322,397	3,996	28.83	115,190	3,996	92.53	369,750
Subtotal: Residential	780,780		$ 28,403,925	780,780		$ 25,767,137	780,780		$ 30,646,216
Residential - CAP and CAP - 50FPL									
5/8"	58,896	$ -	$ -	58,896	$ 28.83	$ 1,697,761	58,896	$ -	$ -
3/4"	636	-	-	636	50.37	32,038	636	-	-
1"	408	-	-	408	110.65	45,144	408	-	-
Unmetered	12	49.14	590	12	28.83	346	12	58.20	698
Subtotal: Residential - CAP and CAP - 50FPL	59,952		$ 590	59,952		$ 1,775,289	59,952		$ 698
Commercial									
5/8"	33,960	$ 31.54	$ 1,071,098	33,960	$ 28.83	$ 978,945	33,960	$ 34.33	$ 1,165,847
3/4"	8,484	55.26	468,826	8,484	50.37	427,373	8,484	58.63	497,417
1"	17,532	121.38	2,128,034	17,532	110.65	1,939,866	17,532	124.40	2,180,981
1 1/2"	9,960	240.01	2,390,500	9,960	218.38	2,175,114	9,960	245.89	2,449,064
2"	9,840	401.04	3,946,234	9,840	364.85	3,590,108	9,840	408.86	4,023,182
3"	3,120	911.28	2,843,194	3,120	829.86	2,589,150	3,120	917.88	2,863,786
4"	2,412	1,562.27	3,768,195	2,412	1,423.85	3,434,323	2,412	1,561.39	3,766,073
6"	1,056	3,774.85	3,986,242	1,056	3,446.02	3,638,998	1,056	3,721.10	3,929,482
8"	108	6,877.76	742,798	108	6,284.90	678,769	108	6,725.03	726,303
10" & Above	-	11,393.44	-	-	10,421.48	-	-	11,054.16	-
Unmetered	12	97.86	1,174	12	28.83	346	12	116.21	1,395
Subtotal: Commercial	86,484		$ 21,346,294	86,484		$ 19,452,993	86,484		$ 21,603,529
Industrial									
5/8"	72	$ 31.54	$ 2,271	72	$ 28.83	$ 2,076	72	$ 34.33	$ 2,472
3/4"	12	55.26	663	12	50.37	604	12	58.63	704
1"	72	121.38	8,739	72	110.65	7,967	72	124.40	8,957
1 1/2"	-	240.01	-	-	218.38	-	-	245.89	-
2"	60	401.04	24,062	60	364.85	21,891	60	408.86	24,532
3"	36	911.28	32,806	36	829.86	29,875	36	917.88	33,044
4"	72	1,562.27	112,483	72	1,423.85	102,517	72	1,561.39	112,420
6"	24	3,774.85	90,596	24	3,446.02	82,705	24	3,721.10	89,306
8"	24	6,877.76	165,066	24	6,284.90	150,838	24	6,725.03	161,401
10" & Above	24	11,393.44	273,443	24	10,421.48	250,115	24	11,054.16	265,300
Subtotal: Industrial	396		$ 710,130	396		$ 648,587	396		$ 698,134
Health or Education									
5/8"	336	$ 31.54	$ 10,597	336	$ 28.83	$ 9,686	336	$ 34.33	$ 11,535
3/4"	84	55.26	4,642	84	50.37	4,231	84	58.63	4,925
1"	228	121.38	27,675	228	110.65	25,228	228	124.40	28,363
1 1/2"	744	240.01	178,567	744	218.38	162,478	744	245.89	182,942
2"	1,560	401.04	625,622	1,560	364.85	569,163	1,560	408.86	637,822
3"	1,068	911.28	973,247	1,068	829.86	886,286	1,068	917.88	980,296
4"	792	1,562.27	1,237,318	792	1,423.85	1,127,688	792	1,561.39	1,236,621
6"	408	3,774.85	1,540,139	408	3,446.02	1,405,977	408	3,721.10	1,518,209
8"	36	6,877.76	247,599	36	6,284.90	226,256	36	6,725.03	242,101
10" & Above	24	11,393.44	273,443	24	10,421.48	250,115	24	11,054.16	265,300
Subtotal: Health or Education	5,280		$ 5,118,849	5,280		$ 4,667,109	5,280		$ 5,108,113
Municipal - Residential									
5/8"	1,728	$ 31.54	$ 54,501	1,728	$ 28.83	$ 49,812	1,728	$ 34.33	$ 59,322
3/4"	24	55.26	1,326	24	50.37	1,209	24	58.63	1,407
1"	-	121.38	-	-	110.65	-	-	124.40	-
1 1/2"	-	240.01	-	-	218.38	-	-	245.89	-
Subtotal: Municipal - Residential	1,752		$ 55,827	1,752		$ 51,021	1,752		$ 60,729
Municipal - Commercial									
5/8"	372	$ 31.54	$ 11,733	372	$ 28.83	$ 10,723	372	$ 34.33	$ 12,771
3/4"	36	55.26	1,989	36	50.37	1,813	36	58.63	2,111
1"	240	121.38	29,131	240	110.65	26,555	240	124.40	29,856
1 1/2"	168	240.01	40,322	168	218.38	36,689	168	245.89	41,310
2"	264	401.04	105,875	264	364.85	96,320	264	408.86	107,939
3"	60	911.28	54,677	60	829.86	49,791	60	917.88	55,073
4"	12	1,562.27	18,747	12	1,423.85	17,086	12	1,561.39	18,737
6"	24	3,774.85	90,596	24	3,446.02	82,705	24	3,721.10	89,306
8"	-	6,877.76	-	-	6,284.90	-	-	6,725.03	-
10" & Above	-	11,393.44	-	-	10,421.48	-	-	11,054.16	-
Subtotal: Municipal - Commercial	1,176		$ 353,070	1,176		$ 321,683	1,176		$ 357,102
Subtotal: Minimum Charges	935,820		$ 55,988,687	935,820		$ 52,683,819	935,820		$ 58,474,523

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Water Revenue Proof

	2026 Revenue @ Existing Rates			2026 Revenue @ COS Rates			2026 Revenue @ Proposed Rates		
	Units	Rates	Revenue	Units	Rates	Revenue	Units	Rates	Revenue
Fire Protection Charges									
Public (per Hydrant)	90,636	$ 20.69	$ 1,875,259	90,636	$ 117.30	$ 10,631,430	90,636	$ 29.32	$ 2,657,448
Private									
1" or Less	16,596	$ 31.39	$ 520,948	16,596	$ 25.81	$ 428,352	16,596	$ 41.30	$ 685,415
1 1/2"-3"	288	97.60	28,109	288	79.34	22,851	288	126.95	36,562
4"	36	314.87	11,335	36	261.76	9,423	36	418.82	15,078
6" or Greater	204	654.54	133,526	204	557.15	113,660	204	891.45	181,856
Subtotal: Fire Protection Charges			$ 2,569,178			$ 11,205,716			$ 3,576,357
Pennvest Volume Charge									
Residential	1,691,339	$ -	$ -	1,691,339	$ -	$ -	1,691,339	$ 2.13	$ 3,599,437
Residential - CAP	89,556	-	-	89,556	-	-	89,556	1.06	95,295
Residential - CAP - 50FPL	31,670	-	-	31,670	-	-	31,670	1.06	33,699
Commercial	2,239,593	-	-	2,239,593	-	-	2,239,593	2.13	4,766,207
Industrial	170,445	-	-	170,445	-	-	170,445	2.13	362,733
Health or Education	888,132	-	-	888,132	-	-	888,132	2.13	1,890,086
Private Fire System	7,364	-	-	7,364	-	-	7,364	2.13	15,671
Municipal - Residential	562	-	-	562	-	-	562	2.13	1,197
Municipal - Commercial	109,356	-	-	109,356	-	-	109,356	2.13	232,727
Wholesale - Fox Chapel	614,766	-	-	614,766	-	-	614,766	2.13	1,308,319
Subtotal: Pennvest Volume Charge	5,842,783		$ -	5,842,783		$ -	5,842,783		$ 12,305,372
Volume Charge									
Residential	1,691,339	$ 16.38	$ 27,704,132	1,691,339	$ 20.29	$ 34,317,268	1,691,339	$ 19.40	$ 32,811,976
Residential - CAP	89,556	16.38	1,466,931	89,556	23.34	2,090,243	89,556	19.40	1,737,391
Residential - CAP - 50FPL	31,670	6.55	207,501	31,670	21.15	669,818	31,670	7.76	245,758
Commercial	2,239,593	16.58	37,132,444	2,239,593	21.15	47,367,382	2,239,593	20.47	45,844,459
Industrial	170,445	16.50	2,812,337	170,445	24.13	4,112,830	170,445	22.35	3,809,438
Health or Education	888,132	20.70	18,384,339	888,132	22.36	19,858,639	888,132	24.83	22,052,326
Private Fire System	7,364	27.11	199,629	7,364	35.77	263,398	7,364	33.47	246,462
Municipal - Residential	562	16.38	9,211	562	(31.66)	(17,803)	562	19.40	10,909
Municipal - Commercial	109,356	16.58	1,813,122	109,356	21.75	2,378,493	109,356	20.47	2,238,517
Subtotal: Volume Charge	5,228,017		$ 89,729,648	5,228,017		$ 111,040,268	5,228,017		$ 108,997,238
Wholesale									
Fox Chapel	614,766	$ 7.78	$ 3,802,209	614,766	$ 14.10	$ 8,668,201	614,766	$ 7.45	$ 4,577,548
All Others (Set by Contract)	158,318		1,048,333	158,318	14.10	2,232,284	158,318		1,158,004
Subtotal: Wholesale	773,084		$ 4,850,542	773,084		$ 10,900,484	773,084		$ 5,735,551
Total: Base Rate Revenues			$ 153,138,054			$ 185,830,287			$ 189,089,041
DSIC Revenues									
Residential		5.0%	$ 2,805,403			$ 4,506,330	7.5%		$ 5,029,322
Residential - CAP		5.0%	83,751			289,915	7.5%		158,463
Commercial		5.0%	2,923,937			5,011,528	7.5%		5,416,065
Industrial		5.0%	176,123			357,106	7.5%		365,273
Health or Education		5.0%	1,175,159			1,839,431	7.5%		2,178,789
Private Fire System		5.0%	44,677			62,826	7.5%		88,578
Municipal - Residential		5.0%	3,252			3,219	7.5%		5,463
Municipal - Commercial		5.0%	108,310			205,170	7.5%		212,126
Public Fire		5.0%	-			-	7.5%		-
Wholesale - Fox Chapel		5.0%	95,055			-	7.5%		441,440
Total: DSIC Revenues			$ 7,415,668			$ 12,275,526			$ 13,895,519
Other Revenues									
Other Revenues			2,212,168			2,212,168			2,212,168
Total: System Revenues			**$ 162,765,890**			**$ 200,317,981**			**$ 205,196,728**
FPFTY Water System Revenue Requirements						**$ 205,162,782**			**$ 205,162,782**
Difference (1)						**$ (4,844,801)**			**$ 33,945**

(1) Note difference in COS rates is due to bad debt, the PVC charge, and different DSIC revenue recovery on COS rates.

Pittsburgh Water and Sewer Authority HJS-18W

FPFTY 2026 COS & Rate Design Model

Projected Units of Service

	FY 2022 *Actual*	FY 2023 *Actual*	HTY FY 2024 *Actual*	FTY FY 2025 *Projected*	FPFTY FY 2026 *Projected*
Units of Service					
Number of Bills					
Residential	758,074	791,748	780,780	780,780	780,780
Residential - CAP	37,174	41,652	46,296	46,296	46,296
Residential - CAP - 50FPL	10,324	11,928	13,656	13,656	13,656
Commercial	83,843	86,424	86,484	86,484	86,484
Industrial	371	396	396	396	396
Health or Education	5,266	5,328	5,280	5,280	5,280
Private Fire System	16,671	16,932	17,124	17,124	17,124
Municipal - Residential	243	696	1,752	1,752	1,752
Municipal - Commercial	2,549	480	1,176	1,176	1,176
Public Fire Hydrants	90,636	90,636	90,636	90,636	90,636
Total	1,005,151	1,046,220	1,043,580	1,043,580	1,043,580
Billable Consumption (kgal)					
Residential	1,766,983	1,690,452	1,616,582	1,691,339	1,691,339
Residential - CAP	80,155	90,674	97,840	89,556	89,556
Residential - CAP - 50FPL	26,271	31,460	37,279	31,670	31,670
Commercial	2,073,132	2,260,754	2,384,892	2,239,593	2,239,593
Industrial	103,883	147,953	259,498	170,445	170,445
Health or Education	831,073	885,442	947,882	888,132	888,132
Private Fire System	6,856	7,410	7,825	7,364	7,364
Municipal - Residential	1,574	50	63	562	562
Municipal - Commercial	209,870	40,170	78,028	109,356	109,356
Total	5,099,796	5,154,365	5,429,889	5,228,017	5,228,017
Total Consumption (kgal) (1)					
Residential	2,540,544	2,458,025	2,372,389	2,456,986	2,456,986
Residential - CAP	114,183	128,607	140,545	127,778	127,778
Residential - CAP - 50FPL	35,568	42,178	49,758	42,501	42,501
Commercial	2,676,992	2,901,903	3,030,670	2,869,855	2,869,855
Industrial	112,736	157,584	271,020	180,447	180,447
Health or Education	981,167	1,043,736	1,105,483	1,043,462	1,043,462
Private Fire System	6,856	7,410	7,825	7,364	7,364
Municipal - Residential	1,691	67	99	619	619
Municipal - Commercial	232,154	43,370	84,358	119,961	119,961
Total	6,701,891	6,782,880	7,062,147	6,848,973	6,848,973
Wholesale & Contract Consumption					
Aspinwall	155,301	83,685	47,515	47,515	47,515
Fox Chapel	622,966	588,191	614,766	614,766	614,766
PAWC	2,100	18,517	5,769	5,769	5,769
RSRV - 10"	85,537	81,131	93,468	93,468	93,468
RSRV - 6"	14,723	12,181	11,566	11,566	11,566
Westview	-	-	-	-	-
Total	880,627	783,705	773,084	773,084	773,084

(1) Total consumption represents actual customer usage including the usage captured in the minimum allowance.

Water System Revenue Requirements	**2026 FPFTY Revenue Requirements**	**2027 Revenue Requirements**
Operating Expenses		
Direct Operating Expenses		
Administrative Division		
Chief Executive Office	$ 2,546,673	$ 2,546,673
Customer Service	3,325,785	3,325,785
Technology Services	7,358,052	7,358,052
Finance	11,495,605	11,495,605
Human Resources	2,209,600	2,209,600
Legal	3,644,888	3,644,888
Safety & Security	2,120,671	2,120,671
Public Affairs	1,486,785	1,486,785
Operations Division		
Environmental Compliance	1,034,777	1,034,777
Warehouse	467,317	467,317
Laboratory	2,451,574	2,451,574
Water Treatment Plant	21,463,532	21,463,532
Sewer Operations	-	-
Water Operations	19,182,029	19,182,029
Engineering & Construction		
Engineering & Construction	20,879,180	20,879,180
Total Operating Expenses	$ 99,666,467	$ 99,666,467
Debt Service		
Existing Debt	$ 61,834,241	67,287,997
Future Debt	10,060,470	15,480,150
Subtotal: Debt Service	$ 71,894,711	$ 82,768,147
Other Expenditures & Transfers		
DSIC Capital	$ 13,903,179	14,889,285
Debt Coverage Capital - Existing Senior	11,062,153	11,377,342
Debt Coverage Capital - Future Senior	2,213,385	4,380,738
Other Transfers to Reserves	2,319,564	2,319,564
Water and Wastewater Leak Credit	662,322	662,322
Rider AFP	140,047	140,047
Subtotal: Other Expenditures & Transfers	$ 30,300,651	$ 33,769,298
Total: Water System Revenue Requirements	**$ 201,861,828**	**$ 216,203,912**
Less: Capital Costs to be Recovered through DSIC	$ (13,903,179)	$ (14,889,285)
Add: Bad Debt Expense	3,300,954	3,300,954
Total: Water System Revenue Requirement (Excl DSIC)	**$ 191,259,603**	**$ 204,615,581**

Pittsburgh Water HJS-20W

FPFTY 2026 COS & Rate Design Model

Revenue Increase Needed for 2027

		2026		2027
O&M Expenses	$	99,666,467	$	99,666,467
Debt Service		71,894,711		82,768,147
Debt Service Coverage		13,275,538		15,758,080
DSIC Capital		13,903,179		14,889,285
Other Expenditures		3,121,934		3,121,934
Net Rate Revenue Requirement	$	201,861,828	$	216,203,912
Less: Misc Revenues	$	2,212,168	$	2,259,272
Adjusted Revenue Requirement for Ratemaking	**$**	**199,649,661**	**$**	**213,944,640**
Increase				*7.16%*

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Service Charge Calculation - 2027

Water FY 27 Rate Adjustment: 7.16%

Water	Min. Usage Proposed	COS Rate Build-Up - Test Year: 2027							
		Meters/Services	*Billing*	*Usage*	*Total COS Rates*	*Adjustments* Public Fire	*Private Fire Adj*	CAP-BDP	Proposed Rates
Service Charge									
5/8"		$ 8.74	$ 2.91	$ -	$ 11.65	$ 5.90	$ -	$ -	18.80
3/4"		13.11	2.91	-	16.02	8.84	-	-	26.64
1"		21.85	2.91	-	24.76	14.74	-	-	42.32
1 1/2"		43.69	2.91	-	46.60	29.48	-	-	81.53
2"		69.91	2.91	-	72.82	47.16	-	-	128.58
3"		139.82	2.91	-	142.73	94.33	-	-	254.03
4"		218.47	2.91	-	221.38	147.39	-	-	395.17
6"		436.95	2.91	-	439.86	294.77	-	-	787.23
8"		699.12	2.91	-	702.03	471.64	-	-	1,257.70
10" & Above		1,004.98	2.91	-	1,007.89	677.98	-	-	1,806.58
Unmetered		8.74	2.91	-	11.65	5.90	-	-	18.80
Residential - CAP									
5/8"	0	$ 8.74	$ 2.91	$ -	$ 11.65	$ 5.90	$ -	$ (17.54)	$ -
3/4"	0	13.11	2.91	-	16.02	8.84	-	(24.86)	-
1"	0	21.85	2.91	-	24.76	14.74	-	(39.50)	-
Unmetered	0	8.74	2.91	-	11.65	5.90	-	(17.54)	-

Monthly Fire Protection	*Meters/Services*	*Billing*	*Fire*	*Total*	*Adjustments* Public Fire	*Private Fire Adj*	CAP-BDP	Proposed Rates
Public								
Per Hydrant	$ -	$ -	$ 117.30	$ 117.30	$ (87.97)	$ -	$ -	$ 31.42
Private								
1" or Less	$ 21.85	$ 2.91	$ 1.05	$ 25.81	$ -	$ 15.49	$ -	$ 44.25
1 1/2"-3"	69.91	2.91	6.52	79.34	-	47.61	-	136.04
4"	218.47	2.91	40.38	261.76	-	157.06	-	448.81
6" or Greater	436.95	2.91	117.30	557.15	-	334.29	-	955.28

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Volume Charge Calculation - 2027

	Unadjusted COS-Based Rates				
	Unadjusted Revenue Requirement	Fixed Charge Revenue	Total Volumetric Rev Req	Total Volume	Proposed Rates
Volume Charge (per kgal)					
Residential	$ 64,644,026	$ 9,649,906	$ 54,994,121	2,468,974	$ 22.27
Residential - CAP	4,503,014	545,645	3,957,369	170,316	23.24
Commercial	71,616,732	3,665,993	67,950,738	2,869,903	23.68
Industrial	5,101,859	79,855	5,022,004	180,447	27.83
Health or Education	26,282,470	715,876	25,566,594	1,043,462	24.50
Municipal - Residential	35,596	20,513	15,083	619	24.37
Municipal - Commercial	2,893,294	59,683	2,833,611	119,961	23.62
Private Fire System	897,696	574,286	323,410	7,364	43.92
Public Fire	11,392,644	10,631,430	761,214	-	n/a
Wholesale	11,678,658	-	11,678,658	773,084	15.11
Totals	199,045,988	25,943,187	173,102,801	7,634,129	$ 22.67

	Determination of Proposed Rates						
	Adjusted Revenue Requirement	Bad Debt	Total Adjusted Revenue Requirement	Fixed Charge Revenue	Total Volumetric Rev Req	Equivalent Volume (for Ratemaking)	Proposed Rates
Volume Charge (per kgal)							
Residential + CAP + City Res	$ 65,104,161	$ 2,776,813	$ 67,880,974	$ 15,707,825	$ 52,173,149	2,614,408	$ 19.96
Commercial + City Com	72,496,296	416,524	72,912,820	6,501,407	66,411,413	2,989,864	22.22
Industrial	4,910,816	6,058	4,916,874	142,469	4,774,405	180,447	26.46
Health or Education	28,243,454	60,487	28,303,941	1,273,550	27,030,391	1,043,462	25.91
Municipal - Commercial							
Municipal - Residential							
Private Fire System	1,205,156	41,071	1,246,228	984,587	261,641	7,364	35.54
Public Fire	2,848,161		2,848,161	2,847,783	378	-	n/a
Wholesale	10,307,100		10,307,100	-	10,307,100	773,084	13.34
Totals	$ 185,115,144	$ 3,300,954	$ 188,416,098	$ 27,457,621	$ 160,958,477	7,608,628	$ 21.15

Pennvest Volume Surcharge (per kgal)	Adjusted Revenue Requirement	Bad Debt	Total Adjusted Revenue Requirement	Fixed Charge Revenue	Total Volumetric Rev Req	Equivalent Volume (for Ratemaking)	Proposed Rates
Existing PENNVEST	$ 15,692,843	-	$ 15,692,843	$ -	$ 15,692,843	7,378,599	$ 2.13
Future PENNVEST	768,988	-	768,988	-	768,988	7,378,599	0.10
Total	$ 16,461,831	$ -	$ 16,461,831	$ -	$ 16,461,831		$ 2.23

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Proposed Rates

	2026 FPFTY Proposed Rates	2027 Calculated Rates (2)	2027 Proposed Rates (2)
Existing & Proposed Rates			
Minimum Charge / Service Charge (2027)			
5/8"	$ 34.33	$ 18.80	$ 18.80
3/4"	58.63	26.64	26.64
1"	124.40	42.32	42.32
1 1/2"	245.89	81.53	81.53
2"	408.86	128.58	128.58
3"	917.88	254.03	254.03
4"	1,561.39	395.17	395.17
6"	3,721.10	787.23	787.23
8"	6,725.03	1,257.70	1,257.70
10" & Above	11,054.16	1,806.58	1,806.58
Minimum Charge / Service Charge (2027) - CAP (1)			
5/8"	$ -	$ -	$ -
3/4"	-	-	-
1"	-	-	-
Fire System Charges			
Private			
1" or Less	$ 41.30	$ 44.25	$ 44.25
1 1/2"-3"	126.95	136.04	136.04
4"	418.82	448.81	448.81
6" or Greater	891.45	955.28	955.28
Public			
Per Hydrant	$ 29.32	$ 31.42	$ 31.42
Volume Charge			
Residential	$ 19.40	$ 19.96	$ 19.96
Residential - CAP	19.40	19.96	19.96
Residential - CAP (<50% FPL)	7.76	7.98	7.98
Commercial	20.47	22.22	22.22
Industrial	22.35	26.46	26.46
Health or Education	24.83	25.91	25.91
Municipal - Residential	19.40	19.96	19.96
Municipal - Commercial	20.47	22.22	22.22
Fire System	33.47	35.54	35.54
Wholesale	12.41	13.34	13.34
Unmetered Charges (per Unit)			
Residential	$ 92.53	$ 98.64	$ 98.64
Residential - CAP	58.20	79.84	79.84
Commercial	116.21	129.90	129.90
DSIC (Applies to all retail customers)	7.5%	7.5%	7.5%

(1) Proposed 100% discount on Minimum Charge for CAP-BDP customers in all years.
(2) Minimum allowance removed

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Water Revenue Proof

	2027 Revenue @ 2026 Rates			2027 Revenue @ Proposed Rates		
	Units	Rates	Revenue	Units	Rates	Revenue
Base Rate Revenues						
Minimum Charges						
Residential						
5/8"	715,644	$ 34.33	$ 24,568,059	715,644	$ 18.80	$ 13,454,107
3/4"	30,876	58.63	1,810,260	30,876	26.64	822,537
1"	29,376	124.40	3,654,374	29,376	42.32	1,243,192
1 1/2"	732	245.89	179,991	732	81.53	59,680
2"	156	408.86	63,782	156	128.58	20,058
Unmetered	3,996	92.53	369,750	3,996	98.64	394,165
Subtotal: Residential	780,780		$ 30,646,216	780,780		$ 15,993,740
Residential - CAP and CAP - 50FPL						
5/8"	58,896	$ -	$ -	58,896	$ -	$ -
3/4"	636	-	-	636	-	-
1"	408	-	-	408	-	-
Unmetered	12	58.20	698	12	79.84	958
Subtotal: Residential - CAP and CAP - 50FPL	59,952		$ 698	59,952		$ 958
Commercial						
5/8"	33,960	$ 34.33	$ 1,165,847	33,960	$ 18.80	$ 638,448
3/4"	8,484	58.63	497,417	8,484	26.64	226,014
1"	17,532	124.40	2,180,981	17,532	42.32	741,954
1 1/2"	9,960	245.89	2,449,064	9,960	81.53	812,039
2"	9,840	408.86	4,023,182	9,840	128.58	1,265,227
3"	3,120	917.88	2,863,786	3,120	254.03	792,574
4"	2,412	1,561.39	3,766,073	2,412	395.17	953,150
6"	1,056	3,721.10	3,929,482	1,056	787.23	831,315
8"	108	6,725.03	726,303	108	1,257.70	135,832
10" & Above	-	11,054.16	-	-	1,806.58	-
Unmetered	12	116.21	1,395	12	129.90	1,559
Subtotal: Commercial	86,484		$ 21,603,529	86,484		$ 6,398,111
Industrial						
5/8"	72	$ 34.33	$ 2,472	72	$ 18.80	$ 1,354
3/4"	12	58.63	704	12	26.64	320
1"	72	124.40	8,957	72	42.32	3,047
1 1/2"	-	245.89	-	-	81.53	-
2"	60	408.86	24,532	60	128.58	7,715
3"	36	917.88	33,044	36	254.03	9,145
4"	72	1,561.39	112,420	72	395.17	28,452
6"	24	3,721.10	89,306	24	787.23	18,894
8"	24	6,725.03	161,401	24	1,257.70	30,185
10" & Above	24	11,054.16	265,300	24	1,806.58	43,358
Subtotal: Industrial	396		$ 698,134	396		$ 142,469
Health or Education						
5/8"	336	$ 34.33	$ 11,535	336	$ 18.80	$ 6,317
3/4"	84	58.63	4,925	84	26.64	2,238
1"	228	124.40	28,363	228	42.32	9,649
1 1/2"	744	245.89	182,942	744	81.53	60,658
2"	1,560	408.86	637,822	1,560	128.58	200,585
3"	1,068	917.88	980,296	1,068	254.03	271,304
4"	792	1,561.39	1,236,621	792	395.17	312,975
6"	408	3,721.10	1,518,209	408	787.23	321,190
8"	36	6,725.03	242,101	36	1,257.70	45,277
10" & Above	24	11,054.16	265,300	24	1,806.58	43,358
Subtotal: Health or Education	5,280		$ 5,108,113	5,280		$ 1,273,550
Municipal - Residential						
5/8"	1,728	$ 34.33	$ 59,322	1,728	$ 18.80	$ 32,486
3/4"	24	58.63	1,407	24	26.64	639
1"	-	124.40	-	-	42.32	-
1 1/2"	-	245.89	-	-	81.53	-
Subtotal: Municipal - Residential	1,752		$ 60,729	1,752		$ 33,126
Municipal - Commercial						
5/8"	372	$ 34.33	$ 12,771	372	$ 18.80	$ 6,994
3/4"	36	58.63	2,111	36	26.64	959
1"	240	124.40	29,856	240	42.32	10,157
1 1/2"	168	245.89	41,310	168	81.53	13,697
2"	264	408.86	107,939	264	128.58	33,945
3"	60	917.88	55,073	60	254.03	15,242
4"	12	1,561.39	18,737	12	395.17	4,742
6"	24	3,721.10	89,306	24	787.23	18,894
8"	-	6,725.03	-	-	1,257.70	-
10" & Above	-	11,054.16	-	-	1,806.58	-
Subtotal: Municipal - Commercial	1,176		$ 357,102	1,176		$ 104,629
Subtotal: Minimum Charges	935,820		$ 58,474,523	935,820		$ 23,946,583

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Water Revenue Proof

	2027 Revenue @ 2026 Rates			2027 Revenue @ Proposed Rates		
	Units	Rates	Revenue	Units	Rates	Revenue
Fire Protection Charges						
Public (per Hydrant)	90,636	$ 29.32	$ 2,657,448	90,636	$ 31.42	$ 2,847,783
Private						
1" or Less	16,596	$ 41.30	$ 685,415	16,596	$ 44.25	$ 734,373
1 1/2"-3"	288	126.95	36,562	288	136.04	39,180
4"	36	418.82	15,078	36	448.81	16,157
6" or Greater	204	891.45	181,856	204	955.28	194,877
Subtotal: Fire Protection Charges			$ 3,576,357			$ 3,832,370
Pennvest Surcharge						
Residential	1,691,339	$ 2.13	$ 3,599,437	2,456,986	$ 2.23	$ 5,481,595
Residential - CAP	89,556	1.06	95,295	127,778	1.12	142,538
Residential - CAP - 50FPL	31,670	1.06	33,699	42,501	1.12	47,411
Commercial	2,239,593	2.13	4,766,207	2,869,855	2.23	6,402,715
Industrial	170,445	2.13	362,733	180,447	2.23	402,581
Health or Education	888,132	2.13	1,890,086	1,043,462	2.23	2,327,989
Private Fire System	7,364	2.13	15,671	7,364	2.23	16,429
Municipal - Residential	562	2.13	1,197	619	2.23	1,381
Municipal - Commercial	109,356	2.13	232,727	119,961	2.23	267,635
Wholesale - Fox Chapel	614,766	2.13	1,308,319	614,766	2.23	1,371,558
Subtotal: Pennvest Surcharge	5,842,783		$ 12,305,372	7,463,739		$ 16,461,831
Volume Charge						
Residential	1,691,339	$ 19.40	$ 32,811,976	2,456,986	$ 19.96	$ 49,041,441
Residential - CAP	89,556	19.40	1,737,391	127,778	19.96	2,550,456
Residential - CAP - 50FPL	31,670	7.76	245,758	42,501	7.98	339,331
Commercial	2,239,593	20.47	45,844,459	2,869,855	22.22	63,768,178
Industrial	170,445	22.35	3,809,438	180,447	26.46	4,774,619
Health or Education	888,132	24.83	22,052,326	1,043,462	25.91	27,036,100
Private Fire System	7,364	33.47	246,462	7,364	35.54	261,705
Municipal - Residential	562	19.40	10,909	619	19.96	12,355
Municipal - Commercial	109,356	20.47	2,238,517	119,961	22.22	2,665,525
Subtotal: Volume Charge	5,228,017		$ 108,997,238	6,848,973		$ 150,449,709
Wholesale						
Fox Chapel	614,766	$ 7.45	$ 4,577,548	614,766	$ 10.67	$ 6,560,783
All Others (Set by Contract)	158,318		1,158,004	158,318		1,215,331
Subtotal: Wholesale	773,084		$ 5,735,551	773,084		$ 7,776,114
Total: Base Rate Revenues			$ 189,089,041			$ 202,466,606
DSIC Revenues						
Residential		7.5%	$ 5,029,322		7.5%	$ 5,288,758
Residential - CAP		7.5%	158,463		7.5%	231,052
Commercial		7.5%	5,416,065		7.5%	5,742,675
Industrial		7.5%	365,273		7.5%	398,975
Health or Education		7.5%	2,178,789		7.5%	2,297,823
Private Fire System		7.5%	88,578		7.5%	94,704
Municipal - Residential		7.5%	5,463		7.5%	3,515
Municipal - Commercial		7.5%	212,126		7.5%	227,834
Public Fire		7.5%	-		7.5%	-
Wholesale - Fox Chapel		7.5%	441,440		7.5%	594,926
Total: DSIC Revenues			$ 13,895,519			$ 14,880,262
Other Revenues						
Other Revenues			2,259,272			2,259,272
Total: System Revenues			**$ 205,243,832**			**$ 219,606,140**
2027 Water System Revenue Requirements						**$ 219,504,866**
Difference						**$ 101,274**

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Typical Bill Comparison

	FTY 2025	FPFTY 2026	FPFTY 2027
Customer Impacts			
Residential - 5/8" / 3 Kgal			
Water Base Rates	$ 64.30	$ 73.13	$ 78.68
Pennvest Surcharge	-	4.26	6.69
Water DSIC	3.22	5.80	6.40
Total Monthly Bill	$ 67.52	$ 83.19	$ 91.78
$ Change		$ 15.68	$ 8.59
% Change		*23.2%*	*10.3%*
Commercial - 1" / 13kgal			
Water Base Rates	$ 254.02	$ 288.16	$ 331.18
Pennvest Surcharge	-	17.03	29.00
Water DSIC	12.70	22.89	27.01
Total Monthly Bill	$ 266.72	$ 328.07	$ 387.20
$ Change		$ 61.35	$ 59.12
% Change		*23.0%*	*18.0%*
Industrial - 4" / 680kgal			
Water Base Rates	$ 11,627.27	$ 15,194.89	$ 18,387.97
Pennvest Surcharge	-	1,298.18	1,517.10
Water DSIC	581.36	1,236.98	1,492.88
Total Monthly Bill	$ 12,208.63	$ 17,730.05	$ 21,397.95
$ Change		$ 5,521.41	$ 3,667.90
% Change		*45.2%*	*20.7%*
Health or Education - 2" / 50kgal			
Water Base Rates	$ 1,084.14	$ 1,228.25	$ 1,424.08
Pennvest Surcharge	-	70.23	111.55
Water DSIC	54.21	97.39	115.17
Total Monthly Bill	$ 1,138.35	$ 1,395.87	$ 1,650.80
$ Change		$ 257.52	$ 254.94
% Change		*22.6%*	*18.3%*

Exhibit HJS-1WW to HJS-24 WW Rebuttal

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
FPFTY Wastewater Conveyance Revenue Requirements

Revenue Requirements	**2026 FPFTY Revenue Requirements**	**2027 Revenue Requirements**
Operating Expenses		
Direct Operating Expenses		
Administrative Division		
Chief Executive Office	$ 641,805	$ 641,805
Customer Service	4,298,578	4,298,578
Technology Services	988,367	988,367
Finance	2,740,279	2,740,279
Human Resources	296,804	296,804
Legal	489,598	489,598
Safety & Security	284,858	284,858
Public Affairs	199,712	199,712
Operations Division		
Environmental Compliance	1,749,467	1,749,467
Warehouse	62,772	62,772
Laboratory	-	
Water Treatment Plant	1,859,445	1,859,445
Sewer Operations	2,211,990	2,211,990
Water Operations	107,100	107,100
Engineering & Construction		
Engineering & Construction	11,326,951	11,326,951
Other Operating Expenses		
Loss / (Gain) on ALCOSAN Billings	2,383,047	$ 2,383,047
Covid-Related Expenses	-	-
Total Operating Expenses	$ 29,640,773	$ 29,640,773
Debt Service		
Existing Debt	$ 23,250,962	$ 25,557,867
Future Debt	2,440,234	5,322,298
Subtotal: Debt Service	$ 25,691,196	$ 30,880,166
Other Expenditures & Transfers		
DSIC Capital	$ 4,995,365	5,381,850
Debt Coverage Capital - Existing Senior	3,679,659	3,784,502
Debt Coverage Capital - Future Senior	395,520	317,235
Other Transfers to Reserves	939,779	939,779
Rider AFP	140,047	140,047
Gradualism - Stormwater	6,000,000	6,000,000
Subtotal: Other Expenditures & Transfers	$ 16,150,370	$ 16,563,412
Total: Wastewater Conveyance System Revenue Requirements	**$ 71,482,339**	**$ 77,084,351**
Less: Capital Costs to be Recovered through DSIC	(4,995,365)	(5,381,850)
Add: Bad Debt Expense	1,202,969	1,202,969
Total: Wastewater Conveyance System Base Rate Revenue Requirement	**$ 67,689,944**	**$ 72,905,471**

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Assignment to Functional Categories

			Wastewater Conveyance Functional Categories			
Wastewater Conveyance Operating Costs	**FY 2026**	**Allocation**	*Collection & Conveyance*	*Meters*	*Billing*	*Admin Support*
Operating Expenses	*FPFTY*					
Direct Operating Expenses						
Administrative Division						
Chief Executive Office	$ 641,805	WW-D				100.0%
Customer Service	4,298,578	WW-E		32.7%	67.3%	
Technology Services	988,367	WW-D				100.0%
Finance	2,740,279	WW-D				100.0%
Human Resources	296,804	WW-D				100.0%
Legal	489,598	WW-D				100.0%
Safety & Security	284,858	WW-D				100.0%
Public Affairs	199,712	WW-D				100.0%
Operations Division						
Environmental Compliance	1,749,467	WW-D				100.0%
Warehouse	62,772	WW-D				100.0%
Laboratory	-	WW-D				100.0%
Water Treatment Plant	1,859,445	WW-A	100.0%			
Sewer Operations	2,211,990	WW-A	100.0%			
Water Operations	107,100	WW-A	100.0%			
Engineering & Construction Division						
Engineering & Construction	11,326,951	WW-A	100.0%			
Subtotal: Direct Operating Expenses	$ 27,257,726					
Other Operating Expenses						
Loss / (Gain) on ALCOSAN Billings	2,383,047	WW-D				100.0%
Total: Operating Expenses	**$ 29,640,773**					

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Assignment to Functional Categories

			Wastewater Conveyance Functional Categories			
Wastewater Conveyance Operating Costs	**FY 2026**	**Allocation**	*Collection & Conveyance*	*Meters*	*Billing*	*Admin Support*
Operating Expenses	*FPFTY*					
Direct Operating Expenses						
Administrative Division						
Chief Executive Office	$ 641,805	WW-D	$ -	$ -	$ -	$ 641,805
Customer Service	4,298,578	WW-E	-	1,403,775	2,894,804	-
Technology Services	988,367	WW-D	-	-	-	988,367
Finance	2,740,279	WW-D	-	-	-	2,740,279
Human Resources	296,804	WW-D	-	-	-	296,804
Legal	489,598	WW-D	-	-	-	489,598
Safety & Security	284,858	WW-D	-	-	-	284,858
Public Affairs	199,712	WW-D	-	-	-	199,712
Operations Division						
Environmental Compliance	1,749,467	WW-D	-	-	-	1,749,467
Warehouse	62,772	WW-D	-	-	-	62,772
Laboratory	-	WW-D	-	-	-	-
Water Treatment Plant	1,859,445	WW-A	1,859,445	-	-	-
Sewer Operations	2,211,990	WW-A	2,211,990	-	-	-
Water Operations	107,100	WW-A	107,100	-	-	-
Engineering & Construction Division						
Engineering & Construction	11,326,951	WW-A	11,326,951	-	-	-
Subtotal: Direct Operating Expenses	$ 27,257,726		$ 4,178,535	$ 1,403,775	$ 2,894,804	$ 7,453,662
Other Operating Expenses						
Loss / (Gain) on ALCOSAN Billings	2,383,047	WW-D	-	-	-	2,383,047
Total: Wastewater Conveyance Operating Costs	**$ 29,640,773**		**$ 15,505,486**	**$ 1,403,775**	**$ 2,894,804**	**$ 9,836,709**
Allocation Percentage			52.31%	4.74%	9.77%	33.19%

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Assignment to Functional Categories

Allocated Wastewater Conveyance Assets			Wastewater Conveyance Functional Categories			
System Fixed Assets	**Allocated Costs**	**Allocation**	*Collection & Conveyance*	*Meters*	*Billing*	*Admin Support*
Structures and Improvements - Source of Supply and Pumping	-	n/a				
Structures and Improvements - Water Treatment	-	n/a				
Structures and Improvements - Transmission and Distribution Plant	7,273,263	WW-A	100.00%			
Pumping Equipment	2,501,434	WW-A	100.00%			
Water Treatment Equipment	-	n/a				
Distribution Reservoirs and Standpipes	-	n/a				
Transmission and Distribution Mains	-	n/a				
Meters and Meter Installations	-	n/a				
Fire Hydrants	-	n/a				
Office Furniture and Equipment	2,251,604	WW-D				100.00%
Office Furniture and Equipment - Computer Hardware	-	n/a				
Office Furniture and Equipment - ERP System	2,602,374	WW-D				100.00%
Transportation Equipment	1,666,304	WW-D				100.00%
Tools, Shop and Garage Equipment	26,216	WW-D				100.00%
Laboratory Equipment	-	n/a				
Collection Sewers - Gravity	219,831,907	WW-A	100.00%			
Manholes	24,909,881	WW-A	100.00%			
Wastewater Plant	9,489,158	WW-A	100.00%			
Power Operated Equipment	38,414	WW-D				100.00%
Total	**270,590,553**		$ 264,005,642	$ -	$ -	$ 6,584,911
Allocation Factors for Capital Costs			**97.57%**	**0.00%**	**0.00%**	**2.43%**

		Collection & Conveyance	*Meters*	*Billing*	*Admin Support*
Allocation of Capital Costs					
Debt Service	$ 25,691,196	$ 25,065,992	$ -	$ -	$ 625,204
Debt Coverage Capital - Existing Senior	3,679,659	3,590,113	-	-	89,546
Debt Coverage Capital - Future Senior	395,520	385,895	-	-	9,625
Other Transfers to Reserves	939,779	916,910	-	-	22,870
Bad Debt Expense (1)		-	-	-	-
Rider AFP	140,047	136,639	-	-	3,408
Total: Allocated Capital Costs	$ 30,846,201	$ 30,095,549	$ -	$ -	$ 750,653

(1) Bad Debt Expense allocated directly to customer classes based on each classes responsibility for historical bad debt and included as an adjustment in Rate Design.

Note: Pittsburgh Water records electricity costs for its water, wastewater, and stormwater utilities within its Water Treatment Plant cost center. Due to this accounting procedure, some costs from the Water Treatment Plant are allocated to Wastewater in the model. However, this is purely superficial; the wastewater utility is not in actuality recovering any part of the water utility revenue requirement. The cost allocated from the WTP to WW is actually representative of the electricity and natural gas costs incurred via wastewater operations.

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Allocation to Cost Categories

	FY 2026	Allocation	Wastewater Conveyance Cost Drivers		
			Volume	*Meter*	*Billing*
	FPFTY				
Wastewater Conveyance Revenue Requirements					
Functional Categories					
Collection & Conveyance	$ 45,601,034	WW-AA	100.00%		
Meters	1,403,775	WW-BB		100.00%	
Billing	2,894,804	WW-CC			100.00%
Admin Support	10,587,362	WW-DD	91.39%	2.81%	5.80%
Total: Wastewater Conveyance Revenue Requirements	$ 60,486,974				

	FY 2026	Allocation	*Volume*	*Meter*	*Billing*
	FPFTY				
Wastewater Conveyance Revenue Requirements					
Functional Categories					
Collection & Conveyance	$ 45,601,034	WW-AA	$ 45,601,034	$ -	$ -
Meters	1,403,775	WW-BB	-	1,403,775	-
Billing	2,894,804	WW-CC	-	-	2,894,804
Admin Support	10,587,362	WW-DD	9,675,318	297,843	614,200
Infiltration & Inflow Costs	-	WW-EE	-	-	-
Total: Wastewater Conveyance Revenue Requirements	$ 60,486,974		$ 55,276,353	$ 1,701,618	$ 3,509,004
Costs to Recover from Wastewater Conveyance Charges	**$ 60,486,974**		$ 55,276,353	$ 1,701,618	$ 3,509,004
			91.4%	2.8%	5.8%

Pittsburgh Water HJS-4WW
FPFTY 2026 COS & Rate Design Model
Allocation Factor Summary

Cost Functionalization: Wastewater Conveyance					
Code	*Description*	*Coll. & Convey.*	*Meters*	*Billing*	*Admin Support*
WW-A	Collection & Conveyance Only	100.00%			
WW-B	Meters Only		100.00%		
WW-C	Billing Only			100.00%	
WW-D	Admin Support Only				100.00%
WW-E	Customer Service		32.66%	67.34%	

Allocation to Cost Drivers: Wastewater Conveyance					
Code	*Description*	*Volume*	*Meter*	*Billing*	*Readiness-to-Serve*
WW-AA	Volume	100.00%			
WW-BB	Customer - Meters		100.00%		
WW-CC	Customer - Billing			100.00%	
WW-DD	Admin Support (Composite)	91.39%	2.81%	5.80%	
WW-EE	Infiltration & Inflow Costs	33.00%		67.00%	
WW-FF	Readiness-to-Serve				0.00%

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Allocation Factor Detail

Factor Derivations - Allocation to Functional Categories & Cost Components					
Code(s)	*Description*	*Calculations*			
W-I WW-E	Customer Service - This factor allocates the 2026 customer service budget between meter- and billing-related costs.	2026 Customer Service Budget	FPFTY	Meter	Billing
		Salary Wages	4,779,622	30.00%	70.00%
		OT Premium Pay	128,750	30.00%	70.00%
		Shift Differential	12,000	30.00%	70.00%
		Holiday Pay	278,234	30.00%	70.00%
		Vacation Pay	410,188	30.00%	70.00%
		Personal Time Pay	232,808	30.00%	70.00%
		Fed Ins Contr Act Tx	360,538	30.00%	70.00%
		Medicare	84,688	30.00%	70.00%
		Med Health Ins	1,296,465	30.00%	70.00%
		Med Hlth Ins Waiver	8,800	30.00%	70.00%
		Short Term Disability	52,953	30.00%	70.00%
		Long Term Disability	8,396	30.00%	70.00%
		Life Ins <50k	6,146	30.00%	70.00%
		Accident Death Dismember	1,298	30.00%	70.00%
		Dental Ins	38,867	30.00%	70.00%
		Vision Insur	7,252	30.00%	70.00%
		Tuition Reimburse	20,000	30.00%	70.00%
		Retirement Benefit	105,621	30.00%	70.00%
		Misc Benefits	(14,520)	30.00%	70.00%
		Annual Software Support	52,458	50.00%	50.00%
		Customer CC Fees	-	0.00%	100.00%
		Postage	698,256	0.00%	100.00%
		Equip Rental	1,700	100.00%	0.00%
		Billing Contract	289,250	0.00%	100.00%
		Meter Services	765,740	100.00%	0.00%
		Prof Service Other	212,668	20.00%	80.00%
		Water Liens	105,000	50.00%	50.00%
		Office Supplies	2,000	50.00%	50.00%
		Uniforms	1,200	50.00%	50.00%
		TE Airfare	1,550	50.00%	50.00%
		TE Auto Rentals	825	50.00%	50.00%
		TE Lodging	2,575	50.00%	50.00%
		TE Training	2,060	50.00%	50.00%
		Customer Refund AP	750,000	0.00%	100.00%
		Education & Outreach	5,000	0.00%	100.00%
		Miscellaneous General Administrative Expense	900,000	50.00%	50.00%
		One Call	30,000	0.00%	100.00%
		Publication Subscription	3,600	0.00%	100.00%
		Non.City Water Reimburse	167,280	100.00%	0.00%
		Total	$ 11,809,266	$ 3,856,519	$ 7,952,747
		Allocation Factors		*32.66%*	*67.34%*

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Allocation Factor Detail

Factor Derivations - Allocation to Functional Categories & Cost Components		
Code(s)	*Description*	*Calculations*

W-D Water Pipe Inventory

- Allocate costs between transmission and distribution functional categories. Assumes Pipes less than or equal to 16" are Distribution-related.

Breakdown		
Distribution	35,272,466	62.8%
Transmission	20,861,796	37.2%
Total	56,134,262	100.0%

W-K Water Pipe Inventory with Service Lines

Allocate Water Distribution costs between Transmission, Distribution, and Service Lines
**No size records: assumption is all are 1"*

Breakdown		
Distribution	35,272,466	58.63%
Transmission	20,861,796	34.68%
Service Lines	4,029,007	6.70%
Total	60,163,269	100.00%

Inch-Foot Analysis		
Diameter (in)	*Linear Feet*	*Inch-Feet*
0.75	810	608
1	1,320	1,320
1.5	753	1,130
2	10,258	20,515
2.5	13	33
3	168	504
4	87,802	351,206
6	2,033,436	12,200,615
8	1,264,995	10,119,962
10	81,364	813,641
12	625,288	7,503,452
14	1,297	18,154
15	11,300	169,496
16	254,489	4,071,831
18	469	8,433
20	210,028	4,200,554
24	83,897	2,013,539
28	98	2,732
30	115,161	3,454,840
36	83,123	2,992,444
42	10,891	457,431
42.5	13,295	565,022
48	19,308	926,762
50	23,271	1,163,533
50.25	10,474	526,323
54	1,494	80,662
60	54,641	3,278,473
66	1,492	98,501
72	3,619	260,603
84	3,969	333,392
96	4,554	437,215
120	511	61,337
	5,013,588	56,134,262

Water Service Lines		
1	4,029,007	4,029,007

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Allocation Factor Detail

Factor Derivations - Allocation to Functional Categories & Cost Components

Code(s)	*Description*	*Calculations*

W-J Engineering & Construction

- This factor uses the 2026 Water CIP costs to allocate Engineering & Construction costs to the various functional categories.

2026 Water CIP Costs	$$ Amount	Allocation
Treatment	$ 22,116,205	7.77%
Storage	97,542,544	34.28%
Trans. & Distr.	152,141,343	53.46%
Admin	12,787,903	4.49%
Total Water CIP	$ 284,587,995	100.00%

W-BB Maximum Day

- Maximum day costs are allocated using a peak day determined using system daily production records. Fire demands are determined in HJS-7W.

Plant Production Data		
2022-2024 Avg Plant Production	64.43	mgd
2022-2024 Avg. Peak Day	82.16	mgd
Peak Hour Factor (1.6)	103.09	mgd

Base	70.73%
Maximum Day	27.51%
Fire Protection	1.75%

W-CC Peak Hour

- Peak hour costs are allocated using an estimated peak hour compared to system average and maximum day processed. Fire demands are determined in HJS-7W.

Plant Production Data		
2022-2024 Avg Plant Production	64.43	mgd
2022-2024 Avg. Peak Day	82.16	mgd
Peak Hour Factor (1.6)	103.09	mgd

Peak Hour / Avg	54.12%
Max Day (Plug)	17.20%
Peak Hr / Peak Day	20.30%
Fire Protection	8.38%

Equivalency Flow Ratios

- Used to escalate metering and readiness-to-serve costs, these ratios are industry standard and obtained from the American Waterworks Association

Equivalency Ratios

	Flow
5/8"	1.00
3/4"	1.50
1"	2.50
1 1/2"	5.00
2"	8.00
3"	16.00
4"	25.00
6"	50.00
8"	80.00
10"	115.00
Unmetered	1.00

	Fire Flow	Fire Equiv
1" or Less	2.50	1.00
1 1/2"-3"	8.00	6.19
4"	25.00	38.32
6" or Greater	50.00	111.31

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Allocation Factor Detail

Factor Derivations - Allocation to Functional Categories & Cost Components		
Code(s)	*Description*	*Calculations*

WW-DD Wastewater Pipe Inventory

- Allocate costs between conveyance and collection functional categories. Assumes Pipes less than or equal to 16" are Collection-related.

Breakdown		
Collection	57,630,168	50.7%
Conveyance	56,095,821	49.3%
Total	113,725,990	100.0%

Inch-Foot Analysis		
Diameter (in)	*Linear Feet*	*Inch-Feet*
4	1,220	4,881
6	8,404	50,423
8	814,960	6,519,681
9	40,085	360,768
10	96,454	964,544
12	633,952	7,607,422
13	71	928
14	264	3,700
15	2,804,878	42,073,176
16	2,790	44,645
18	594,732	10,705,177
20	243,154	4,863,074
21	25,299	531,282
22	1,366	30,049
23	51	1,168
24	357,856	8,588,555
26	1,383	35,960
27	17,864	482,325
28	1,635	45,774
29	360	10,439
30	142,595	4,277,850
31	1,382	42,848
33	22,202	732,674
34	675	22,934
35	287	10,047
36	205,322	7,391,598
37	889	32,889
38	411	15,619
39	8,494	331,264
39.5	1,334	52,700
40	3,826	153,058
42	90,722	3,810,329
44	265	11,680
45	5,037	226,666
46	45	2,079
48	98,876	4,746,029
50	2,168	108,418
51	2,665	135,896
52	395	20,538
53	2,498	132,392
54	49,666	2,681,944
56	671	37,599
57	7,950	453,127
58	493	28,614
60	49,017	2,941,035
64	1,023	65,494
66	23,731	1,566,254
68	8,026	545,802
69	1,720	118,707
72	60,124	4,328,927
74	157	11,653
75	1,446	108,427
78	18,830	1,468,760
81	3,428	277,680
84	16,551	1,390,274
85	1,109	94,299
87	658	57,250
88	607	53,435
90	6,946	625,155
92	899	82,706
96	32,723	3,141,431
99	4,480	443,481
102	6,944	708,286
108	7,636	824,708
114	1,509	172,023
120	5,567	668,047
121	162	19,576
132	2,854	376,735
135	6	868
138	471	65,037
144	1,526	219,756
155	1,028	159,382
156	6,010	937,623

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Wastewater Conveyance Units of Service

	Collection Factor	FY 2026 Consumption	Allocated Consumption	Average Day	Equivalent Meters	Total Bills
Retail Units of Service						
Residential (1)	100.0%	3,181,630	3,181,630	8,717	1,130,664	1,066,452
Residential - CAP (1)	100.0%	242,811	242,811	665	87,534	86,568
Commercial (1)	100.0%	3,203,919	3,203,919	8,778	433,062	106,284
Industrial	100.0%	188,428	188,428	516	9,498	432
Health or Education	100.0%	1,044,248	1,044,248	2,861	80,160	5,280
Municipal - Residential	100.0%	682	682	2	1,764	1,752
Municipal - Commercial	100.0%	119,661	119,661	328	6,438	1,176
Total: Wastewater Conveyance Units of Service		7,981,378	7,981,378	21,867	1,749,120	1,267,944

(1) Includes unmetered units and equivalent usage.

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Wastewater Conveyance Unit Cost of Service

	FY 2026	Unit Costs			Total
		Volume	*Meter*	*Billing*	
Development of Unit Costs of Service	*FPFTY*				
Units of Service					
Total System Units		7,981,378	1,749,120	1,267,944	
Units		*kgal*	*Eq. Cost Meters*	*Total Bills*	
Revenue Requirements					
Collection & Conveyance	$ 45,601,034	$ 45,601,034	$ -	$ -	$ 45,601,034
Meters	1,403,775	-	1,403,775	-	1,403,775
Billing	2,894,804	-	-	2,894,804	2,894,804
Admin Support	10,587,362	9,675,318	297,843	614,200	10,587,362
Infiltration & Inflow Costs	-	-	-	-	-
Total: Revenue Requirements	$ 60,486,974	$ 55,276,353	$ 1,701,618	$ 3,509,004	$ 60,486,974
Revenue Requirement Unit Costs ($/unit)		**$ 6.9257**	**$ 0.9728**	**$ 2.7675**	
Revenue Offsets					
Wastewater Miscellaneous Revenue	(1,064,777)	(973,052)	(29,954)	(61,770)	(1,064,777)
Total: Revenue Offsets	$ (1,064,777)	$ (973,052)	$ (29,954)	$ (61,770)	$ (1,064,777)
Offset Unit Costs ($/unit)		$ (0.1219)	$ (0.0171)	$ (0.0487)	
Total Unit Costs ($/unit)		**$ 6.80**	**$ 0.96**	**$ 2.72**	
Total: Costs of Service		**$ 54,303,301**	**$ 1,671,664**	**$ 3,447,233**	**$ 59,422,198**

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Cost Distribution to Customer Classes

	Unit Costs			Total
	Volume	*Meter*	*Billing*	
Customer Class Cost of Service				
Residential				
Unit Costs ($/unit)	$ 6.804	$ 0.956	$ 2.719	
Units of Service	3,181,630	1,130,664	1,066,452	
Cost of Service	$ 21,647,015	$ 1,080,595	$ 2,899,425	$ 25,627,035
Residential - CAP				
Unit Costs ($/unit)	$ 6.804	$ 0.956	$ 2.719	
Units of Service	242,811	87,534	86,568	
Cost of Service	$ 1,652,022	$ 83,658	$ 235,357	$ 1,971,038
Commercial				
Unit Costs ($/unit)	$ 6.804	$ 0.956	$ 2.719	
Units of Service	3,203,919	433,062	106,284	
Cost of Service	$ 21,798,665	$ 413,885	$ 288,960	$ 22,501,510
Industrial				
Unit Costs ($/unit)	$ 6.804	$ 0.956	$ 2.719	
Units of Service	188,428	9,498	432	
Cost of Service	$ 1,282,017	$ 9,077	$ 1,175	$ 1,292,269
Health or Education				
Unit Costs ($/unit)	$ 6.804	$ 0.956	$ 2.719	
Units of Service	1,044,248	80,160	5,280	
Cost of Service	$ 7,104,802	$ 76,610	$ 14,355	$ 7,195,768
Municipal - Residential				
Unit Costs ($/unit)	$ 6.804	$ 0.956	$ 2.719	
Units of Service	682	1,764	1,752	
Cost of Service	$ 4,637	$ 1,686	$ 4,763	$ 11,086
Municipal - Commercial				
Unit Costs ($/unit)	$ 6.804	$ 0.956	$ 2.719	
Units of Service	119,661	6,438	1,176	
Cost of Service	$ 814,142	$ 6,153	$ 3,197	$ 823,492
Total: Wastewater Cost of Service	**$ 54,303,301**	**$ 1,671,664**	**$ 3,447,233**	**$ 59,422,198**

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Adjustments to Allocated Cost of Service

HJS-9WW

COS Adjustments	Allocation Method	Residential	Residential - CAP	Commercial	Industrial	Health or Education	Municipal - Residential	Municipal - Commercial	NRG (Contract)	Total
Adjustments to Cost of Service										
Wholesale/Contract Adjustment	Unadj. COS	43.1%	3.3%	37.9%	2.2%	12.1%	0.0%	1.4%		100.0%
BDP Forgone Revenue	Unadj. COS	44.6%		39.2%	2.2%	12.5%	0.0%	1.4%		100.0%
Rider AFP	Unadj. COS	44.6%		39.2%	2.2%	12.5%	0.0%	1.4%		100.0%
Customer Assistance Charge	Unadj. COS	43.1%	3.3%	37.9%	2.2%	12.1%		1.4%		100.0%
Pennvest Surcharge	Billable Units	36.5%	1.5%	42.4%	3.0%	14.9%	0.0%	1.8%		100.0%
Adjustments - Health and Education (1)	Unadj. COS	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%		100.0%
Adjustments - Industrial (1)	Unadj. COS	0.0%		0.0%	100.0%	0.0%	0.0%	0.0%		100.0%
Gradualism - Stormwater (2)	Unadj. COS	44.6%		39.2%	2.2%	12.5%	0.0%	1.4%		100.0%
Cost of Service by Class										
Allocated Cost of Service (Unadjusted)		$ 25,627,035	$ 1,971,038	$ 22,501,510	$ 1,292,269	$ 7,195,768	$ 11,086	$ 823,492	$ -	$ 59,422,198
% of COS		*43.1%*	*3.3%*	*37.9%*	*2.2%*	*12.1%*	*0.0%*	*1.4%*	*0.0%*	*100.0%*
Adjustments to Cost of Service	Adjustment									
Wholesale/Contract Adjustment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
BDP Forgone Revenue	1,109,680	494,991	(1,109,680)	434,621	24,960	138,988	214	15,906	-	0
Pennvest Surcharge	(5,273,731)	(1,922,488)	(77,632)	(2,233,949)	(156,894)	(785,791)	(549)	(96,428)	-	(5,273,731)
Adjustments - Health and Education (1)	850,000	(850,000)	-	-	-	850,000	-	-	-	-
Adjustments - Industrial (1)	125,000	(125,000)	-	-	125,000	-	-	-	-	-
Gradualism - Stormwater (2)	6,000,000	2,676,399	-	2,349,980	134,960	751,501	1,158	86,003	-	6,000,000
Total: Adjusted Cost of Service		**$ 25,900,937**	**$ 783,725**	**$ 23,052,163**	**$ 1,420,296**	**$ 8,150,465**	**$ 11,909**	**$ 828,973**	**$ -**	**$ 60,148,467**
% of COS		*43.1%*	*1.3%*	*38.3%*	*2.4%*	*13.6%*	*0.0%*	*1.4%*		*100.0%*

(1) Adjustment to mitigate residential impacts
(2) Transfer from Stormwater to Wastewater such that new Stormwater fee is phased in

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Forgone Revenue Cost of the Bill Discount Program

HJS-10WW

Units	Bills	CAP Usage	CAP - 50FPL Usage	CAP Bills	CAP - FPL50 Bills
5/8"	85,488	130,947	44,633	65,652	19,836
3/4"	636	-	-	480	156
1"	432	-	-	360	72
Unmetered	12	n/a	n/a	12	-
	86,568	130,947	44,633	66,504	20,064

Forgone Revenue Cost	Revenue At Full Rates	Revenue at CAP Rates	Difference
Fixed Charges	$ 737,482	$ -	$ 737,482
Fixed Bill Discount	-	(166,260)	166,260
Volume Charges	343,230	137,292	205,938
Total Forgone Revenue Cost	1,080,713	(28,968)	1,109,680

Volume Discount	60.0%

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Minimum Charge Calculation

	Min. Usage	COS Rate Build-Up - Test Year: 2026						
						Adjustments		
Wastewater Conveyance	*Existing*	*Meter*	*Billing*	*Usage*	*Total COS Rates*	*Placeholder*	CAP-BDP	*Proposed Rates*
Minimum Charge								
5/8"	1	$ 0.96	$ 2.72	$ 4.70	$ 8.38	$ -	$ -	$ 8.38
3/4"	2	1.43	2.72	9.41	13.56	-	-	13.56
1"	5	2.39	2.72	23.52	28.63	-	-	28.63
1 1/2"	10	4.78	2.72	47.04	54.53	-	-	54.53
2"	17	7.65	2.72	79.96	90.33	-	-	90.33
3"	40	15.29	2.72	188.14	206.15	-	-	206.15
4"	70	23.89	2.72	329.25	355.86	-	-	355.86
6"	175	47.79	2.72	823.13	873.63	-	-	873.63
8"	325	76.46	2.72	1,528.67	1,607.85	-	-	1,607.85
10" & Above	548	109.91	2.72	2,577.57	2,690.20	-	-	2,690.20
Unmetered	1	0.96	2.72	4.70	8.38	-	-	8.38
Residential - CAP								
5/8"	1	$ 0.96	$ 2.72	$ 4.70	$ 8.38	$ -	(8.38)	$ -
3/4"	2	1.43	2.72	9.41	13.56	-	(13.56)	-
1"	5	2.39	2.72	23.52	28.63	-	(28.63)	-
Unmetered	1	0.96	2.72	4.70	8.38	-	(8.38)	-

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Volume Charge Calculation

	Unadjusted COS-Based Rates				
	Unadjusted Revenue Requirement	Fixed Charge Revenue	Total Vol Revenue Requirement	Billed Volume	Proposed Rates
Volume Charge (per kgal)					
Residential	$ 25,627,035	$ 9,744,678	$ 15,882,358	2,186,032	$ 7.27
Residential - CAP	1,971,038	566,952	1,404,086	175,616	8.00
Commercial	22,501,510	5,421,667	17,079,844	2,526,306	6.76
Industrial	1,292,269	171,849	1,120,420	177,423	6.31
Health or Education	7,195,768	1,172,869	6,022,899	888,611	6.78
Municipal - Residential	11,086	14,803	(3,717)	620	(5.99)
Municipal - Commercial	823,492	81,089	742,403	109,046	6.81
Totals	$ 59,422,198	$ 17,173,906	$ 42,248,292	6,063,655	6.97

	Determination of Proposed Rates						
	Adjusted Revenue Requirement	Bad Debt	Total Adjusted Revenue Requirement	Fixed Charge Revenue	Total Volumetric Rev Req	Equivalent Volume (for Ratemaking)	Proposed Rates
Volume Charge (per kgal)							
Residential + CAP + City Res	$ 26,696,571	$ 1,024,706	$ 27,721,277	$ 9,761,547	$ 17,959,730	2,335,489	7.69
Commercial + City Com	23,881,135	153,707	24,034,842	5,502,920	18,531,922	2,635,352	7.04
Industrial	1,420,296	2,235	1,422,531	171,849	1,250,682	177,423	7.05
Health or Education	8,150,465	22,321	8,172,786	1,172,865	6,999,921	888,611	7.88
Municipal - Commercial							
Municipal - Residential							
Totals	$ 60,148,467	$ 1,202,969	$ 61,351,436	$ 16,609,181	$ 44,742,256	6,036,875	$ 7.41

	Adjusted Revenue Requirement	Bad Debt	Total Adjusted Revenue Requirement	Fixed Charge Revenue	Total Volumetric Rev Req	Equivalent Volume (for Ratemaking)	Proposed Rates
Pennvest Volume Surcharge (per kgal)							
Existing PENNVEST	$ 5,144,016	-	$ 5,144,016	$ -	$ 5,144,016	5,963,793	$ 0.86
Future PENNVEST	129,715	-	129,715	-	129,715	5,963,793	0.02
Total	$ 5,273,731	$ -	$ 5,273,731	$ -	$ 5,273,731		$ 0.88

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FPFTY 2026 COS & Rate Design Model

Proposed Rates

	2025 FTY Prior Tariff Rates	2026 FPFTY Calculated Rates	2026 FPFTY Proposed Rates
Existing & Proposed Rates			
Minimum Charge			
5/8"	$ 8.25	$ 8.38	$ 8.38
3/4"	13.19	13.56	13.56
1"	27.35	28.63	28.63
1 1/2"	52.06	54.53	54.53
2"	85.98	90.33	90.33
3"	195.00	206.15	206.15
4"	335.31	355.86	355.86
6"	817.77	873.63	873.63
8"	1,499.45	1,607.85	1,607.85
10" & Above	2,500.18	2,690.20	2,690.20
Minimum Charge - CAP (1)			
5/8"	$ -	$ -	$ -
3/4"	-	-	-
1"	-	-	-
Volume Charge			
Residential	$ 6.68	$ 7.69	$ 7.69
Residential - CAP	6.68	7.69	7.69
Residential - CAP (<50% FPL)	4.01	4.61	3.08
Commercial	5.94	7.04	7.04
Industrial	6.09	7.05	7.05
Health or Education	6.75	7.88	7.88
Municipal - Residential	6.68	7.69	7.69
Municipal - Commercial	5.94	7.04	7.04
Unmetered Charges (per Unit)			
Residential	$ 28.29	$ 31.45	$ 31.45
Residential - CAP	20.04	23.07	23.07
Commercial	32.01	36.54	36.54
DSIC (Applies to all retail customers)	5.0%		7.5%

(1) Proposed 100% discount on Minimum Charge for CAP-BDP customers in all years.

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Comparison of Base Rate Revenues by Customer Class

	FPFTY Revenue at Existing Rates	FPFTY Indicated COS by Customer Class (1)	Percent Difference	Dollar Difference
Base Rate Revenues				
Residential	$ 24,166,775	$ 25,627,035	6.0%	$ 1,460,260
Residential - CAP	994,227	1,971,038	98.2%	976,810
Commercial	20,154,024	22,501,510	11.6%	2,347,487
Industrial	1,241,254	1,292,269	4.1%	51,015
Health or Education	7,102,562	7,195,768	1.3%	93,206
Municipal - Residential	18,717	11,086	-40.8%	(7,631)
Municipal - Commercial	724,636	823,492	13.6%	98,856
Total: Base Rate Revenues	**$ 54,402,195**	**$ 59,422,198**	**9.2%**	**$ 5,020,003**

	FPFTY Indicated COS by Customer Class	FPFTY Adjusted COS by Customer Class (2)	Percent Difference	Dollar Difference
Base Rate Revenues				
Residential	$ 25,627,035	$ 25,900,937	1.1%	$ 273,902
Residential - CAP	1,971,038	783,725	-60.2%	(1,187,313)
Commercial	22,501,510	23,052,163	2.4%	550,652
Industrial	1,292,269	1,420,296	9.9%	128,027
Health or Education	7,195,768	8,150,465	13.3%	954,698
Municipal - Residential	11,086	11,909	7.4%	823
Municipal - Commercial	823,492	828,973	0.7%	5,480
Total: Base Rate Revenues	**$ 59,422,198**	**$ 60,148,467**	**1.2%**	**$ 726,269**

	FPFTY Revenue at Existing Rates	FPFTY Adjusted COS by Customer Class (2)	Percent Difference	Dollar Difference
Base Rate Revenues				
Residential	$ 24,166,775	$ 25,900,937	7.2%	$ 1,734,161
Residential - CAP	994,227	783,725	-21.2%	(210,502)
Commercial	20,154,024	23,052,163	14.4%	2,898,139
Industrial	1,241,254	1,420,296	14.4%	179,042
Health or Education	7,102,562	8,150,465	14.8%	1,047,904
Municipal - Residential	18,717	11,909	-36.4%	(6,808)
Municipal - Commercial	724,636	828,973	14.4%	104,336
Total: Base Rate Revenues	**$ 54,402,195**	**$ 60,148,467**	**10.6%**	**$ 5,746,272**

	FPFTY Revenue at Existing Rates	FPFTY Revenue at Proposed Rates (3)	Percent Difference	Dollar Difference
Base Rate Revenues				
Residential	$ 24,166,775	$ 26,557,325	9.9%	$ 2,390,550
Residential - CAP	994,227	1,144,552	15.1%	150,325
Commercial	20,154,024	23,207,025	15.1%	3,053,001
Industrial	1,241,254	1,422,681	14.6%	181,428
Health or Education	7,102,562	8,175,120	15.1%	1,072,558
Municipal - Residential	18,717	19,577	4.6%	860
Municipal - Commercial	724,636	848,775	17.1%	124,139
Total: Base Rate Revenues	**$ 54,402,195**	**$ 61,375,056**	**12.8%**	**$ 6,972,861**

(1) Includes Pennvest surcharge, excludes gradualism and bad debt
(2) Includes gradualism, excludes pennvest surcharge and bad debt
(3) Includes gradualism, bad debt, and a minor rounding adjustment, excludes pennvest surcharge

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
FPFTY CCOS Comparison - Wastewater Conveyance

	Unadjusted COS (1)		Revenue at Existing Rates		Revenue at Proposed Rates		Proposed Increase	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Base Rate Revenues								
Residential	$ 25,627,035	43.1%	$ 24,166,775	44.4%	$ 26,557,325	43.3%	$ 2,390,550	9.9%
Residential - CAP	1,971,038	3.3%	994,227	1.8%	1,144,552	1.9%	150,325	15.1%
Commercial	22,501,510	37.9%	20,154,024	37.0%	23,207,025	37.8%	3,053,001	15.1%
Industrial	1,292,269	2.2%	1,241,254	2.3%	1,422,681	2.3%	181,428	14.6%
Health or Education	7,195,768	12.1%	7,102,562	13.1%	8,175,120	13.3%	1,072,558	15.1%
Municipal - Residential	11,086	0.0%	18,717	0.0%	19,577	0.0%	860	4.6%
Municipal - Commercial	823,492	1.4%	724,636	1.3%	848,775	1.4%	124,139	17.1%
Subtotal: Base Rate Revenues	**$ 59,422,198**	100.0%	**$ 54,402,195**	100.0%	**$ 61,375,056**	100.0%	**$ 6,972,861**	12.8%
Pennvest Surcharge Revenues								
Residential	n/a	n/a	$ -	0.0%	$ 1,922,488	38.5%	$ 1,922,488	
Residential - CAP	n/a	n/a	-	0.0%	77,632	1.6%	77,632	
Commercial	n/a	n/a	-	0.0%	2,233,949	44.7%	2,233,949	
Industrial	n/a	n/a	-	0.0%	156,894	3.1%	156,894	
Health or Education	n/a	n/a	-	0.0%	785,791	15.7%	785,791	
Municipal - Residential	n/a	n/a	-	0.0%	549	0.0%	549	
Municipal - Commercial	n/a	n/a	-	0.0%	96,428	1.9%	96,428	
Subtotal: DSIC Revenues	n/a	n/a	**$ 54,402,195**	0.0%	**$ 5,273,731**	105.5%	**$ 5,273,731**	
DSIC Revenues								
Residential	n/a	n/a	$ 1,208,339	44.4%	$ 2,135,986	42.7%	$ 927,647	
Residential - CAP	n/a	n/a	49,711	1.8%	91,664	1.8%	41,952	
Commercial	n/a	n/a	1,007,701	37.0%	1,908,073	38.2%	900,372	
Industrial	n/a	n/a	62,063	2.3%	118,468	2.4%	56,405	
Health or Education	n/a	n/a	355,128	13.1%	672,068	13.4%	316,940	
Municipal - Residential	n/a	n/a	936	0.0%	1,509	0.0%	574	
Municipal - Commercial	n/a	n/a	36,232	1.3%	70,890	1.4%	34,658	
Subtotal: DSIC Revenues	n/a	n/a	**$ 2,720,110**	100.0%	**$ 4,998,659**	100.0%	**$ 2,278,549**	
Total: User Charge Revenues	**$ 59,422,198**		**$ 57,122,305**		**$ 71,647,446**		**$ 14,525,141**	**25.4%**
Other Revenues								
Miscellaneous Revenues	1,064,777		1,064,777		1,064,777		-	0.0%
Total: Wastewater Conveyance Revenues	**$ 60,486,974**		**$ 58,187,081**		**$ 72,712,222**		**$ 14,525,141**	**25.0%**

(1) Difference between COS & proposed base rate revenue is attributed to BDE, stormwater gradualism, the PVC charge, and rounding.

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Typical Bill Comparison

	Customer Usage		FTY Existing Rates		FPFTY Proposed Rates	Percent Difference		Dollar Difference
Customer Impacts (1)								
Residential								
5/8"	1 kgal	$	8.66	$	9.01	4.0%	$	0.35
5/8"	3 kgal		22.69		27.44	20.9%		4.75
5/8"	5 kgal		36.72		45.88	24.9%		9.16
5/8"	7 kgal		50.75		64.31	26.7%		13.57
5/8"	12 kgal		85.82		110.40	28.6%		24.58
1"	20 kgal		133.93		169.04	26.2%		35.11
Commercial								
5/8"	3 kgal	$	21.14	$	26.05	23.2%	$	4.91
5/8"	5 kgal		33.61		43.08	28.2%		9.47
5/8"	12 kgal		77.27		102.71	32.9%		25.44
1"	13 kgal		78.61		98.93	25.8%		20.31
2"	80 kgal		483.21		633.78	31.2%		150.57
4"	160 kgal		913.41		1,149.22	25.8%		235.82
Industrial								
1"	30 kgal	$	188.58	$	244.01	29.4%	$	55.43
1"	60 kgal		380.42		499.89	31.4%		119.48
2"	100 kgal		621.02		805.04	29.6%		184.02
4"	680 kgal		4,252.72		5,585.46	31.3%		1,332.74
6"	400 kgal		2,297.42		2,858.26	24.4%		560.84
8"	800 kgal		4,611.81		5,779.89	25.3%		1,168.08
Health or Education								
5/8"	5 kgal	$	37.01	$	46.69	26.2%	$	9.68
5/8"	10 kgal		72.45		93.80	29.5%		21.35
1"	40 kgal		276.78		360.53	30.3%		83.75
2"	50 kgal		324.17		408.02	25.9%		83.85
4"	200 kgal		1,273.45		1,607.36	26.2%		333.91
6"	650 kgal		4,225.22		5,414.42	28.1%		1,189.20

(1) Customer bills at existing rates include a 5% DSIC and proposed rates include a 7.5% DSIC.

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Sewer Revenue Proof

	2026 Revenue @ Existing Rates			2026 Revenue @ COS Rates			2026 Revenue @ Proposed Rates		
	Units	Rates	Revenue	Units	Rates	Revenue	Units	Rates	Revenue
Base Rate Revenues									
Minimum Charges									
Residential									
5/8"	1,000,620	$ 8.25	$ 8,255,115	1,000,620	$ 8.38	$ 8,383,270	1,000,620	$ 8.38	$ 8,385,196
3/4"	31,296	13.19	412,794	31,296	13.56	424,359	31,296	13.56	424,374
1"	29,640	27.35	810,654	29,640	28.63	848,476	29,640	28.63	848,593
1 1/2"	732	52.06	38,108	732	54.53	39,918	732	54.53	39,916
2"	168	85.98	14,445	168	90.33	15,175	168	90.33	15,175
Unmetered	3,996	28.29	113,047	3,996	8.38	33,479	3,996	31.45	125,674
Subtotal: Residential	1,066,452		$ 9,644,163	1,066,452		$ 9,744,678	1,066,452		$ 9,838,928
Residential - CAP and CAP - 50FPL									
5/8"	85,488	$ -	$ -	85,488	$ 8.38	$ 716,225	85,488	$ -	$ -
3/4"	636	-	-	636	13.56	8,624	636	-	-
1"	432	-	-	432	28.63	12,366	432	-	-
Unmetered	12	20.04	240	12	-	-	12	23.07	277
Subtotal: Residential - CAP and CAP - 50FPL	86,568		$ 240	86,568		$ 737,215	86,568		$ 277
Commercial									
5/8"	47,712	$ 8.25	$ 393,624	47,712	$ 8.38	$ 399,735	47,712	$ 8.38	$ 399,827
3/4"	9,900	13.19	130,581	9,900	13.56	134,239	9,900	13.56	134,244
1"	20,664	27.35	565,160	20,664	28.63	591,529	20,664	28.63	591,610
1 1/2"	10,332	52.06	537,884	10,332	54.53	563,439	10,332	54.53	563,404
2"	10,776	85.98	926,520	10,776	90.33	973,350	10,776	90.33	973,396
3"	3,120	195.00	608,400	3,120	206.15	643,201	3,120	206.15	643,188
4"	2,424	335.31	812,791	2,424	355.86	862,614	2,424	355.86	862,605
6"	1,236	817.77	1,010,764	1,236	873.63	1,079,813	1,236	873.63	1,079,807
8"	108	1,499.45	161,941	108	1,607.85	173,647	108	1,607.85	173,648
10" & Above	-	2,500.18	-	-	2,690.20	-	-	2,690.20	-
Unmetered	12	32.01	384	12	8.38	101	12	36.54	438
Subtotal: Commercial	106,284		$ 5,148,050	106,284		$ 5,421,667	106,284		$ 5,422,167
Industrial									
5/8"	72	$ 8.25	$ 594	72	$ 8.38	$ 603	72	$ 8.38	$ 603
3/4"	12	13.19	158	12	13.56	163	12	13.56	163
1"	72	27.35	1,969	72	28.63	2,061	72	28.63	2,061
1 1/2"	-	52.06	-	-	54.53	-	-	54.53	-
2"	84	85.98	7,222	84	90.33	7,587	84	90.33	7,588
3"	36	195.00	7,020	36	206.15	7,422	36	206.15	7,421
4"	84	335.31	28,166	84	355.86	29,893	84	355.86	29,892
6"	24	817.77	19,626	24	873.63	20,967	24	873.63	20,967
8"	24	1,499.45	35,987	24	1,607.85	38,588	24	1,607.85	38,588
10" & Above	24	2,500.18	60,004	24	2,690.20	64,565	24	2,690.20	64,565
Subtotal: Industrial	432		$ 160,747	432		$ 171,849	432		$ 171,849
Health or Education									
5/8"	336	$ 8.25	$ 2,772	336	$ 8.38	$ 2,815	336	$ 8.38	$ 2,816
3/4"	84	13.19	1,108	84	13.56	1,139	84	13.56	1,139
1"	228	27.35	6,236	228	28.63	6,527	228	28.63	6,528
1 1/2"	744	52.06	38,733	744	54.53	40,573	744	54.53	40,570
2"	1,560	85.98	134,129	1,560	90.33	140,908	1,560	90.33	140,915
3"	1,068	195.00	208,260	1,068	206.15	220,173	1,068	206.15	220,168
4"	792	335.31	265,566	792	355.86	281,844	792	355.86	281,841
6"	408	817.77	333,650	408	873.63	356,443	408	873.63	356,441
8"	36	1,499.45	53,980	36	1,607.85	57,882	36	1,607.85	57,883
10" & Above	24	2,500.18	60,004	24	2,690.20	64,565	24	2,690.20	64,565
Subtotal: Health or Education	5,280		$ 1,104,437	5,280		$ 1,172,869	5,280		$ 1,172,865
Municipal - Residential									
5/8"	1,728	$ 8.25	$ 14,256	1,728	$ 8.38	$ 14,477	1,728	$ 8.38	$ 14,481
3/4"	24	13.19	317	24	13.56	325	24	13.56	325
1"	-	27.35	-	-	28.63	-	-	28.63	-
1 1/2"	-	52.06	-	-	54.53	-	-	54.53	-
2"	-	85.98	-	-	90.33	-	-	90.33	-
3"	-	195.00	-	-	206.15	-	-	206.15	-
4"	-	335.31	-	-	355.86	-	-	355.86	-
6"	-	817.77	-	-	873.63	-	-	873.63	-
8"	-	1,499.45	-	-	1,607.85	-	-	1,607.85	-
10" & Above	-	2,500.18	-	-	2,690.20	-	-	2,690.20	-
Subtotal: Municipal - Residential	1,752		$ 14,573	1,752		$ 14,803	1,752		$ 14,806
Municipal - Commercial									
5/8"	372	$ 8.25	$ 3,069	372	$ 8.38	$ 3,117	372	$ 8.38	$ 3,117
3/4"	36	13.19	475	36	13.56	488	36	13.56	488
1"	240	27.35	6,564	240	28.63	6,870	240	28.63	6,871
1 1/2"	168	52.06	8,746	168	54.53	9,162	168	54.53	9,161
2"	264	85.98	22,699	264	90.33	23,846	264	90.33	23,847
3"	60	195.00	11,700	60	206.15	12,369	60	206.15	12,369
4"	12	335.31	4,024	12	355.86	4,270	12	355.86	4,270
6"	24	817.77	19,626	24	873.63	20,967	24	873.63	20,967
8"	-	1,499.45	-	-	1,607.85	-	-	1,607.85	-
10" & Above	-	2,500.18	-	-	2,690.20	-	-	2,690.20	-
Subtotal: Municipal - Commercial	1,176		$ 76,903	1,176		$ 81,089	1,176		$ 81,091
Subtotal: Minimum Charges	1,267,944		$ 16,149,113	1,267,944		$ 17,344,169	1,267,944		$ 16,701,983

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Sewer Revenue Proof

	2026 Revenue @ Existing Rates			2026 Revenue @ COS Rates			2026 Revenue @ Proposed Rates		
	Units	Rates	Revenue	Units	Rates	Revenue	Units	Rates	Revenue
Pennvest Volume Charge									
Residential	2,174,044	$ -	$ -	2,174,044	$ -	$ -	2,174,044	$ 0.88	$ 1,922,488
Residential - CAP	130,947	-	-	130,947	-	-	130,947	0.44	57,898
Residential - CAP - 50FPL	44,633	-	-	44,633	-	-	44,633	0.44	19,734
Commercial	2,526,258	-	-	2,526,258	-	-	2,526,258	0.88	2,233,949
Industrial	177,423	-	-	177,423	-	-	177,423	0.88	156,894
Health or Education	888,611	-	-	888,611	-	-	888,611	0.88	785,791
Municipal - Residential	620	-	-	620	-	-	620	0.88	549
Municipal - Commercial	109,046	-	-	109,046	-	-	109,046	0.88	96,428
Subtotal: Pennvest Volume Charge	6,051,583		$ -	6,051,583		$ -	6,051,583		$ 5,273,731
Volume Charge									
Residential	2,174,044	$ 6.68	$ 14,522,613	2,174,044	$ 7.27	$ 15,805,299	2,174,044	$ 7.69	$ 16,718,397
Residential - CAP	130,947	6.68	874,726	130,947	8.00	1,047,576	130,947	7.69	1,006,983
Residential - CAP - 50FPL	44,633	2.67	119,260	44,633	6.76	301,721	44,633	3.08	137,292
Commercial	2,526,258	5.94	15,005,974	2,526,258	6.76	17,077,506	2,526,258	7.04	17,784,858
Industrial	177,423	6.09	1,080,506	177,423	6.31	1,119,539	177,423	7.05	1,250,832
Health or Education	888,611	6.75	5,998,124	888,611	6.78	6,024,783	888,611	7.88	7,002,255
Municipal - Residential	620	6.68	4,145	620	(5.99)	(3,717)	620	7.69	4,771
Municipal - Commercial	109,046	5.94	647,733	109,046	6.81	742,603	109,046	7.04	767,684
Subtotal: Volume Charge	6,051,583		$ 38,253,082	6,051,583		$ 42,115,311	6,051,583		$ 44,673,072
Wholesale and Contract Revenues			$ -			$ -			$ -
Total: Base Rate Revenues			$ 54,402,195			$ 59,459,480			$ 66,648,787
DSIC Revenues									
Residential		5.0%	1,208,339			$ 1,916,248	7.5%		$ 2,135,986
Residential - CAP		5.0%	49,711			133,859	7.5%		91,664
Commercial		5.0%	1,007,701			1,687,438	7.5%		1,908,073
Industrial		5.0%	62,063			96,854	7.5%		118,468
Health or Education		5.0%	355,128			539,824	7.5%		672,068
Municipal - Residential		5.0%	936			831	7.5%		1,509
Municipal - Commercial		5.0%	36,232			61,777	7.5%		70,890
Total: DSIC Revenues			$ 2,720,110			$ 4,436,832			$ 4,998,659
Other Revenues									
Other Revenues			1,064,777			1,064,777			1,064,777
Total: System Revenues			**$ 58,187,081**			**$ 64,961,089**			**$ 72,712,222**
FPFTY Wastewater Conveyance Revenue Requirements						**$ 71,482,339**			**$ 72,685,308**
Difference						**$ (6,521,250)**			**$ 26,914**

(1) Note difference in COS rates is combination of bad debt, DSIC, the PVC charge, and Stormwater gradualism.

Pittsburgh Water HJS-17WW

FPFTY 2026 COS & Rate Design Model

Projected Units of Service

	FY 2022 *Actual*	FY 2023 *Actual*	HTY FY 2024 *Actual*	FTY FY 2025 *Projected*	FPFTY FY 2026 *Projected*
Units of Service					
Number of Bills					
Residential	1,029,504	1,082,460	1,066,452	1,066,452	1,066,452
Residential - CAP	64,452	75,588	86,568	86,568	86,568
Commercial	102,150	106,320	106,284	106,284	106,284
Industrial	408	432	432	432	432
Health or Education	5,269	5,328	5,280	5,280	5,280
Municipal	3,135	1,176	2,928	2,928	2,928
Total	1,204,918	1,271,304	1,267,944	1,267,944	1,267,944
Billable Consumption (kgal)					
Residential	2,303,751	2,156,593	2,061,787	2,174,044	2,174,044
Residential - CAP	146,068	177,619	203,054	175,580	175,580
Commercial	2,308,112	2,579,844	2,690,819	2,526,258	2,526,258
Industrial	110,428	153,371	268,470	177,423	177,423
Health or Education	832,509	885,442	947,882	888,611	888,611
Municipal	210,688	40,220	78,091	109,666	109,666
Total	5,911,557	5,993,089	6,250,103	6,051,583	6,051,583
Total Consumption (kgal) (1)					
Residential	3,312,153	3,153,081	3,043,692	3,169,642	3,169,642
Residential - CAP	201,247	245,396	281,681	242,775	242,775
Commercial	2,955,185	3,270,576	3,385,853	3,203,871	3,203,871
Industrial	120,345	163,896	281,043	188,428	188,428
Health or Education	983,525	1,043,736	1,105,483	1,044,248	1,044,248
Municipal	233,133	43,437	84,457	120,342	120,342
Total	7,805,587	7,920,122	8,182,209	7,969,306	7,969,306
Wholesale & Contract Consumption					
NRG	15,794	47,012	47,012	-	-

(1) Total consumption represents actual customer usage including the usage captured in minimum allowa

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
FPFTY Wastewater Conveyance Revenue Requirements

Revenue Requirements	**2026 FPFTY Revenue Requirements**	**2027 Revenue Requirements**
Operating Expenses		
Direct Operating Expenses		
Administrative Division		
Chief Executive Office	$ 641,805	$ 641,805
Customer Service	4,298,578	4,298,578
Technology Services	988,367	988,367
Finance	2,740,279	2,740,279
Human Resources	296,804	296,804
Legal	489,598	489,598
Safety & Security	284,858	284,858
Public Affairs	199,712	199,712
Operations Division		
Environmental Compliance	1,749,467	1,749,467
Warehouse	62,772	62,772
Laboratory	-	
Water Treatment Plant	1,859,445	1,859,445
Sewer Operations	2,211,990	2,211,990
Water Operations	107,100	107,100
Engineering & Construction		
Engineering & Construction	11,326,951	11,326,951
Other Operating Expenses		
Loss / (Gain) on ALCOSAN Billings	2,383,047	$ 2,383,047
Covid-Related Expenses	-	-
Total Operating Expenses	$ 29,640,773	$ 29,640,773
Debt Service		
Existing Debt	$ 23,250,962	$ 25,557,867
Future Debt	2,440,234	5,322,298
Subtotal: Debt Service	$ 25,691,196	$ 30,880,166
Other Expenditures & Transfers		
DSIC Capital	$ 4,995,365	5,381,850
Debt Coverage Capital - Existing Senior	3,679,659	3,784,502
Debt Coverage Capital - Future Senior	395,520	317,235
Other Transfers to Reserves	939,779	939,779
Rider AFP	140,047	140,047
Gradualism - Stormwater	6,000,000	6,000,000
Subtotal: Other Expenditures & Transfers	$ 16,150,370	$ 16,563,412
Total: Wastewater Conveyance System Revenue Requirements	**$ 71,482,339**	**$ 77,084,351**
Less: Capital Costs to be Recovered through DSIC	(4,995,365)	(5,381,850)
Add: Bad Debt Expense	1,202,969	1,202,969
Total: Wastewater Conveyance System Base Rate Revenue Requirement	**$ 67,689,944**	**$ 72,905,471**

Pittsburgh Water and Sewer Authority HJS-19WW
FPFTY 2026 COS & Rate Design Model
Revenue Increase Needed for 2027

	2026	2027
O&M Expenses	$ 27,257,726	$ 27,257,726
Loss / (Gain) on ALCOSAN Billings	2,383,047	2,383,047
Debt Service	25,691,196	30,880,166
Debt Service Coverage	4,075,179	4,101,736
DSIC Capital	4,995,365	5,381,850
Other Expenditures	1,079,826	1,079,826
Net Rate Revenue Requirement	$ 65,482,339	$ 71,084,351
Less: Misc Revenues	$ 1,064,777	$ 1,088,933
Adjusted Revenue Requirement for Ratemaking	$ 64,417,563	$ 69,995,419
Increase		*8.66%*

Pittsburgh Water HJS-20WW

FPFTY 2026 COS & Rate Design Model

Service Charge Calculation - 2027 Wastewater FY 27 Rate Adjustment: 8.66%

	Min. Usage	COS Rate Build-Up - Test Year: 2027						
		Meter	*Billing*	*Usage*	*Total COS Rates*	*Adjustments*		*Proposed Rates*
Wastewater Conveyance	*Existing*					*Placeholder*	CAP-BDP	
Service Charge								
5/8"		$ 0.96	$ 2.72	$ -	$ 3.67	$ -	$ -	$ 3.99
3/4"		1.43	2.72	-	4.15	-	-	4.51
1"		2.39	2.72	-	5.11	-	-	5.55
1 1/2"		4.78	2.72	-	7.50	-	-	8.15
2"		7.65	2.72	-	10.36	-	-	11.26
3"		15.29	2.72	-	18.01	-	-	19.57
4"		23.89	2.72	-	26.61	-	-	28.92
6"		47.79	2.72	-	50.50	-	-	54.88
8"		76.46	2.72	-	79.18	-	-	86.03
10" & Above		109.91	2.72	-	112.63	-	-	122.38
Unmetered		0.96	2.72	-	3.67	-	-	3.99
Residential - CAP								
5/8"	0	$ 0.96	$ 2.72	$ -	$ 3.67	$ -	(3.67)	$ -
3/4"	0	1.43	2.72	-	4.15	-	(4.15)	-
1"	0	2.39	2.72	-	5.11	-	(5.11)	-
Unmetered	0	0.96	2.72	-	3.67	-	(3.67)	-

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Volume Charge Calculation - 2027

HJS-21WW

	Unadjusted COS-Based Rates				
	Unadjusted Revenue Requirement	Fixed Charge Revenue	Total Vol Revenue Requirement	Billed Volume	Proposed Rates
Volume Charge (per kgal)					
Residential	$ 27,846,056	$ 3,980,020	$ 21,647,015	3,181,630	$ 6.80
Residential - CAP	2,141,708	245,113	1,725,925	242,811	7.11
Commercial	24,449,895	702,845	21,798,665	3,203,919	6.80
Industrial	1,404,165	10,252	1,282,017	188,428	6.80
Health or Education	7,818,842	90,965	7,104,802	1,044,248	6.80
Municipal - Residential	12,046	6,449	4,637	682	6.80
Municipal - Commercial	894,798	9,350	814,142	119,661	6.80
Totals	$ 64,567,510	$ 5,044,995	$ 54,377,203	7,981,378	6.81

	Determination of Proposed Rates						
	Adjusted Revenue Requirement	Bad Debt	Total Adjusted Revenue Requirement	Fixed Charge Revenue	Total Volumetric Rev Req	Equivalent Volume (for Ratemaking)	Proposed Rates
Volume Charge (per kgal)							
Residential + CAP + City Res	$ 28,365,934	$ 1,024,706	$ 29,390,640	$ 4,328,925	$ 25,061,714	3,389,418	7.40
Commercial + City Com	25,307,807	153,707	25,461,514	773,739	24,687,775	3,323,580	7.43
Industrial	1,448,260	2,235	1,450,496	11,140	1,439,356	188,428	7.64
Health or Education	8,390,439	22,321	8,412,760	98,845	8,313,915	1,044,248	7.97
Municipal - Commercial							
Municipal - Residential							
Totals	63,512,440	1,202,969	64,715,409	5,212,648	59,502,761	7,945,674	$ 7.49

	Adjusted Revenue Requirement	Bad Debt	Total Adjusted Revenue Requirement	Fixed Charge Revenue	Total Volumetric Rev Req	Equivalent Volume (for Ratemaking)	Proposed Rates
Pennvest Volume Surcharge (per kgal)							
Existing PENNVEST	$ 6,725,504	-	$ 6,725,504	$ -	$ 6,725,504	7,847,919	$ 0.86
Future PENNVEST	329,566	-	329,566	-	329,566	7,847,919	0.04
Total	$ 7,055,070	$ -	$ 7,055,070	$ -	$ 7,055,070		$ 0.90

Pittsburgh Water HJS-22WW

FPFTY 2026 COS & Rate Design Model

Proposed Rates

	2026 FTY Prior Tariff Rates	2027 Calculated Rates	2027 Proposed Rates
Existing & Proposed Rates			
Minimum Charge			
5/8"	$ 8.38	$ 3.99	$ 3.99
3/4"	13.56	4.51	4.51
1"	28.63	5.55	5.55
1 1/2"	54.53	8.15	8.15
2"	90.33	11.26	11.26
3"	206.15	19.57	19.57
4"	355.86	28.92	28.92
6"	873.63	54.88	54.88
8"	1,607.85	86.03	86.03
10" & Above	2,690.20	122.38	122.38
Minimum Charge - CAP (1)			
5/8"	$ -	$ -	$ -
3/4"	-	-	-
1"	-	-	-
Volume Charge			
Residential	$ 7.69	$ 7.40	$ 7.40
Residential - CAP	7.69	7.40	7.40
Residential - CAP (<50% FPL)	4.61	4.44	2.96
Commercial	7.04	7.43	7.43
Industrial	7.05	7.64	7.64
Health or Education	7.88	7.97	7.97
Municipal - Residential	7.69	7.40	7.40
Municipal - Commercial	7.04	7.43	7.43
Unmetered Charges (per Unit)			
Residential	$ 31.45	$ 33.59	$ 33.59
Residential - CAP	23.07	29.60	29.60
Commercial	36.54	41.14	41.14
DSIC (Applies to all retail customers)	7.5%		7.5%

(1) Proposed 100% discount on Minimum Charge for CAP-BDP customers in all years.

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Sewer Revenue Proof

	2027 Revenue @ 2026 Rates			2027 Revenue @ Proposed Rates		
	Units	**Rates**	**Revenue**	**Units**	**Rates**	**Revenue**
Base Rate Revenues						
Minimum Charges						
Residential						
5/8"	1,000,620	$ 8.38	$ 8,385,196	1,000,620	$ 3.99	$ 3,992,474
3/4"	31,296	13.56	424,374	31,296	4.51	141,145
1"	29,640	28.63	848,593	29,640	5.55	164,502
1 1/2"	732	54.53	39,916	732	8.15	5,966
2"	168	90.33	15,175	168	11.26	1,892
Unmetered	3,996	31.45	125,674	3,996	33.59	134,226
Subtotal: Residential	1,066,452		$ 9,838,928	1,066,452		$ 4,440,204
Residential - CAP						
5/8"	85,488	$ -	$ -	85,488	$ -	$ -
3/4"	636	-	-	636	-	-
1"	432	-	-	432	-	-
Unmetered	12	23.07	277	12	29.60	355
Subtotal: Residential - CAP	86,568		$ 277	86,568		$ 355
Commercial						
5/8"	47,712	$ 8.38	$ 399,827	47,712	$ 3.99	$ 190,371
3/4"	9,900	13.56	134,244	9,900	4.51	44,649
1"	20,664	28.63	591,610	20,664	5.55	114,685
1 1/2"	10,332	54.53	563,404	10,332	8.15	84,206
2"	10,776	90.33	973,396	10,776	11.26	121,338
3"	3,120	206.15	643,188	3,120	19.57	61,058
4"	2,424	355.86	862,605	2,424	28.92	70,102
6"	1,236	873.63	1,079,807	1,236	54.88	67,832
8"	108	1,607.85	173,648	108	86.03	9,291
10" & Above	-	2,690.20	-	-	122.38	-
Unmetered	12	36.54	438	12	41.14	494
Subtotal: Commercial	106,284		$ 5,422,167	106,284		$ 764,026
Industrial						
5/8"	72	$ 8.38	$ 603	72	$ 3.99	$ 287
3/4"	12	13.56	163	12	4.51	54
1"	72	28.63	2,061	72	5.55	400
1 1/2"	-	54.53	-	-	8.15	-
2"	84	90.33	7,588	84	11.26	946
3"	36	206.15	7,421	36	19.57	705
4"	84	355.86	29,892	84	28.92	2,429
6"	24	873.63	20,967	24	54.88	1,317
8"	24	1,607.85	38,588	24	86.03	2,065
10" & Above	24	2,690.20	64,565	24	122.38	2,937
Subtotal: Industrial	432		$ 171,849	432		$ 11,140
Health or Education						
5/8"	336	$ 8.38	$ 2,816	336	$ 3.99	$ 1,341
3/4"	84	13.56	1,139	84	4.51	379
1"	228	28.63	6,528	228	5.55	1,265
1 1/2"	744	54.53	40,570	744	8.15	6,064
2"	1,560	90.33	140,915	1,560	11.26	17,566
3"	1,068	206.15	220,168	1,068	19.57	20,901
4"	792	355.86	281,841	792	28.92	22,905
6"	408	873.63	356,441	408	54.88	22,391
8"	36	1,607.85	57,883	36	86.03	3,097
10" & Above	24	2,690.20	64,565	24	122.38	2,937
Subtotal: Health or Education	5,280		$ 1,172,865	5,280		$ 98,845
Municipal - Residential						
5/8"	1,728	$ 8.38	$ 14,481	1,728	$ 3.99	$ 6,895
3/4"	24	13.56	325	24	4.51	108
1"	-	28.63	-	-	5.55	-
1 1/2"	-	54.53	-	-	8.15	-
2"	-	90.33	-	-	11.26	-
3"	-	206.15	-	-	19.57	-
4"	-	355.86	-	-	28.92	-
6"	-	873.63	-	-	54.88	-
8"	-	1,607.85	-	-	86.03	-
10" & Above	-	2,690.20	-	-	122.38	-
Subtotal: Municipal - Residential	1,752		$ 14,806	1,752		$ 7,003

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Sewer Revenue Proof

	2027 Revenue @ 2026 Rates			2027 Revenue @ Proposed Rates		
	Units	**Rates**	**Revenue**	**Units**	**Rates**	**Revenue**
Municipal - Commercial						
5/8"	372	$ 8.38	$ 3,117	372	$ 3.99	$ 1,484
3/4"	36	13.56	488	36	4.51	162
1"	240	28.63	6,871	240	5.55	1,332
1 1/2"	168	54.53	9,161	168	8.15	1,369
2"	264	90.33	23,847	264	11.26	2,973
3"	60	206.15	12,369	60	19.57	1,174
4"	12	355.86	4,270	12	28.92	347
6"	24	873.63	20,967	24	54.88	1,317
8"	-	1,607.85	-	-	86.03	-
10" & Above	-	2,690.20	-	-	122.38	-
Subtotal: Municipal - Commercial	1,176		$ 81,091	1,176		$ 10,159
Subtotal: Minimum Charges	1,267,944		$ 16,701,983	1,267,944		$ 5,331,731
Pennvest Surcharge						
Residential	2,174,044	$ 0.88	$ 1,922,488	3,169,642	$ 0.90	$ 2,849,424
Residential - CAP	130,947	0.44	57,898	183,268	0.45	82,377
Residential - CAP - 50FPL	44,633	0.44	19,734	59,507	0.45	26,747
Commercial	2,526,258	0.88	2,233,949	3,203,871	0.90	2,880,195
Industrial	177,423	0.88	156,894	188,428	0.90	169,392
Health or Education	888,611	0.88	785,791	1,044,248	0.90	938,751
Municipal - Residential	620	0.88	549	682	0.90	613
Municipal - Commercial	109,046	0.88	96,428	119,661	0.90	107,572
Subtotal: Pennvest Surcharge	6,051,583		$ 5,273,731	7,969,306		$ 7,055,070
Volume Charge						
Residential	2,174,044	$ 7.69	$ 16,718,397	3,169,642	$ 7.40	$ 23,455,351
Residential - CAP	130,947	7.69	1,006,983	183,268	7.40	1,356,183
Residential - CAP - 50FPL	44,633	3.08	137,292	59,507	2.96	176,139
Commercial	2,526,258	7.04	17,784,858	3,203,871	7.43	23,804,763
Industrial	177,423	7.05	1,250,832	188,428	7.64	1,439,590
Health or Education	888,611	7.88	7,002,255	1,044,248	7.97	8,322,657
Municipal - Residential	620	7.69	4,771	682	7.40	5,043
Municipal - Commercial	109,046	7.04	767,684	119,661	7.43	889,080
Subtotal: Volume Charge	6,051,583		$ 44,673,072	7,969,306		$ 59,448,806
Wholesale and Contract Revenues			$ -			$ -
Total: Base Rate Revenues			$ 66,648,787			$ 71,835,607
DSIC Revenues						
Residential		7.5%	$ 2,135,986		7.5%	$ 2,305,873
Residential - CAP		7.5%	91,664		7.5%	123,135
Commercial		7.5%	1,908,073		7.5%	2,058,674
Industrial		7.5%	118,468		7.5%	121,509
Health or Education		7.5%	672,068		7.5%	702,019
Municipal - Residential		7.5%	1,509		7.5%	949
Municipal - Commercial		7.5%	70,890		7.5%	75,511
Total: DSIC Revenues			$ 4,998,659			$ 5,387,671
Other Revenues						
Other Revenues			1,088,933			1,088,933
Total: System Revenues			**$ 72,736,378**			**$ 78,312,210**
FPFTY Wastewater Conveyance Revenue Requirements						**$ 78,287,321**
Difference						**$ 24,890**

(1) Note difference in COS rates is combination of bad debt, DSIC, and Stormwater gradualism.

Pittsburgh Water and Sewer Authority HJS-24WW
FPFTY 2026 COS & Rate Design Model
Typical Bill Comparison

	FTY 2025	FPFTY 2026	2027
Customer Impacts			
Residential - 5/8" / 3 Kgal			
Wastewater Base Rates	$ 21.61	$ 23.76	$ 26.19
Pennvest Surcharge	-	1.77	2.70
Wastewater DSIC	1.08	1.91	2.17
Total Monthly Bill	$ 22.69	$ 27.44	$ 31.05
$ Change		$ 4.75	$ 3.61
% Change		*20.9%*	*13.2%*
Commercial - 1" / 13kgal			
Wastewater Base Rates	$ 74.87	$ 84.95	$ 102.14
Pennvest Surcharge	-	7.07	11.69
Wastewater DSIC	3.74	6.90	8.54
Total Monthly Bill	$ 78.61	$ 98.93	$ 122.36
$ Change		$ 20.31	$ 23.44
% Change		*25.8%*	*23.7%*
Industrial - 4" / 680kgal			
Wastewater Base Rates	$ 4,050.21	$ 4,656.36	$ 5,224.12
Pennvest Surcharge	-	539.42	611.30
Wastewater DSIC	202.51	389.68	437.66
Total Monthly Bill	$ 4,252.72	$ 5,585.46	$ 6,273.08
$ Change		$ 1,332.74	$ 687.62
% Change		*31.3%*	*12.3%*
Health or Education - 2" / 50kgal			
Wastewater Base Rates	$ 308.73	$ 350.37	$ 409.76
Pennvest Surcharge	-	29.18	44.95
Wastewater DSIC	15.44	28.47	34.10
Total Monthly Bill	$ 324.17	$ 408.02	$ 488.81
$ Change		$ 83.85	$ 80.79
% Change		*25.9%*	*19.8%*

Exhibit HJS-1SW to HJS-13SW
Rebuttal

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
FPFTY Stormwater Revenue Requirements

Stormwater Revenue Requirements	**2026 FPFTY Revenue Requirements**	**2027 Revenue Requirements**
Operating Expenses		
Direct Operating Expenses		
Administrative Division		
Chief Executive Office	$ 392,353	$ 392,353
Customer Service	4,184,904	4,184,904
Technology Services	1,003,694	1,003,694
Finance	1,914,009	1,914,009
Human Resources	301,406	301,406
Legal	497,190	497,190
Safety & Security	289,276	289,276
Public Affairs	202,809	202,809
Operations Division		
Environmental Compliance	1,749,467	1,749,467
Warehouse	63,746	63,746
Laboratory	-	-
Water Treatment Plant	828,007	828,007
Sewer Operations	3,335,355	3,335,355
Water Operations	107,100	107,100
Engineering & Construction Division		
Engineering & Construction	7,919,659	7,919,659
Subtotal: Direct Operating Expenses	$ 22,788,974	$ 22,788,974
Other Operating Expenses		
Loss / (Gain) on ALCOSAN Billings	$ -	$ -
Subtotal: Other Operating Expenses	$ -	$ -
Subtotal: Operating Expenses	$ 22,788,974	$ 22,788,974
Debt Service		
Existing Debt	11,266,549	11,372,016
Proposed Debt	1,614,234	2,222,648
Subtotal: Debt Service	$ 12,880,782	$ 13,594,664
Other Expenditures & Transfers		
Debt Coverage Capital - Existing Senior	$ 3,679,659	$ 3,784,502
Debt Coverage Capital - Future Senior	61,733	33,663
Other Transfers to Reserves	410,656	410,656
Subtotal: Other Expenditures & Transfers	$ 4,152,049	$ 4,228,821
Total: Stormwater Revenue Requirements	**$ 39,821,805**	**$ 40,612,459**
Less: Capital Costs to be Recovered through DSIC	-	-
Add: Bad Debt Costs	1,693,736	1,693,736
Add: Stormwater Credit Costs	288,016	288,016
Total: Stormwater System Base Rate Revenue Requirement	**$ 41,803,557**	**$ 42,594,211**

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Net Revenue Requirements

	FY 2026 Proposed	FY 2027 Proposed
Determination of Revenue Requirement		
Operating Expenses	$ 22,788,974	$ 22,788,974
Debt Service		
Existing	$ 11,266,549	$ 11,372,016
Proposed	1,614,234	2,222,648
Subtotal: Debt Service	$ 12,880,782	$ 13,594,664
Other Capital Costs		
Debt Coverage Capital - Existing Senior	$ 3,679,659	$ 3,784,502
Debt Coverage Capital - Future Senior	61,733	33,663
Other Transfers to Reserves	410,656	410,656
Subtotal: Other Capital Costs	$ 4,152,049	$ 4,228,821
Total: Revenue Requirements	**$ 39,821,805**	**$ 40,612,459**
Revenue Adjustments		
Allocated Offsets	$ (1,050,743)	$ (1,071,758)
Less: Gradualism Adjustment	(6,000,000)	(6,000,000)
Bad Debt	1,693,736	1,693,736
Stormwater Credits	288,016	288,016
Total: Net Revenue Requirements for Ratemaking	**$ 34,752,814**	**$ 35,522,453**

Units of Service

Billable Units - Non Stormwater Only	Parcels	Equivalencies	Equivalent Units
Residential Rate (per ERU)			
Tier 1	11,169	0.5	5,737
Tier 2	59,330	1.0	59,084
Tier 3	13,393	2.0	26,174
Other	6	1.0	6
Subtotal: Residential Units	83,898		91,001
Residential - CAP			
Tier 1	1,315	0.5	671
Tier 2	6,116	1.0	6,099
Tier 3	738	2.0	1,391
Other	1	1.0	1
Subtotal: Residential - CAP Units	8,170		8,162
Commercial	6,737	1.0	71,775
Industrial	32	1.0	1,405
Health or Education	411	1.0	10,526
Municipal	231	1.0	5,790
Other	6,966	1.0	25,712
Subtotal: Billable Units - Non Stormwater Only	106,445		214,371
Stormwater Only			
Residential - SW Only			
Tier 1	410	0.5	114
Tier 2	617	1.0	378
Tier 3	153	2.0	255
Other	-	1.0	-
Subtotal: Residential - SW Only	1,180		747
Non-Residential	15,124	1.0	26,548
Subtotal: Stormwater Only	16,304		27,295
Non-Billable			
PW Operations			-
Subtotal: Non-Billable			-
Total: Billable Units	**122,749**		**241,666**

Pittsburgh Water HJS-4SW

FPFTY 2026 COS & Rate Design Model

Stormwater COS by Customer Class

Unit Cost Determination	**FY 2026** COS
Stormwater Revenue Requirements	$ 39,821,805
Less: Allocated Offsets	(1,050,743)
Net Stormwater Revenue Requirements	$ 38,771,062
Stormwater ERUs	241,666
Annual Stormwater Cost per ERU	**$ 160.43**

		Full COS Rate			
	ERUs	Unit Rate	Unit Rate (Monthly)	COS by Class	% by Class
Customer Class Cost of Service					
Residential	91,748	$ 160.43	$ 13.37	$ 14,719,354	38.0%
Residential - CAP	8,162	160.43	13.37	1,309,449	3.4%
Commercial	98,323	160.43	13.37	15,774,197	40.7%
Industrial	1,405	160.43	13.37	225,408	0.6%
Health or Education	10,526	160.43	13.37	1,688,712	4.4%
Municipal	5,790	160.43	13.37	928,904	2.4%
Other	25,712	160.43	13.37	4,125,038	10.6%
	241,666			$ 38,771,062	100.0%

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Adjustments to Cost of Service - Stormwater

HJS-5SW

COS Adjustments	Allocation Method	Residential	Residential - CAP	Commercial	Industrial	Health or Education	Municipal	Other	Total
Adjustments to Cost of Service									
Gradualism - Between WW/Storm	Unadj. COS	38.0%	3.4%	40.7%	0.6%	4.4%	2.4%	10.6%	100.0%
Add: Bad Debt Expense	Unadj. COS	38.0%	3.4%	40.7%	0.6%	4.4%	2.4%	10.6%	100.0%
Add: Bad Debt Expense (SWO)	Unadj. COS (Weighted by SWO)	2.5%	0.2%	67.5%	1.0%	7.2%	4.0%	17.6%	100.0%
Add: Cost of Credits and Incentives	Unadj. COS	38.0%	3.4%	40.7%	0.6%	4.4%	2.4%	10.6%	100.0%
BDP Forgone Revenue	Unadj. COS	39.3%		42.1%	0.6%	4.5%	2.5%	11.0%	100.0%
Cost of Service by Class									
Allocated Cost of Service (Unadjusted)		$ 14,719,354	$ 1,309,449	$ 15,774,197	$ 225,408	$ 1,688,712	$ 928,904	$ 4,125,038	$ 38,771,062
Net Cost of Service (1)		$ 14,719,354	$ 1,309,449	$ 15,774,197	$ 225,408	$ 1,688,712	$ 928,904	$ 4,125,038	$ 38,771,062
% of COS		*38.0%*	*3.4%*	*40.7%*	*0.6%*	*4.4%*	*2.4%*	*10.6%*	*100.0%*
Adjustments to Cost of Service	Adjustment								
Gradualism - Between WW/Storm	$ (6,000,000)	$ (2,277,888)	$ (202,643)	$ (2,441,129)	$ (34,883)	$ (261,336)	$ (143,752)	$ (638,369)	$ (6,000,000)
Add: Bad Debt Expense (NSWO)		637,244	56,690	81,979	1,514	15,116	674	21,438	814,655
Add: Bad Debt Expense (SWO)		31,986	-	738,546	10,554	79,065	3,479	15,451	879,081
BDP Forgone Revenue	1,040,309	408,756	(1,040,309)	438,049	6,260	46,896	25,796	114,552	(0)
Add: Cost of Credits and Incentives	288,016	109,345	9,727	117,181	1,674	12,545	6,900	30,643	288,016
Total: Adjusted Cost of Service		**$13,628,798**	**$ 132,914**	**$14,708,823**	**$ 210,526**	**$ 1,580,997**	**$ 822,001**	**$ 3,668,754**	**$ 34,752,814**
% of COS		*39.2%*	*0.4%*	*42.3%*	*0.6%*	*4.5%*	*2.4%*	*10.6%*	*100.0%*

(1) Net Cost of Service excludes Bad Debt Expense and Cost of Credits and Incentives since these costs vary based on the amount of the Stormwater fee.

Pittsburgh Water HJS-6SW
FPFTY 2026 COS & Rate Design Model
Stormwater Rate Design

Unit Cost for Ratemaking	**FY 2026**
Net Costs to Recover for Ratemaking	$ 34,752,814
Stormwater ERUs	234,728
Annual Stormwater Cost per ERU for Ratemaking	**$ 148.06**
Monthly Stormwater Charge per ERU	**$ 12.34**

Monthly Stormwater Rates		Units	Proposed Rate ($/ERU)	Revenues	Class COS	Difference ($)	Difference (%)
Residential							
Tier 1		11,702	$ 6.17	$ 866,416			
Tier 2		59,462	12.34	8,805,133			
Tier 3		13,215	24.68	3,913,606			
Other		6	12.34	888			
Subtotal: Residential		84,385		13,586,044	$ 13,628,798	$ (42,754)	-0.3%
Residential - CAP							
Tier 1	85%	1,342	$ 0.93	$ 14,977			
Tier 2	85%	6,099	1.85	135,398			
Tier 3	85%	696	3.70	30,880			
Other	85%	1	1.85	22			
Subtotal: Residential - CAP		8,138		181,277	$ 132,914	$ 48,362	26.7%
Non-Residential							
Commercial		98,323	$ 12.34	$ 14,559,670			
Industrial		1,405	12.34	208,052			
Health or Education		10,526	12.34	1,558,690			
Municipal		5,790	12.34	857,383			
Other		25,712	12.34	3,807,433			
Subtotal: Non-Residential		141,756		20,991,228	$ 20,991,101	$ 127	0.0%
Total Stormwater		234,278		34,758,549	$ 34,752,814	$ 5,735	0.0%

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
FPFTY CCOS Comparison - Stormwater

	Unadjusted COS		Revenue at Existing Rates		Revenue at Proposed Rates		Proposed Increase	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Base Rate Revenues								
Residential	$ 14,719,354	38.0%	$ 11,075,819	39.1%	$ 13,586,044	39.1%	$ 2,510,225	22.7%
Residential - CAP	1,309,449	3.4%	147,815	0.5%	181,277	0.5%	33,462	22.6%
Commercial	15,774,197	40.7%	11,869,553	41.9%	14,559,670	41.9%	2,690,117	22.7%
Industrial	225,408	0.6%	169,612	0.6%	208,052	0.6%	38,441	22.7%
Health or Education	1,688,712	4.4%	1,270,699	4.5%	1,558,690	4.5%	287,991	22.7%
Municipal	928,904	2.4%	698,969	2.5%	857,383	2.5%	158,414	22.7%
Other	4,125,038	10.6%	3,103,953	11.0%	3,807,433	11.0%	703,480	22.7%
Subtotal: Base Rate Revenues	**$ 38,771,062**	100.0%	**$ 28,336,418**	100.0%	**$ 34,758,549**	100.0%	**$ 6,422,131**	22.7%
DSIC Revenues								
Residential	n/a	n/a	$ -	0.0%	$ -	0.0%	-	0.0%
Residential - CAP	n/a	n/a	-	0.0%	-	0.0%	-	0.0%
Commercial	n/a	n/a	-	0.0%	-	0.0%	-	0.0%
Industrial	n/a	n/a	-	0.0%	-	0.0%	-	0.0%
Health or Education	n/a	n/a	-	0.0%	-	0.0%	-	0.0%
Municipal	n/a	n/a	-	0.0%	-	0.0%	-	0.0%
Subtotal: DSIC revenues	**$ -**	0.0%	**$ -**	0.0%	**$ -**	0.0%	**$ -**	0.0%
Total: User Charge Revenues	**$ 38,771,062**		**$ 28,336,418**		**$ 34,758,549**		**$ 6,422,131**	**22.7%**
Other Revenues	1,050,743		1,050,743		1,050,743		-	0.0%
Total: Stormwater Conveyance Revenues	**$ 39,821,805**		**$ 29,387,161**		**$ 35,809,292**		**$ 6,422,131**	**21.9%**

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Stormwater Revenue Proof

	2026 Revenue @ Existing Rates			2026 Revenue @ COS Rates			2026 Revenue @ Proposed Rates		
	Units	Rates	Revenue	Units	Rates	Revenue	Units	Rates	Revenue
Base Rate Revenue									
Non-Stormwater Only									
Residential									
Tier 1	11,474	$ 5.03	$ 692,571	11,474	$ 6.68	$ 920,401	11,474	$ 6.17	$ 849,535
Tier 2	59,084	10.06	7,132,620	59,084	13.37	9,478,989	59,084	12.34	8,749,159
Tier 3	13,087	20.12	3,159,725	13,087	26.74	4,199,158	13,087	24.68	3,875,846
Other	6	10.06	724	6	13.37	963	6	12.34	888
Subtotal: Residential	83,651		$ 10,985,641	83,651		$ 14,599,511	83,651		$ 13,475,428
Residential - CAP									
Tier 1	1,342	$ 0.75	$ 12,078	1,342	$ 6.68	$ 107,650	1,342	$ 0.93	$ 14,977
Tier 2	6,099	1.51	110,514	6,099	13.37	978,477	6,099	1.85	135,398
Tier 3	696	3.02	25,205	696	26.74	223,162	696	3.70	30,880
Other	1	1.51	18	1	13.37	160	1	1.85	22
Subtotal: Residential - CAP	8,138		$ 147,815	8,138		$ 1,309,449	8,138		$ 181,277
Non-Residential									
Commercial	71,775	$ 10.06	$ 8,664,678	71,775	$ 13.37	$ 11,515,037	71,775	$ 12.34	$ 10,628,442
Industrial	1,405	10.06	169,612	1,405	13.37	225,408	1,405	12.34	208,052
Health or Education	10,526	10.06	1,270,699	10,526	13.37	1,688,712	10,526	12.34	1,558,690
Municipal	5,790	10.06	698,969	5,790	13.37	928,904	5,790	12.34	857,383
Other	25,712	10.06	3,103,953	25,712	13.37	4,125,038	25,712	12.34	3,807,433
Subtotal: Non-Residential	115,208		$ 13,907,910			$ 18,483,099	115,208		$ 17,060,001
Subtotal: Non-Stormwater Only			$ 25,041,365			$ 34,392,059			$ 30,716,706
Stormwater Only									
Residential - SW Only									
Tier 1	228	$ 5.03	$ 13,762	228	$ 6.68	$ 18,289	228	$ 6.17	$ 16,881
Tier 2	378	10.06	45,632	378	13.37	60,643	378	12.34	55,974
Tier 3	128	20.12	30,784	128	26.74	40,910	128	24.68	37,760
Other	-	10.06	-	-	13.37	-	-	12.34	-
Subtotal: Residential - SW Only	734		$ 90,178	734		$ 119,843	734		$ 110,616
Non-Residential	26,548	10.06	3,204,875	26,548	13.37	4,259,160	26,548	12.34	3,931,228
Subtotal: Stormwater Only	27,282		$ 3,295,052	27,282		$ 4,379,003	27,282		$ 4,041,844
Stormwater User Charge Revenue	234,278		$ 28,336,418	234,278		$ 38,771,062	234,278		$ 34,758,549
DSIC Revenues									
Residential			$ -			$ -			$ -
Non-Residential			-			-			-
Subtotal: DSIC Revenues			$ -			$ -			$ -
Other Revenues									
Other Revenues			1,050,743			1,050,743			1,050,743
Total: System Revenues			**$ 29,387,161**			**$ 39,821,805**			**$ 35,809,292**
FPFTY Stormwater Revenue Requirements						**$ 39,821,805**			**$ 35,803,557**
Difference						**$ -**			**$ 5,735**

Stormwater Revenue Requirements	**2026 FPFTY Revenue Requirements**	**2027 Revenue Requirements**
Operating Expenses		
Direct Operating Expenses		
Administrative Division		
Chief Executive Office	$ 392,353	$ 392,353
Customer Service	4,184,904	4,184,904
Technology Services	1,003,694	1,003,694
Finance	1,914,009	1,914,009
Human Resources	301,406	301,406
Legal	497,190	497,190
Safety & Security	289,276	289,276
Public Affairs	202,809	202,809
Operations Division		
Environmental Compliance	1,749,467	1,749,467
Warehouse	63,746	63,746
Laboratory	-	-
Water Treatment Plant	828,007	828,007
Sewer Operations	3,335,355	3,335,355
Water Operations	107,100	107,100
Engineering & Construction Division		
Engineering & Construction	7,919,659	7,919,659
Subtotal: Direct Operating Expenses	$ 22,788,974	$ 22,788,974
Other Operating Expenses		
Loss / (Gain) on ALCOSAN Billings	$ -	$ -
Subtotal: Other Operating Expenses	$ -	$ -
Subtotal: Operating Expenses	$ 22,788,974	$ 22,788,974
Debt Service		
Existing Debt	11,266,549	11,372,016
Proposed Debt	1,614,234	2,222,648
Subtotal: Debt Service	$ 12,880,782	$ 13,594,664
Other Expenditures & Transfers		
Debt Coverage Capital - Existing Senior	$ 3,679,659	$ 3,784,502
Debt Coverage Capital - Future Senior	61,733	33,663
Other Transfers to Reserves	410,656	410,656
Subtotal: Other Expenditures & Transfers	$ 4,152,049	$ 4,228,821
Total: Stormwater Revenue Requirements	**$ 39,821,805**	**$ 40,612,459**
Less: Capital Costs to be Recovered through DSIC	-	-
Add: Bad Debt Costs	1,693,736	1,693,736
Add: Stormwater Credit Costs	288,016	288,016
Total: Stormwater System Base Rate Revenue Requirement	**$ 41,803,557**	**$ 42,594,211**

Pittsburgh Water and Sewer Authority HJS-10SW
FPFTY 2026 COS & Rate Design Model
2027 Revenue Requirement for Ratemaking

	2026	2027
O&M Expenses	$ 22,788,974	$ 22,788,974
Debt Service	12,880,782	13,594,664
Debt Service Coverage	3,741,392	3,818,165
Other Expenditures	410,656	410,656
Net Rate Revenue Requirement	$ 39,821,805	$ 40,612,459
Less: Misc Revenues	$ 1,050,743	$ 1,071,758
Adjusted Revenue Requirement for Ratemaking	$ 38,771,062	$ 39,540,701

Pittsburgh Water HJS-11SW
FPFTY 2026 COS & Rate Design Model
Stormwater Rate Design - 2027

Unit Cost for Ratemaking	**FY 2027**
Net Costs to Recover for Ratemaking	$ 35,522,453
Stormwater ERUs	234,728
Annual Stormwater Cost per ERU for Ratemaking	**$ 151.33**
Monthly Stormwater Charge per ERU	**$ 12.62**

Monthly Stormwater Rates		Units	Proposed Rate ($/ERU)	Revenues	Class COS	Difference ($)	Difference (%)
Residential							
Tier 1		11,702	$ 6.31	$ 886,075			
Tier 2		59,462	12.62	9,004,925			
Tier 3		13,215	25.24	4,002,408			
Other		6	12.62	909			
Subtotal: Residential		84,385		13,894,317	$ 13,942,339	$ (48,022)	-0.3%
Residential - CAP							
Tier 1	85%	1,342	$ 0.95	$ 15,299			
Tier 2	85%	6,099	1.89	138,325			
Tier 3	85%	696	3.79	31,631			
Other	85%	1	1.89	23			
Subtotal: Residential - CAP		8,138		185,278	$ 145,267	$ 40,011	21.6%
Non-Residential							
Commercial		98,323	$ 12.62	$ 14,890,035			
Industrial		1,405	12.62	212,773			
Health or Education		10,526	12.62	1,594,057			
Municipal		5,790	12.62	876,838			
Other		25,712	12.62	3,893,825			
Subtotal: Non-Residential		141,756		21,467,529	$ 21,471,263	$ (3,735)	0.0%
Total Stormwater		234,278		35,547,124	$ 35,522,453	$ 24,671	0.1%

Pittsburgh Water
FPFTY 2026 COS & Rate Design Model
Stormwater Revenue Proof

	2027 Revenue @ 2026 Rates			2027 Revenue @ Proposed Rates		
	Units	**Rates**	**Revenue**	**Units**	**Rates**	**Revenue**
Base Rate Revenue						
Non-Stormwater Only						
Residential						
Tier 1	11,474	$ 6.17	$ 849,535	11,474	$ 6.31	$ 868,811
Tier 2	59,084	12.34	8,749,159	59,084	12.62	8,947,681
Tier 3	13,087	24.68	3,875,846	13,087	25.24	3,963,791
Other	6	12.34	888	6	12.62	909
Subtotal: Residential	83,651		$ 13,475,428	83,651		$ 13,781,191
Residential - CAP						
Tier 1	1,342	$ 0.93	$ 14,977	1,342	$ 0.95	$ 15,299
Tier 2	6,099	1.85	135,398	6,099	1.89	138,325
Tier 3	696	3.70	30,880	696	3.79	31,631
Other	1	1.85	22	1	1.89	23
Subtotal: Residential - CAP	8,138		$ 181,277	8,138		$ 185,278
Non-Residential						
Commercial	71,775	$ 12.34	$ 10,628,442	71,775	$ 12.62	$ 10,869,606
Industrial	1,405	12.34	208,052	1,405	12.62	212,773
Health or Education	10,526	12.34	1,558,690	10,526	12.62	1,594,057
Municipal	5,790	12.34	857,383	5,790	12.62	876,838
Other	25,712	12.34	3,807,433	25,712	12.62	3,893,825
Subtotal: Non-Residential	115,208		$ 17,060,001	115,208		$ 17,447,100
Subtotal: Non-Stormwater Only	206,997		$ 30,716,706	206,997		$ 31,413,569
Stormwater Only						
Residential - SW Only						
Tier 1	228	$ 6.17	$ 16,881	228	$ 6.31	$ 17,264
Tier 2	378	12.34	55,974	378	12.62	57,244
Tier 3	128	24.68	37,760	128	25.24	38,617
Other	-	12.34	-	-	12.62	-
Subtotal: Residential - SW Only	734		$ 110,616	734		$ 113,126
Non-Residential	26,548	12.34	3,931,228	26,548	12.62	4,020,429
Subtotal: Stormwater Only	27,282		$ 4,041,844	27,282		$ 4,133,555
Stormwater User Charge Revenue	234,278		$ 34,758,549	234,278		$ 35,547,124
DSIC Revenues						
Residential			$ -			$ -
Non-Residential			-			-
Subtotal: DSIC Revenues			$ -			$ -
Other Revenues						
Other Revenues			1,071,758			1,071,758
Total: System Revenues			**$ 35,830,307**			**$ 36,618,881**
FPFTY Stormwater Revenue Requirements						**$ 36,594,211**
Difference						**$ 24,671**

Pittsburgh Water and Sewer Authority HJS-13SW
FPFTY 2026 COS & Rate Design Model
Typical Bill Comparison

	FTY 2025	FPFTY 2026	2027
Customer Impacts			
Residential - 5/8" / 3 Kgal / 1 ERU			
Stormwater Base Rates	$ 10.06	$ 12.34	$ 12.62
New Stormwater Charges	-	-	-
Stormwater DSIC	-	-	-
Total Monthly Bill	$ 10.06	$ 12.34	$ 12.62
$ Change		$ 2.28	$ 0.28
% Change		*22.7%*	*2.3%*
Commercial - 1" / 13kgal / 8 ERUs			
Stormwater Base Rates	$ 80.48	$ 98.72	$ 100.96
New Stormwater Charges	-	-	-
Stormwater DSIC	-	-	-
Total Monthly Bill	$ 80.48	$ 98.72	$ 100.96
$ Change		$ 18.24	$ 2.24
% Change		*22.7%*	*2.3%*
Industrial - 4" / 680kgal / 30 ERUs			
Stormwater Base Rates	$ 301.80	$ 370.20	$ 378.60
New Stormwater Charges	-	-	-
Stormwater DSIC	-	-	-
Total Monthly Bill	$ 301.80	$ 370.20	$ 378.60
$ Change		$ 68.40	$ 8.40
% Change		*22.7%*	*2.3%*
Health or Education - 2" / 50kgal / 32 ERUs			
Stormwater Base Rates	$ 321.92	$ 394.88	$ 403.84
New Stormwater Charges	-	-	-
Stormwater DSIC	-	-	-
Total Monthly Bill	$ 321.92	$ 394.88	$ 403.84
$ Change		$ 72.96	$ 8.96
% Change		*22.7%*	*2.3%*

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

REBUTTAL TESTIMONY OF

ROCKY CRALEY

ON BEHALF OF
THE PITTSBURGH WATER AND SEWER
AUTHORITY d/b/a Pittsburgh Water

Docket Nos.
R-2025-3055010 (Water)
R-2025-3055011 (Wastewater)
R-2025-3055012 (Stormwater)

TOPICS:
Affordability in the Water Industry
Household Affordability Analysis

September 30, 2025

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Rocky Craley and my business address is 800 Troy-Schenectady Road, Suite 107, Latham, NY 12110.

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

A. I am a Vice President of Raftelis Financial Consultants, Inc. ("Raftelis"), a consulting firm specializing in the areas of water and wastewater finance and pricing. Raftelis was established in 1993 in Charlotte, North Carolina, by George A. Raftelis to provide financial and management consulting services to public and private sector clients. Raftelis is a national leader in the development of water, wastewater, and stormwater rates.

Q. PLEASE DESCRIBE YOUR BACKGROUND AND EXPERIENCE.

A. I obtained a Master of Science from Carnegie Mellon University in 2007 and a Bachelor of Arts from Princeton University in 2004. I started with Raftelis at the beginning of 2008, and I have since completed numerous water and wastewater cost of service and rate studies in Pennsylvania, across the United States and in Ontario, Canada. Additionally, I have conducted numerous other types of studies and services for clients, such as affordability studies, financial process improvement, utility policy development, organizational visioning, risk analysis, regionalization feasibility studies, public-private partnerships, and other financial services. In addition to project work, I lead several program areas within Raftelis. I am the executive lead for Ellio, our cloud-based tool for planning implementation, financial modeling, and peer benchmarking. I am also the executive lead for Raftelis' Sustainability and Climate Resilience Community of Practice. I oversee Raftelis' many survey efforts, including the national Water and Wastewater

Rate Survey, which is co-produced with the American Water Works Association ("AWWA"), and the INSIGHT Survey, which is produced by the Association of Metropolitan Water Agencies ("AMWA"). Within the utility industry, I am an active member of AWWA, AMWA, and the Water Environment Federation ("WEF"), WEF's Utility Management Community, and the chair of WEF's Finance Focus Group. Additionally, the leading industry resource on wastewater cost of service guidance is the WEF's Manual of Practice #27, Financing and Charges for Wastewater Systems, and I was the lead editor and author of the fifth edition for this industry manual, released in 2025.

Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION?

A. Yes. I provided rebuttal testimony in Pittsburgh Water's 2020 base rate filing, Docket Nos. R-2020-3017951, R-2020-3017970, and P-2020-3019019.

Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS PROCEEDING?

A. No.

Q. PLEASE DESCRIBE YOUR WORK WITH PITTSBURGH WATER.

A. I served on the Raftelis project team that conducted the comprehensive cost of service and rate study for Pittsburgh Water in 2016, an update for 2017, and a multiyear rate plan for 2018–2020. I have assisted Pittsburgh Water with its first base rate case with the Public Utility Commission (2018–2019), its second, third, and fourth base rate cases, and its fifth and current base rate case (ongoing). I assisted with its Compliance Plan submittal (2018–2020). In addition to the significant efforts mentioned above, I have assisted Pittsburgh Water with a number of other finance-related miscellaneous services since 2016, including the Affordability Analysis conducted in 2019 and 2024 and its

Stormwater Program development and advisory group. I also served as Pittsburgh Water's interim finance director from April 2018 through September 2018.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my testimony is twofold: 1) to provide an expert opinion on affordability within the water industry overall and how it relates to analyses conducted by Office of Consumer Advocate ("OCA") Witness Roger Colton (OCA St. No. 6) and Pittsburgh UNITED OWT ("OWT") Witness Patrick Cicero (OWT St. No. 1); and 2) to provide additional background on the development and execution of the Household Affordability Analysis dated August 2024 and Amended May 2025 ("Household Affordability Analysis"), Pittsburgh Water Exh. JAM-12.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. No.

II. BACKGROUND REGARDING RAFTELIS

Q. PLEASE SPECIFICALLY DESCRIBE ANY WORK YOUR FIRM HAS DONE IN THE AREA OF AFFORDABILITY ASSESSMENT.

A. Raftelis has assisted numerous water and wastewater utilities on affordability assessment and design of customer assistance programs. Raftelis staff are water and wastewater industry leaders, occupying leadership positions in organizations such as AWWA and WEF. Raftelis staff are members of AWWA's Rates and Charges Committee, the United States Environmental Protection Agency's ("USEPA") Environmental Financial Advisory Board, and I am the chair of WEF's Finance Subcommittee. Raftelis staff have contributed thought leadership on the topic of water and wastewater affordability, including co-authorship of *Thinking Outside the Bill: A New Guide to Affordability and Customer Assistance*, *Developing a New Framework for Household Affordability and*

Financial Capability Assessment in the Water Sector, the chapter: "Affordability" in WEF's most recent fifth edition of *Financing and Charges for Wastewater Systems*, as well as national and regional journal articles and presentations on the topic at conferences.

Q. PLEASE SPECIFICALLY DESCRIBE ANY WORK YOUR FIRM HAS DONE FOR THE DESIGN OF THE CUSTOMER ASSISTANCE PROGRAM INCLUDED IN THIS PROCEEDING.

A. Raftelis assisted with the design of the customer assistance program ("CAP") by conducting the quantitative analyses on the various components as directed by Pittsburgh Water staff. Our evaluation provided Pittsburgh Water with impacts of the CAP on the overall revenue requirement. Additionally, our analysis evaluated impacts to general customers' and CAP customers' monthly bills as a result of proposed adjustments to the Bill Discount Program that were designed to result in an impact to CAP customers that was similar or smaller than the impact to the general residential class.

III. AFFORDABILITY IN THE INDUSTRY

Q. IS THERE AN INDUSTRY-WIDE CONCERN ABOUT AFFORDABILITY IN THE WATER INDUSTRY?

Yes. Water and wastewater rates have been increasing on average by 4–5% per year over the past two decades, significantly outpacing inflation and wage growth. Concerns about the financial burden of water, wastewater, and stormwater service on customers, especially the economically disadvantaged population, are of national importance. The USEPA released *Water Affordability Needs Assessment: Report to Congress* just last year. *Thinking Outside the Bill: A New Guide to Affordability and Customer Assistance* was released in 2022 by AWWA. The Water Research Foundation is currently working on a study entitled, *Feasibility and Applicability of Leading and Innovative Utility-Led*

Water Affordability Efforts, which is set for publication next year. These are just a few examples of the government and industry organizations commissioning studies and issuing reports on this issue.

Q. DOES THE NATIONAL CONCERN ABOUT CUSTOMER AFFORDABILITY SUGGEST THAT UTILITIES SHOULD CEASE FROM SEEKING REVENUE ADJUSTMENTS?

No. The United States Environmental Protection Agency (USEPA) states that "[u]tilities face rising capital and operating costs due to multiple factors including aging infrastructure, treatment standards, inflation, supply chain disruptions, deferred maintenance, and delayed rate increases."[1] Yet the USEPA understands that "[c]ontinued investment in capital programs is required to ensure water utilities continue to protect health, safety, and the environment."[2] Furthermore, "utilities are reluctant to raise rates, but failure to raise additional revenue or identify alternative funding sources can put utilities on an unsustainable financial path – leading to failing infrastructure, non-compliance and impaired reliability."[3]

Q. DO MR. CICERO AND MR. COLTON COMMENT ON THE OVERALL IMPACT OF THE RISING COST OF SERVICE? WHAT IS PITTSBURGH WATER'S POSITION?

A. Yes. Mr. Colton and Mr. Cicero share their concerns about the importance of reducing rate increases, having appropriate assistance, and the overall impact of water service to human health.[4] Pittsburgh Water shares these same concerns, especially for economically disadvantaged customers. However, unlike Mr. Colton and Mr. Cicero, Pittsburgh Water, like all utilities, cannot consider customer impacts in a vacuum.

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1 *Water Affordability Needs Assessment: Report to Congress*, United States Environmental Protection Agency (2024) at 4.
2 *Id*. at 4.
3 *Id*. at 5.
4 OCA St. No. 6 at 7–12 (Colton); OWT St. No. 1 at 19–20 (Cicero).

Instead, they need to weigh the impact to customer bills with the required operational and capital work needed to continue providing safe and reliable service for all customers.

Q. HOW HAS PITTSBURGH RESPONDED TO THIS RESPONSIBILITY?

A. Pittsburgh Water has historically identified the costs needed to provide safe and reliable service, and in concert, has developed one of the most robust customer assistance programs in the industry in terms of the number of different components available to eligible customers. Additionally, it has continually enhanced its core bill discount program ("BDP"), not only through settlement commitments, but also in its initial base rate filings, because the Authority understands and supports the assistance of customers in need. Once again, in this rate proceeding, Pittsburgh Water is including enhancements to its BDP that will keep the impacts to CAP customers' bills similar to or less than the impacts to non-eligible residential customers.

Q. WHAT OTHER CONSIDERATIONS MUST PITTSBURGH WATER INCORPORATE INTO ITS DECISION-MAKING?

Pittsburgh Water, and any utility that has a CAP, must thoughtfully consider program elements and how to most efficiently and cost-effectively implement changes. Many program components provide discounts for eligible customers, which creates either a loss in revenue for the utility or a shift in revenue to non-eligible customers. If the latter, utility leadership needs to consider the financial burden it is placing on non-eligible customers to provide financial assistance to the eligible subset of the customer base. Additionally, CAPs cost time, money, and labor resources to administer the programs. Mr. Colton and Mr. Cicero are mostly silent about acknowledging and quantifying the administration costs of the programs and their proposed alternatives. They primarily focus on the direct revenue requirement of the discounts, grants, or forgiveness. The

investment to implement the programs includes personnel capacity or need for additional staff, potential billing system changes, potential new technology, new partnerships, and additional public education, engagement, and outreach. Furthermore, with limited resources, Pittsburgh Water needs to weigh the goals of expanding enrollment versus providing steeper discounts to current enrollees.

IV. AFFORDABILITY ANALYSIS IN PARTIES' TESTIMONY

Q. DO MR. COLTON AND MR. CICERO PROVIDE THEIR OWN AFFORDABILITY ANALYSES TO SUPPORT THEIR PROPOSED ALTERNATIVES.

A. Yes. Mr. Colton and Mr. Cicero conduct their own affordability and customer burden analyses.

Q. WHAT IS YOUR PRIMARY CONCERN ABOUT THEIR ANALYSES?

A. My primary concern about Mr. Colton's and Mr. Cicero's analyses is their portrayal that their analyses represent *the* way affordability or customer burden should be evaluated.[5] By not acknowledging alternative approaches, they imply that their methods are industry standard or even industry best practice, which is not the case. At this current time, there is no industry standard or best practice. There are multiple ways to evaluate customer burden, including-but-not-limited-to percent of household income, percent of lowest quintile income, percent of federal poverty level income, and Affordability Ratio at the 20th Percentile Income ("AR20"). It is important to point out that the USEPA supports that "there is no single approach to defining or measuring water affordability."[6]

[5] *See* OCA St. No. 6 at 5–7; OWT St. No. 1 at 2–3.
[6] *Id.* at 13.

V. HOUSEHOLD AFFORDABILITY ANALYSIS OVERVIEW

Q. PLEASE DESCRIBE THE PURPOSE OF THE HOUSEHOLD AFFORDABILITY ANALYSIS EFFORT.

A. For Pittsburgh Water, Raftelis was tasked with providing Pittsburgh Water and its stakeholders, principally the Low Income Assistance Advisory Committee ("LIAAC"), with an updated shared analytical understanding of the affordability of water, wastewater, and stormwater bills in the Pittsburgh Water service area at the current rates. Raftelis did not determine the affordability threshold for an individual household within the Pittsburgh Water service area, nor have we played a role in designing the proposed enhancements to the customer assistance program. Our report provides a community-level assessment and is recognized by Mr. Colton as "an important tool to help Pittsburgh Water enhance its outreach throughout the "most vulnerable areas" of its service territory."[7]

Q. WAS THE HOUSEHOLD AFFORDABILITY ANALYSIS PART OF THE SETTLEMENT TERMS FOR THE PREVIOUS BASE RATE CASE. IF SO, PLEASE STATE THE COMMITMENT.

A. The settlement commitment from the 2023 Base Rate Case,[8] as it relates to the Affordability Analysis, is as follows:

[7] *See* OCA St. No. 6 at 18.

[8] *Pittsburgh Water and Sewer Auth. v. Pa. Pub. Util. Comm'n*, Docket Nos. R-2023-3039920 et al. (Jt. Pet. for Settlement filed Oct. 30, 2023), at 12–13.

2. Household Affordability Study ¶

a. → Within one year of the final order in this proceeding, PWSA will update its 2019 Household Affordability Study which will include, at minimum: ¶
   i. → Identification of geographic areas with high concentrations of PWSA's lowest income customers ¶
   ii. → Identification of targeted outreach areas based in these identified geographic areas and a plan as to what, where and how such targeted outreach should be pursued. ¶
   iii. → Identification of any patterns or trends regarding customers in these identified areas who exhibit payment difficulties that could be reasonably associated with inability to pay and a plan as to how such patterns or trends are to be identified and tracked. ¶
   iv. → An analysis of the burden levels of low income customers, by household federal poverty level ("FPL") (including 050%, 51-100%, 101-150%, 151-200%, 201-250% and 251-300% FPL tiers) and various usage levels (ranging between 1,000 to 6,000 gallons), based on service type (i.e. water, wastewater, stormwater, and combined services) at then current rates. ¶
   v. → Updated estimated low income customer count based on census data of the PWSA's service territory, and disaggregated by service type (e.g. water, wastewater, stormwater, combined). ¶

b. → A preliminary draft will be shared with and discussed among the LIAAC members and PWSA will consider, in good faith, whether to incorporate any feedback provided as part of the final study. The final study will be provided to members of the LIAAC. PWSA will explain, if applicable, why any recommendations of LIAAC members were not incorporated into the final study. ¶

Q. WERE THESE COMMITMENTS SATISFIED?

A. Yes. The previous analysis was updated, and the requested items were included.

Q. WAS A PRELIMINARY DRAFT SHARED WITH THE LIAAC? IF SO, WHEN? DID ANY LIAAC MEMBERS PROVIDE COMMENTS OR REQUESTS?

A. Yes. An overview of the preliminary draft was shared by Julie Mechling with the entire LIAAC during a regularly scheduled quarterly meeting on December 13, 2024. On that

same date, Ms. Mechling emailed the updated analysis to the LIAAC members, requesting that they provide feedback by February 28, 2025. Ms. Mechling then included a reminder of the request for feedback in her February 8, 2025 email to the members that also included the minutes of the December 13, 2024 meeting. Only one LIAAC member organization, OWT, provided comments and requests in response.

Q. WAS THE OCA PROVIDED THE PRELIMINARY DRAFT REPORT, AND DID THE OCA PROVIDE ANY FEEDBACK OR REQUEST ANY CHANGE OR ADDITIONAL ANALYSES?

A. Yes, the OCA was provided with the preliminary draft, and no, the OCA did not provide any requests for changes or additional analyses to the preliminary report.

Q. DID YOU CONDUCT ANY ADDITIONAL ANALYSES AND INCORPORATE FEEDBACK INTO THE FINAL STUDY?

A. Yes. At the direction of Pittsburgh Water staff, Raftelis staff conducted additional analyses based upon the request of OWT. The preliminary results of the additional analyses were reviewed in a meeting between Pittsburgh Water personnel and attorneys for OWT on March 14, 2025 and ultimately included in Section 6, Appendix B of the final report amended in May 2025.

Q. IN HIS TESTIMONY, HAS MR. COLTON ADDRESSED RESULTS AND ANALYSIS FROM THE HOUSEHOLD AFFORDABIILTY ANALYSIS?

A. No. Mr. Colton's stated position was that the Household Affordability Analysis was intended to inform outreach, not evaluate or justify changes to the CAP, and therefore, Mr. Colton chose to focus on other results included in Pittsburgh Water St. No. 6 and his own analysis.[9]

[9] OCA St. No. 6 at 17–19.

Q. IN HIS TESTIMONY, HAS MR. CICERO RAISED CONCERNS ABOUT THE HOUSEHOLD AFFORDABIILTY ANALYSIS?

A. Yes, Mr. Cicero has raised concerns that include:

- The use and inappropriateness of the 1997 USEPA standard of 4.5%.[10]
- The use of Median Household Income ("MHI").[11]
- The use of the upper limit of the Lowest Quintile Income ("LQI").[12]
- The assumption of typical customer usage.[13]
- The report's supposed overall "limited view of affordability."[14]
- Results from analyses added after the original draft included in Appendix B.[15]

Q. WERE THESE CONCERNS RAISED DURING THE PRELIMINARY DRAFT REVIEW?

A. Some issues were raised during the LIAAC review process, which led to additional analysis and the development of Appendix B. Results from that analysis were included as Appendix B, not to diminish any perceived value but because they were not a part of the original study.

Q. WHAT IS YOUR PRIMARY CONCERN ABOUT THEIR POSITIONS ON THE REPORT AND ANALYSIS PROVIDED IN THE BASE RATE FILING?

A. Given the lack of an industry best practice, law, or universal standard, or PAPUC standard, what is important about affordability analysis is less whether approaches or methodologies differ, and more whether conclusions differ. Mr. Colton and Mr. Cicero attack the analysis in the report and base rate filing testimony but do not acknowledge

[10] OWT St. No. 1 at 40–41.
[11] *Id.* at 42–43.
[12] *Id.*
[13] *Id.* at 44–45.
[14] *Id.* at 39.
[15] *Id.* at 44–46.

that Pittsburgh Water has come to the similar conclusion—that there is an affordability concern for a portion of the service population.

As shown in Table 7 of the Household Affordability Analysis Report (JAM-12, page 21), Pittsburgh acknowledges that there are significant bill burdens for low-income households, especially for those with high usage. Pittsburgh does not have, and it is not feasible to acquire, universal income data on its customer base. Census data does not map perfectly onto customer accounts. Regardless of what threshold is chosen for household size, income level, or usage, the results between Mr. Cicero's analysis, Mr. Colton's analysis, and Pittsburgh Water's analysis are fundamentally similar. All agree that bill burdens are very substantial for low-income households, especially those with higher-than-average usage. And all agree that assistance is necessary and desirable.

The real disagreements between them are less over methodology or the existence of an issue and more over what is feasible to achieve. Mr. Colton and Mr. Cicero focus exclusively on the impacts to low-income customers, while Pittsburgh Water has to consider its administrative capacity, the cost of running the program and hiring and training new staff to expand it, the need to invest in the safety and quality of its system, and the impacts of any support provided as well all of the above on all other customer classes. There can be reasonable disagreement on what to prioritize, but it is simply false to state or imply that Pittsburgh Water does not acknowledge the challenge that its low-income customers face in paying their bills, or that Pittsburgh Water is not committed to improving both the quantity and availability of benefits to those customers, within the limits of its capacity.

VI. CONCLUSION

Q. DOES THAT COMPLETE YOUR REBUTTAL TESTIMONY?

A. Yes; however, I reserve the right to supplement this testimony as may be appropriate.

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VERIFICATION

I, Rocky Craley, hereby state that: (1) I am Vice President of Raftelis Financial Consultants, Inc.; (2) I have been retained by The Pittsburgh Water and Sewer Authority and am authorized to present testimony on its behalf; (3) the facts set forth in my testimony are true and correct (or are true and correct to the best of my knowledge, information and belief); and (4) I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C .S. § 4904 (relating to unsworn falsification to authorities).

09/29/2025

Dated

DocuSigned by:
Rocky Craley
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Rocky Craley
Vice President of Raftelis Financial Consultants, Inc.

Consultant to:
The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

SURREBUTTAL TESTIMONY OF

EDWARD BARCA

ON BEHALF OF
THE PITTSBURGH WATER
AND SEWER AUTHORITY

Docket Nos.
R-2025-3055010 (Water)
R-2025-3055011 (Wastewater)
R-2025-3055012 (Stormwater)

TOPICS:

DSIC / DSIC Cap Increase

October 14, 2025

TABLE OF EXHIBITS

EB-23	DSIC Projections – 2025 Through 2027
EB-24	Pittsburgh Water Response to I&E RR-11 (Capital Improvement Plan Expenses FY 2020–2024)
EB-25	Pittsburgh Water Response to I&E RR-21 (Actual Capital Expenditures and Funding Sources as of 8/4/2025
EB-26	DSIC Annualized Costs Through Q3 2025

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND POSITION FOR THE RECORD.

A. My name is Edward Barca, and I am the Director of Finance for the Pittsburgh Water and Sewer Authority ("Pittsburgh Water").

Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS PROCEEDING?

A. Yes. I submitted Direct Testimony (Pittsburgh Water St. No. 2) together with accompanying exhibits EB-1 to EB-10 on June 4, 2025, and Rebuttal Testimony (Pittsburgh Water St. No. 2-R) together with accompanying exhibits EB-11 to EB-22 on September 30, 2025.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. I am responding to the rebuttal testimony of I&E witness Sakaya and OCA witness Deupree, specifically with respect to their opposition to Pittsburgh Water's Distribution System Improvement Charge ("DSIC") and proposal to increase the DSIC cap from its current five percent (5%) to seven and one-half percent (7.5%).

I have attempted to respond to the specific statements and recommendations made by these witnesses. In the event that an issue is not addressed, this should not be viewed as my acceptance of their testimony. Rather it reflects my belief that a further response in this surrebuttal testimony is not warranted, either because it was adequately addressed in my direct or rebuttal testimony, was addressed by other Pittsburgh Water testimony, or because it is a legal matter that is better addressed by counsel in briefs or other pleadings.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. Yes, I am sponsoring the following: Exhibit EB-23, which contains financial projections between 2025 and 2027 in connection with increasing the DSIC cap from its current 5% to 7.5%; Exhibit EB-24, which contains Pittsburgh Water's capital improvement plan

expenses from FY 2020 through FY 2025; Exhibit EB-25, which is Pittsburgh Water's actual capital expenditures and funding sources through August 4, 2025; and EB-26, which is Pittsburgh Water's DSIC actual costs through Q3 2025 and projected Q4 2025 costs.

II. DISCUSSION

Q. CAN YOU EXPLAIN WHAT I&E WITNESS SAKAYA IS OBJECTING TO AND WHY?

A. I&E witness Sakaya reiterates objections to Pittsburgh Water's proposal to increase its DSIC rate from 5% to 7.5%, and Sakaya specifically disagrees with OSBA witness Kubas' acceptance of Pittsburgh Water's DSIC rate increase proposal.[1] Witness Sakaya further argues that increasing the DSIC cap from 5% to 7.5% would allow Pittsburgh Water "to recover additional water-related DSIC revenues of $13.9 million in the FPFTY and $14.9 million in FY 2027."[2] Sakaya concludes that in light of Pittsburgh Water's "lack of documented history of completing capital projects as budgeted," Pittsburgh Water's request to collect more in DSIC revenues "is not justified."[3]

Q. DO YOU AGREE WITH SAKAYA'S TESTIMONY ON THE DSIC CAP?

A. I respectfully disagree with Sakaya's testimony on the appropriateness of an increase to Pittsburgh Water's DSIC cap. At a baseline, I disagree with Sakaya's conclusion that a DSIC increase from 5% to 7.5% is unjustified in the case of Pittsburgh Water. Pittsburgh Water has already made a compelling case showing that a 5% to 7.5% DSIC increase is necessary to replace antiquated facilities and ensure reliable service, including in my

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1 I&E St. No. 3-R. at 1–5.
2 *Id.* at 4.
3 *Id.* at 5.

direct testimony[4] and in the testimony of Barry King[5] and Christine Fay.[6] Pittsburgh Water has asserted a compelling need for the increased DSIC cap, and when it comes to whether Pittsburgh Water is authorized to increase its DSIC to 7.5%, arguing against increasing the DSIC cap is like arguing against black-letter Pennsylvania law. Sakaya's testimony fails to consider this and also does not appreciate that the DSIC exists for systems such as Pittsburgh Water's—antiquated, heavily used systems with a large backlog of maintenance that requires funding.

Q. DO YOU HAVE ANY COMMENTS ON SAKAYA'S USE OF DATA TO CONCLUDE THAT A DSIC INCREASE IS NOT WARRANTED?

A. To attempt to support his argument that the DSIC cap increase is unjustified, Mr. Sakaya incorrectly cited the amount of "additional water-related DSIC revenues" as $13.9 million in FPFTY and $14.9 million in FY 2027. However, these figures are instead the *total* DSIC revenues, not the "additional" revenues.[7] Per Exhibit EB-23 (attached), the accurate numbers for *additional* revenues derived from DSIC are less than half of the figures Mr. Sakaya cites: $6,479,851 in FPFTY and $7,464,594 in FY 2027.[8] In addition, only $4,631,840 in FPFTY and $4,960,087 in FY 2027 is directly attributable to the increased DSIC cap; the balance ($1,848,012 in FPFTY and $2,504,507 in FY 2027) is derived *solely* from the proposed increase to base rates.[9] In other words, even without a change to the DSIC cap, *Pittsburgh Water's DSIC revenues will still increase as a result of increased base rates.* When reviewing the accurate data set forth in Exhibit EB-23, it is clear that the proposed DSIC cap increase would only account for a small

4 Pittsburgh Water St. No. 2 at 63–66.
5 Pittsburgh Water St. No. 3 at 20–21.
6 Pittsburgh Water St. No. 7 at 19–20.
7 I&E St. No. 3-R. at 4.
8 Exh. EB-23.
9 *Id.*

fraction of the overall DSIC revenue increase. Presumably, Mr. Sakaya is not opposing the operation of Pittsburgh Water's existing DSIC and its existing 5% cap.

Q. DO YOU AGREE WITH SAKAYA ON GIVING CONSIDERATION TO PITTSBURGH WATER'S BUDGETING HISTORY WHEN REVIEWING THE PROPRIETY OF INCREASING THE DSIC CAP?

A. I disagree. The fact that Pittsburgh Water has a few years in which it did not completely meet its projected capital expenditures for that year is not relevant to its DSIC spending or the level of its DSIC cap. I&E's argument is misplaced, because the DSIC is a reconcilable surcharge—this means that ratepayers only pay for the actual amount of capital improvements performed; any unexpended surplus in DSIC revenues will be refunded in the next year, with interest.[10] Pittsburgh Water has explained the special circumstances that lead to its inability to completely meet its capital budget in a few recent years. Moreover, Pittsburgh Water's DSIC expenditures met or exceeded its projections in 2021, 2023, and 2024.[11] Pittsburgh Water is on track to meet its budget in 2025, and, all likely significantly exceed its budgeted amounts.[12] But even if it were not, ratepayers would only be asked to pay for DSIC eligible capital improvements that we actually accomplish. Any dollars billed to ratepayers that were not expended would be returned to ratepayers—with interest—leaving them totally protected. Denying Pittsburgh Water the opportunity to expedite its capital improvements and replace more antiquated facilities through an increase in the DSIC cap because it missed its capital budget in a few past years is neither reasonable nor logical. The DSIC surcharge is a patently reasonable way to go about accomplishing much needed capital improvements

[10] Pittsburgh Water St. No. 2 at 65.
[11] *See* Exh. EB-24.
[12] *See* Exhs. EB-25 and EB-26 (Pittsburgh Water's 2025 expenditures).

system-wide because the DSIC is reconcilable and ensures ratepayer equity. Sakaya's argument plainly fails to take into account the fair design of the DSIC with respect to ratepayer protection, and his citation to Pittsburgh Water's budgeting history does not make sense from a "reliable service" analysis standpoint.

[redacted]

[13] OCA St. No. 1R at 2, 4.
[14] *Id.* at 2–3.
[15] *Id.* at 4.
[16] *Id.* at 1–2.
[17] *Id.* at 4.
[18] 66 Pa. C.S. § 1358(a)(1).

[redacted]

[redacted]

[redacted]

[redacted]

III. CONCLUSION

Q. DOES THAT COMPLETE YOUR SURREBUTTAL TESTIMONY?

A. Yes. However, I do reserve the right to supplement this testimony as may be appropriate.

[22] Pittsburgh Water St. No. 2-R at 56–57.

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VERIFICATION

I, Edward Barca, hereby state that: (1) I am the Director of Finance for The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water; (2) the facts set forth in my testimony are true and correct (or are true and correct to the best of my knowledge, information and belief); and, (3) I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: 10/14/25

DocuSigned by:
Edward Barca
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Edward Barca
Director of Finance
The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water

Exhibit EB-23

Exhibit EB-23

Current DSIC Percentage		5.00%	5.00%
Proposed Increase		2.50%	2.50%
Proposed Total DSIC Charge		7.50%	7.50%
Total DSIC Revenue	**FY 2025**	**FY 2026**	**FY 2027**
Water	$ 7,415,668	$ 13,895,519	$ 14,880,262
Difference		*$ 6,479,851*	*$ 7,464,594*
Wastewater	$ 2,720,110	$ 4,998,659	$ 5,387,671
Difference		*$ 2,278,549*	*$ 2,667,561*
Stormwater	$ -	$ -	$ -
Difference from Baseline (Current Year)	**FY 2025**	**FY 2026**	**FY 2027**
Water			
From proposed increase to base rates	N/A	$ 1,848,012	$ 2,504,507
Percent difference from baseline		*24.9%*	*33.8%*
From increase in DSIC rate (proposed change)	N/A	$ 4,631,840	$ 4,960,087
Wastewater			
From proposed increase to base rates	N/A	$ 612,330	$ 871,671
Percent difference from baseline		*22.5%*	*32.0%*
From increase in DSIC rate (proposed change)	N/A	$ 1,666,220	$ 1,795,890
Stormwater	N/A	$ -	$ -

The DSIC rate is applied to water and wastewater. Stormwater is excluded. Public fire and wholesale (with the exception of Fox Chapel) are excluded from the water DSIC charges.

Exhibit EB-24

EXHIBIT EB-24

Capital Requirements	Budget FY 2020	Actual FY 2020	Budget FY 2021	Actual FY 2021	Budget FY 2022	Actual FY 2022	Budget FY 2023	Actual FY 2023	Budget FY 2024	Actual FY 2024
Small Diameter Water Main Replacement	$ 13,459,161	21,467,388	45,838,708	39,993,476	23,802,324	16,762,881	83,515,129	19,875,755	23,318,760	58,361,262
Lead Service Line Replacement	40,780,128	30,168,074	4,611,200	2,162,480	1,774,537	5,346,818	13,582,757	12,336,590	14,272,348	21,455,708
Wastewater	35,140,573	8,767,047	35,741,675	14,206,474	41,130,789	25,473,651	50,634,240	18,088,222	41,501,076	43,166,301
Water Distribution	23,357,846	18,403,491	25,795,644	25,612,308	30,764,791	26,132,329	46,204,641	31,842,150	15,729,555	12,598,458
Water Treatment Plant	16,884,025	8,959,256	15,112,066	15,946,283	6,253,411	3,858,912	16,030,211	2,326,519	8,604,812	3,689,673
Stormwater	29,927,774	15,791,622	34,696,272	15,614,923	21,424,273	11,733,927	29,822,932	12,291,912	25,998,656	14,833,091
Miscellaneous	16,650,000	16,446,590	14,670,000	5,875,126	500,000	249,090	11,439,316	8,227,096	15,246,992	15,152,342
Water Pumping and Storage	31,065,447	7,304,722	56,863,770	11,241,184	55,208,438	38,289,171	55,304,597	26,141,063	39,891,833	34,260,894
Total	$ 207,264,954	127,308,190	233,329,335	130,652,254	180,858,563	127,846,779	306,533,823	131,129,307	184,564,032	203,517,728

Funding Sources	Budget FY 2020	Actual FY 2020	Budget FY 2021	Actual FY 2021	Budget FY 2022	Actual FY 2022	Budget FY 2023	Actual FY 2023	Budget FY 2024	Actual FY 2024
Debt (Revenue Bonds)	$ 149,026,299	72,156,356	169,262,753	82,891,153	119,603,457	87,101,311	122,335,310	47,811,256	119,703,939	52,562,150
Debt (Project Fund)	-		17,219,270	-	-		-	-	-	-
DSIC - Water	-	-	4,904,302	4,934,059	5,986,230	5,621,274	6,028,526	6,167,204	7,184,925	7,275,191
DSIC - Wastewater	-	-	4,904,302	3,023,407	2,630,630	3,008,873	2,359,691	2,469,507	2,914,372	2,744,861
PAYGO	29,977,306	9,215,236	-	1,001,523	-	-	164,400	2,525,631	-	-
ARPA	-	-	-	-	-	-	10,582,756	9,713,256	3,633,297	2,455,236
PENNVEST	28,261,349	45,936,598	37,038,708	38,802,112	52,638,246	32,115,321	127,409,339	57,611,523	37,798,382	115,211,253
WIFIA/PENNVEST	-	-	-		-	-	35,113,456	-	6,086,859	-
WIFIA	-	-	-		-	-	2,540,345	-	205,250	20,056,507
WIFIA/Pittsburgh Water	-	-	-		-	-	-	-	3,478,694	-
Cost Shares or Grants	-	-	-		-	-	-	4,830,930	3,558,314	3,212,530
Total	$ 207,264,954	127,308,190	233,329,335	130,652,254	180,858,563	127,846,779	306,533,823	131,129,307	184,564,032	203,517,728

Exhibit EB-25

IE-RR-21
Actual Capital Expenditures and Funding Sources through Aug 4 2025

EXHIBIT EB-25

Pittsburgh Water
Department of Finance
Capital Expenditure Report

Date
08/04/2025

YTD Expenditure Summary: 2025	2025			2024 YTD
Captial Project Type	Capital Year-to-Date Including DSIC & Pennvest	Plan (CIP) Budget 2025	Expenditures Remaining to Meet Budget	Capital Year-to-Date Including DSIC & Pennvest
Water Treatment Plant	3,034,805	17,534,390	14,499,585	1,570,751
Wastewater	7,468,750	49,401,151	41,932,401	19,271,953
Miscellaneous Other Projects	169,355	12,558,165	12,388,811	94,409
Pumping and Storage	18,199,460	69,968,434	51,768,974	8,798,507
Water Distribution System	47,156,551	144,477,239	97,320,688	47,724,958
Stormwater	10,069,287	29,489,958	19,420,671	3,621,060
Total	**$ 86,098,208**	**$ 323,429,337**	**$ 237,331,129**	**$ 81,081,638**

2025 - Funding Source					
DSIC	PENNVEST	Debt (Revenue Bonds)	Debt (Project Fund)	ARPA	Total
$3,200,299	$47,143,887	$30,509,229	$4,951,517	$293,275	$86,098,208

Monthly Expenditure Summary: 2025	Capital Project Type							
Month	Water Treatment Plant	Wastewater System	Miscellaneous Other Projects	Pumping and Storage	Water Distribution System	Stormwater	2025 Total	2024 YTD Total
January	73,736	756,835	-	213,880	5,043,998	596,253	**6,684,701**	**3,242,335**
February	99,690	1,171,485	-	3,784,102	4,939,570	1,669,803	**11,664,650**	**12,982,195**
March	403,153	1,219,733	-	2,225,091	8,807,555	108,757	**12,764,288**	**8,800,615**
April	503,814	1,093,382	169,355	3,044,861	5,588,885	1,150,629	**11,550,926**	**12,809,570**
May	720,316	377,369	-	3,515,648	6,758,165	3,696,198	**15,067,696**	**17,515,660**
June	299,498	960,193	-	854,876	9,244,901	2,040,512	**13,399,980**	**16,597,747**
July	934,598	1,889,754	-	4,561,002	6,773,478	807,134	**14,965,966**	**9,133,517**
August	-	-	-	-	-	-	**-**	**-**
September	-	-	-	-	-	-	**-**	**-**
October	-	-	-	-	-	-	**-**	**-**
November	-	-	-	-	-	-	**-**	**-**
December	-	-	-	-	-	-	**-**	**-**
Total	**$ 3,034,805**	**$ 7,468,750**	**$ 169,355**	**$ 18,199,460**	**$ 47,156,551**	**$ 10,069,287**	**$ 86,098,208**	**$ 81,081,638**

Exhibit EB-26

Exhibit EB-26

DSIC Type	Budget	YTD Actuals*	Estimated Q4^	Estimated 2025 Expenses	Difference (K-N)
Water	7,420,735.00	5,139,259.00	8,532,752.37	$ 13,672,011.37	(6,251,276.37)
Wastewater	2,650,269.00	2,450,224.00	1,106,573.21	$ 3,556,797.21	(906,528.21)

* YTD expenses incurred through Q3 2025

^ Estimated Q4 2025 expenses

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

REJOINDER TESTIMONY OF

EDWARD BARCA

ON BEHALF OF
THE PITTSBURGH WATER AND SEWER
AUTHORITY D/B/A PITTSBURGH WATER

Docket Nos.
R-2025-3055010 (Water)
R-2025-3055011 (Wastewater)
R-2025-3055012 (Stormwater)

TOPICS:
Responses to Surrebuttal of
Office of Consumer Advocate
Bureau of Investigation and Enforcement
Office of Small Business Advocate

October 20, 2025

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EB-27	Eligible Capital Line of Credit Expenses

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND POSITION FOR THE RECORD.

A. My name is Edward Barca, and I am the Director of Finance for the Pittsburgh Water and Sewer Authority ("Pittsburgh Water").

Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS PROCEEDING?

A. Yes. I submitted Direct Testimony (Pittsburgh Water St. No. 2) together with accompanying exhibits EB-1 to EB-10 on June 4, 2025, Rebuttal Testimony (Pittsburgh Water St. No. 2-R) together with accompanying exhibits EB-11 to EB-22 on September 30, 2025, and Surrebuttal Testimony (Pittsburgh Water St. No. 2-SR) together with accompanying exhibits EB-23 to EB-26 on October 14, 2025.

Q. PLEASE DESCRIBE THE PURPOSE OF YOUR REJOINDER TESTIMONY.

A. My rejoinder testimony responds to the various recommendations including financial metrics, revenue, and expense recommendations contained in portions of the surrebuttal testimony submitted by the Bureau of Investigation and Enforcement ("I&E"), the Office of Consumer Advocate ("OCA"), the Office of Small Business Advocate ("OSBA"), and Pittsburgh United's Our Water Table ("OWT") (together, "the Opposing Parties").

I have attempted to respond to the specific statements and recommendations made by the Opposing Parties' witnesses. In the event that an issue is not addressed, this should not be viewed as my acceptance of their testimony. Rather it reflects my belief that a further response in this rejoinder testimony is not warranted, either because it was adequately addressed in my prior testimony, was addressed by other prior testimony on behalf of Pittsburgh Water, or because it is a legal matter that is better addressed by counsel in briefs or other pleadings.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. Yes. I have included Exhibit EB-27 with this Rejoinder testimony.

II. UPDATED FPFTY REVENUE REQUIREMENT RECOMMENDATION

Q. DID ANY OF THE OPPOSING PARTIES PROVIDE UPDATED OVERALL REVENUE RECOMMENDATIONS FOR THE FPFTY?

A. Yes. The following table shows the updated recommendation together with the continued recommendations of Pittsburgh Water, I&E, and OCA:

Recommended Revenue Requirement and Claimed Financial Metrics			
FPFTY	**Pittsburgh Water**	**I&E**	**OCA**
	Exh. WJP-1 (Rev)	I&E St. 1-SR, Schedule 1-SR	Exh. DM-SR-1 Exh. DM-SR-21
Recommended Rate Increase	$62.003 M	$22.916 M	$18.882 M
Surplus (Deficit)	$0.06659 M	$0.9936 M	**($17.21 M)**
Senior (1.25x requirement)	1.86	1.83	1.57
Total (1.1x requirement)	1.42	1.37	1.20
DCOH	205.1	245.6	185.32 *
DCOH with ALCOSAN	118.6	131.7	102.10 *
*Recalculated using OCA's ending cash of $66,522,584 ($83,729,892 less $17,207,308) for the FPFTY, as opposed to using the (unadjusted) beginning cash for the FPFTY.			

The table above highlights the deficit created by OCA's recommendations. OCA agrees that Pittsburgh Water's revenue requirement will increase for the FPFTY, as compared to 2025. OCA Exhibit DM-SR-1 at line 7. After all of the OCA's adjustments, the OCA is projecting a total revenue requirement of $284,311,569 for the FPFTY. That is an increase of $39,700,644 ($284,311,569 less $244,610,905), as compared to 2025. OCA Exhibit DM-SR-1 at line 7. But OCA is not recommending a corresponding level of base rates to pay for that level of expenses. The OCA is only recommending increased

revenues to cover a portion of the OCA's recommended increased spending. In fact, the OCA recommends increased revenues of only $18,882,465. OCA Exhibit DM-SR-1 at line 1. That would create a deficit, since OCA's recommended spending for the FPFTY would exceed the OCA's recommended revenues for the FPFTY.[1]

The recommended rate increases (above) can be broken down as follows:

Components of Recommend Rate Increases, Inclusive of the DSIC and Pennvest Surcharges			
FPFTY	**Pittsburgh Water**	**I&E**	**OCA**
Base Rates (User Charges, Includes Wholesale Contracts)	$37,040,607	$3,384,303	$771,953
Pennvest Surcharge	$17,579,103	$17,579,103	$17,146,719
DSIC Revenues	$2,460,341	$2,460,341	$770,482
DSIC Additional 2.5%	$6,298,059	0	0
TOTAL* ($)	**$63,378,110**	**$23,423,747**	**$18,689,154**
*Totals may be higher or lower than the recommendations. They may be higher because they do not reflect the impact of uncollectible reserves and the stormwater credit program cost. They may be lower because they do not include Miscellaneous or Other Revenues.			

[1] The total deficit is $20,818,179 ($39,700,644 less $18,882,465). Mr. Mugrace's Exhibits show a deficit of $17,207,306 because the total deficit would be reduced by the surplus (of $3,610,891) that is projected under present rates in 2025. OCA Exhibit DM-SR-1 at line 8. $20,818,179 less $3,610,891 equals $17,207,288, which is the deficit shown on OCA Exhibit DM-SR-1 at line 8 for the FPFTY.

I&E's and OCA's Normalization Adjustments

Q. CAN YOU COMMENT ON OCA'S AND I&E'S CONTINUED ADVOCACY FOR NORMALIZATION AND HOW DOING SO IS DETRIMENTAL TO PITTSBURGH WATER AS A CASH FLOW UTILITY?

A. Yes, I&E's witness Okum as well as OCA's witness Mugrace provided a general comment on my rejection of their blanket normalization adjustments, including that normalization should be applied to any adjustments that they deemed by them to be unsupported. For the reasons discussed in my rebuttal testimony, I do not agree with I&E's or OCA's recommendations because their blanket normalization approach, while possibly reasonable for investor-owned utilities, does not allow Pittsburgh Water to accomplish its service improvement goals, and simply limits Pittsburgh Water's cash flow based on historic data. Nothing in either OCA's or I&E's testimony changes my position, and I incorporate the rational I provided in my rebuttal testimony.

A. Both the OCA and the I&E continue to insist that for a FPFTY expense claim to be acceptable it needs to be known and measurable.[2] But while this standard would make sense if a historic test year was being used, it does not make sense when trying to project expense levels more than a year in advance. In many instances, I&E and/or OCA has rejected Pittsburgh Water's FPFTY projections because we were not able to provide actual proof that the expense levels will be at the levels projected. But this standard completely eviscerates the basic premise of the FPFTY, which is to permit a utility to have rates established based on expected expense levels to be incurred in the year *after* rates are set.

It is also important to point out that the OCA/I&E "normalizations" result in their

[2] See I&E St. No. 2-SR at 5, 6, 15, 17, 18, 20, 28, and 31-34; OCA St. No. 2SR at 3-4, 6, and 9.

recommendations result in obviously inadequate levels of rate increase to cover Pittsburgh Water's operating budget in 2026. In contrast to Pittsburgh Water's evidence showing that it needs some $37 million to cover increases in expenses, I&E recommended revenue requirement would allow just $3.7 million; I will discuss below OCA's recommendation of just $771 thousand. The Commission can take administrative notice and apply common sense to conclude that those increases are grossly inadequate in today's environment. As I have said in previous testimonies, unlike an investor-owned utility, Pittsburgh Water has no other source of funds (like return on equity) that would permit it to fund its activities if it does not receive adequate rate relief. It will have no alternative but to cut programs and reduce activities, which, in turn, will redound to the detriment of customers.

Q. DO YOU HAVE ANY COMMENTS ON THE SPECIFIC ADJUSTMENTS BY I&E OR OCA?

A. I note that OCA and I&E accepted a few additional expenses as presented by Pittsburgh Water in Rebuttal or discovery. While they accepted a few, they continued to argue their direct testimony which I continue to disagree with each of the remaining expense adjustments, and nothing in their surrebuttal testimony changes my positions stated in rebuttal for each expense category.

III. <u>OCA'S RECOMMENDED RATE INCREASE</u>

Q. IS OCA'S RECOMMENDED RATE INCREASE REASONABLE?

A. No. The OCA's recommended rate increase is not reasonable because that recommendation does not provide Pittsburgh Water with the opportunity to receive sufficient revenues to meet pay for the expenses that the OCA itself is projecting in the FPFTY for Pittsburgh Water.

For the FPFTY, OCA's recommended expenses are more than the OCA's recommended revenues. After all of the OCA's adjustments, the OCA is projecting that Pittsburgh Water will have a "Total System Wide Revenue Requirement" of $284,311,569. OCA Exhibit DM-SR-1 at line 7; OCA Exhibit DM-SR-2 at line 44. The OCA is recommending "Total System Revenues" of $267,104,261. OCA Exhibit DM-SR-1 at line 1; OCA Exhibit DM-SR-2 at line 8. This means that Pittsburgh Water will need to spend **$17,207,308 more** on expenses than it will receive in revenues — just to pay the expenses that OCA itself is projecting in the FPFTY. That is the deficit shown on OCA Exhibit DM-SR-1 at line 8 and on OCA Exhibit DM SR-2 at line 45.

The OCA's recommended deficit would continue until Pittsburgh Water's next rate case. Using the OCA's recommendations, Pittsburgh Water's ending balance for Operating Fund should be $66,522,584 ($83,729,892 less $17,207,308) in the FPFTY. If Pittsburgh Water does not receive an additional base rate increase for FY 2027, that balance would fall to $49,315,276 ($66,522,584 less $17,207,308). That would be a significant decline in cash and would be viewed by the rating agencies as a negative for Pittsburgh Water's financial health.

Q. WHAT IS THE IMPACT OF THE OCA'S RECOMMENDED DEFICIT?

A. The deficit will reduce Operating Fund Balance. But Mr. Mugrace does not reflect the reduced Operating Fund Balance when he calculates DCOH. OCA Exhibit DM-SR-21. He calculates DCOH using the <u>beginning</u> balance of $83,729,892 for the FPFTY. OCA Exhibit DM-SR-21. He does not use the ending balance for the FPFTY, which should be $66,522,584 ($83,729,892 less $17,207,308). By not using the ending balance, Mr. Mugrace is ignoring the operations within the FPFTY in their entirety and inflating his calculated DCOH.

To provide Pittsburgh Water with the opportunity to receive sufficient revenues to meet pay for the expenses that OCA itself is projecting in the FPFTY for Pittsburgh Water, the OCA would need to recommend a rate increase of $36,089,772 ($18,882,464 plus $17,207,308).

Q. HOW DOES MR. MUGRACE EXPLAIN THE DEFICIT?

A. Mr. Mugrace states that his calculations of "Total System Revenues," which is line 8 on Exhibit DM-SR-2, does not include all of the system revenues. OCA St. 2-SR at 2-3. For example, he states that his tabulation of total system revenues does not include revenues from the DISC.

Q. DOES YOU AGREE WITH THAT EXPLANATION?

A. No. The tabulation of "Total System Revenues" in line 8 on OCA Exhibit DM-SR-2 **includes all categories of revenues**, including DSIC. Exhibit DM-SR-2 calculates the DISC, which is shown in two parts of line 5, as a component of the total system revenues in line 8.

In my opinion, "Total Systems Revenues" means total system revenues. I do not agree with Mr. Mugrace's explanations, OCA St. 2-SR at 2-3, that would exclude revenues collected by Pittsburgh Water — if they are used for the DSIC, for the Revolving Line of Credit or are transferred to the Reserve Account. Excluding some categories of revenues and including other categories of revenues creates a distorted and unreasonable calculation of "Total System Revenues."

Q. MR. MUGRACE ARGUES THAT, EVEN THOUGH REGULATED ON A CASH FLOW BASIS, RATEMAKING CONCEPTS, INCLUDING THOSE THAT ARE SET UNDER A CASH FLOW METHOD, DO NOT PROVIDE FOR 100% GUARANTEED RECOVERY OF ALL COSTS AND EXPENDITURES BUT ONLY THE OPPORTUNITY AND THE ABILITY TO RECOVER ALL OF A UTILITY'S KNOWN AND MEASURABLE COSTS. OSA ST. 2SR AT 3-5. CAN YOU COMMENT?

A. Yes. Pittsburgh Water is not asking for a "guarantee" but a reasonable opportunity to recover its projected expenditures. I submit that providing an allowance that is demonstrably lower than that which Pittsburgh Water's FPFTY projects it will incur does not provide a reasonable "opportunity" – it sets up a real-world chance that Pittsburgh Water cannot recover its projected expenditures. Moreover, I would point out that Mr. Mugrace has taken a standard statement about utilities regulated on a rate of return/rate base basis and tried to apply it here, alleging similarities generally: that a utility is only given the opportunity to earn a fair return on its utility investment – not a guarantee. To the extent that an investor-owned utility expense allowance is based on a "normalized" or average amount it can make up the difference from its profit allowance and simply earn a lower return on equity for its shareholders. Pittsburgh Water has no such cushion, and Mr. Mugrace's broad stroke of applying return on equity principles to Pittsburgh Water is not conducive to how Pittsburgh Water is regulated on a cash-flow basis.

Q. MR. MUGRACE ALSO CLAIMS THAT IF THE RATE INCREASE PROPOSED BY THE OCA IS INADEQUATE PITTSBURGH WATER CAN SIMPLY FILE ANOTHER RATE CASE (I.E. "SEEK FURTHER RATE ADJUSTMENTS"). OCA ST. 2SR AT 5. CAN YOU COMMENT?

A. Yes. This is obviously not a reasonable basis on which to deal with the serious concerns about OCA's proposals that I and the other Pittsburgh Water's witnesses have raised. But, practically speaking, Pittsburgh Water would not be able to file for and receive another base rate case in time to head off the negative financial and operational

consequences of inadequate rate relief in 2026. The only avenue available would be to seek extraordinary rate relief, which, I am informed by counsel, is only available if the Authority was essentially on the brink of default. Even if Pittsburgh Water were, unfortunately, able to meet such a standard, such a filing would clearly have a very significant negative effect in terms of Pittsburgh Water's bond rating.

Q. HAVE I&E AND OCA UPDATED THEIR FPFTY OPERATING BUDGET REVENUE REQUIREMENT RECOMMENDATION?

A. Yes. Both I&E and OCA increased their original FPFTY Operating Budget revenue requirement recommendations. However, as shown below, their recommendations are still inadequate because they are less than Pittsburgh Water's **FY 2025** annualized Operating Budget amount.

I&E increased their FPFTY Operating Budget revenue requirement recommendation from $127,356,528 to $128,699,101 (I&E Statement No. 1-SR, Schedule 1), which is $8,094,814 less than the FY 2025 annualized Operating Budget.

Like I&E, OCA also increased their FPFTY Operating Budget revenue requirement / rate increase recommendation from $133,405,373 to $133,789,273 (Exhibit DM-SR-1), which is $3,004,642 less than the FY 2025 annualized Operating Budget.

FY 2025 Budget	FY 2025 Annualized	I&E FPFTY Recommendation	OCA FPFTY Recommendation
$ 135,526,742	136,793,915	128,699,101	133,789,273

Clearly, neither of these updated FPFTY Operating Budget revenue requirement recommendations are prudent or reasonable and therefore should be rejected. Both recommendations would force Pittsburgh Water to reduce costs, either through laying off staff, reducing critical maintenance contracts, or both.

These large adjustments are the result of normalizing various expenses within Pittsburgh Water's proposed FPFTY Operating Budget. While I do not agree with their adjustments, I would like to point out that if the Commission concludes that normalization is required, the normalization should utilize the most recent data available. Normalizing Pittsburgh Water's proposed FPFTY Operating Budget of $149,713,166 and the FY 2025 actual/annualized Operating Budget amount of $136,793, 915 would result in a FPFTY operating budget revenue requirement of $143,253,541 (($136,793,915+147,713,166)/2), which is what the parties should have proposed under this normalization method. Instead, I&E and OCA proposed an FPFTY Operating Budget requirement that is $14,554,440 and $9,464,268 below this amount, respectively.

IV. DSIC INCREASE; CAPITAL SPENDING

Q. I&E WITNESS PATEL STATES THAT THE ADDITIONAL 2.5% INCREASE IN THE DSIC CAP EQUATES TO $6,298,059. I&E ST. 1-SR AT 22. HE IMPLIES THAT PITTSBURGH WATER SHOULD USE ITS CASH BALANCE FOR CONSTRUCTION PURPOSES RATHER THAN OBTAINING AN INCREASE IN THE DSIC CAP, IF IT NEEDS THAT AMOUNT OF ADDITIONAL REVENUES FOR CONSTRUCTION. I&E ST. 1-SR AT 22-23. PLEASE RESPOND.

A. The cash balance is held for operating expenses and emergencies. It can be used to temporarily pay for construction or capital projects, if the line of credit is depleted. But Pittsburgh Water does not regularly use cash to fully pay for construction or capital projects because using the cash balance for those purposes would deplete its cash. Declining cash reserves mean that Pittsburgh Water would have less flexibility to manage its financial needs. This can affect its ability to cover day-to-day operating expenses and to respond to emergencies. It would also drive down Pittsburgh Water's financial metrics, especially DCOH, negatively impacting its credit rating.

Q. CAN YOU EXPLAIN WHAT I&E WITNESS SAKAYA IS OBJECTING TO AND WHY?

A. In his surrebuttal, I&E witness Sakaya continues to reiterate objections to Pittsburgh Water's proposal to increase its DSIC rate from 5% to 7.5%. I&E St. No. 3-SR at 8. In his Rebuttal, Sakaya states that in light of Pittsburgh Water's "lack of documented history of completing capital projects as budgeted," Pittsburgh Water's request to collect more in DSIC revenues "is not justified."[3] Sakaya makes similar conclusions in Surrebuttal. I&E St. No. 3-SR at 8.

Q. DO YOU AGREE WITH SAKAYA'S TESTIMONY ON THE DSIC CAP?

A. I respectfully disagree with Sakaya's testimony on the appropriateness of an increase to Pittsburgh Water's DSIC cap. At a baseline, I disagree with Sakaya's conclusion that a DSIC increase from 5% to 7.5% is unjustified in the case of Pittsburgh Water. Pittsburgh Water has already made a compelling case showing that a 5% to 7.5% DSIC increase is necessary to replace antiquated facilities and ensure reliable service, including in my direct testimony[4] and in the testimony of Barry King[5] and Christine Fay.[6] Pittsburgh Water has asserted a compelling need for the increased DSIC cap, and when it comes to whether Pittsburgh Water is authorized to increase its DSIC to 7.5%, arguing against increasing the DSIC cap is like arguing against black-letter Pennsylvania law. Sakaya's testimony fails to consider this and also does not appreciate that the DSIC exists for systems such as Pittsburgh Water's—antiquated, heavily used systems with a large backlog of maintenance that requires funding.

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3 *Id.* at 5.

4 Pittsburgh Water St. No. 2 at 63–66.

5 Pittsburgh Water St. No. 3 at 20–21.

6 Pittsburgh Water St. No. 7 at 19–20.

Q. DO YOU HAVE ANY COMMENTS ON SAKAYA'S USE OF DATA TO CONCLUDE THAT A DSIC INCREASE IS NOT WARRANTED?

A. First I want to clarify the amounts at issue with respect to Pittsburgh Water's requested DSIC cap. The amount at issue is not the total DSIC revenues" at $13.9 million in FPFTY and $14.9 million in FY 2027. Per Exhibit EB-23 (attached), the accurate numbers for *additional* revenues derived from DSIC are less than half of those figures : $6,479,851 in FPFTY and $7,464,594 in FY 2027.[7] In addition, only $4,631,840 in FPFTY and $4,960,087 in FY 2027 is directly attributable to the increased DSIC cap; the balance ($1,848,012 in FPFTY and $2,504,507 in FY 2027) is derived *solely* from the proposed increase to base rates.[8] In other words, even without a change to the DSIC cap, Pittsburgh Water's DSIC revenues will still increase as a result of increased base rates. When reviewing the accurate data set forth in Exhibit EB-23, it is clear that the proposed DSIC cap increase would only account for a small fraction of the overall DSIC revenue increase.

Q. DO YOU AGREE WITH SAKAYA ON GIVING CONSIDERATION TO PITTSBURGH WATER'S BUDGETING HISTORY WHEN REVIEWING THE PROPRIETY OF INCREASING THE DSIC CAP?

A. I disagree. The fact that Pittsburgh Water has a few years in which it did not completely meet its projected capital expenditures for that year is not relevant to its DSIC spending or the level of its DSIC cap. I&E's argument is misplaced, because the DSIC is a reconcilable surcharge—this means that ratepayers only pay for the actual amount of capital improvements performed; any unexpended surplus in DSIC revenues will be

[7] Exh. EB-23.

[8] *Id.*

refunded in the next year, with interest.[9] Pittsburgh Water has explained the special circumstances that lead to its inability to completely meet its capital budget in a few recent years. Moreover, Pittsburgh Water's DSIC expenditures met or exceeded its projections in 2021, 2023, and 2024.[10] Pittsburgh Water is on track to meet its budget in 2025, and, all likely significantly exceed its budgeted amounts.[11] But even if it were not, ratepayers would only be asked to pay for DSIC eligible capital improvements that we actually accomplish. Any dollars billed to ratepayers that were not expended would be returned to ratepayers—with interest—leaving them totally protected. Denying Pittsburgh Water the opportunity to expedite its capital improvements and replace more antiquated facilities through an increase in the DSIC cap because it missed its capital budget in a few past years is neither reasonable nor logical. The DSIC surcharge is a patently reasonable way to go about accomplishing much needed capital improvements system-wide because the DSIC is reconcilable and ensures ratepayer equity. Sakaya's argument plainly fails to take into account the fair design of the DSIC with respect to ratepayer protection, and his citation to Pittsburgh Water's budgeting history does not make sense from a "reliable service" analysis standpoint.

[9] Pittsburgh Water St. No. 2 at 65.

[10] *See* Exh. EB-24.

[11] *See* Exhs. EB-25 and EB-26 (Pittsburgh Water's 2025 expenditures).

V. DEBT SERVICE COSTS

Q. DID MR. PATEL MAKE A REVISION TO HIS ORIGINAL PROPOSAL TO EXCLUDE FROM PITTSBURGH WATER'S REVENUE REQUIREMENT 100% OF THE DEBT SERVICE COSTS THAT PITTSBURGH WATER EXPECTS TO INCUR ASSOCIATED WITH ITS 2026 BOND ISSUANCE?

A. Yes. In his direct testimony, Mr. Patel recommended an adjustments of $11,241,803 to the debt service expense and $2,810,451 in debt coverage capital tied to the proposed $150,000,000 senior lien bond issue to fund the FPFTY.[12] Mr. Patel justified this on the ground that Pittsburgh Water had experienced past shortfalls in actual capital expenditures verses budgets to the extent that, he testified, the entire $150 million bond issuance would not be needed because Pittsburgh Water was unlikely to need to issue a bond to fund capital expenditures in 2026.

In rebuttal I explained that Pittsburgh Water's bond issuance and level is not tied to its budgeted level of capital expenditures in 2026. It is actually driven by the capital expenditures it makes in 2026 plus the amount of capital expenditures it has already made, both categories of which have been, and will be funded by its capital line of credit or interim funded with cash until a capital line of credit draw is made. The bond is necessary to refinance those previous expenditures. I previously explained that Pittsburgh already had expended some $109 million in interim financing and cash (which, updated, is now $118 million) and anticipates spending at least $40 million more by year end. This means that it is virtually certain that Pittsburgh Water will have to issue a bond in the amount of at least $150 million in 2026 to refund these expenditures (which must be refunded under the terms of the loan agreement).

[12] I&E Statement No. 1, p. 13, lines 5-6.

In response, Mr. Patel appeared to acknowledge that the need for and level of Pittsburgh Water's bond issuance is driven by the expenditures it has already made and which were funded by the capital line of credit/cash.[13] Mr. Patel stated that I had substantiated that Pittsburgh Water has already incurred $109 million in expenditures that will need to be refinanced by the 2026 bond issuance and is projected to incur the rest by year end.[14]

Q. DID MR. PATEL REVISE HIS PROPOSED ADJUSTMENT BASED ON YOUR REBUTTAL?

A. Yes, but unfortunately, he did not make the adjustment correctly. Instead of recognizing that Pittsburgh Water had fully substantiated that it had made or will soon expend the full amount of the projected 2026 bond issuance ($150 million), Mr. Patel looked only at Pittsburgh Water's total capital expenditures for 2025. While those total about $124 million in 2025, he points out that some $74 million of those actual expenditures have been funded by other sources of capital (PENNVEST and DSIC). He therefore recommended that Pittsburgh Water's revenue requirement only include the costs of a bond issuance of $76 million, which he claims is all that we will need in 2026.

Q. WHY IS THIS INCORRECT?

A. The actual capital expenditures for 2025 that he cites from the interrogatory answer (part A of I&E RR-22) is <u>not</u> what Pittsburgh Water submitted to justify the fact that it will issue a $150 million bond in 2026. These were numbers showing actual capital expenditures in 2025 that I&E requested and that we provided at its request. The correct numbers to look to for justification is part (b) of the interrogatory response which, in its clarified form states as follows:

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[13] I&E St. No. 1-SR at 13.

[14] Id.

> See attached. [spreadsheet showing the breakdown of capital expenditures funded by short term capital/cash totaling $109,765,305, attached as Exh. EB 27]
> Pittsburgh Water projects that it will incur at least an additional $40+ million of expenses eligible to be funded with the line of credit by the end of FY 2025. Capital expenses typically accelerate in the fourth quarter of every year resulting from the construction that was completed during the summer months.
> Note that from January 1, 2025 - September 15, 2025, $44,234,468 was eligible to be financed with the capital line of credit. The remaining $65,530,837 ($109,765,305 - $44,234,468) is attributable to capital expenses eligible to be funded with the line of credit that were incurred prior to FY 2025, which is identified in the spreadsheet provided to answer part B.[15]

Q. WHAT DO YOU CONCLUDE?

A. Pittsburgh Water has shown that the debt costs that it is requesting be included in its rates are fully justified because Pittsburgh Water has already expended $118 million per Exh. EB-27. and is expected to incur at least an additional $35-40 million by the end of the year. Therefore, no adjustment to Pittsburgh Water's debt costs, as proposed by Mr. Patel is justified or reasonable.

VI. CUSTOMER COUNT AND USAGE ADJUSTMENTS OF OSBA

Q. DOES OSBA CONTINUE TO RECOMMEND THAT PITTSBURGH WATER REFLECT AN ADDITIONAL 1,025 WATER CUSTOMERS AND WASTEWATER CUSTOMERS FOR THE TEST YEARS?

A. Yes. Mr. Kubas continues to defend his original recommendation on the basis of his claim that Pittsburgh Water used the 5-year average usage from 2020 through 2024 as part of its calculations. (OSBA St. No. 1-SR at 7).

Q. IS MR. KUBAS CORRECT?

A. No. As Mr. Smith explained in his rebuttal testimony, Pittsburgh Water relied on average consumption by class for FY 2022 through FY 2024 given the transition of Pittsburgh Water's billing system in FY 2022, rendering the data prior to then as less accurate.

[15] Answer to I&E-RR-22.

(Pittsburgh Water St. No. 8R at 6). Mr. Kubas' testimony that the CCOSS mode's is projecting consumption by class on the average annual consumption by class for FY 2020 through FY 2024 is incorrect.[16] (*See also*, Pittsburgh Water St. No. 8 at 29).

Q. DO YOU HAVE ANY OTHER CONCERNS ABOUT MR. KUBAS' RECOMMENDED ADJUSTMENT?

A. Yes. Mr. Kubas recommends that the number of projected Residential accounts be increased by 331 accounts each year in FY 2025, FY 2026, and FY 2027, and that projected CAP accounts be increased by 575 accounts in each fiscal year. This approach fails to recognize that an increase in CAP accounts typically results in a commensurate decrease in Residential accounts because most customers enrolled in the BDP are existing Residential customers.

Q. DOES THE CURRENT CUSTOMER COUNT TREND SUPPORT PITTSBURGH WATER'S PROPOSAL?

A. Yes. As explained by Mr. Smith in his rebuttal testimony, Pittsburgh Water has experienced the below *declines* in customer bills. (Pittsburgh Water St. No. 8R at 6):

	Water	Wastewater
FY 2023	955,584	1,271,304
FY 2024	952,944	1,267,944
Bill Decline	-2,640	-3,360

Pittsburgh Water anticipates this trend to continue going forward, and I have no reason to expect any difference in the FY 2025 trend. To avoid contrasting opinions on whether there would be an increase or decrease in customer bills based on historical data,

[16] See Rebuttal COSS model at in the formulas in column S of the Usage tab in the COSS model. The formula which calculates the various usage numbers is an "AVERAGEIF" function which references the years between FY 2020 and FY 2024 but only includes them in the calculation if the corresponding value in row 4 of their respective columns is marked with an "X." Only FY 2022 – FY 2024 are marked for inclusion, as can be seen in columns P-R, row 4.

Pittsburgh Water chose to use the total bill count from the most recent complete fiscal year (in this case FY2024) at 0% growth or decline to forecast the total bills in the FPFTY.

Q. BASED ON THIS INFORMATION, DOES PITTSBURGH WATER CONTINUE TO OPPOSE OSBA'S RECOMMENDED ADJUSTMENTS FOR CUSTOMER BILLS AND USAGE?

A. Yes.

VII. MULTI-YEAR RATE PLAN

Q. I&E WITNESS PATEL CONTINUED TO DISAGREE WITH PITTSBURGH WATER'S MULTI-YEAR RATE PLAN ("MYRP") PROPOSAL. I&E ST. NO. 1-SR. DID MR. PATEL PUT FORTH ANY NEW ARGUMENTS WHICH GIVE YOU CONCERNS?

A. Yes. For the first time in his surrebuttal testimony, I&E's witness Patel opined that Pittsburgh Water's proposed MYRP should be rejected because it "is tantamount to single issue ratemaking, which would set a precedent for other utilities to pursue an MYRP for the recovery of any expenses or costs limiting the Commission's authority to review reasonableness and prudency of a forecasted expense claim." I&E St. No. 1-SR at 8.

Mr. Patel's new position is wrong, and I am advised by counsel that his argument must be rejected as late raised in this proceeding when he did not testify to this opinion in his direct testimony as he was required to do. That said, I am also advised by counsel that Mr. Patel's new position is wholly unsupported by what the actual concept of "single issue ratemaking" actually is.

Q. PLEASE EXPLAIN.

A. Single issue ratemaking has been raised as a bar when a utility files for a general rate increase but justifies it by looking at a single item of expense that has gone up, without

examining whether other expenses have gone down or revenues have gone up since its last full base rate case. But here, Pittsburgh Water will have already had all of its revenues and expenses reviewed and just and reasonable levels determined when the MYRP is approved. Moreover, many of the alternative ratemaking vehicles that are authorized by Section 1330 of the Code could be characterized as being "single issue" which, under Mr. Patel's arguments, would invalidate each despite the Legislature's directive to the Commission. For example, a revenue normalization adjustment mechanism, which is specifically authorized by Section 1330, would permit a utility to adjust its rates if one item of its revenue requirement calculation – its operating revenues – varied from determined pro forma levels.

Q. DID ANY PARTIES PROVIDE ANY FURTHER TESTIMONY WHICH CHANGES YOUR POSITION ON PITTSBURGH WATER'S MULTI-YEAR RATE PLAN?

No.

VIII. CONCLUSION

Q. DOES THAT COMPLETE YOUR REJOINDER TESTIMONY?

A. Yes; however, I do reserve the right to supplement this testimony as may be appropriate.

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VERIFICATION

I, Edward Barca, hereby state that: (1) I am the Director of Finance for The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water; (2) the facts set forth in my testimony are true and correct (or are true and correct to the best of my knowledge, information and belief); and, (3) I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: 10/20/25

DocuSigned by:
Edward Barca
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Edward Barca
Director of Finance
The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water

Exhibit EB-27

Row Labels	Sum of Expense
2013-323-175-0	**12,025.26**
Bruecken Pump Station Upgrade - Consultant	12,025.26
2013-323-175-1	**80,211.27**
Bruecken PS Valve Vault Upgrade - General	80,211.27
2013-323-175-2	**3,121.31**
Bruecken PS Valve Vault Upgrade - Electrical	3,121.31
2017-322-101-10	**59,999.99**
Aspinwall WTP Filter Building Sodium Hypochlorite Improvements - Plumbing	59,999.99
2017-322-101-11	**321,077.14**
Aspinwall WTP Filter Building Sodium Hypochlorite Improvements - Electrical	321,077.14
2017-322-101-12	**333,000.00**
Lime Slurry System and Sodium Permanganate System Improvements - Plumbing	333,000.00
2017-322-101-13	**484,938.00**
Lime Slurry System and Sodium Permanganate System Improvements - Electrical	484,938.00
2017-322-101-14	**96,900.00**
Aspinwall Water Treatment Plant Plant Sodium Hypochlorite Improvements - Fire Suppression	96,900.00
2017-322-101-7	**2,192,617.28**
Lime Slurry System and Sodium Permanganate System Improvements	2,192,617.28
2017-322-101-8	**697,615.45**
Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	697,615.45
2017-322-101-9	**97,708.27**
Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - HVAC	97,708.27
2017-322-106-0	**13,848.29**
Highland Park Membrane Filtration Plant UV System	13,848.29
2017-322-107-0	**25,114.39**
Corrosion Control Chemical Storage & Feed Systems	25,114.39
2017-323-101-0	**6,200,293.62**
Highland Reservoir Pump Station and Rising Main	6,200,293.62
2017-323-101-1	**21,096,629.42**
Highland Reservoir Pump Station and Rising Main - General	21,096,629.42
2017-323-101-2	**4,971,970.69**
Highland Reservoir Pump Station and Rising Main - Electrical	4,971,970.69
2017-323-101-3	**625,812.50**
Highland Reservoir Pump Station and Rising Main - HVAC	625,812.50
2017-323-101-4	**672,669.35**

Highland Reservoir Pump Station and Rising Main - Plumbing	672,669.35
2017-323-101-5	**3,453,722.04**
Highland Reservoir Pump Station and Rising Main - Supply and Rising Main	3,453,722.04
2017-323-104-1	**1,037,858.60**
Aspinwall Pump Station Concrete Floor Repairs	1,037,858.60
2017-323-105-0	**162,817.72**
Lanpher Reservoir Improvements	162,817.72
2017-323-105-4	**1,120,089.95**
Lanpher Reservoir Booster Disinfection Improvements - Construction	1,120,089.95
2017-323-105-5	**3,797,940.99**
Lanpher Reservoir Booster Disinfection Improvements - General/Mechanical	3,797,940.99
2017-323-105-6	**696,756.77**
Lanpher Reservoir Booster Disinfection Improvements - Electrical	696,756.77
2017-323-105-7	**674,500.00**
Lanpher Reservoir Booster Disinfection Improvements - HVAC	674,500.00
2017-323-105-8	**306,895.27**
Lanpher Reservoir Booster Disinfection Improvements - Plumbing	306,895.27
2017-323-105-9	**298,469.60**
Lanpher Reservoir Dam Permitting	298,469.60
2017-424-104-0	**948.59**
Lawn and Ophelia Green Infrastructure Project	948.59
2017-424-105-0	**10,594.26**
Wightman Park GI Project	10,594.26
2017-424-105-1	**173,600.00**
Wightman Park Phase 2 Project	173,600.00
2017-424-108-0	**103,850.27**
Woods Run Stream Inflow - Mairdale Avenue	103,850.27
2017-424-108-1	**11,880.74**
Woods Run Improvements - Mairdale Avenue	11,880.74
2018-GI-102-0	**623,334.31**
Four Mile Run Stormwater Infrastructure Improvements	623,334.31
2018-GI-106-0	**31,333.47**
Thomas and McPherson Green Infrastructure	31,333.47
2018-GI-108-0	**250,406.73**
Woodland Drive Green Infrastructure	250,406.73
2018-WS-103-0	**338,709.24**
PennDOT SR0837-A42 E Carson St	338,709.24
2019-323-100-0	**198,469.54**

Herron Hill Reservoir Improvements	198,469.54
2019-323-100-1	**800,738.39**
Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - General	800,738.39
2019-323-100-2	**186,161.06**
Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - Electrical	186,161.06
2019-323-100-3	**36,854.28**
Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - HVAC	36,854.28
2019-323-100-4	**18,704.97**
Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - Plumbing	18,704.97
2019-323-101-0	**283,205.26**
Chlorine Booster Station Improvements	283,205.26
2019-323-102-2	**646,144.51**
Highland No. 2 Reservoir Dam Permitting and Slope Stability	646,144.51
2019-424-103-2	**1,844,866.59**
Queenston Sewer Improvements	1,844,866.59
2019-GI-100-0	**109,236.78**
Southside Stormwater Infrastructure Improvements	109,236.78
2019-GI-104-0	**26,107.92**
Martin Luther King Field Stormwater Infrastructure Improvements	26,107.92
2020-323-100-0	**157,491.67**
Lincoln Pump Station: Bypass Pump Station Project	157,491.67
2020-323-100-1	**1,413,550.00**
Lincoln Pump Station: Bypass Pump Station Project - General	1,413,550.00
2020-323-100-2	**165,757.50**
Lincoln Pump Station: Bypass Pump Station Project - Electrical	165,757.50
2020-323-101-0	**50,811.19**
Disinfection By-Products Mitigation	50,811.19
2020-325-102-0	**4,148,948.14**
Bus Rapid Transit (BRT) Water Distribution Improvements	4,148,948.14
2020-325-109-0	**294.00**
2020 Large Diameter Main Replacement Program (Four Mile Run Water Main Relocation)	294.00
2020-424-104-0	**1,702,166.51**
2020 Sewers Under Structures Contract 1	1,702,166.51
2020-424-104-1	**1,166,826.12**
2020 Sewers Under Structures Contract 2	1,166,826.12
2020-424-107-0	**438,401.82**
2021 Large Diameter Sewer Rehabilitation Project	438,401.82
2020-424-109-0	**900,000.00**

Saw Mill Run Watershed Improvements	900,000.00
2020-GI-100-0	**441,194.25**
Bus Rapid Transit (BRT) Stormwater Infrastructure Improvements	441,194.25
2020-WS-101-0	**8,752.19**
2021 PennDOT Paving Group	8,752.19
2021-322-102-0	**256,436.43**
Sludge Chamber Pump Project	256,436.43
2021-322-102-2	**986,622.00**
Sludge Chamber Pump Project - General/Mechanical	986,622.00
2021-322-102-3	**344,627.62**
Sludge Chamber Pump Project - Electric	344,627.62
2021-325-100-0	**495,190.80**
Intermediate Meter Replacement Program	495,190.80
2021-325-102-0	**7,250.30**
2021 Regulator Valve and Vault Replacement Program	7,250.30
2021-424-105-0	**5,113,856.61**
2022 Large Diameter Sewer Rehabilitation	5,113,856.61
2021-424-105-1	**282,247.62**
2022 Large Diameter Sewer Rehabilitation - Pipe Rehabilitation	282,247.62
2021-424-106-0	**12,737,542.14**
Southside Flats Sewer Separation	12,737,542.14
2022-322-100-0	**78,166.24**
Aspinwall WTP Chemical Unloading Area Improvements and Underground Storage Tank Removal and Replacement	78,166.24
2022-323-101-0	**1,753,041.59**
Bruecken Pumps No. 4, 5, & 7 Starter Replacements	1,753,041.59
2022-325-100-0	**16,443.60**
2022 Large Meter Replacement	16,443.60
2022-325-101-0	**9,150.00**
Water and Wastewater Safety and Security Improvements	9,150.00
2022-325-102-0	**1,956,958.86**
Interconnection Vault Stormwater Removal	1,956,958.86
2022-325-102-1	**160,126.86**
Interconnection Vault Stormwater Removal - Electrical	160,126.86
2022-325-103-0	**155,101.59**
2022 Intermediate Meters	155,101.59
2022-325-105-0	**438,100.50**
2022 Small Meter Replacement	438,100.50
2022-424-101-0	**129,946.15**

Stewart Avenue Stormwater Infrastructure Improvements	129,946.15
2022-424-102-0	**1,473,938.41**
Haverhill Street Stormwater Infrastructure Improvements	1,473,938.41
2022-424-103-0	**1,512,988.63**
Dragoon Way Stormwater Improvements	1,512,988.63
2022-424-105-0	**1,544,064.05**
Braywood Stormwater Improvements	1,544,064.05
2022-424-107-0	**172,428.98**
2022 Sewers Under Structures	172,428.98
2022-424-108-0	**1,493,105.46**
31st Ward Pump Station and Appurtenances - Phase 2	1,493,105.46
2022-424-109-0	**359,893.75**
Browns Hill Road Sewer Pump Station Replacement	359,893.75
2023-100-105-0	**684,127.93**
Hydraulic Valve Replacement Program	684,127.93
2023-100-106-1	**382,962.93**
Water Treatment Plant Plant 84-Inch Diameter Line Rehabilitation Project	382,962.93
2023-100-111-0	**405,760.71**
Water Treatment Plant Chemical Builder Storage Tank Improvements	405,760.71
2023-200-102-0	**457,783.34**
Large Meter Replacement Program	457,783.34
2023-200-103-0	**296,884.37**
Private Lead Service Line Reimbursement	296,884.37
2023-200-106-0	**1,281,849.00**
Small Meter Replacement Program	1,281,849.00
2023-400-101-0	**336,978.61**
2023 Sewers Under Structures	336,978.61
2023-500-102-1	**214,678.14**
Oakridge Stormwater Separation	214,678.14
2023-600-101-0	**333,599.22**
New Headquarters and Operations Facility	333,599.22
2023-DEV-104-0	**609.21**
Fairywood	609.21
2023-DEV-105-0	**3,248.72**
3205 Penn Ave	3,248.72
2023-DEV-109-0	**7,688.56**
3701 Fifth Ave	7,688.56
2024-100-104-0	**73,949.87**

Aspinwall Water Treatment Plant Plant Raw Water Intakes	73,949.87
2024-100-106-0	**699,687.61**
Sedimentation Basin Rehabilitation Project	699,687.61
2024-200-100-0	**4,454,534.75**
2024 Large Diameter Water Main Replacement	4,454,534.75
2024-500-102-0	**156,242.68**
Fowler Park Stormwater Improvements	156,242.68
2024-500-105-0	**897,931.54**
Bus Rapid Transit - Phase 2	897,931.54
2024-DEV-104-0	**21,427.74**
4612 Forbes Ave	21,427.74
2025-600-100-0	**9,672,283.27**
Capital Asset Reclass from Operating Budget	9,672,283.27
2025-DEV-100-0	**2,111.46**
Grandview Ave Townhomes	2,111.46
Grand Total	**117,685,511.32**

Project #	Project Name	Expense	Fiscal Year
2017-322-101-12	Lime Slurry System and Sodium Permanganate System Improvements - Plumbing	16,200.00	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	17,698.85	FY 2025
2021-424-106-0	Southside Flats Sewer Separation	600.91	FY 2025
2022-424-101-0	Stewart Avenue Stormwater Infrastructure Improvements	59,828.68	FY 2025
2022-424-105-0	Braywood Stormwater Improvements	466,455.88	FY 2025
2022-424-107-0	2022 Sewers Under Structures	1,604.66	FY 2025
2023-100-106-1	Water Treatment Plant Plant 84-Inch Diameter Line Rehabilitation Project	32,375.04	FY 2025
2023-400-101-0	2023 Sewers Under Structures	27,885.68	FY 2025
2023-500-102-1	Oakridge Stormwater Separation	34,201.11	FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	7,462.03	FY 2025
2017-323-104-1	Aspinwall Pump Station Concrete Floor Repairs	137,188.86	FY 2025
2019-323-102-2	Highland No. 2 Reservoir Dam Permitting and Slope Stability	14,246.83	FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	96,814.65	FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	1,417.89	FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	25,773.60	FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	2,622.91	FY 2025
2023-200-103-0	Private Lead Service Line Reimbursement	1,000.00	FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	84,815.76	FY 2025
2017-323-105-5	Lanpher Reservoir Booster Disinfection Improvements - General/Mechanical	25,115.74	FY 2025
2017-424-105-1	Wightman Park Phase 2 Project	450.00	FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	7,141.95	FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	4,385.49	FY 2025
2020-424-107-0	2021 Large Diameter Sewer Rehabilitation Project	221,317.95	FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	312,280.06	FY 2025
2021-424-106-0	Southside Flats Sewer Separation	31,780.17	FY 2025
2022-424-101-0	Stewart Avenue Stormwater Infrastructure Improvements	763.14	FY 2025
2023-200-103-0	Private Lead Service Line Reimbursement	35,984.00	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	11,123.47	FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	55,874.69	FY 2025
2017-323-101-1	Highland Reservoir Pump Station and Rising Main - General	1,375,649.84	FY 2025
2017-323-101-2	Highland Reservoir Pump Station and Rising Main - Electrical	281,925.00	FY 2025
2017-323-105-5	Lanpher Reservoir Booster Disinfection Improvements - General/Mechanical	424,080.00	FY 2025
2017-323-105-9	Lanpher Reservoir Dam Permitting	19,790.13	FY 2025
2021-424-106-0	Southside Flats Sewer Separation	553,769.05	FY 2025
2022-323-101-0	Bruecken Pumps No. 4, 5, & 7 Starter Replacements	428,915.08	FY 2025
2023-200-102-0	Large Meter Replacement Program	6,640.00	FY 2025
2023-200-103-0	Private Lead Service Line Reimbursement	1,000.00	FY 2025
2023-200-106-0	Small Meter Replacement Program	61,091.50	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	317.75	FY 2025
2017-323-101-3	Highland Reservoir Pump Station and Rising Main - HVAC	40,635.00	FY 2025
2017-323-104-1	Aspinwall Pump Station Concrete Floor Repairs	51,892.94	FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	56,669.44	FY 2025
2017-323-105-6	Lanpher Reservoir Booster Disinfection Improvements - Electrical	113,883.75	FY 2025
2017-323-105-7	Lanpher Reservoir Booster Disinfection Improvements - HVAC	81,904.50	FY 2025

2017-323-105-8	Lanpher Reservoir Booster Disinfection Improvements - Plumbing	20,955.60	FY 2025
2019-323-100-1	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - General	671.87	FY 2025
2019-323-102-2	Highland No. 2 Reservoir Dam Permitting and Slope Stability	4,479.52	FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	1,279.50	FY 2025
2022-424-105-0	Braywood Stormwater Improvements	19,575.51	FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	191,311.24	FY 2025
2023-100-105-0	Hydraulic Valve Replacement Program	70,617.51	FY 2025
2024-500-102-0	Fowler Park Stormwater Improvements	19,392.86	FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	2,453.89	FY 2025
2021-424-106-0	Southside Flats Sewer Separation	1,091.10	FY 2025
2022-424-101-0	Stewart Avenue Stormwater Infrastructure Improvements	674.98	FY 2025
2023-200-106-0	Small Meter Replacement Program	42,575.00	FY 2025
2024-DEV-104-0	4612 Forbes Ave	302.48	FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	210,408.28	FY 2025
2017-323-101-1	Highland Reservoir Pump Station and Rising Main - General	425,721.06	FY 2025
2017-323-101-2	Highland Reservoir Pump Station and Rising Main - Electrical	55,697.64	FY 2025
2017-323-101-4	Highland Reservoir Pump Station and Rising Main - Plumbing	3,471.34	FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	2,757.11	FY 2025
2017-323-105-9	Lanpher Reservoir Dam Permitting	12,730.73	FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	6,799.29	FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	948.14	FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	11,802.63	FY 2025
2021-322-102-0	Sludge Chamber Pump Project	15,176.96	FY 2025
2021-424-106-0	Southside Flats Sewer Separation	393,026.19	FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	21,430.75	FY 2025
2022-424-105-0	Braywood Stormwater Improvements	16,970.33	FY 2025
2022-424-107-0	2022 Sewers Under Structures	3,210.49	FY 2025
2023-200-102-0	Large Meter Replacement Program	17,492.16	FY 2025
2023-400-101-0	2023 Sewers Under Structures	21,308.70	FY 2025
2023-500-102-1	Oakridge Stormwater Separation	35,085.47	FY 2025
2017-322-101-11	Aspinwall WTP Filter Building Sodium Hypochlorite Improvements - Electrical	20,736.76	FY 2025
2017-322-101-13	Lime Slurry System and Sodium Permanganate System Improvements - Electrical	34,515.00	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	20,572.77	FY 2025
2017-323-101-3	Highland Reservoir Pump Station and Rising Main - HVAC	2,295.00	FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	110,721.58	FY 2025
2020-GI-100-0	Bus Rapid Transit (BRT) Stormwater Infrastructure Improvements	6,868.12	FY 2025
2023-200-102-0	Large Meter Replacement Program	12,739.50	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	8,921.04	FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	185,537.55	FY 2025
2019-323-101-0	Chlorine Booster Station Improvements	9,400.76	FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	8,910.69	FY 2025
2020-424-107-0	2021 Large Diameter Sewer Rehabilitation Project	12,695.14	FY 2025
2021-325-100-0	Intermediate Meter Replacement Program	54,917.00	FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	10,153.47	FY 2025
2023-100-105-0	Hydraulic Valve Replacement Program	182,648.75	FY 2025

2023-100-111-0	Water Treatment Plant Chemical Builder Storage Tank Improvements	11,805.00	FY 2025
2023-200-102-0	Large Meter Replacement Program	48,026.75	FY 2025
2023-200-103-0	Private Lead Service Line Reimbursement	9,280.00	FY 2025
2023-200-106-0	Small Meter Replacement Program	11,768.40	FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	93,557.19	FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	26,937.86	FY 2025
2017-323-105-7	Lanpher Reservoir Booster Disinfection Improvements - HVAC	96,525.00	FY 2025
2017-323-105-8	Lanpher Reservoir Booster Disinfection Improvements - Plumbing	24,633.00	FY 2025
2019-GI-104-0	Martin Luther King Field Stormwater Infrastructure Improvements	59.40	FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	2,334.83	FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	5,765.20	FY 2025
2020-424-107-0	2021 Large Diameter Sewer Rehabilitation Project	14,575.14	FY 2025
2021-322-102-0	Sludge Chamber Pump Project	7,595.40	FY 2025
2021-322-102-3	Sludge Chamber Pump Project - Electric	40,051.76	FY 2025
2021-325-100-0	Intermediate Meter Replacement Program	70,030.00	FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	3,749.19	FY 2025
2023-100-111-0	Water Treatment Plant Chemical Builder Storage Tank Improvements	50.00	FY 2025
2023-200-102-0	Large Meter Replacement Program	20,954.20	FY 2025
2023-200-103-0	Private Lead Service Line Reimbursement	10,829.00	FY 2025
2023-200-106-0	Small Meter Replacement Program	21,957.00	FY 2025
2024-500-102-0	Fowler Park Stormwater Improvements	13,120.00	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	1,582.69	FY 2025
2017-323-101-1	Highland Reservoir Pump Station and Rising Main - General	1,467,631.42	FY 2025
2017-323-101-2	Highland Reservoir Pump Station and Rising Main - Electrical	58,770.00	FY 2025
2017-323-101-3	Highland Reservoir Pump Station and Rising Main - HVAC	11,250.00	FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	4,813.24	FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	48,891.51	FY 2025
2017-323-105-6	Lanpher Reservoir Booster Disinfection Improvements - Electrical	141,603.75	FY 2025
2017-424-108-1	Woods Run Improvements - Mairdale Avenue	3,301.68	FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	4,331.73	FY 2025
2020-424-107-0	2021 Large Diameter Sewer Rehabilitation Project	4,874.00	FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	2,001.21	FY 2025
2021-424-106-0	Southside Flats Sewer Separation	51,789.27	FY 2025
2022-424-107-0	2022 Sewers Under Structures	797.88	FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	32,129.85	FY 2025
2023-400-101-0	2023 Sewers Under Structures	9,071.59	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	32,488.18	FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	543,650.00	FY 2025
2017-323-101-4	Highland Reservoir Pump Station and Rising Main - Plumbing	39,259.25	FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	18,603.08	FY 2025
2017-323-105-5	Lanpher Reservoir Booster Disinfection Improvements - General/Mechanical	567,004.05	FY 2025
2017-323-105-9	Lanpher Reservoir Dam Permitting	11,484.41	FY 2025
2019-323-102-2	Highland No. 2 Reservoir Dam Permitting and Slope Stability	12,725.67	FY 2025
2021-322-102-0	Sludge Chamber Pump Project	778.31	FY 2025
2021-424-106-0	Southside Flats Sewer Separation	815,031.76	FY 2025

2022-325-102-0	Interconnection Vault Stormwater Removal	2,924.15	FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	12,443.94	FY 2025
2023-500-102-1	Oakridge Stormwater Separation	2,090.59	FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	28,362.60	FY 2025
2017-323-105-7	Lanpher Reservoir Booster Disinfection Improvements - HVAC	249,440.00	FY 2025
2019-323-101-0	Chlorine Booster Station Improvements	92,396.58	FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	50.00	FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	3,531.30	FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	33,542.00	FY 2025
2023-100-106-1	Water Treatment Plant Plant 84-Inch Diameter Line Rehabilitation Project	97,565.36	FY 2025
2023-200-103-0	Private Lead Service Line Reimbursement	30,635.00	FY 2025
2023-400-101-0	2023 Sewers Under Structures	3,634.09	FY 2025
2024-100-104-0	Aspinwall Water Treatment Plant Plant Raw Water Intakes	9,921.32	FY 2025
2024-100-106-0	Sedimentation Basin Rehabilitation Project	26,086.40	FY 2025
2018-WS-103-0	PennDOT SR0837-A42 E Carson St	169,354.62	FY 2025
2017-322-101-13	Lime Slurry System and Sodium Permanganate System Improvements - Electrical	122,769.00	FY 2025
2017-323-105-5	Lanpher Reservoir Booster Disinfection Improvements - General/Mechanical	965,462.47	FY 2025
2017-323-105-9	Lanpher Reservoir Dam Permitting	17,304.67	FY 2025
2017-424-108-1	Woods Run Improvements - Mairdale Avenue	4,952.52	FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	15,298.15	FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	3,064.37	FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	1,248.93	FY 2025
2020-GI-100-0	Bus Rapid Transit (BRT) Stormwater Infrastructure Improvements	42,077.59	FY 2025
2021-322-102-0	Sludge Chamber Pump Project	22,169.67	FY 2025
2021-424-106-0	Southside Flats Sewer Separation	175,503.80	FY 2025
2023-200-102-0	Large Meter Replacement Program	9,292.00	FY 2025
2023-400-101-0	2023 Sewers Under Structures	4,239.60	FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	2,834.14	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	15,721.35	FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	28,376.33	FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	242,866.95	FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	5,890.24	FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	8,620.63	FY 2025
2019-323-102-2	Highland No. 2 Reservoir Dam Permitting and Slope Stability	6,908.93	FY 2025
2020-424-107-0	2021 Large Diameter Sewer Rehabilitation Project	5,158.26	FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	714,686.93	FY 2025
2021-424-106-0	Southside Flats Sewer Separation	57,135.31	FY 2025
2022-424-105-0	Braywood Stormwater Improvements	884.98	FY 2025
2023-200-102-0	Large Meter Replacement Program	25,580.84	FY 2025
2017-323-101-1	Highland Reservoir Pump Station and Rising Main - General	712,174.63	FY 2025
2017-323-101-2	Highland Reservoir Pump Station and Rising Main - Electrical	142,945.97	FY 2025
2017-323-101-3	Highland Reservoir Pump Station and Rising Main - HVAC	1,800.00	FY 2025
2017-323-101-4	Highland Reservoir Pump Station and Rising Main - Plumbing	49,428.50	FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	21,883.36	FY 2025
2017-323-105-6	Lanpher Reservoir Booster Disinfection Improvements - Electrical	54,313.52	FY 2025

2017-323-105-8	Lanpher Reservoir Booster Disinfection Improvements - Plumbing	75,573.45	FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	113.69	FY 2025
2021-424-106-0	Southside Flats Sewer Separation	3,293,078.05	FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	10,716.00	FY 2025
2022-424-107-0	2022 Sewers Under Structures	2,181.64	FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	8,848.38	FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	1,890.00	FY 2025
2023-200-102-0	Large Meter Replacement Program	62,820.00	FY 2025
2023-200-106-0	Small Meter Replacement Program	400.00	FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	4,184.18	FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	2,557.26	FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	3,066.30	FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	226.53	FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	2,000.00	FY 2025
2023-100-111-0	Water Treatment Plant Chemical Builder Storage Tank Improvements	124,881.20	FY 2025
2023-200-106-0	Small Meter Replacement Program	23,256.60	FY 2025
2024-100-104-0	Aspinwall Water Treatment Plant Plant Raw Water Intakes	3,585.76	FY 2025
2024-100-106-0	Sedimentation Basin Rehabilitation Project	31,059.84	FY 2025
2017-322-101-12	Lime Slurry System and Sodium Permanganate System Improvements - Plumbing	10,125.00	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	209,127.43	FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	3,527.89	FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	2,613.31	FY 2025
2021-322-102-0	Sludge Chamber Pump Project	971.79	FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	3,817.21	FY 2025
2023-200-102-0	Large Meter Replacement Program	13,119.12	FY 2025
2023-200-103-0	Private Lead Service Line Reimbursement	10,000.00	FY 2025
2023-500-102-1	Oakridge Stormwater Separation	5,268.71	FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	247,037.55	FY 2025
2017-323-101-2	Highland Reservoir Pump Station and Rising Main - Electrical	208,060.96	FY 2025
2017-323-101-3	Highland Reservoir Pump Station and Rising Main - HVAC	38,475.00	FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	50.00	FY 2025
2017-323-105-5	Lanpher Reservoir Booster Disinfection Improvements - General/Mechanical	98,885.50	FY 2025
2017-323-105-6	Lanpher Reservoir Booster Disinfection Improvements - Electrical	81,746.55	FY 2025
2017-323-105-7	Lanpher Reservoir Booster Disinfection Improvements - HVAC	78,337.00	FY 2025
2017-424-108-1	Woods Run Improvements - Mairdale Avenue	1,100.56	FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	11,130.92	FY 2025
2019-323-102-2	Highland No. 2 Reservoir Dam Permitting and Slope Stability	42,133.40	FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	16,606.44	FY 2025
2021-322-102-0	Sludge Chamber Pump Project	2,917.42	FY 2025
2023-200-102-0	Large Meter Replacement Program	13,119.12	FY 2025
2023-200-106-0	Small Meter Replacement Program	9,405.00	FY 2025
2024-500-102-0	Fowler Park Stormwater Improvements	53,025.79	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	23,097.18	FY 2025
2017-323-101-1	Highland Reservoir Pump Station and Rising Main - General	1,434,731.32	FY 2025
2017-323-101-4	Highland Reservoir Pump Station and Rising Main - Plumbing	133,511.25	FY 2025

2021-424-106-0	Southside Flats Sewer Separation	78,848.93	FY 2025
2022-424-105-0	Braywood Stormwater Improvements	191,176.10	FY 2025
2023-100-106-1	Water Treatment Plant Plant 84-Inch Diameter Line Rehabilitation Project	50,752.98	FY 2025
2023-200-103-0	Private Lead Service Line Reimbursement	11,208.00	FY 2025
2023-200-106-0	Small Meter Replacement Program	1,600.00	FY 2025
2023-500-102-1	Oakridge Stormwater Separation	3,649.77	FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	109,499.59	FY 2025
2025-DEV-100-0	Grandview Ave Townhomes	1,844.26	FY 2025
2017-322-101-13	Lime Slurry System and Sodium Permanganate System Improvements - Electrical	35,316.00	FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	28,447.46	FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	235,741.36	FY 2025
2017-323-105-8	Lanpher Reservoir Booster Disinfection Improvements - Plumbing	41,125.74	FY 2025
2017-323-105-9	Lanpher Reservoir Dam Permitting	17,959.33	FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	2,232.30	FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	11,643.73	FY 2025
2020-424-107-0	2021 Large Diameter Sewer Rehabilitation Project	802.42	FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	4,046.21	FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	828.27	FY 2025
2022-424-107-0	2022 Sewers Under Structures	7,535.86	FY 2025
2023-100-105-0	Hydraulic Valve Replacement Program	101,109.71	FY 2025
2024-100-106-0	Sedimentation Basin Rehabilitation Project	34,149.05	FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	52,515.22	FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	3,965.58	FY 2025
2021-325-100-0	Intermediate Meter Replacement Program	49,978.80	FY 2025
2021-424-106-0	Southside Flats Sewer Separation	1,676,914.98	FY 2025
2022-424-105-0	Braywood Stormwater Improvements	33,366.78	FY 2025
2023-200-102-0	Large Meter Replacement Program	15,203.91	FY 2025
2023-500-102-1	Oakridge Stormwater Separation	1,700.61	FY 2025
2024-100-104-0	Aspinwall Water Treatment Plant Plant Raw Water Intakes	7,682.41	FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	5,434.44	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	28,610.24	FY 2025
2017-323-105-5	Lanpher Reservoir Booster Disinfection Improvements - General/Mechanical	247,047.98	FY 2025
2017-323-105-9	Lanpher Reservoir Dam Permitting	14,027.39	FY 2025
2019-323-102-2	Highland No. 2 Reservoir Dam Permitting and Slope Stability	182,169.30	FY 2025
2019-GI-104-0	Martin Luther King Field Stormwater Infrastructure Improvements	3,751.37	FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	2,470.46	FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	28,820.55	FY 2025
2020-424-109-0	Saw Mill Run Watershed Improvements	100,000.00	FY 2025
2020-GI-100-0	Bus Rapid Transit (BRT) Stormwater Infrastructure Improvements	42,679.21	FY 2025
2021-322-102-0	Sludge Chamber Pump Project	440.02	FY 2025
2021-424-106-0	Southside Flats Sewer Separation	75,305.00	FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	15,725.93	FY 2025
2022-424-107-0	2022 Sewers Under Structures	1,447.34	FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	62,673.44	FY 2025
2023-200-103-0	Private Lead Service Line Reimbursement	21,245.00	FY 2025

2023-400-101-0	2023 Sewers Under Structures	65,005.64	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	1,254.54	FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	3,049.29	FY 2025
2017-323-105-6	Lanpher Reservoir Booster Disinfection Improvements - Electrical	99,942.37	FY 2025
2017-323-105-7	Lanpher Reservoir Booster Disinfection Improvements - HVAC	11,343.00	FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	8,518.24	FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	172,202.31	FY 2025
2020-424-107-0	2021 Large Diameter Sewer Rehabilitation Project	5,099.01	FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	4,903.08	FY 2025
2021-424-106-0	Southside Flats Sewer Separation	4,063.11	FY 2025
2022-424-105-0	Braywood Stormwater Improvements	1,474.96	FY 2025
2023-200-102-0	Large Meter Replacement Program	17,065.00	FY 2025
2023-500-102-1	Oakridge Stormwater Separation	3,770.23	FY 2025
2024-100-106-0	Sedimentation Basin Rehabilitation Project	62,488.52	FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	92,160.00	FY 2025
2025-DEV-100-0	Grandview Ave Townhomes	267.20	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	47,344.44	FY 2025
2017-323-105-8	Lanpher Reservoir Booster Disinfection Improvements - Plumbing	11,002.54	FY 2025
2019-323-100-1	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - General	860.53	FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	7,872.88	FY 2025
2022-424-105-0	Braywood Stormwater Improvements	91,215.70	FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	1,212.63	FY 2025
2024-500-102-0	Fowler Park Stormwater Improvements	36,655.00	FY 2025
2017-322-101-12	Lime Slurry System and Sodium Permanganate System Improvements - Plumbing	46,620.00	FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	1,349.10	FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	20,240.39	FY 2025
2020-GI-100-0	Bus Rapid Transit (BRT) Stormwater Infrastructure Improvements	10,557.58	FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	181,982.00	FY 2025
2023-100-105-0	Hydraulic Valve Replacement Program	86,599.35	FY 2025
2023-100-106-1	Water Treatment Plant Plant 84-Inch Diameter Line Rehabilitation Project	5,000.00	FY 2025
2023-200-103-0	Private Lead Service Line Reimbursement	26,144.00	FY 2025
2023-400-101-0	2023 Sewers Under Structures	17,444.84	FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	137,378.41	FY 2025
2017-322-101-13	Lime Slurry System and Sodium Permanganate System Improvements - Electrical	60,840.00	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	43,947.00	FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	139,753.18	FY 2025
2017-323-101-1	Highland Reservoir Pump Station and Rising Main - General	392,423.21	FY 2025
2017-323-101-2	Highland Reservoir Pump Station and Rising Main - Electrical	172,096.08	FY 2025
2017-323-101-3	Highland Reservoir Pump Station and Rising Main - HVAC	311,785.00	FY 2025
2017-323-105-6	Lanpher Reservoir Booster Disinfection Improvements - Electrical	33,957.76	FY 2025
2017-323-105-7	Lanpher Reservoir Booster Disinfection Improvements - HVAC	1,781.25	FY 2025
2017-323-105-8	Lanpher Reservoir Booster Disinfection Improvements - Plumbing	2,120.19	FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	5,358.84	FY 2025
2019-323-102-2	Highland No. 2 Reservoir Dam Permitting and Slope Stability	21,995.89	FY 2025
2020-424-107-0	2021 Large Diameter Sewer Rehabilitation Project	9,803.94	FY 2025

2021-322-102-0	Sludge Chamber Pump Project	3,179.93	FY 2025
2021-322-102-2	Sludge Chamber Pump Project - General/Mechanical	167,442.00	FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	704.64	FY 2025
2022-424-107-0	2022 Sewers Under Structures	5,351.18	FY 2025
2017-322-101-11	Aspinwall WTP Filter Building Sodium Hypochlorite Improvements - Electrical	12,241.71	FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	53,461.49	FY 2025
2017-424-108-0	Woods Run Stream Inflow - Mairdale Avenue	16,854.39	FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	355,832.28	FY 2025
2020-424-109-0	Saw Mill Run Watershed Improvements	400,000.00	FY 2025
2021-424-105-1	2022 Large Diameter Sewer Rehabilitation - Pipe Rehabilitation	16,308.82	FY 2025
2023-200-103-0	Private Lead Service Line Reimbursement	23,000.00	FY 2025
2017-322-101-13	Lime Slurry System and Sodium Permanganate System Improvements - Electrical	44,145.00	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	46,063.49	FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	779,707.08	FY 2025
2017-323-101-1	Highland Reservoir Pump Station and Rising Main - General	1,262,595.97	FY 2025
2017-323-101-2	Highland Reservoir Pump Station and Rising Main - Electrical	1,107,165.72	FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	3,736.39	FY 2025
2017-323-105-9	Lanpher Reservoir Dam Permitting	6,182.36	FY 2025
2019-323-100-1	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - General	70,899.27	FY 2025
2019-323-102-2	Highland No. 2 Reservoir Dam Permitting and Slope Stability	28,573.76	FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	2,555.79	FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	465.90	FY 2025
2020-424-107-0	2021 Large Diameter Sewer Rehabilitation Project	13,434.36	FY 2025
2022-424-105-0	Braywood Stormwater Improvements	41,206.33	FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	4,231.87	FY 2025
2023-100-106-1	Water Treatment Plant Plant 84-Inch Diameter Line Rehabilitation Project	102,850.17	FY 2025
2017-322-101-12	Lime Slurry System and Sodium Permanganate System Improvements - Plumbing	201,825.00	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	314,352.00	FY 2025
2021-424-106-0	Southside Flats Sewer Separation	696,409.03	FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	78,281.24	FY 2025
2022-424-105-0	Braywood Stormwater Improvements	80,455.90	FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	31,410.92	FY 2025
2023-100-105-0	Hydraulic Valve Replacement Program	24,748.40	FY 2025
2023-200-103-0	Private Lead Service Line Reimbursement	29,779.83	FY 2025
2023-600-101-0	New Headquarters and Operations Facility	48,495.39	FY 2025
2024-100-106-0	Sedimentation Basin Rehabilitation Project	61,958.27	FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	23,216.65	FY 2025
2017-323-101-4	Highland Reservoir Pump Station and Rising Main - Plumbing	38,448.45	FY 2025
2021-322-102-0	Sludge Chamber Pump Project	1,859.74	FY 2025
2021-424-106-0	Southside Flats Sewer Separation	992,056.09	FY 2025
2022-424-105-0	Braywood Stormwater Improvements	254.76	FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	7,217.00	FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	600.00	FY 2025
2023-200-103-0	Private Lead Service Line Reimbursement	13,250.00	FY 2025
2023-500-102-1	Oakridge Stormwater Separation	1,644.46	FY 2025

2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	16,015.90	FY 2025
2017-323-105-9	Lanpher Reservoir Dam Permitting	6,567.16	FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	7,363.02	FY 2025
2019-323-102-2	Highland No. 2 Reservoir Dam Permitting and Slope Stability	43,218.28	FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	32,123.03	FY 2025
2020-424-107-0	2021 Large Diameter Sewer Rehabilitation Project	17,137.22	FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	4,358.25	FY 2025
2021-424-106-0	Southside Flats Sewer Separation	2,207.63	FY 2025
2022-424-107-0	2022 Sewers Under Structures	7,915.55	FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	47,609.71	FY 2025
2024-500-105-0	Bus Rapid Transit - Phase 2	476,894.13	FY 2025
2017-322-101-13	Lime Slurry System and Sodium Permanganate System Improvements - Electrical	57,447.00	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	601,168.71	FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	521,235.00	FY 2025
2017-323-101-1	Highland Reservoir Pump Station and Rising Main - General	1,137,856.59	FY 2025
2017-323-101-3	Highland Reservoir Pump Station and Rising Main - HVAC	56,762.50	FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	3,736.39	FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	199,699.15	FY 2025
2017-323-105-7	Lanpher Reservoir Booster Disinfection Improvements - HVAC	82,911.25	FY 2025
2017-323-105-8	Lanpher Reservoir Booster Disinfection Improvements - Plumbing	18,767.26	FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	1,422.99	FY 2025
2019-323-102-2	Highland No. 2 Reservoir Dam Permitting and Slope Stability	7,782.29	FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	527.71	FY 2025
2020-323-100-1	Lincoln Pump Station: Bypass Pump Station Project - General	358,762.50	FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	8,006.88	FY 2025
2020-424-107-0	2021 Large Diameter Sewer Rehabilitation Project	127,272.08	FY 2025
2020-WS-101-0	2021 PennDOT Paving Group	8,752.19	FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	6,506.85	FY 2025
2021-424-105-1	2022 Large Diameter Sewer Rehabilitation - Pipe Rehabilitation	51,646.90	FY 2025
2022-323-101-0	Bruecken Pumps No. 4, 5, & 7 Starter Replacements	67,177.52	FY 2025
2023-100-105-0	Hydraulic Valve Replacement Program	8,016.81	FY 2025
2023-200-103-0	Private Lead Service Line Reimbursement	17,280.32	FY 2025
2023-400-101-0	2023 Sewers Under Structures	4,775.34	FY 2025
2023-600-101-0	New Headquarters and Operations Facility	42,370.61	FY 2025
2024-100-106-0	Sedimentation Basin Rehabilitation Project	259,127.35	FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	79,336.00	FY 2025
2024-500-102-0	Fowler Park Stormwater Improvements	12,709.13	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	1,254.54	FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	26,891.58	FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	3,527.89	FY 2025
2020-323-100-2	Lincoln Pump Station: Bypass Pump Station Project - Electrical	21,132.00	FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	502,817.14	FY 2025
2020-424-107-0	2021 Large Diameter Sewer Rehabilitation Project	6,232.30	FY 2025
2020-GI-100-0	Bus Rapid Transit (BRT) Stormwater Infrastructure Improvements	138,708.38	FY 2025
2021-424-105-1	2022 Large Diameter Sewer Rehabilitation - Pipe Rehabilitation	118,319.85	FY 2025

2022-323-101-0	Bruecken Pumps No. 4, 5, & 7 Starter Replacements	6,825.71	FY 2025
2022-424-105-0	Braywood Stormwater Improvements	1,677.32	FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	29,320.78	FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	708.02	FY 2025
2024-100-104-0	Aspinwall Water Treatment Plant Plant Raw Water Intakes	52,760.38	FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	527.35	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	16,349.23	FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	116,523.69	FY 2025
2017-323-101-2	Highland Reservoir Pump Station and Rising Main - Electrical	325,147.67	FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	130,378.90	FY 2025
2017-323-105-6	Lanpher Reservoir Booster Disinfection Improvements - Electrical	66,839.32	FY 2025
2017-424-108-0	Woods Run Stream Inflow - Mairdale Avenue	3,276.10	FY 2025
2020-325-109-0	2020 Large Diameter Main Replacement Program (Four Mile Run Water Main Relocation)	120.00	FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	22,499.48	FY 2025
2021-424-106-0	Southside Flats Sewer Separation	907,681.85	FY 2025
2023-400-101-0	2023 Sewers Under Structures	3,009.54	FY 2025
2023-500-102-1	Oakridge Stormwater Separation	2,652.05	FY 2025
2024-500-105-0	Bus Rapid Transit - Phase 2	192,584.91	FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	4,631.88	FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	840.66	FY 2025
2021-424-106-0	Southside Flats Sewer Separation	1,747.90	FY 2025
2022-424-107-0	2022 Sewers Under Structures	838.81	FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	2,945.97	FY 2025
2023-100-106-1	Water Treatment Plant Plant 84-Inch Diameter Line Rehabilitation Project	16,528.44	FY 2025
2023-200-103-0	Private Lead Service Line Reimbursement	38,824.17	FY 2025
2023-400-101-0	2023 Sewers Under Structures	9,282.08	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	11,659.89	FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	36,882.68	FY 2025
2017-323-105-9	Lanpher Reservoir Dam Permitting	4,145.25	FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	14,238.15	FY 2025
2019-323-102-2	Highland No. 2 Reservoir Dam Permitting and Slope Stability	86,685.54	FY 2025
2020-424-109-0	Saw Mill Run Watershed Improvements	400,000.00	FY 2025
2021-424-105-1	2022 Large Diameter Sewer Rehabilitation - Pipe Rehabilitation	56,997.45	FY 2025
2024-100-106-0	Sedimentation Basin Rehabilitation Project	224,818.18	FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	53,574.80	FY 2025
2024-500-105-0	Bus Rapid Transit - Phase 2	228,452.50	FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	2,174.59	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	42,254.97	FY 2025
2017-424-108-1	Woods Run Improvements - Mairdale Avenue	2,525.98	FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	30,595.59	FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	498,069.36	FY 2025
2017-323-105-7	Lanpher Reservoir Booster Disinfection Improvements - HVAC	712.50	FY 2025
2017-323-105-8	Lanpher Reservoir Booster Disinfection Improvements - Plumbing	3,824.69	FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	18,644.80	FY 2025
2019-GI-104-0	Martin Luther King Field Stormwater Infrastructure Improvements	305.10	FY 2025

2017-323-101-2	Highland Reservoir Pump Station and Rising Main - Electrical	252,434.00	FY 2025
2017-323-101-3	Highland Reservoir Pump Station and Rising Main - HVAC	8,550.00	FY 2025
2017-322-101-13	Lime Slurry System and Sodium Permanganate System Improvements - Electrical	46,116.00	FY 2025
2021-424-106-0	Southside Flats Sewer Separation	681,475.87	FY 2025
2017-323-101-1	Highland Reservoir Pump Station and Rising Main - General	1,175,603.87	FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	22,515.25	FY 2025
2023-100-105-0	Hydraulic Valve Replacement Program	9,590.85	FY 2025
2017-323-105-5	Lanpher Reservoir Booster Disinfection Improvements - General/Mechanical	343,230.25	FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	87,419.51	FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	22,747.96	FY 2025
2017-323-101-4	Highland Reservoir Pump Station and Rising Main - Plumbing	8,956.88	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	539,911.57	FY 2025
2021-424-105-1	2022 Large Diameter Sewer Rehabilitation - Pipe Rehabilitation	38,974.60	FY 2025
2023-200-103-0	Private Lead Service Line Reimbursement	10,800.00	FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	24,441.27	FY 2025
2023-500-102-1	Oakridge Stormwater Separation	4,951.41	FY 2025
2023-400-101-0	2023 Sewers Under Structures	4,219.08	FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	2,036.72	FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	527.35	FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	1,305.22	FY 2025
2021-424-106-0	Southside Flats Sewer Separation	68,877.61	FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	6,624.57	FY 2025
2024-500-102-0	Fowler Park Stormwater Improvements	14,494.90	FY 2025
2020-GI-100-0	Bus Rapid Transit (BRT) Stormwater Infrastructure Improvements	31,025.51	FY 2025
2020-GI-100-0	Bus Rapid Transit (BRT) Stormwater Infrastructure Improvements	35,172.74	FY 2025
2020-GI-100-0	Bus Rapid Transit (BRT) Stormwater Infrastructure Improvements	16,071.00	FY 2025
2020-GI-100-0	Bus Rapid Transit (BRT) Stormwater Infrastructure Improvements	11,976.87	FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	1,168.08	FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	9,312.60	FY 2025
2023-200-106-0	Small Meter Replacement Program	170,300.00	FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	8,001.34	FY 2025
2022-323-101-0	Bruecken Pumps No. 4, 5, & 7 Starter Replacements	2,631.39	FY 2025
2023-200-103-0	Private Lead Service Line Reimbursement	6,625.05	FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	3,447,000.00	FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	16,412.89	FY 2025
2022-323-101-0	Bruecken Pumps No. 4, 5, & 7 Starter Replacements	91,480.00	FY 2025
2023-200-106-0	Small Meter Replacement Program	120.00	FY 2025
2017-323-101-4	Highland Reservoir Pump Station and Rising Main - Plumbing	39,766.48	FY 2025
2017-322-101-12	Lime Slurry System and Sodium Permanganate System Improvements - Plumbing	58,230.00	FY 2025
2020-325-102-0	Bus Rapid Transit (BRT) Water Distribution Improvements	2,375,000.02	Prior to FY 2025
2020-323-100-1	Lincoln Pump Station: Bypass Pump Station Project - General	256,037.50	Prior to FY 2025
2020-323-101-0	Disinfection By-Products Mitigation	17,776.11	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	3,195.37	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	513.28	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	1,678.60	Prior to FY 2025

2022-325-100-0	2022 Large Meter Replacement	10,962.40	Prior to FY 2025
2020-325-102-0	Bus Rapid Transit (BRT) Water Distribution Improvements	1,013,716.57	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	8,664.21	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	2,204.37	Prior to FY 2025
2017-322-106-0	Highland Park Membrane Filtration Plant UV System	3,105.86	Prior to FY 2025
2019-323-101-0	Chlorine Booster Station Improvements	4,347.50	Prior to FY 2025
2019-323-101-0	Chlorine Booster Station Improvements	1,177.50	Prior to FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	12,627.48	Prior to FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	131,234.55	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	618.04	Prior to FY 2025
2022-424-107-0	2022 Sewers Under Structures	1,339.53	Prior to FY 2025
2022-325-105-0	2022 Small Meter Replacement	33,817.50	Prior to FY 2025
2017-322-107-0	Corrosion Control Chemical Storage & Feed Systems	11,472.12	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	39,878.74	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	3,101.13	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	4,784.01	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	7,124.80	Prior to FY 2025
2017-322-107-0	Corrosion Control Chemical Storage & Feed Systems	1,939.15	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	53,798.02	Prior to FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	134,113.14	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	6,741.63	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	6,006.25	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	6,473.30	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	13,844.06	Prior to FY 2025
2017-323-101-5	Highland Reservoir Pump Station and Rising Main - Supply and Rising Main	958,319.14	Prior to FY 2025
2022-325-105-0	2022 Small Meter Replacement	75,150.00	Prior to FY 2025
2017-323-101-5	Highland Reservoir Pump Station and Rising Main - Supply and Rising Main	102,890.14	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	160.68	Prior to FY 2025
2020-325-102-0	Bus Rapid Transit (BRT) Water Distribution Improvements	434,242.13	Prior to FY 2025
2019-323-100-2	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - Electrical	99,921.85	Prior to FY 2025
2019-323-100-2	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - Electrical	20,472.65	Prior to FY 2025
2018-GI-106-0	Thomas and McPherson Green Infrastructure	241.74	Prior to FY 2025
2013-323-175-2	Bruecken PS Valve Vault Upgrade - Electrical	3,121.31	Prior to FY 2025
2017-322-107-0	Corrosion Control Chemical Storage & Feed Systems	717.12	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	31,167.47	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	1,174.27	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	10,463.14	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	7,973.81	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	13,106.46	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	49,078.20	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	108,985.89	Prior to FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	7,806.55	Prior to FY 2025
2019-323-101-0	Chlorine Booster Station Improvements	990.42	Prior to FY 2025
2019-323-101-0	Chlorine Booster Station Improvements	19,393.52	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	724.45	Prior to FY 2025

2019-323-100-0	Herron Hill Reservoir Improvements	14,284.61	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	473,534.55	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	2,526.46	Prior to FY 2025
2022-424-105-0	Braywood Stormwater Improvements	9,453.81	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	3,028.90	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	998.74	Prior to FY 2025
2022-325-105-0	2022 Small Meter Replacement	150,300.00	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	85,101.05	Prior to FY 2025
2019-323-100-1	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - General	119,230.49	Prior to FY 2025
2017-424-104-0	Lawn and Ophelia Green Infrastructure Project	147.36	Prior to FY 2025
2017-424-104-0	Lawn and Ophelia Green Infrastructure Project	801.23	Prior to FY 2025
2022-325-105-0	2022 Small Meter Replacement	27,588.00	Prior to FY 2025
2019-323-100-1	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - General	2,234.46	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	82,841.26	Prior to FY 2025
2013-323-175-0	Bruecken Pump Station Upgrade - Consultant	1,884.32	Prior to FY 2025
2020-323-101-0	Disinfection By-Products Mitigation	28,576.32	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	81,503.18	Prior to FY 2025
2017-323-101-5	Highland Reservoir Pump Station and Rising Main - Supply and Rising Main	50.00	Prior to FY 2025
2019-GI-100-0	Southside Stormwater Infrastructure Improvements	856.30	Prior to FY 2025
2022-424-101-0	Stewart Avenue Stormwater Infrastructure Improvements	4,647.61	Prior to FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	20,218.44	Prior to FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	36,951.08	Prior to FY 2025
2017-323-101-5	Highland Reservoir Pump Station and Rising Main - Supply and Rising Main	1,147,096.56	Prior to FY 2025
2022-325-100-0	2022 Large Meter Replacement	5,481.20	Prior to FY 2025
2017-323-101-5	Highland Reservoir Pump Station and Rising Main - Supply and Rising Main	10,453.80	Prior to FY 2025
2020-GI-100-0	Bus Rapid Transit (BRT) Stormwater Infrastructure Improvements	6,618.92	Prior to FY 2025
2019-323-100-1	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - General	107,646.84	Prior to FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	24,221.77	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	6,787.02	Prior to FY 2025
2019-323-100-1	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - General	3,013.46	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	44,825.64	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	7,936.09	Prior to FY 2025
2017-322-107-0	Corrosion Control Chemical Storage & Feed Systems	1,235.05	Prior to FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	4,165.95	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	1,592.72	Prior to FY 2025
2019-323-101-0	Chlorine Booster Station Improvements	1,212.50	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	949.36	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	5,423.07	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	44,392.19	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	643.37	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	27,222.40	Prior to FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	59,970.41	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	11,411.88	Prior to FY 2025
2020-323-101-0	Disinfection By-Products Mitigation	4,458.76	Prior to FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	16,685.40	Prior to FY 2025

2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	18,886.87	Prior to FY 2025
2019-GI-100-0	Southside Stormwater Infrastructure Improvements	21,768.95	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	10,815.00	Prior to FY 2025
2017-424-108-0	Woods Run Stream Inflow - Mairdale Avenue	12,616.36	Prior to FY 2025
2018-GI-106-0	Thomas and McPherson Green Infrastructure	5,483.10	Prior to FY 2025
2021-325-102-0	2021 Regulator Valve and Vault Replacement Program	7,250.30	Prior to FY 2025
2022-322-100-0	Aspinwall WTP Chemical Unloading Area Improvements and Underground Storage Tank Removal and Replacement	2,192.78	Prior to FY 2025
2022-325-105-0	2022 Small Meter Replacement	91,125.00	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	9,656.64	Prior to FY 2025
2022-325-105-0	2022 Small Meter Replacement	60,120.00	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	3,162.42	Prior to FY 2025
2022-424-101-0	Stewart Avenue Stormwater Infrastructure Improvements	64,031.74	Prior to FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	6,808.54	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	9,306.28	Prior to FY 2025
2022-424-105-0	Braywood Stormwater Improvements	4,857.41	Prior to FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	4,335.75	Prior to FY 2025
2022-424-103-0	Dragoon Way Stormwater Improvements	108.00	Prior to FY 2025
2023-100-111-0	Water Treatment Plant Chemical Builder Storage Tank Improvements	3,244.98	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	8,582.79	Prior to FY 2025
2013-323-175-1	Bruecken PS Valve Vault Upgrade - General	80,211.27	Prior to FY 2025
2023-100-111-0	Water Treatment Plant Chemical Builder Storage Tank Improvements	1,087.93	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	21,318.00	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	435.04	Prior to FY 2025
2020-323-100-2	Lincoln Pump Station: Bypass Pump Station Project - Electrical	28,350.00	Prior to FY 2025
2017-322-101-9	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - HVAC	81,464.49	Prior to FY 2025
2017-322-107-0	Corrosion Control Chemical Storage & Feed Systems	215.13	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	25,387.01	Prior to FY 2025
2019-GI-100-0	Southside Stormwater Infrastructure Improvements	3,800.00	Prior to FY 2025
2019-GI-100-0	Southside Stormwater Infrastructure Improvements	6,332.94	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	16,180.50	Prior to FY 2025
2017-323-101-5	Highland Reservoir Pump Station and Rising Main - Supply and Rising Main	61,815.98	Prior to FY 2025
2023-DEV-105-0	3205 Penn Ave	3,137.84	Prior to FY 2025
2022-322-100-0	Aspinwall WTP Chemical Unloading Area Improvements and Underground Storage Tank Removal and Replacement	7,354.95	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	4,349.16	Prior to FY 2025
2020-325-102-0	Bus Rapid Transit (BRT) Water Distribution Improvements	73,241.55	Prior to FY 2025
2022-322-100-0	Aspinwall WTP Chemical Unloading Area Improvements and Underground Storage Tank Removal and Replacement	16,883.86	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	3,535.92	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	416.04	Prior to FY 2025
2019-323-100-1	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - General	3,053.82	Prior to FY 2025
2018-GI-108-0	Woodland Drive Green Infrastructure	250,406.73	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	2,007.87	Prior to FY 2025
2019-GI-100-0	Southside Stormwater Infrastructure Improvements	248.43	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	307.88	Prior to FY 2025
2022-325-103-0	2022 Intermediate Meters	29,002.09	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	504.00	Prior to FY 2025

2023-200-102-0	Large Meter Replacement Program	9,752.00	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	1,860.00	Prior to FY 2025
2020-325-102-0	Bus Rapid Transit (BRT) Water Distribution Improvements	12,979.87	Prior to FY 2025
2013-323-175-0	Bruecken Pump Station Upgrade - Consultant	9,911.84	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	493.75	Prior to FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	10,054.84	Prior to FY 2025
2020-325-102-0	Bus Rapid Transit (BRT) Water Distribution Improvements	193,633.38	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	4,033.48	Prior to FY 2025
2020-325-102-0	Bus Rapid Transit (BRT) Water Distribution Improvements	5,543.09	Prior to FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	2,973.55	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	611.99	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	418.46	Prior to FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	4,129.47	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	949.36	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	1,428.04	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	12,639.18	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	1,037.50	Prior to FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	5,694.48	Prior to FY 2025
2023-DEV-105-0	3205 Penn Ave	110.88	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	7,918.84	Prior to FY 2025
2017-424-105-1	Wightman Park Phase 2 Project	43,000.00	Prior to FY 2025
2023-200-102-0	Large Meter Replacement Program	2,325.00	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	38,685.00	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	69,890.90	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	10,390.53	Prior to FY 2025
2019-323-101-0	Chlorine Booster Station Improvements	700.00	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	45,024.42	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	16,908.81	Prior to FY 2025
2022-424-105-0	Braywood Stormwater Improvements	103,406.22	Prior to FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	8,706.92	Prior to FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	74,580.33	Prior to FY 2025
2023-400-101-0	2023 Sewers Under Structures	6,556.90	Prior to FY 2025
2019-GI-100-0	Southside Stormwater Infrastructure Improvements	10,300.50	Prior to FY 2025
2022-424-107-0	2022 Sewers Under Structures	8,961.10	Prior to FY 2025
2022-424-107-0	2022 Sewers Under Structures	27,392.84	Prior to FY 2025
2017-323-101-5	Highland Reservoir Pump Station and Rising Main - Supply and Rising Main	24,173.19	Prior to FY 2025
2020-323-100-2	Lincoln Pump Station: Bypass Pump Station Project - Electrical	31,806.00	Prior to FY 2025
2020-325-102-0	Bus Rapid Transit (BRT) Water Distribution Improvements	25,054.08	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	4,448.22	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	48,921.09	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	12,314.53	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	1,329.11	Prior to FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	3,736.07	Prior to FY 2025
2019-323-101-0	Chlorine Booster Station Improvements	1,512.50	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	9,496.00	Prior to FY 2025

2022-424-105-0	Braywood Stormwater Improvements	8,668.79	Prior to FY 2025
2017-322-106-0	Highland Park Membrane Filtration Plant UV System	5,590.09	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	1,301.98	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	1,733.19	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	68,357.12	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	41,997.65	Prior to FY 2025
2022-424-105-0	Braywood Stormwater Improvements	1,221.48	Prior to FY 2025
2022-322-100-0	Aspinwall WTP Chemical Unloading Area Improvements and Underground Storage Tank Removal and Replacement	19,277.63	Prior to FY 2025
2017-323-101-2	Highland Reservoir Pump Station and Rising Main - Electrical	258,840.00	Prior to FY 2025
2017-323-101-1	Highland Reservoir Pump Station and Rising Main - General	1,298,832.43	Prior to FY 2025
2020-325-109-0	2020 Large Diameter Main Replacement Program (Four Mile Run Water Main Relocation)	174.00	Prior to FY 2025
2023-200-102-0	Large Meter Replacement Program	3,320.00	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	1,304.00	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	1,467.81	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	2,319.18	Prior to FY 2025
2020-325-102-0	Bus Rapid Transit (BRT) Water Distribution Improvements	12,553.11	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	3,730.75	Prior to FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	6,970.45	Prior to FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	45,491.04	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	309,248.75	Prior to FY 2025
2023-200-102-0	Large Meter Replacement Program	2,857.36	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	70,443.14	Prior to FY 2025
2017-323-101-5	Highland Reservoir Pump Station and Rising Main - Supply and Rising Main	6,325.27	Prior to FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	352.20	Prior to FY 2025
2023-200-102-0	Large Meter Replacement Program	13,980.00	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	10,601.24	Prior to FY 2025
2019-323-101-0	Chlorine Booster Station Improvements	437.50	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	4,315.36	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	1,064.39	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	11,543.54	Prior to FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	1,312.81	Prior to FY 2025
2022-424-107-0	2022 Sewers Under Structures	1,876.74	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	5,123.78	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	82,670.00	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	82,670.00	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	16,180.50	Prior to FY 2025
2017-323-101-2	Highland Reservoir Pump Station and Rising Main - Electrical	57,780.00	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	13,013.58	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	6,369.95	Prior to FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	9,638.94	Prior to FY 2025
2023-400-101-0	2023 Sewers Under Structures	12,781.06	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	28,309.44	Prior to FY 2025
2022-424-103-0	Dragoon Way Stormwater Improvements	847.95	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	45,787.65	Prior to FY 2025
2017-424-108-0	Woods Run Stream Inflow - Mairdale Avenue	6,442.19	Prior to FY 2025

2023-200-106-0	Small Meter Replacement Program	42,636.00	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	16,180.50	Prior to FY 2025
2013-323-175-0	Bruecken Pump Station Upgrade - Consultant	229.10	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	4,621.32	Prior to FY 2025
2022-424-103-0	Dragoon Way Stormwater Improvements	2,602.89	Prior to FY 2025
2022-424-105-0	Braywood Stormwater Improvements	84.24	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	1,694.95	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	7,492.49	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	1,754.37	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	5,878.71	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	1,832.91	Prior to FY 2025
2017-322-106-0	Highland Park Membrane Filtration Plant UV System	5,152.34	Prior to FY 2025
2023-100-111-0	Water Treatment Plant Chemical Builder Storage Tank Improvements	5,000.00	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	9,145.00	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	8,897.42	Prior to FY 2025
2017-424-108-0	Woods Run Stream Inflow - Mairdale Avenue	6,917.36	Prior to FY 2025
2019-GI-104-0	Martin Luther King Field Stormwater Infrastructure Improvements	324.00	Prior to FY 2025
2017-322-101-11	Aspinwall WTP Filter Building Sodium Hypochlorite Improvements - Electrical	173,514.65	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	3,400.00	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	3,400.00	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	176,688.00	Prior to FY 2025
2023-100-111-0	Water Treatment Plant Chemical Builder Storage Tank Improvements	124,503.40	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	3,732.75	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	5,845.96	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	11,099.90	Prior to FY 2025
2020-GI-100-0	Bus Rapid Transit (BRT) Stormwater Infrastructure Improvements	24,177.36	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	8,568.00	Prior to FY 2025
2022-325-101-0	Water and Wastewater Safety and Security Improvements	9,150.00	Prior to FY 2025
2017-322-107-0	Corrosion Control Chemical Storage & Feed Systems	3,597.32	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	29,741.73	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	14,886.12	Prior to FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	7,428.49	Prior to FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	86,514.13	Prior to FY 2025
2022-424-107-0	2022 Sewers Under Structures	4,397.42	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	5,385.05	Prior to FY 2025
2017-323-101-5	Highland Reservoir Pump Station and Rising Main - Supply and Rising Main	302,926.57	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	81,689.62	Prior to FY 2025
2017-323-101-2	Highland Reservoir Pump Station and Rising Main - Electrical	14,580.00	Prior to FY 2025
2017-323-101-4	Highland Reservoir Pump Station and Rising Main - Plumbing	13,320.00	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	3,419.99	Prior to FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	3,187.67	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	7,164.07	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	3,127.50	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	82,141.38	Prior to FY 2025
2017-424-105-0	Wightman Park GI Project	10,594.26	Prior to FY 2025

2019-323-100-0	Herron Hill Reservoir Improvements	2,763.80	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	596,144.39	Prior to FY 2025
2017-323-101-1	Highland Reservoir Pump Station and Rising Main - General	640,799.83	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	1,079.37	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	11,762.63	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	440,792.10	Prior to FY 2025
2019-323-100-1	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - General	7,912.47	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	7,844.23	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	432.24	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	20,614.94	Prior to FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	6,678.48	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	20,229.99	Prior to FY 2025
2022-424-103-0	Dragoon Way Stormwater Improvements	7,303.20	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	18,463.46	Prior to FY 2025
2017-323-101-3	Highland Reservoir Pump Station and Rising Main - HVAC	26,100.00	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	3,307.30	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	6,631.52	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	5,791.47	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	6,588.72	Prior to FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	2,639.28	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	316.08	Prior to FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	8,116.37	Prior to FY 2025
2022-424-105-0	Braywood Stormwater Improvements	1,079.78	Prior to FY 2025
2017-323-101-5	Highland Reservoir Pump Station and Rising Main - Supply and Rising Main	19,583.34	Prior to FY 2025
2022-322-100-0	Aspinwall WTP Chemical Unloading Area Improvements and Underground Storage Tank Removal and Replacement	726.93	Prior to FY 2025
2017-323-101-4	Highland Reservoir Pump Station and Rising Main - Plumbing	4,050.00	Prior to FY 2025
2017-424-105-1	Wightman Park Phase 2 Project	27,000.00	Prior to FY 2025
2017-424-105-1	Wightman Park Phase 2 Project	18,000.00	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	2,351.00	Prior to FY 2025
2018-GI-106-0	Thomas and McPherson Green Infrastructure	25,608.63	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	2,481.60	Prior to FY 2025
2020-323-100-1	Lincoln Pump Station: Bypass Pump Station Project - General	337,500.00	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	15,567.99	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	12,903.67	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	3,735.40	Prior to FY 2025
2023-500-102-1	Oakridge Stormwater Separation	17,585.22	Prior to FY 2025
2023-500-102-1	Oakridge Stormwater Separation	2,796.33	Prior to FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	6,039.84	Prior to FY 2025
2022-424-107-0	2022 Sewers Under Structures	21,351.68	Prior to FY 2025
2017-424-108-0	Woods Run Stream Inflow - Mairdale Avenue	4,486.61	Prior to FY 2025
2022-325-103-0	2022 Intermediate Meters	77,487.50	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	5,426.26	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	4,385.29	Prior to FY 2025
2022-322-100-0	Aspinwall WTP Chemical Unloading Area Improvements and Underground Storage Tank Removal and Replacement	3,890.92	Prior to FY 2025
2017-424-105-1	Wightman Park Phase 2 Project	22,000.00	Prior to FY 2025

2019-323-100-2	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - Electrical	36,362.72	Prior to FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	15,023.78	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	15,393.73	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	84,753.39	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	43,327.22	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	27,592.41	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	11,122.80	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	3,871.11	Prior to FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	15,249.82	Prior to FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	50.00	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	20,542.81	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	9,897.75	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	292,671.06	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	5,199.46	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	7,619.38	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	67,401.65	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	356,804.55	Prior to FY 2025
2021-322-102-2	Sludge Chamber Pump Project - General/Mechanical	235,125.00	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	19,194.60	Prior to FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	10,838.95	Prior to FY 2025
2017-323-105-9	Lanpher Reservoir Dam Permitting	7,511.18	Prior to FY 2025
2023-200-102-0	Large Meter Replacement Program	29,636.80	Prior to FY 2025
2017-323-101-5	Highland Reservoir Pump Station and Rising Main - Supply and Rising Main	3,040.31	Prior to FY 2025
2017-323-101-2	Highland Reservoir Pump Station and Rising Main - Electrical	307,080.00	Prior to FY 2025
2017-323-101-1	Highland Reservoir Pump Station and Rising Main - General	800,576.14	Prior to FY 2025
2017-323-101-4	Highland Reservoir Pump Station and Rising Main - Plumbing	59,454.00	Prior to FY 2025
2023-200-102-0	Large Meter Replacement Program	62,910.00	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	2,774.40	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	1,433.80	Prior to FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	53,946.81	Prior to FY 2025
2022-424-103-0	Dragoon Way Stormwater Improvements	214,324.20	Prior to FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	10,259.92	Prior to FY 2025
2019-GI-100-0	Southside Stormwater Infrastructure Improvements	50,058.07	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	21,463.45	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	7,384.98	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	15,376.00	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	5,387.69	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	38,114.04	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	36,117.73	Prior to FY 2025
2023-DEV-109-0	3701 Fifth Ave	7,688.56	Prior to FY 2025
2019-GI-104-0	Martin Luther King Field Stormwater Infrastructure Improvements	108.00	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	323,032.50	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	2,351.00	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	2,218.17	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	5,609.24	Prior to FY 2025

2019-424-103-2	Queenston Sewer Improvements	4,370.67	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	113,466.63	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	6,849.93	Prior to FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	66,600.12	Prior to FY 2025
2017-323-105-7	Lanpher Reservoir Booster Disinfection Improvements - HVAC	16,515.00	Prior to FY 2025
2017-323-105-8	Lanpher Reservoir Booster Disinfection Improvements - Plumbing	13,059.00	Prior to FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	1,380.93	Prior to FY 2025
2019-323-102-2	Highland No. 2 Reservoir Dam Permitting and Slope Stability	77,297.58	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	2,600.61	Prior to FY 2025
2017-323-101-5	Highland Reservoir Pump Station and Rising Main - Supply and Rising Main	305,367.41	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	148,473.29	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	5,041.21	Prior to FY 2025
2017-323-101-2	Highland Reservoir Pump Station and Rising Main - Electrical	85,210.96	Prior to FY 2025
2019-323-100-1	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - General	2,843.81	Prior to FY 2025
2019-323-100-1	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - General	923.85	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	32,883.78	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	2,888.87	Prior to FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	2,490.71	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	3,187.67	Prior to FY 2025
2019-323-101-0	Chlorine Booster Station Improvements	350.00	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	399.83	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	17,769.05	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	13,182.00	Prior to FY 2025
2023-500-102-1	Oakridge Stormwater Separation	11,548.34	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	2,740.45	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	2,429.64	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	8,469.92	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	308,427.28	Prior to FY 2025
2017-323-101-1	Highland Reservoir Pump Station and Rising Main - General	849,840.48	Prior to FY 2025
2023-600-101-0	New Headquarters and Operations Facility	11,712.30	Prior to FY 2025
2023-600-101-0	New Headquarters and Operations Facility	71,759.15	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	530.00	Prior to FY 2025
2021-322-102-2	Sludge Chamber Pump Project - General/Mechanical	73,350.00	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	147,080.25	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	8,138.05	Prior to FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	2,882.62	Prior to FY 2025
2023-400-101-0	2023 Sewers Under Structures	23,415.84	Prior to FY 2025
2023-400-101-0	2023 Sewers Under Structures	25,960.78	Prior to FY 2025
2023-400-101-0	2023 Sewers Under Structures	39,563.27	Prior to FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	4,026.53	Prior to FY 2025
2019-323-102-2	Highland No. 2 Reservoir Dam Permitting and Slope Stability	10,923.55	Prior to FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	3,139.35	Prior to FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	22,131.37	Prior to FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	7,283.28	Prior to FY 2025
2022-325-103-0	2022 Intermediate Meters	48,612.00	Prior to FY 2025

2017-323-101-0	Highland Reservoir Pump Station and Rising Main	152,930.02	Prior to FY 2025
2017-323-101-5	Highland Reservoir Pump Station and Rising Main - Supply and Rising Main	8,379.48	Prior to FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	269.86	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	54,282.59	Prior to FY 2025
2020-325-102-0	Bus Rapid Transit (BRT) Water Distribution Improvements	769.47	Prior to FY 2025
2022-424-107-0	2022 Sewers Under Structures	1,624.88	Prior to FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	17,401.65	Prior to FY 2025
2022-424-103-0	Dragoon Way Stormwater Improvements	360,432.00	Prior to FY 2025
2017-323-105-9	Lanpher Reservoir Dam Permitting	3,348.40	Prior to FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	12,446.66	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	9,404.70	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	432.24	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	17,462.13	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	2,703.94	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	21,919.64	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	7,722.24	Prior to FY 2025
2017-424-105-1	Wightman Park Phase 2 Project	16,741.00	Prior to FY 2025
2020-325-102-0	Bus Rapid Transit (BRT) Water Distribution Improvements	100.74	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	652.00	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	2,933.91	Prior to FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	2,490.71	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	6,172.67	Prior to FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	18,083.16	Prior to FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	58,702.70	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	6,966.67	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	29,939.95	Prior to FY 2025
2017-323-101-5	Highland Reservoir Pump Station and Rising Main - Supply and Rising Main	254,128.00	Prior to FY 2025
2017-323-101-4	Highland Reservoir Pump Station and Rising Main - Plumbing	78,021.00	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	5,708.05	Prior to FY 2025
2020-323-100-1	Lincoln Pump Station: Bypass Pump Station Project - General	461,250.00	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	20,760.57	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	32,156.09	Prior to FY 2025
2017-424-108-0	Woods Run Stream Inflow - Mairdale Avenue	11,967.76	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	402,501.49	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	31,462.92	Prior to FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	22,262.31	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	265,448.25	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	15,414.85	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	1,790.46	Prior to FY 2025
2023-100-111-0	Water Treatment Plant Chemical Builder Storage Tank Improvements	44,760.60	Prior to FY 2025
2019-GI-104-0	Martin Luther King Field Stormwater Infrastructure Improvements	20,159.75	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	438,211.39	Prior to FY 2025
2017-323-105-9	Lanpher Reservoir Dam Permitting	25,102.11	Prior to FY 2025
2022-424-107-0	2022 Sewers Under Structures	2,917.54	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	2,128.44	Prior to FY 2025

2017-323-105-0	Lanpher Reservoir Improvements	53,082.00	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	5,191.75	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	1,565.73	Prior to FY 2025
2021-322-102-3	Sludge Chamber Pump Project - Electric	44,604.00	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	80,871.63	Prior to FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	2,755.44	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	2,987.76	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	16,270.44	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	408.54	Prior to FY 2025
2022-424-103-0	Dragoon Way Stormwater Improvements	376,908.30	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	7,079.30	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	9,462.37	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	17,101.08	Prior to FY 2025
2017-424-108-0	Woods Run Stream Inflow - Mairdale Avenue	6,995.33	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	62,653.00	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	41,335.00	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	28,596.89	Prior to FY 2025
2017-322-101-14	Aspinwall Water Treatment Plant Plant Sodium Hypochlorite Improvements - Fire Suppression	16,275.00	Prior to FY 2025
2017-322-101-14	Aspinwall Water Treatment Plant Plant Sodium Hypochlorite Improvements - Fire Suppression	61,600.00	Prior to FY 2025
2017-322-101-14	Aspinwall Water Treatment Plant Plant Sodium Hypochlorite Improvements - Fire Suppression	13,600.00	Prior to FY 2025
2017-323-101-2	Highland Reservoir Pump Station and Rising Main - Electrical	57,616.97	Prior to FY 2025
2017-323-101-1	Highland Reservoir Pump Station and Rising Main - General	1,300,119.20	Prior to FY 2025
2017-323-101-4	Highland Reservoir Pump Station and Rising Main - Plumbing	12,276.00	Prior to FY 2025
2023-200-102-0	Large Meter Replacement Program	5,568.00	Prior to FY 2025
2021-322-102-3	Sludge Chamber Pump Project - Electric	80,190.00	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	2,445.12	Prior to FY 2025
2020-325-102-0	Bus Rapid Transit (BRT) Water Distribution Improvements	2,114.13	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	8,343.38	Prior to FY 2025
2021-325-100-0	Intermediate Meter Replacement Program	26,658.50	Prior to FY 2025
2021-325-100-0	Intermediate Meter Replacement Program	33,995.00	Prior to FY 2025
2017-323-101-2	Highland Reservoir Pump Station and Rising Main - Electrical	227,025.00	Prior to FY 2025
2022-323-101-0	Bruecken Pumps No. 4, 5, & 7 Starter Replacements	17,573.63	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	48,939.75	Prior to FY 2025
2019-323-101-0	Chlorine Booster Station Improvements	5,867.50	Prior to FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	1,860.00	Prior to FY 2025
2022-424-107-0	2022 Sewers Under Structures	10,211.05	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	17,379.21	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	138,680.60	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	21,318.00	Prior to FY 2025
2021-325-100-0	Intermediate Meter Replacement Program	26,658.50	Prior to FY 2025
2019-GI-104-0	Martin Luther King Field Stormwater Infrastructure Improvements	118.80	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	2,691.32	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	431,627.14	Prior to FY 2025
2017-323-101-1	Highland Reservoir Pump Station and Rising Main - General	1,364,029.68	Prior to FY 2025
2017-323-104-1	Aspinwall Pump Station Concrete Floor Repairs	271,616.72	Prior to FY 2025

2024-200-100-0	2024 Large Diameter Water Main Replacement	24,012.55	Prior to FY 2025
2023-100-111-0	Water Treatment Plant Chemical Builder Storage Tank Improvements	6,500.00	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	4,801.97	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	3,882.49	Prior to FY 2025
2019-323-100-1	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - General	1,343.76	Prior to FY 2025
2019-323-100-1	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - General	587.91	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	6,294.82	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	30,703.37	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	25,559.59	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	396.53	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	5,404.04	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	1,540.98	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	11,045.21	Prior to FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	3,401.20	Prior to FY 2025
2023-500-102-1	Oakridge Stormwater Separation	25,198.35	Prior to FY 2025
2023-500-102-1	Oakridge Stormwater Separation	10,154.35	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	14,520.79	Prior to FY 2025
2017-323-101-5	Highland Reservoir Pump Station and Rising Main - Supply and Rising Main	249,172.85	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	41,335.00	Prior to FY 2025
2022-424-103-0	Dragoon Way Stormwater Improvements	20,536.56	Prior to FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	32,162.10	Prior to FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	42,799.81	Prior to FY 2025
2022-322-100-0	Aspinwall WTP Chemical Unloading Area Improvements and Underground Storage Tank Removal and Replacement	315.29	Prior to FY 2025
2022-322-100-0	Aspinwall WTP Chemical Unloading Area Improvements and Underground Storage Tank Removal and Replacement	1,821.77	Prior to FY 2025
2017-322-101-11	Aspinwall WTP Filter Building Sodium Hypochlorite Improvements - Electrical	27,824.23	Prior to FY 2025
2017-424-105-1	Wightman Park Phase 2 Project	45,034.00	Prior to FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	165,683.12	Prior to FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	123,102.83	Prior to FY 2025
2017-424-105-1	Wightman Park Phase 2 Project	1,375.00	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	315.00	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	4,160.00	Prior to FY 2025
2023-200-102-0	Large Meter Replacement Program	5,050.00	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	75,062.12	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	1,361.52	Prior to FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	3,768.47	Prior to FY 2025
2019-323-101-0	Chlorine Booster Station Improvements	10,370.00	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	7,929.76	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	8,735.50	Prior to FY 2025
2023-100-105-0	Hydraulic Valve Replacement Program	24,378.96	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	167,728.81	Prior to FY 2025
2022-424-105-0	Braywood Stormwater Improvements	1,778.45	Prior to FY 2025
2022-424-105-0	Braywood Stormwater Improvements	2,443.81	Prior to FY 2025
2017-323-105-9	Lanpher Reservoir Dam Permitting	30,258.67	Prior to FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	20,127.83	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	16,180.50	Prior to FY 2025

2023-200-106-0	Small Meter Replacement Program	16,180.50	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	134,971.32	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	157,389.54	Prior to FY 2025
2022-424-103-0	Dragoon Way Stormwater Improvements	39,361.54	Prior to FY 2025
2022-424-103-0	Dragoon Way Stormwater Improvements	15,875.52	Prior to FY 2025
2020-GI-100-0	Bus Rapid Transit (BRT) Stormwater Infrastructure Improvements	28,429.55	Prior to FY 2025
2020-GI-100-0	Bus Rapid Transit (BRT) Stormwater Infrastructure Improvements	34,093.15	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	1,970.73	Prior to FY 2025
2022-322-100-0	Aspinwall WTP Chemical Unloading Area Improvements and Underground Storage Tank Removal and Replacement	22,250.00	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	434,063.45	Prior to FY 2025
2022-325-102-1	Interconnection Vault Stormwater Removal - Electrical	16,367.06	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	2,290.20	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	6,434.64	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	24,888.60	Prior to FY 2025
2022-323-101-0	Bruecken Pumps No. 4, 5, & 7 Starter Replacements	657,200.00	Prior to FY 2025
2023-DEV-104-0	Fairywood	609.21	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	38,013.13	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	7,341.73	Prior to FY 2025
2023-400-101-0	2023 Sewers Under Structures	5,944.25	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	4,437.93	Prior to FY 2025
2022-424-105-0	Braywood Stormwater Improvements	1,027.50	Prior to FY 2025
2023-500-102-1	Oakridge Stormwater Separation	12,985.43	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	10,884.57	Prior to FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	25,437.92	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	18,564.05	Prior to FY 2025
2017-424-108-0	Woods Run Stream Inflow - Mairdale Avenue	3,106.75	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	91,820.08	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	41,335.00	Prior to FY 2025
2022-424-105-0	Braywood Stormwater Improvements	3,287.46	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	30,048.91	Prior to FY 2025
2017-322-101-14	Aspinwall Water Treatment Plant Plant Sodium Hypochlorite Improvements - Fire Suppression	5,425.00	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	275,464.19	Prior to FY 2025
2023-200-102-0	Large Meter Replacement Program	6,975.00	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	57,307.50	Prior to FY 2025
2021-322-102-3	Sludge Chamber Pump Project - Electric	46,440.00	Prior to FY 2025
2019-323-100-1	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - General	1,259.79	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	3,556.54	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	921.54	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	1,361.46	Prior to FY 2025
2023-400-101-0	2023 Sewers Under Structures	10,446.20	Prior to FY 2025
2017-323-105-9	Lanpher Reservoir Dam Permitting	18,128.42	Prior to FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	27,041.05	Prior to FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	61,739.18	Prior to FY 2025
2019-323-102-2	Highland No. 2 Reservoir Dam Permitting and Slope Stability	12,518.26	Prior to FY 2025
2019-323-102-2	Highland No. 2 Reservoir Dam Permitting and Slope Stability	16,190.27	Prior to FY 2025

2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	4,033.73	Prior to FY 2025
2023-100-111-0	Water Treatment Plant Chemical Builder Storage Tank Improvements	50.00	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	41,335.00	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	3,319.89	Prior to FY 2025
2021-322-102-2	Sludge Chamber Pump Project - General/Mechanical	74,700.00	Prior to FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	6,158.57	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	19,399.21	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	8,881.97	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	28,915.86	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	1,992.92	Prior to FY 2025
2023-100-105-0	Hydraulic Valve Replacement Program	59,177.05	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	500.00	Prior to FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	180.21	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	9,619.60	Prior to FY 2025
2022-424-107-0	2022 Sewers Under Structures	3,949.61	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	42,714.80	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	3,673.59	Prior to FY 2025
2022-322-100-0	Aspinwall WTP Chemical Unloading Area Improvements and Underground Storage Tank Removal and Replacement	2,801.60	Prior to FY 2025
2017-323-101-2	Highland Reservoir Pump Station and Rising Main - Electrical	29,970.00	Prior to FY 2025
2017-323-101-1	Highland Reservoir Pump Station and Rising Main - General	940,277.18	Prior to FY 2025
2017-323-101-4	Highland Reservoir Pump Station and Rising Main - Plumbing	12,276.00	Prior to FY 2025
2023-200-102-0	Large Meter Replacement Program	5,050.00	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	231,724.30	Prior to FY 2025
2017-323-105-6	Lanpher Reservoir Booster Disinfection Improvements - Electrical	104,469.75	Prior to FY 2025
2017-323-101-3	Highland Reservoir Pump Station and Rising Main - HVAC	5,850.00	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	3,847.62	Prior to FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	5,006.53	Prior to FY 2025
2023-400-101-0	2023 Sewers Under Structures	12,865.22	Prior to FY 2025
2022-424-105-0	Braywood Stormwater Improvements	15,916.54	Prior to FY 2025
2023-500-102-1	Oakridge Stormwater Separation	25,658.72	Prior to FY 2025
2019-323-102-2	Highland No. 2 Reservoir Dam Permitting and Slope Stability	33,012.92	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	5,571.26	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	47,480.05	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	93,457.00	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	14,212.00	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	163,328.23	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	6,650.25	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	40,768.90	Prior to FY 2025
2017-323-101-4	Highland Reservoir Pump Station and Rising Main - Plumbing	8,809.20	Prior to FY 2025
2017-323-104-1	Aspinwall Pump Station Concrete Floor Repairs	123,033.82	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	27,616.19	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	827.64	Prior to FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	25,997.31	Prior to FY 2025
2022-424-103-0	Dragoon Way Stormwater Improvements	448,452.00	Prior to FY 2025
2017-323-105-7	Lanpher Reservoir Booster Disinfection Improvements - HVAC	29,925.00	Prior to FY 2025

2020-424-104-1	2020 Sewers Under Structures Contract 2	2,867.41	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	41,335.00	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	42,575.00	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	16,666.50	Prior to FY 2025
2022-322-100-0	Aspinwall WTP Chemical Unloading Area Improvements and Underground Storage Tank Removal and Replacement	650.51	Prior to FY 2025
2017-323-101-2	Highland Reservoir Pump Station and Rising Main - Electrical	191,147.89	Prior to FY 2025
2023-600-101-0	New Headquarters and Operations Facility	20,739.50	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	360,658.50	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	3,253.75	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	1,054.08	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	6,292.85	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	8,948.64	Prior to FY 2025
2022-323-101-0	Bruecken Pumps No. 4, 5, & 7 Starter Replacements	168,000.00	Prior to FY 2025
2021-322-102-3	Sludge Chamber Pump Project - Electric	28,800.00	Prior to FY 2025
2017-322-101-9	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - HVAC	16,243.78	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	6,744.35	Prior to FY 2025
2019-GI-100-0	Southside Stormwater Infrastructure Improvements	12,538.75	Prior to FY 2025
2022-424-107-0	2022 Sewers Under Structures	19,490.79	Prior to FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	6,937.06	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	46,093.49	Prior to FY 2025
2021-325-100-0	Intermediate Meter Replacement Program	6,900.00	Prior to FY 2025
2021-325-100-0	Intermediate Meter Replacement Program	79,539.20	Prior to FY 2025
2021-325-100-0	Intermediate Meter Replacement Program	73,075.50	Prior to FY 2025
2021-325-100-0	Intermediate Meter Replacement Program	8,775.00	Prior to FY 2025
2021-325-100-0	Intermediate Meter Replacement Program	13,670.80	Prior to FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	33,543.06	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	1,188.00	Prior to FY 2025
2022-424-105-0	Braywood Stormwater Improvements	4,079.40	Prior to FY 2025
2017-323-101-1	Highland Reservoir Pump Station and Rising Main - General	929,578.01	Prior to FY 2025
2017-323-101-4	Highland Reservoir Pump Station and Rising Main - Plumbing	27,855.00	Prior to FY 2025
2017-323-105-5	Lanpher Reservoir Booster Disinfection Improvements - General/Mechanical	822,690.00	Prior to FY 2025
2022-325-102-1	Interconnection Vault Stormwater Removal - Electrical	12,156.86	Prior to FY 2025
2022-325-102-1	Interconnection Vault Stormwater Removal - Electrical	63,984.34	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	212,755.28	Prior to FY 2025
2020-323-100-2	Lincoln Pump Station: Bypass Pump Station Project - Electrical	71,077.50	Prior to FY 2025
2019-323-100-3	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - HVAC	24,864.48	Prior to FY 2025
2023-100-111-0	Water Treatment Plant Chemical Builder Storage Tank Improvements	40,728.10	Prior to FY 2025
2023-100-111-0	Water Treatment Plant Chemical Builder Storage Tank Improvements	4,550.00	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	7,415.17	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	9,142.77	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	18,545.82	Prior to FY 2025
2019-323-100-1	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - General	335.97	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	23,637.04	Prior to FY 2025
2017-323-105-8	Lanpher Reservoir Booster Disinfection Improvements - Plumbing	55,630.80	Prior to FY 2025
2020-424-104-0	2020 Sewers Under Structures Contract 1	345.55	Prior to FY 2025

2017-323-105-9	Lanpher Reservoir Dam Permitting	10,934.92	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	7,343.68	Prior to FY 2025
2022-424-103-0	Dragoon Way Stormwater Improvements	5,694.15	Prior to FY 2025
2017-323-104-1	Aspinwall Pump Station Concrete Floor Repairs	161,677.44	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	130,963.60	Prior to FY 2025
2023-100-111-0	Water Treatment Plant Chemical Builder Storage Tank Improvements	38,599.50	Prior to FY 2025
2024-DEV-104-0	4612 Forbes Ave	10,725.45	Prior to FY 2025
2022-323-101-0	Bruecken Pumps No. 4, 5, & 7 Starter Replacements	1,607.45	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	519.34	Prior to FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	2,261.74	Prior to FY 2025
2019-323-101-0	Chlorine Booster Station Improvements	35,086.40	Prior to FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	3,711.63	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	921.54	Prior to FY 2025
2023-100-105-0	Hydraulic Valve Replacement Program	43,100.62	Prior to FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	9,272.82	Prior to FY 2025
2022-424-103-0	Dragoon Way Stormwater Improvements	2,826.51	Prior to FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	33,436.77	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	34,121.46	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	1,438,870.69	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	3,000.00	Prior to FY 2025
2022-323-101-0	Bruecken Pumps No. 4, 5, & 7 Starter Replacements	303,574.00	Prior to FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	54,746.54	Prior to FY 2025
2024-DEV-104-0	4612 Forbes Ave	8,844.17	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	1,536.32	Prior to FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	32,136.20	Prior to FY 2025
2017-323-105-8	Lanpher Reservoir Booster Disinfection Improvements - Plumbing	19,661.40	Prior to FY 2025
2017-323-105-7	Lanpher Reservoir Booster Disinfection Improvements - HVAC	2,700.00	Prior to FY 2025
2023-400-101-0	2023 Sewers Under Structures	17,916.39	Prior to FY 2025
2023-500-102-1	Oakridge Stormwater Separation	3,998.91	Prior to FY 2025
2022-424-105-0	Braywood Stormwater Improvements	3,133.42	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	2,691.93	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	3,911.18	Prior to FY 2025
2022-424-105-0	Braywood Stormwater Improvements	3,011.25	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	886.50	Prior to FY 2025
2019-323-100-4	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - Plumbing	12,056.23	Prior to FY 2025
2017-323-104-1	Aspinwall Pump Station Concrete Floor Repairs	177,011.13	Prior to FY 2025
2017-323-105-5	Lanpher Reservoir Booster Disinfection Improvements - General/Mechanical	128,115.00	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	2,855.00	Prior to FY 2025
2022-424-105-0	Braywood Stormwater Improvements	410,348.43	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	3,072.45	Prior to FY 2025
2021-322-102-3	Sludge Chamber Pump Project - Electric	104,541.86	Prior to FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	13,691.52	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	38,713.36	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	3,585.38	Prior to FY 2025
2019-323-102-2	Highland No. 2 Reservoir Dam Permitting and Slope Stability	23,298.76	Prior to FY 2025

2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	500.00	Prior to FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	1,000.00	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	1,500.00	Prior to FY 2025
2022-424-107-0	2022 Sewers Under Structures	34,733.49	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	35,405.89	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	17,376.54	Prior to FY 2025
2019-323-100-1	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - General	390,740.48	Prior to FY 2025
2017-322-101-11	Aspinwall WTP Filter Building Sodium Hypochlorite Improvements - Electrical	75,803.01	Prior to FY 2025
2017-323-101-2	Highland Reservoir Pump Station and Rising Main - Electrical	242,357.90	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	13,214.22	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	2,232.53	Prior to FY 2025
2021-325-100-0	Intermediate Meter Replacement Program	50,992.50	Prior to FY 2025
2023-200-106-0	Small Meter Replacement Program	21,318.00	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	21,885.27	Prior to FY 2025
2017-322-107-0	Corrosion Control Chemical Storage & Feed Systems	2,588.00	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	8,096.68	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	3,925.93	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	66,106.82	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	111,717.78	Prior to FY 2025
2019-323-100-3	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - HVAC	11,989.80	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	443,115.64	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	457,785.09	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	231,316.38	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	8,500.00	Prior to FY 2025
2017-323-101-3	Highland Reservoir Pump Station and Rising Main - HVAC	10,350.00	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	268,205.00	Prior to FY 2025
2023-200-102-0	Large Meter Replacement Program	12,564.00	Prior to FY 2025
2019-GI-104-0	Martin Luther King Field Stormwater Infrastructure Improvements	500.00	Prior to FY 2025
2019-323-100-0	Herron Hill Reservoir Improvements	2,073.47	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	176,517.99	Prior to FY 2025
2018-WS-103-0	PennDOT SR0837-A42 E Carson St	169,354.62	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	4,891.38	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	2,071.90	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	843.75	Prior to FY 2025
2023-200-102-0	Large Meter Replacement Program	22,920.73	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	9,475.47	Prior to FY 2025
2024-DEV-104-0	4612 Forbes Ave	756.20	Prior to FY 2025
2023-600-101-0	New Headquarters and Operations Facility	138,522.27	Prior to FY 2025
2017-424-108-0	Woods Run Stream Inflow - Mairdale Avenue	17,830.53	Prior to FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	4,151.03	Prior to FY 2025
2019-323-101-0	Chlorine Booster Station Improvements	44,926.08	Prior to FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	2,842.54	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	1,913.26	Prior to FY 2025
2022-424-105-0	Braywood Stormwater Improvements	11,667.73	Prior to FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	49,600.98	Prior to FY 2025

2020-424-104-1	2020 Sewers Under Structures Contract 2	4,823.23	Prior to FY 2025
2019-424-103-2	Queenston Sewer Improvements	9,913.59	Prior to FY 2025
2023-400-101-0	2023 Sewers Under Structures	11,652.52	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	1,299.97	Prior to FY 2025
2023-500-102-1	Oakridge Stormwater Separation	9,738.08	Prior to FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	3,005.68	Prior to FY 2025
2022-424-105-0	Braywood Stormwater Improvements	905.04	Prior to FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	5,000.00	Prior to FY 2025
2019-GI-104-0	Martin Luther King Field Stormwater Infrastructure Improvements	781.50	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	2,475.00	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	814.68	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	38,271.55	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	14,821.87	Prior to FY 2025
2019-323-100-4	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - Plumbing	6,648.74	Prior to FY 2025
2019-323-102-2	Highland No. 2 Reservoir Dam Permitting and Slope Stability	5,098.97	Prior to FY 2025
2017-323-105-5	Lanpher Reservoir Booster Disinfection Improvements - General/Mechanical	72,405.00	Prior to FY 2025
2023-200-102-0	Large Meter Replacement Program	9,000.00	Prior to FY 2025
2019-323-100-1	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - General	85,251.85	Prior to FY 2025
2020-323-100-0	Lincoln Pump Station: Bypass Pump Station Project	4,373.70	Prior to FY 2025
2019-323-100-1	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - General	1,927.76	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	14,164.27	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	16,909.07	Prior to FY 2025
2024-DEV-104-0	4612 Forbes Ave	799.44	Prior to FY 2025
2021-322-102-0	Sludge Chamber Pump Project	25,662.36	Prior to FY 2025
2017-424-108-0	Woods Run Stream Inflow - Mairdale Avenue	13,356.89	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	1,479.35	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	38,809.11	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	2,319.12	Prior to FY 2025
2022-424-105-0	Braywood Stormwater Improvements	12,978.74	Prior to FY 2025
2022-424-103-0	Dragoon Way Stormwater Improvements	12,961.09	Prior to FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	40,111.92	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	69,795.14	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	343,828.80	Prior to FY 2025
2021-322-102-2	Sludge Chamber Pump Project - General/Mechanical	436,005.00	Prior to FY 2025
2017-323-105-8	Lanpher Reservoir Booster Disinfection Improvements - Plumbing	20,541.60	Prior to FY 2025
2017-323-105-7	Lanpher Reservoir Booster Disinfection Improvements - HVAC	22,405.50	Prior to FY 2025
2017-322-101-10	Aspinwall WTP Filter Building Sodium Hypochlorite Improvements - Plumbing	15,960.68	Prior to FY 2025
2017-322-101-10	Aspinwall WTP Filter Building Sodium Hypochlorite Improvements - Plumbing	44,039.31	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	10,148.51	Prior to FY 2025
2022-424-103-0	Dragoon Way Stormwater Improvements	4,754.72	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	47,683.30	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	10,432.31	Prior to FY 2025
2017-322-107-0	Corrosion Control Chemical Storage & Feed Systems	3,350.50	Prior to FY 2025
2022-424-108-0	31st Ward Pump Station and Appurtenances - Phase 2	9,548.22	Prior to FY 2025
2023-100-106-1	Water Treatment Plant Plant 84-Inch Diameter Line Rehabilitation Project	7,910.88	Prior to FY 2025

2023-100-106-1	Water Treatment Plant Plant 84-Inch Diameter Line Rehabilitation Project	33,283.20	Prior to FY 2025
2017-323-101-2	Highland Reservoir Pump Station and Rising Main - Electrical	896,118.93	Prior to FY 2025
2017-323-101-3	Highland Reservoir Pump Station and Rising Main - HVAC	111,960.00	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	181,150.95	Prior to FY 2025
2017-323-101-1	Highland Reservoir Pump Station and Rising Main - General	971,851.52	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	3,360.10	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	2,240.12	Prior to FY 2025
2017-323-105-9	Lanpher Reservoir Dam Permitting	57,939.49	Prior to FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	82,562.91	Prior to FY 2025
2023-100-105-0	Hydraulic Valve Replacement Program	74,139.92	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	208,262.36	Prior to FY 2025
2022-325-102-1	Interconnection Vault Stormwater Removal - Electrical	51,605.91	Prior to FY 2025
2022-325-102-1	Interconnection Vault Stormwater Removal - Electrical	16,012.69	Prior to FY 2025
2019-323-100-2	Herron Hill Reservoir Improvements - Sodium Hypochlorite Building - Electrical	29,403.84	Prior to FY 2025
2017-323-101-4	Highland Reservoir Pump Station and Rising Main - Plumbing	133,920.00	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	3,597.56	Prior to FY 2025
2017-323-105-0	Lanpher Reservoir Improvements	2,640.95	Prior to FY 2025
2017-322-101-7	Lime Slurry System and Sodium Permanganate System Improvements	782.39	Prior to FY 2025
2017-322-101-8	Aspinwall Water Treatment Plant Filter Building Sodium Hypochlorite Improvements - General/Mechanical	7,433.46	Prior to FY 2025
2022-323-101-0	Bruecken Pumps No. 4, 5, & 7 Starter Replacements	8,056.81	Prior to FY 2025
2019-323-101-0	Chlorine Booster Station Improvements	55,036.50	Prior to FY 2025
2017-323-101-0	Highland Reservoir Pump Station and Rising Main	129,509.53	Prior to FY 2025
2017-323-104-1	Aspinwall Pump Station Concrete Floor Repairs	115,437.69	Prior to FY 2025
2020-424-104-1	2020 Sewers Under Structures Contract 2	4,648.61	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	5,018.94	Prior to FY 2025
2022-424-107-0	2022 Sewers Under Structures	3,298.90	Prior to FY 2025
2018-GI-102-0	Four Mile Run Stormwater Infrastructure Improvements	189,943.88	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	7,374.09	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	20,282.61	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	7,713.52	Prior to FY 2025
2022-424-109-0	Browns Hill Road Sewer Pump Station Replacement	7,791.93	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	15,581.79	Prior to FY 2025
2021-424-106-0	Southside Flats Sewer Separation	42,436.07	Prior to FY 2025
2024-200-100-0	2024 Large Diameter Water Main Replacement	49,660.50	Prior to FY 2025
2023-100-106-1	Water Treatment Plant Plant 84-Inch Diameter Line Rehabilitation Project	36,696.86	Prior to FY 2025
2019-GI-100-0	Southside Stormwater Infrastructure Improvements	3,332.84	Prior to FY 2025
2022-424-102-0	Haverhill Street Stormwater Infrastructure Improvements	900.00	Prior to FY 2025
2024-500-102-0	Fowler Park Stormwater Improvements	6,845.00	Prior to FY 2025
2020-323-100-2	Lincoln Pump Station: Bypass Pump Station Project - Electrical	13,392.00	Prior to FY 2025
2020-GI-100-0	Bus Rapid Transit (BRT) Stormwater Infrastructure Improvements	12,738.27	Prior to FY 2025
2017-323-101-1	Highland Reservoir Pump Station and Rising Main - General	2,616,337.04	Prior to FY 2025
2017-323-105-9	Lanpher Reservoir Dam Permitting	35,054.98	Prior to FY 2025
2019-323-102-2	Highland No. 2 Reservoir Dam Permitting and Slope Stability	16,884.79	Prior to FY 2025
2017-323-105-4	Lanpher Reservoir Booster Disinfection Improvements - Construction	24,215.48	Prior to FY 2025
2017-323-105-5	Lanpher Reservoir Booster Disinfection Improvements - General/Mechanical	103,905.00	Prior to FY 2025

2017-323-101-0	Highland Reservoir Pump Station and Rising Main	161,024.66	Prior to FY 2025
2021-424-105-0	2022 Large Diameter Sewer Rehabilitation	1,636.20	Prior to FY 2025
2023-200-102-0	Large Meter Replacement Program	3,821.85	Prior to FY 2025
2017-322-101-13	Lime Slurry System and Sodium Permanganate System Improvements - Electrical	83,790.00	Prior to FY 2025
2017-322-101-11	Aspinwall WTP Filter Building Sodium Hypochlorite Improvements - Electrical	10,956.78	Prior to FY 2025
2022-325-102-0	Interconnection Vault Stormwater Removal	3,318.21	Prior to FY 2025
2017-323-101-4	Highland Reservoir Pump Station and Rising Main - Plumbing	9,846.00	Prior to FY 2025
2025-600-100-0	Capital Asset Reclass from Operating Budget	9,672,283.27	Prior to FY 2025
		117,685,511.32	

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

REJOINDER TESTIMONY OF

JULIE A. MECHLING

ON BEHALF OF
THE PITTSBURGH WATER AND SEWER
AUTHORITY D/B/A PITTSBURGH WATER

Docket Nos.
R-2025-3055010 Water
R-2025-3055011 Wastewater
R-2025-3055012 Stormwater

TOPICS:

CALCULATION OF LOST REVENUE FOR BDP DISCOUNTS

October 20, 2025

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND CURRENT POSITION.

A. My name is Julie A. Mechling. My position with Pittsburgh Water is Director of Customer Service.

Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS PROCEEDING?

A. Yes. I submitted my direct testimony, Pittsburgh Water St. No. 6 with accompanying Exhibits JAM-1 through JAM-19, on June 4, 2025. I also submitted rebuttal testimony, Pittsburgh Water St. No. 6R with accompanying Exhibits JAM-20 through JAM-22, on September 30, 2025.

Q. PLEASE DESCRIBE THE PURPOSE OF YOUR REJOINDER TESTIMONY.

A. The purpose of my rejoinder testimony is to address one issue in the surrebuttal testimony prepared by Roger D. Colton on behalf of the Office of Consumer Advocate ("OCA") regarding my calculation of lost revenue if the proposed volumetric increases were to be adopted. I have elected not to address the rest of Mr. Colton's testimony because I and other Pittsburgh Water witnesses have already fully addressed these points and explained our disagreement with Mr. Colton's analysis and resulting conclusions.

Q. DID YOUR REVIEW OF THE OTHER PARTIES' SURREBUTTAL LEAD YOU TO REVISE OR CHANGE YOUR POSITION ON ANY ISSUE FOR WHICH YOU HAVE TESTIFIED?

A. No. None of my positions have changed as a result of the other parties' surrebuttal testimony. While I am addressing one issue raised by Mr. Colton in this rejoinder, my failure to respond to a specific statement made by the other parties' witnesses should not be viewed as my acceptance of their testimony. Rather, it reflects my belief that a further response in this rejoinder testimony is not warranted, either because it was adequately addressed in Pittsburgh Water's testimony, is being addressed by another Pittsburgh

Water witness, or because it is a legal matter that is better addressed by counsel in briefs or other pleadings.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. No.

II. SURREBUTTAL TESTIMONY OF OCA WITNESS COLTON

Q. DOES MR. COLTON CHALLENGE YOUR CALCULATION OF THE ESTIMATED LOSS IN BASE RATE REVENUE PURSUANT TO HIS PROPOSAL TO INCREASE THE VOLUMETRIC DISCOUNT FOR HOUSEHOLDS BELOW 50% FPL FROM 60% TO 75?

A. Yes. Mr. Colton claims that the analysis I present in Pittsburgh Water Exh. JAM-20, which estimates an additional $143,644 loss in base rate revenue under his proposal, "appears to be excessive." Mr. Colton attempts to support this conclusion by claiming that I used an incorrect projected 2026 bill rate for my calculations. (OCA St. No. 6SR at 2-3)

Q. WHAT IS ONE FUNDAMENTAL PROBLEM WITH MR. COLTON'S CALCULATION OF LOST REVENUE?

A. While I understand the methodology utilized by Mr. Colton in his direct testimony, for an unstated reason, his calculation only focused on water rates and not wastewater conveyance rates. Factoring in the impacts of discounts to both water and wastewater conveyance rates is the only reasonable way to consider the impacts of proposals which require certain customers to pay less while shifting those costs to other customers.

Q. IS MR. COLTON CORRECT THAT YOUR ANALYSIS OF LOST REVENUE RELIED ON EXCESSIVE OR INCORRECT BILLING RATES?

A. No. As seen on JAM-20 and expanded in the table below, my calculations are based on the billed usage as identified in the COSS Model:

	Billed Usage As filed in Model (kgal)		
Residential - CAP - 50FPL			
Water	31,670		
Wastewater	44,633		
	Full Residential Rates	Rates at 60% Discount	Rates at 75% Discount
Residential Volumetric Rates*			
Water	$ 19.40	$ 7.76	$ 4.85
Wastewater	$ 7.69	$ 3.08	$ 1.92
Residential - CAP - 50FPL			
Water	$ 614,396	$ 245,758	$ 153,599
Wastewater	$ 343,230	$ 137,292	$ 85,808
Total CAP 50FPL Revenue	$ 957,626	$ 383,050	$ 239,407
Additional Revenue Loss			$ (143,644)
*Minimum charges are discounted by 100%.			

Q. PLEASE EXPLAIN THE DIFFERENCE BETWEEN MR. COLTON'S CALCULATION OF BILLED RATES VERSUS WHAT HAS BEEN PRESENTED BY PITTSBURGH WATER.

A. Mr. Colton calculates average billed rate based upon total class revenues divided by total bills in the class. This approach results in his average billed rate at the 60% volumetric rate discount of $24.84. (OCA St. No. 6SR at 2-3, Table 1). Pittsburgh Water presented a typical billing rate of $20.88 for a customer at the 60% volumetric rate discount. Mr. Colton believes that this discrepancy leads to an unacceptable inconsistency and provides further reason to reject Pittsburgh Water's claim of additional foregone revenues at a 75% volumetric rate discount.

Q. DO YOU AGREE WITH MR. COLTON'S APPROACH TO CALCULATE THE BILLS INCLUDING A 60% VOLUMETRIC DISCOUNT?

A. No. Mr. Colton's approach is to calculate a simple mean for both water and wastewater billing rates for CAP 50% FPL participants. While I understand his attempt to simplify the calculation, it is misleading. Using the mean of any dataset is an approach that is susceptible to outliers. It allows customers who use very high or very low amounts of water to influence what is considered an "average" bill. Pittsburgh Water presented an average billing rate based more on typical or median use, which is not susceptible to the influence of outliers. Consider, for example, a dataset of 10 CAP 50% FPL customers. If nine of those customers use 3kgal per month, but one uses 30 kgal per month, the 30 kgal user will substantially alter the mean. The mean would result in 5.7 kgal per month, even though 90% of users are only using 3 kgal per month. (9*3 + 30*1 = 57, 57/10 = 5.7, aka 5.7 kgal per month per user). The median use in this case would still be 3 kgal per month, which is more representative. The susceptibility of the mean to atypical use is why Pittsburgh Water presented bill discounts for customers using a typical amount of water, rather than using Mr. Colton's approach. I continue to support our approach to calculating the potential cost in lost revenue to other ratepayers of adopting Mr. Colton's proposals. I would also like to point out that, to be consistent with the values Mr. Colton was considering, my calculations did not factor in loss of DSIC revenues, which are billed as a percentage of base rates and would increase our projections of loss.

III. <u>CONCLUSION</u>

Q. DOES THAT CONCLUDE YOUR REJOINDER TESTIMONY?

A. Yes.

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VERIFICATION

I, Julie A. Mechling, hereby state that: (1) I am the Director of Customer Service for The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water; (2) the facts set forth in my testimony are true and correct (or are true and correct to the best of my knowledge, information and belief); and, (3) I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: 10/20/25

Signed by:
Julie A. Mechling
00802B35EAA54E3...

Julie A. Mechling
Director of Customer Service
The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

REJOINDER TESTIMONY OF

CHRISTINE M. FAY

ON BEHALF OF
THE PITTSBURGH WATER
AND SEWER AUTHORITY d/b/a Pittsburgh Water

Docket Nos.
R-2025-3055010 (Water)
R-2025-3055011 (Wastewater)
R-2025-3055012 (Stormwater)

Topics:
Distribution System Improvement Charge Rate Increase
Debt Service Coverage Ratio and Days Cash on Hand
Credit Rating Agencies' Perspectives on Affordability

October 20, 2025

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TABLE OF EXHIBITS

CF-20	Pittsburgh Water Rate Case Revised PAYGO Impact Analysis
CF-21	Fitch Revises U.S. Water and Sewer Sector Outlook to Deteriorating Amid Rising Costs, dated June 5, 2025
CF-22	Fitch U.S. Water and Sewer Mid-Year Outlook 2025, dated June 5, 2025

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND POSITION FOR THE RECORD.

A. Christine M. Fay. I am a Senior Managing Director and Partner with Public Resources Advisory Group, Inc. ("PRAG").

Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS PROCEEDING?

A. Yes, I submitted Direct Testimony, Pittsburgh Water St. No. 7 on June 4, 2025, which accompanied the rate filing, as well as Rebuttal Testimony, Pittsburgh Water St. No. 7-R, on September 30, 2025.

Q. WHAT IS THE PURPOSE OF YOUR REJOINDER TESTIMONY?

A. The purpose of my Rejoinder Testimony is to respond to certain portions of the surrebuttal testimony submitted by the Bureau of Investigation and Enforcement ("I&E") and the Office of Consumer Advocate ("OCA" and together, the "Interveners" or the "Parties"). Specifically, my Rejoinder Testimony will respond statements from Mr. Patel, the witness for I&E, and Mr. Deupree and Mr. Walters, witnesses for the OCA, regarding the Distribution System Improvement Charge ("DSIC") Rate Increase, DSCR and DCOH, and Credit Rating Agencies' Perspectives on Affordability.

Q. PLEASE SUMMARIZE YOUR REJOINDER TESTIMONY.

A. My Rejoinder Testimony:

1. Reaffirms support for Pittsburgh Water's requested DSIC increase, adopts Mr. Patel's suggested measure of the incremental 2.5% of DSIC increase and still demonstrates that PAYGO funding is the most cost-effective approach for both Pittsburgh Water and its customers on a present value basis and over the long term, and avoids further overleveraging of the system. My testimony also provides additional overall context to Mr. Deupree's concern that PAYGO funding creates intergenerational equity

concerns by "front loading" capital expense, arguing instead that PAYGO provides an equitable approach to funding capital costs over the long term, and that backloaded capital funding disproportionately benefits customers who reside in the Authority's service area only during the earlier years of an exclusively bond-financed capital plan.

2. Reaffirms support for Pittsburgh Water's DSCR and DCOH targets, and rejects both Mr. Walters' and Mr. Patel's claims that I&E's and OCA's proposed revenue recommendations will not risk ratings downgrades.

3. Recognizes Mr. Walters' perhaps inadvertent concurrence with my assertion that affordability concerns vis-à-vis the credit rating agencies are a matter of regulatory risk as opposed to consumer protection, and discusses that his cited Fitch rating agency report does not appear to mention, let alone discuss, affordability.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. Yes. I am sponsoring the following exhibits:

- **Exh. CF-20:** Pittsburgh Water Rate Case Revised PAYGO Impact Analysis
- **Exh. CF-21:** Fitch Revises U.S. Water and Sewer Sector Outlook to Deteriorating Amid Rising Costs, dated June 5, 2025
- **Exh. CF-22:** Fitch U.S. Water and Sewer Mid-Year Outlook 2025, dated June 5, 2025

II. <u>DISTRIBUTION SYSTEM IMPROVEMENT CHARGE (DSIC) RATE INCREASE</u>

Q. IN HIS SURREBUTTAL, WHY DOES MR. PATEL REJECT YOUR SUPPORT FOR PITTSBURGH WATER'S DSIC INCREASE?

A. First, Mr. Patel claims I have ignored that DSIC impacts rates in each year it is collected, while borrowing spread over a longer time horizon reduces the impact on rates. He also

states I have incorrectly compared the total DISC recovery cost in the FPFTY of $18,898,544, representing the full 7.5% charge, instead of $6,298,059, which represents the incremental 2.5% requested increase to the charge. Second, Mr. Patel suggests that Pittsburgh Water could rely on its unrestricted cash balance and rate stabilization fund for rather than incremental DSIC revenues for funding capital on a PAYGO basis.

Q. HOW DO YOU RESPOND?

A. First, I appreciate Mr. Patel's concurrence on lines 7 and 8 on page 22 of his I&E Statement No. 1-SR that "DSIC provides a lower cost of capital than Pittsburgh Water's other financing alternatives." With respect to his claim that I have ignored the impact of DSIC in annual rates, I would reply that this is incorrect as my analysis includes both nominal and present value numbers, which take into account both annual year-by-year effects and cumulative inflation-adjusted impacts over the total life of a prospective borrowing. To Mr. Patel's claim that I should have used the incremental $6,298,059 million, I have included an updated analysis with these results as Exhibit CF-20. My original analysis demonstrated the benefit of the full $18,898,544 DSIC over other financing alternatives, but the conclusion is the same if done on just the incremental $6,298,059 DSIC as demonstrated in exhibit CF-20 as well. One can observe that the DSIC funding provides a lower cost of capital relative to Pittsburgh Water's other financing alternatives, a statement that ***Mr. Patel himself supports***, is unchanged. Finally, to Mr. Patel's implication that Pittsburgh Water should spend fund balance or rate stabilization funds in lieu of using DSIC for capital, this would have a negative impact to DCOH and be detrimental to the goal of supporting the Authority's credit ratings.

Q. DO YOU HAVE ANY CONCERNS WITH MR. DEUPREE'S SURREBUTTAL TESTIMONY?

A. Yes. On lines 10 through 14 on page 7 of OCA Statement No. 1-SR, Mr. Deupree states, the use of PAY-GO presents intergenerational equity concerns compared to traditional capital financing and that traditional bond financing would be cheaper for ratepayers until at least 2038.

Q. CAN YOU RESPOND?

A. Mr. Deupree is correct in pointing out that PAYGO results in higher annual costs on a present value basis through 2038. However, in evaluating funding solutions the Authority must necessarily considers the overall long-term financial impact to the System and to ratepayers. As such, Mr. Deupree's argument ignores the fact that PAYGO would be less expensive than public financing on a present value basis from 2039 through 2084, a period of forty-six years or more than triple the period through 2038. Further, lower rates in the first few years disproportionately benefit customers who live in the service area for only for those years; for these customers, rates that support PAYGO are more equitable than enabling them to avoid backloaded capital costs.

III. DEBT SERVICE COVERAGE RATIO (DSCR) AND DAYS CASH ON HAND (DCOH)

Q. WHAT DOES MR. PATEL SAY IN HIS SURREBUTTAL ABOUT HIS DCOH AND DSCR CALCULATIONS?

On page 32 of his I&E Statement No. 1-SR, in response to Mr. Barca's claim that Pittsburgh Water can only attain I&E's debt service coverage (and by inference, I&E's DCOH calculations also) is to "pretend" that other I&E witnesses' expense calculations are correct, Mr. Patel acknowledges that he does "rely upon the analyses of the other I&E witnesses for the inputs that impact the recommendations I present." On page 34, Mr.

Patel states, "I reiterate that any fear or concern of a credit downgrade as discussed by Ms. Fay in rebuttal testimony due to I&E's recommended DCOH and DSCR is *speculative and unjustified because rating agencies consider various other rating criteria in addition to DCOH and DSCR* [emphasis added]."

Q. HOW DO YOU RESPOND?

A. I continue to maintain that Mr. Patel's and Mr. Walters estimates of DCOH and DSCR are based upon haircutting the Pittsburgh Water's expenses compared to the Authority's actual budgeted amounts, which is neither reasonable nor attainable. To this end, the DSCR and DCOH figures included in their testimony are artificially inflated as shown in Mr. Barca's testimony Pittsburgh Water Statement No. 2-R, pages 5-6. I stand by my statement in my rebuttal testimony on page 16 that Mr. Patel's and Mr. Water's DSCR and DCOH – adjusting them to take out the artificial effects of normalizing all of Pittsburgh Water's FPFTY expenses and assuming that Pittsburgh Water will not incur those budgeted levels – would be catastrophic and most certainly will result in ratings downgrades. To Mr. Patel's claim that rating agencies rely on metrics other than DCOH and DSCR, that is analogous to saying that one's grade point average is calculated based on various other classes in addition to physics and calculus. The rating agencies employ hard, quantitative criteria that assign rating values to specific levels of DCOH and DSCR, which criteria in turn are assigned specific percentages in the Authority's overall rating. If the Authority's DCOH and DSCR "grades" correspond to low rating values, the Authority's overall "GPA," or indicative credit rating, will suffer *with certainty*.

Q. WHAT DOES MR. WALTERS SAY IN HIS SURREBUTTAL ABOUT YOUR CLAIMS THAT PITTSBURGH WATER WOULD FACE MULTIPLE-NOTCH RATING DOWNGRADES FROM OCA'S REVENUE RECOMMENDATION?

A. First, Mr. Walters states that my "claims are speculative and unsupported by any actual rating-agency statement." Second, he cites a single entity, Philadelphia Water Department, that maintains an "A+' rating from S&P despite senior DSRCs of 1.27x, 1.29x and 1.22x from fiscal years 2021 through 2023.

Q. HOW DO YOU RESPOND?

A. To Mr. Walters' point about the rating agencies not publishing a statement about mutli-notch downgrades, I would counter that both Moody's and S&P's rating reports (see Exhibits CF-9 and CF-10 in my Direct Testimony Pittsburgh Water Statement No. 7) list multiple reasons that Pittsburgh Water's ratings could go down, including lower DSCR and DCOH. To his suggestion that a single instance of an S&P 'A+' rating with relatively low debt service coverage I refer to pages 31 and 32 of my Direct Testimony, which shows that Pittsburgh Water is a relative downside outlier compared to its large northeastern and midwestern water and sewer peers, in terms of both DSRC and DCOH. Trying to justify Mr. Walters' recommendation by referring to a single comparable entity is simply not appropriate.

IV. <u>CREDIT RATING AGENCIES' PERSPECTIVES ON AFFORDABILITY</u>

Q. WHAT DOES MR. WALTERS SAY IN HIS SURREBUTTAL TESTIMONY REGARDING RATING AGENCIES' VIEWS OF CUSTOMER AFFORDABILITY AS IT RELATES TO REGULATORY RISK? HOW DO YOU RESPOND?

A. On pages 8 line 1 through 3 of OCA Statement No. 3-SR, Mr. Walters states "The rating-agency's materials I cited explicitly link affordability to regulatory and political risk. They conclude that utilities facing affordability pressures *encounter heightened risk of*

delayed or denied rate relief, which directly affects credit stability [emphasis added]." This was exactly my point: credit rating agencies are concerned about the credit quality of the entities they are rating. In the context of customer affordability, and in contrast to the Commission's statutory charge to protect customers, the rating agencies are not concerned about costs to consumers per se; they are concerned that regulatory agencies will use consumer affordability as a rationale to deny needed rate increases. Mr. Walters, on behalf of the Commission, explicitly is using consumer affordability as a rationale to recommend greatly reducing Pittsburgh Water's requested rate increase. If Mr. Walters truly is concerned about affordability in the context of mitigating regulatory risk, he should grant Pittsburgh Water's revenue request in full.

Q. DOES THE FITCH REPORT CITED IN MR. WALTERS' SURREBUTTAL MENTION AFFORDABILITY?

A. No. We have reviewed the report Mr. Walter's cites on page 8 of his surrebuttal testimony, which I have included as Exhibit CF-21; the report does not appear to say anything about customer affordability. Rather, it is a brief announcement of the release of Fitch's "U.S. Water and Sewer Mid-Year Outlook 2025" which I have included as Exhibit CF-22. The outlook itself discusses three pressures: tariffs increasing the price of materials, potential EPA regulatory changes, and a potential 90% cut to federal subsidies for state revolving fund (SRF) loan programs – that are anticipated to increase utilities' operating expenses, but again does not mention customer affordability. The outlook does contain a "Core Credit Drivers" graphic with a single reference to "Personal Income/Affordability," indicating that it is "Neutral," which would appear to be inconsistent with Mr. Walters' argument.

V. CONCLUSION

Q. WHAT DO YOU BELIEVE THE COMMISSION SHOULD CONCLUDE?

A. I reiterate my conclusion in my rebuttal testimony related to DSCR and DCOH and DSIC request. The Commission should conclude that Pittsburgh Water has fully justified a rate award that grants all, or substantially all, of its requested rate increase. The risk of granting the Intervener's rate recommendation, and assumed haircut to operating expenses, with lower debt and cash metrics most certainly would lead to a credit rating downgrade and increased borrowing costs for the Authority.

The Commission should also grant the requested increase in DSIC from 5% to 7.5% since it provides a lower cost source of capital than the alternative debt options and provides greater diversity in capital funding options.

Q. DOES THAT COMPLETE YOUR REJOINDER TESTIMONY?

A. Yes; however, I do reserve the right to supplement this testimony as may be appropriate.

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VERIFICATION

I, Christine Fay hereby state that: (1) I am Senior Managing Director and Partner with Public Resources Advisory Group, Inc.; (2) I have been retained by The Pittsburgh Water and Sewer Authority and am authorized to present testimony on its behalf; (3) the facts set forth in my testimony are true and correct (or are true and correct to the best of my knowledge, information and belief); and (4) I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C .S. § 4904 (relating to unsworn falsification to authorities).

10/20/25

Signed by:
Christine Fay
E1C03447089F49E...

Dated

Christine Fay, Senior Managing Director and Partner
Public Resources Advisory Group, Inc.

Consultant to:
The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water

Exhibit CF-20

Pittsburgh Water 2025 Rate Case
PAYGO (DSIC) vs. Alternative Financing Options

		A	B	C	D
Debt Service Comparison					
		$349,978,987.11	**$252,268,312.78**	**$357,095,467.94**	**$188,941,770.00**
FY		**Public[1]**	**Pennvest[2]**	**WIFIA[3]**	**DSIC**
2025	12/31/2025	$0.00	$0.00	$0.00	$0.00
2026	12/31/2026	$325,915.07	$253,916.26	$334,345.41	$6,298,059.00
2027	12/31/2027	$716,951.32	$535,124.10	$733,270.82	$6,298,059.00
2028	12/31/2028	$1,107,987.56	$816,331.95	$1,132,196.23	$6,298,059.00
2029	12/31/2029	$1,499,023.81	$1,097,539.79	$1,531,121.64	$6,298,059.00
2030	12/31/2030	$1,890,060.06	$1,378,747.64	$1,930,047.05	$6,298,059.00
2031	12/31/2031	$2,281,096.31	$1,659,955.48	$2,328,972.46	$6,298,059.00
2032	12/31/2032	$2,672,132.55	$1,941,163.33	$2,727,897.86	$6,298,059.00
2033	12/31/2033	$3,063,168.80	$2,222,371.17	$3,126,823.27	$6,298,059.00
2034	12/31/2034	$3,454,205.05	$2,503,579.02	$3,525,748.68	$6,298,059.00
2035	12/31/2035	$3,845,241.29	$2,784,786.86	$3,924,674.09	$6,298,059.00
2036	12/31/2036	$4,236,277.54	$3,065,994.71	$4,323,599.50	$6,298,059.00
2037	12/31/2037	$4,627,313.79	$3,347,202.55	$4,722,524.91	$6,298,059.00
2038	12/31/2038	$5,018,350.04	$3,628,410.40	$5,121,450.32	$6,298,059.00
2039	12/31/2039	$5,409,386.28	$3,909,618.24	$5,520,375.73	$6,298,059.00
2040	12/31/2040	$5,800,422.53	$4,190,826.09	$5,919,301.13	$6,298,059.00
2041	12/31/2041	$6,191,458.78	$4,472,033.93	$6,318,226.54	$6,298,059.00
2042	12/31/2042	$6,582,495.02	$4,753,241.78	$6,717,151.95	$6,298,059.00
2043	12/31/2043	$6,973,531.27	$5,034,449.62	$7,116,077.36	$6,298,059.00
2044	12/31/2044	$7,364,567.52	$5,315,657.47	$7,515,002.77	$6,298,059.00
2045	12/31/2045	$7,755,603.77	$5,596,865.31	$7,913,928.18	$6,298,059.00
2046	12/31/2046	$8,146,640.01	$5,878,073.15	$8,312,853.59	$6,298,059.00
2047	12/31/2047	$8,537,676.26	$6,159,281.00	$8,711,779.00	$6,298,059.00
2048	12/31/2048	$8,928,712.51	$6,440,488.84	$9,110,704.40	$6,298,059.00
2049	12/31/2049	$9,319,748.75	$6,721,696.69	$9,509,629.81	$6,298,059.00
2050	12/31/2050	$9,710,785.00	$7,002,904.53	$9,908,555.22	$6,298,059.00
2051	12/31/2051	$10,101,821.25	$7,284,112.38	$10,307,480.63	$6,298,059.00
2052	12/31/2052	$10,492,857.50	$7,565,320.22	$10,706,406.04	$6,298,059.00
2053	12/31/2053	$10,883,893.74	$7,846,528.07	$11,105,331.45	$6,298,059.00
2054	12/31/2054	$11,274,929.99	$8,127,735.91	$11,504,256.86	$6,298,059.00
2055	12/31/2055	$11,665,966.24	$8,408,943.76	$11,903,182.26	$6,298,059.00
2056	12/31/2056	$11,340,051.17	$8,155,027.50	$11,568,836.85	$0.00
2057	12/31/2057	$10,949,014.92	$7,873,819.66	$11,169,911.44	$0.00
2058	12/31/2058	$10,557,978.67	$7,592,611.81	$10,770,986.03	$0.00
2059	12/31/2059	$10,166,942.43	$7,311,403.97	$10,372,060.63	$0.00
2060	12/31/2060	$9,775,906.18	$7,030,196.12	$9,973,135.22	$0.00
2061	12/31/2061	$9,384,869.93	$6,748,988.28	$9,574,209.81	$0.00
2062	12/31/2062	$8,993,833.68	$6,467,780.43	$9,175,284.40	$0.00
2063	12/31/2063	$8,602,797.44	$6,186,572.59	$8,776,358.99	$0.00
2064	12/31/2064	$8,211,761.19	$5,905,364.74	$8,377,433.58	$0.00
2065	12/31/2065	$7,820,724.94	$5,624,156.90	$7,978,508.17	$0.00
2066	12/31/2066	$7,429,688.70	$5,342,949.05	$7,579,582.77	$0.00
2067	12/31/2067	$7,038,652.45	$5,061,741.21	$7,180,657.36	$0.00
2068	12/31/2068	$6,647,616.20	$4,780,533.36	$6,781,731.95	$0.00
2069	12/31/2069	$6,256,579.95	$4,499,325.52	$6,382,806.54	$0.00
2070	12/31/2070	$5,865,543.71	$4,218,117.67	$5,983,881.13	$0.00
2071	12/31/2071	$5,474,507.46	$3,936,909.83	$5,584,955.72	$0.00
2072	12/31/2072	$5,083,471.21	$3,655,701.98	$5,186,030.31	$0.00
2073	12/31/2073	$4,692,434.97	$3,374,494.14	$4,787,104.90	$0.00
2074	12/31/2074	$4,301,398.72	$3,093,286.29	$4,388,179.50	$0.00
2075	12/31/2075	$3,910,362.47	$2,812,078.45	$3,989,254.09	$0.00
2076	12/31/2076	$3,519,326.22	$2,530,870.60	$3,590,328.68	$0.00
2077	12/31/2077	$3,128,289.98	$2,249,662.76	$3,191,403.27	$0.00
2078	12/31/2078	$2,737,253.73	$1,968,454.91	$2,792,477.86	$0.00
2079	12/31/2079	$2,346,217.48	$1,687,247.07	$2,393,552.45	$0.00
2080	12/31/2080	$1,955,181.24	$1,406,039.22	$1,994,627.04	$0.00
2081	12/31/2081	$1,564,144.99	$1,124,831.38	$1,595,701.63	$0.00
2082	12/31/2082	$1,173,108.74	$843,623.53	$1,196,776.23	$0.00
2083	12/31/2083	$782,072.49	$562,415.69	$797,850.82	$0.00
2084	12/31/2084	$391,036.25	$281,207.84	$398,925.41	$0.00

		E	F	G	H
Coverage Revenue Requirement					
		1.25x	**1.10x**	**1.10x**	**1.00x**
		$437,473,733.89	**$277,495,144.06**	**$392,805,014.74**	**$188,941,770.00**
FY		**Public**	**Pennvest**	**WIFIA**	**DSIC**
2025	12/31/2025	$0.00	$0.00	$0.00	$0.00
2026	12/31/2026	$407,393.84	$279,307.88	$367,779.95	$6,298,059.00
2027	12/31/2027	$896,189.15	$588,636.51	$806,597.90	$6,298,059.00
2028	12/31/2028	$1,384,984.46	$897,965.14	$1,245,415.85	$6,298,059.00
2029	12/31/2029	$1,873,779.76	$1,207,293.77	$1,684,233.80	$6,298,059.00
2030	12/31/2030	$2,362,575.07	$1,516,622.40	$2,123,051.75	$6,298,059.00
2031	12/31/2031	$2,851,370.38	$1,825,951.03	$2,561,869.70	$6,298,059.00
2032	12/31/2032	$3,340,165.69	$2,135,279.66	$3,000,687.65	$6,298,059.00
2033	12/31/2033	$3,828,961.00	$2,444,608.29	$3,439,505.60	$6,298,059.00
2034	12/31/2034	$4,317,756.31	$2,753,936.92	$3,878,323.55	$6,298,059.00
2035	12/31/2035	$4,806,551.62	$3,063,265.55	$4,317,141.50	$6,298,059.00
2036	12/31/2036	$5,295,346.93	$3,372,594.18	$4,755,959.45	$6,298,059.00
2037	12/31/2037	$5,784,142.24	$3,681,922.81	$5,194,777.40	$6,298,059.00
2038	12/31/2038	$6,272,937.54	$3,991,251.43	$5,633,595.35	$6,298,059.00
2039	12/31/2039	$6,761,732.85	$4,300,580.06	$6,072,413.30	$6,298,059.00
2040	12/31/2040	$7,250,528.16	$4,609,908.69	$6,511,231.25	$6,298,059.00
2041	12/31/2041	$7,739,323.47	$4,919,237.32	$6,950,049.20	$6,298,059.00
2042	12/31/2042	$8,228,118.78	$5,228,565.95	$7,388,867.15	$6,298,059.00
2043	12/31/2043	$8,716,914.09	$5,537,894.58	$7,827,685.10	$6,298,059.00
2044	12/31/2044	$9,205,709.40	$5,847,223.21	$8,266,503.05	$6,298,059.00
2045	12/31/2045	$9,694,504.71	$6,156,551.84	$8,705,321.00	$6,298,059.00
2046	12/31/2046	$10,183,300.02	$6,465,880.47	$9,144,138.95	$6,298,059.00
2047	12/31/2047	$10,672,095.33	$6,775,209.10	$9,582,956.89	$6,298,059.00
2048	12/31/2048	$11,160,890.63	$7,084,537.73	$10,021,774.84	$6,298,059.00
2049	12/31/2049	$11,649,685.94	$7,393,866.36	$10,460,592.79	$6,298,059.00
2050	12/31/2050	$12,138,481.25	$7,703,194.99	$10,899,410.74	$6,298,059.00
2051	12/31/2051	$12,627,276.56	$8,012,523.62	$11,338,228.69	$6,298,059.00
2052	12/31/2052	$13,116,071.87	$8,321,852.25	$11,777,046.64	$6,298,059.00
2053	12/31/2053	$13,604,867.18	$8,631,180.88	$12,215,864.59	$6,298,059.00
2054	12/31/2054	$14,093,662.49	$8,940,509.51	$12,654,682.54	$6,298,059.00
2055	12/31/2055	$14,582,457.80	$9,249,838.14	$13,093,500.49	$6,298,059.00
2056	12/31/2056	$14,175,063.96	$8,970,530.25	$12,725,720.54	$0.00
2057	12/31/2057	$13,686,268.65	$8,661,201.62	$12,286,902.59	$0.00
2058	12/31/2058	$13,197,473.34	$8,351,872.99	$11,848,084.64	$0.00
2059	12/31/2059	$12,708,678.03	$8,042,544.37	$11,409,266.69	$0.00
2060	12/31/2060	$12,219,882.72	$7,733,215.74	$10,970,448.74	$0.00
2061	12/31/2061	$11,731,087.41	$7,423,887.11	$10,531,630.79	$0.00
2062	12/31/2062	$11,242,292.11	$7,114,558.48	$10,092,812.84	$0.00
2063	12/31/2063	$10,753,496.80	$6,805,229.85	$9,653,994.89	$0.00
2064	12/31/2064	$10,264,701.49	$6,495,901.22	$9,215,176.94	$0.00
2065	12/31/2065	$9,775,906.18	$6,186,572.59	$8,776,358.99	$0.00
2066	12/31/2066	$9,287,110.87	$5,877,243.96	$8,337,541.04	$0.00
2067	12/31/2067	$8,798,315.56	$5,567,915.33	$7,898,723.09	$0.00
2068	12/31/2068	$8,309,520.25	$5,258,586.70	$7,459,905.14	$0.00
2069	12/31/2069	$7,820,724.94	$4,949,258.07	$7,021,087.19	$0.00
2070	12/31/2070	$7,331,929.63	$4,639,929.44	$6,582,269.24	$0.00
2071	12/31/2071	$6,843,134.32	$4,330,600.81	$6,143,451.29	$0.00
2072	12/31/2072	$6,354,339.02	$4,021,272.18	$5,704,633.34	$0.00
2073	12/31/2073	$5,865,543.71	$3,711,943.55	$5,265,815.39	$0.00
2074	12/31/2074	$5,376,748.40	$3,402,614.92	$4,826,997.45	$0.00
2075	12/31/2075	$4,887,953.09	$3,093,286.29	$4,388,179.50	$0.00
2076	12/31/2076	$4,399,157.78	$2,783,957.66	$3,949,361.55	$0.00
2077	12/31/2077	$3,910,362.47	$2,474,629.04	$3,510,543.60	$0.00
2078	12/31/2078	$3,421,567.16	$2,165,300.41	$3,071,725.65	$0.00
2079	12/31/2079	$2,932,771.85	$1,855,971.78	$2,632,907.70	$0.00
2080	12/31/2080	$2,443,976.54	$1,546,643.15	$2,194,089.75	$0.00
2081	12/31/2081	$1,955,181.24	$1,237,314.52	$1,755,271.80	$0.00
2082	12/31/2082	$1,466,385.93	$927,985.89	$1,316,453.85	$0.00
2083	12/31/2083	$977,590.62	$618,657.26	$877,635.90	$0.00
2084	12/31/2084	$488,795.31	$309,328.63	$438,817.95	$0.00

		I	J	K	L
Present Value of Revenue Requirement				**Global Discount Rate:**	**2.000000%**
		$248,260,825.94	**$157,590,452.32**	**$222,922,852.48**	**$141,054,198.45**
FY		**Public**	**Pennvest**	**WIFIA**	**DSIC**
2025	12/31/2025	$0.00	$0.00	$0.00	$0.00
2026	12/31/2026	$399,405.72	$273,831.26	$360,568.58	$6,174,567.65
2027	12/31/2027	$861,389.03	$565,779.04	$775,276.72	$6,053,497.69
2028	12/31/2028	$1,305,101.79	$846,172.61	$1,173,583.17	$5,934,801.66
2029	12/31/2029	$1,731,082.86	$1,115,352.83	$1,555,971.69	$5,818,433.00
2030	12/31/2030	$2,139,857.03	$1,373,651.63	$1,922,913.38	$5,704,346.08
2031	12/31/2031	$2,531,935.30	$1,621,392.26	$2,274,866.98	$5,592,496.16
2032	12/31/2032	$2,907,815.24	$1,858,889.44	$2,612,279.18	$5,482,839.37
2033	12/31/2033	$3,267,981.35	$2,086,449.63	$2,935,584.91	$5,375,332.71
2034	12/31/2034	$3,612,905.33	$2,304,371.22	$3,245,207.65	$5,269,934.03
2035	12/31/2035	$3,943,046.45	$2,512,944.68	$3,541,559.69	$5,166,601.99
2036	12/31/2036	$4,258,851.81	$2,712,452.84	$3,825,042.40	$5,065,296.07
2037	12/31/2037	$4,560,756.68	$2,903,171.01	$4,096,046.53	$4,965,976.54
2038	12/31/2038	$4,849,184.75	$3,085,367.17	$4,354,952.44	$4,868,604.45
2039	12/31/2039	$5,124,548.45	$3,259,302.22	$4,602,130.38	$4,773,141.62
2040	12/31/2040	$5,387,249.23	$3,425,230.06	$4,837,940.73	$4,679,550.61
2041	12/31/2041	$5,637,677.78	$3,583,397.83	$5,062,734.24	$4,587,794.71
2042	12/31/2042	$5,876,214.39	$3,734,046.06	$5,276,852.30	$4,497,837.95
2043	12/31/2043	$6,103,229.12	$3,877,408.81	$5,480,627.10	$4,409,645.05
2044	12/31/2044	$6,319,082.10	$4,013,713.87	$5,674,381.97	$4,323,181.42
2045	12/31/2045	$6,524,123.76	$4,143,182.90	$5,858,431.48	$4,238,413.16
2046	12/31/2046	$6,718,695.09	$4,266,031.57	$6,033,081.74	$4,155,307.02
2047	12/31/2047	$6,903,127.85	$4,382,469.72	$6,198,630.60	$4,073,830.41
2048	12/31/2048	$7,077,744.84	$4,492,701.53	$6,355,367.82	$3,993,951.38
2049	12/31/2049	$7,242,860.08	$4,596,925.59	$6,503,575.32	$3,915,638.61
2050	12/31/2050	$7,398,779.04	$4,695,335.15	$6,643,527.32	$3,838,861.38
2051	12/31/2051	$7,545,798.90	$4,788,118.13	$6,775,490.59	$3,763,589.59
2052	12/31/2052	$7,684,208.67	$4,875,457.37	$6,899,724.62	$3,689,793.72
2053	12/31/2053	$7,814,289.50	$4,957,530.66	$7,016,481.76	$3,617,444.82
2054	12/31/2054	$7,936,314.79	$5,034,510.93	$7,126,007.48	$3,546,514.53
2055	12/31/2055	$8,050,550.44	$5,106,566.36	$7,228,540.46	$3,476,975.03
2056	12/31/2056	$7,672,196.24	$4,855,263.34	$6,887,744.95	$0.00
2057	12/31/2057	$7,262,389.95	$4,595,922.03	$6,519,839.71	$0.00
2058	12/31/2058	$6,865,704.78	$4,344,884.27	$6,163,714.01	$0.00
2059	12/31/2059	$6,481,783.74	$4,101,924.15	$5,819,047.36	$0.00
2060	12/31/2060	$6,110,278.79	$3,866,821.41	$5,485,527.30	$0.00
2061	12/31/2061	$5,750,850.63	$3,639,361.33	$5,162,849.22	$0.00
2062	12/31/2062	$5,403,168.48	$3,419,334.58	$4,850,716.18	$0.00
2063	12/31/2063	$5,066,909.92	$3,206,537.12	$4,548,838.71	$0.00
2064	12/31/2064	$4,741,760.62	$3,000,770.03	$4,256,934.62	$0.00
2065	12/31/2065	$4,427,414.21	$2,801,839.43	$3,974,728.87	$0.00
2066	12/31/2066	$4,123,572.06	$2,609,556.33	$3,701,953.36	$0.00
2067	12/31/2067	$3,829,943.09	$2,423,736.53	$3,438,346.77	$0.00
2068	12/31/2068	$3,546,243.60	$2,244,200.49	$3,183,654.42	$0.00
2069	12/31/2069	$3,272,197.09	$2,070,773.23	$2,937,628.07	$0.00
2070	12/31/2070	$3,007,534.09	$1,903,284.22	$2,700,025.80	$0.00
2071	12/31/2071	$2,751,991.98	$1,741,567.26	$2,470,611.84	$0.00
2072	12/31/2072	$2,505,314.83	$1,585,460.39	$2,249,156.44	$0.00
2073	12/31/2073	$2,267,253.24	$1,434,805.78	$2,035,435.69	$0.00
2074	12/31/2074	$2,037,564.18	$1,289,449.64	$1,829,231.42	$0.00
2075	12/31/2075	$1,816,010.86	$1,149,242.11	$1,630,331.03	$0.00
2076	12/31/2076	$1,602,362.52	$1,014,037.15	$1,438,527.38	$0.00
2077	12/31/2077	$1,396,394.36	$883,692.51	$1,253,618.63	$0.00
2078	12/31/2078	$1,197,887.31	$758,069.55	$1,075,408.14	$0.00
2079	12/31/2079	$1,006,628.00	$637,033.24	$903,704.32	$0.00
2080	12/31/2080	$822,408.49	$520,451.99	$738,320.52	$0.00
2081	12/31/2081	$645,026.27	$408,197.64	$579,074.92	$0.00
2082	12/31/2082	$474,284.02	$300,145.32	$425,790.38	$0.00
2083	12/31/2083	$309,989.56	$196,173.41	$278,294.37	$0.00
2084	12/31/2084	$151,955.66	$96,163.44	$136,418.81	$0.00

Footnotes:
1. Tax-exempt rates as of 9/24/2025. Public Credit Spreads assume bond insurance.
2. Pennvest rates assumed to be 2.00%.
3. WIFIA rates assumed to be 4.69%, representing a 19 year average life SLG rate plus 1 basis point.
4. Cost of Issuance assumed to be $9 per bond for Public and WIFIA financing options, de minimis for Pennvest.

Exhibit CF-21

FitchRatings

17 Oct 2025

Related Content: U.S. Water and Sewer Mid-Year Outlook 2025

Fitch Ratings-Austin-05 June 2025: Fitch Ratings has revised its outlook for the U.S. water and sewer sector to deteriorating from neutral. This change is largely due to a higher effective tariff rate (ETR) affecting the sector and rising inflationary pressures.

Although many tariffs are on hold, the ETR remains significantly higher than a year ago. The U.S. water and sewer sector is capital intensive and often relies on materials and equipment from international suppliers, which is driving up costs. While some utilities are proceeding with projects and adjusting rates, others are pausing bids and adopting a "wait-and-see" approach.

"Through 2024 and into 2025, most utilities adapted to the 'new normal' operating environment with higher costs for supplies, personnel, and contractors compared to pre-pandemic levels," said Audra Dickinson, Senior Director, U.S. Public Finance. "In addition to renewed inflationary pressure, the sector faces a higher ETR and greater uncertainty around federal policy, creating more challenging business conditions. Fitch will continue to evaluate each utility's response and the potential impact on credit quality."

Despite the sector's deteriorating outlook, most Fitch-rated water and sewer utilities have Stable Rating Outlooks. Disciplined rate actions have supported cost recovery, but financial metrics and ratings could face pressure if policy changes drive tariffs and the ETR to unprecedented levels.

Contact:

Audra Dickinson
Senior Director, U.S. Public Finance
+1 512 813-5701
audra.dickinson@fitchratings.com
Fitch Ratings, Inc.
2600 Via Fortuna, Suite 330
Austin, TX 78746

Media Relations: Cristina Bermudez, New York, Tel: +1 212 612 7892, Email: cristina.bermudez@thefitchgroup.com

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Exhibit CF-22

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Fitch Ratings

U.S. Water and Sewer Mid-Year Outlook 2025

Higher Costs and Uncertainty Drive Outlook Revision

Fitch's Sector Outlook: Deteriorating

Fitch Ratings has revised its water and sewer sector outlook to deteriorating from neutral in light of the higher effective tariff rate (ETR) and prospects for increased inflationary pressures that are creating a more challenging operating environment for utilities.

Despite the pause on many tariffs, the ETR still remains significantly higher than this time one year prior. For the capital-intensive water and sewer sector that frequently purchases materials and equipment from international suppliers, the ETR is pushing costs higher. In some cases, utilities are moving forward with projects and evaluating an appropriate rate response, while in other cases issuers are pausing bids on projects and taking a wait and see approach. Against these deteriorating business conditions, Fitch will continue to evaluate each utility's response and its effect on credit quality.

Additional Uncertainty on Regulatory and Financing Front

The U.S. Environmental Protection Agency has indicated its intent to extend the compliance deadline for compliance with testing and treatment requirements related to per- and polyfluoroalkyl (PFAS) substances. Additional time to implement these often costly plant upgrades would allow utilities to more gradually implement potential rate increases. Yet, Fitch does not believe a prolonged compliance period will materially benefit the sector, as the majority of costs would still lead to higher rates and/or debt issuance, resulting in delayed costs, but not cost avoidance.

Fitch has long noted the importance of ongoing federal support for state revolving fund (SRF) loan programs, which have been a critical source of financing for utilities nationwide. The federal administration's currently proposed fiscal 2026 budget includes a drastic cut to SRF funding—approximately 90%. A final determination on SRF funding levels has yet to be made, but the potential reduction in this funding source would drive utilities to other higher-cost financing options. This further adds to the uncertainty shrouding the current operating environment.

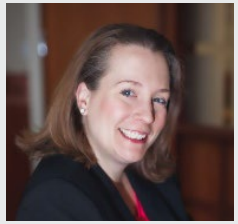
Rating Outlook Distribution Still Largely Stable

Rating Outlooks for the Fitch-rated portfolio of water and sewer utilities remain overwhelmingly Stable, despite the sector's deteriorating outlook. Disciplined rate actions have supported timely cost recovery and bolstered financial margins to date, but financial metrics and ratings could be pressured if policy actions drive tariffs and the ETR to unprecedented levels.

What to Watch

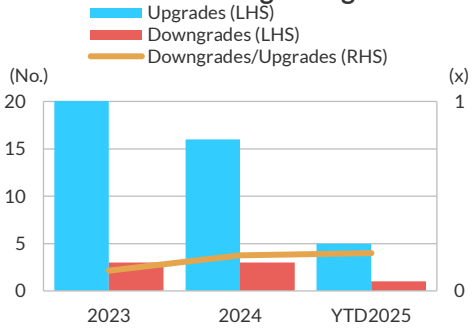
- Final court outcomes regarding tariff policy.
- Other evolving federal policies specifically related to EPA regulations and SRF and FEMA financing.
- Capital spending to continue rising.

Audra Dickinson, Senior Director



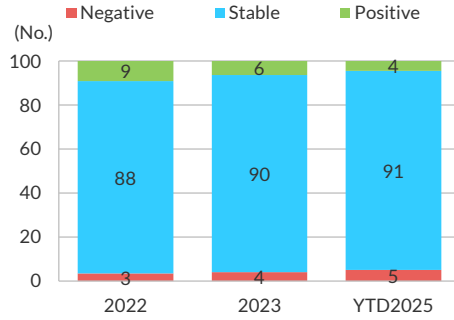
"Through 2024 and into 2025, most utilities successfully adapted to the new normal operating environment that included higher costs for supplies, personnel, and contractors relative to pre-pandemic years. However, resurgent inflation, increased tariffs and uncertainty around other federal policies are creating more challenging business conditions for the sector. Coming off several consecutive years of ballooning capital plans, implementation of tariffs at levels that have been proposed would weigh on many utilities."

Water & Sewer- Rating Changes



Source: Fitch Ratings

Water & Sewer - Rating Outlooks



Source: Fitch Ratings

Core Credit Drivers: Water-Sewer

	Revenues			Expenditures				Financial Profile		
Subsector	Personal Income/ Affordability	Real-Estate Values	Demand/ Volumes	Labor Costs	Labor Availability	Non-Labor Operating Costs	Capital Input Costs	Leverage	Cost of debt	Financial reserves & liquidity
Water-Sewer	↔	N.A.	↔	↔	↔	↘	↘	↘	↔	↔

Note: N.A. – Not a material driver of credit quality in sector. ↑ Improving – High relevance. ↗ Improving – Moderate relevance. ↔ Neutral. ↘ Deteriorating – Moderate relevance. ↓ Deteriorating: high relevance.
Source: Fitch Ratings

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Sector outlooks are a general forward-looking assessment of the underlying operational and business conditions of the sector compared to the previous calendar year. A deteriorating outlook is an assessment that these conditions are weaker relative to 12 months prior. Sector outlooks are distinct from Rating Outlooks.

Outlooks and Related Research

U.S. Effective Tariff Rate Monitor

Global Economic Outlook — April 2025

2025 Outlooks

U.S. Water and Sewer - Peer Review 2024 (Sept. 2024)

Fitch Analytical Comparative Tool (FACT) - 2024 (Sept. 2024)

Analysts

Audra Dickinson
+1 512 813-5701
audra.dickinson@fitchratings.com

Dennis Pidherny
+1 212 908-0738
dennis.pidherny@fitchratings.com

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