BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

In re: Application of Pennsylvania-American Water Company under Section 1102(a) of the Pennsylvania Public Utility Code, 66 Pa C.S. § 1102(a), for approval of (1) the transfer, by sale, to Pennsylvania-American Water Company, of substantially all of the assets, properties and rights related to the wastewater collection and treatment system owned by the York City Sewer Authority and operated by the City of York, (2) the rights of Pennsylvania-American Water Company to begin to offer or furnish wastewater service to the public in the City of York, Pennsylvania, and to three bulk service interconnection points located in North York Borough, Manchester Township and York Township, York County, Pennsylvania. (3) the rights of Pennsylvania-American Water Company to begin to offer or furnish Industrial Pretreatment Program wastewater service to qualifying industrial customers in the City of York, Manchester Township, Spring Garden Township and West Manchester Township, York County, Pennsylvania.

Docket No. A-2021-3024681

DIRECT TESTIMONY

OF

DYLAN W. D'ASCENDIS

ON BEHALF OF THE CITY OF YORK

DIRECT TESTIMONY OF DYLAN W. D'ASCENDIS

- 1 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS FOR THE RECORD.
- 2 A. My name is Dylan W. D'Ascendis. My business address is 3000 Atrium Way, Suite 241,
- 3 Mount Laurel, NJ 08054.

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- 5 Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?
- 6 A. I am employed by ScottMadden, Inc. ("ScottMadden") as Partner.

- 8 Q. PLEASE DESCRIBE YOUR PROFESSIONAL EDUCATION AND EXPERIENCE.
- 9 A. I offer expert testimony on behalf of investor-owned utilities on rate of return issues and 10 class cost of service issues. I am a Utility Valuation Expert ("UVE") in the Commonwealth of Pennsylvania approved by the PUC (Utility Code 9919278). I also assist in preparing 11 12 rate filings, including, but not limited to, revenue requirements and original cost and 13 lead/lag studies. I am a graduate of the University of Pennsylvania, where I received a 14 Bachelor of Arts degree in Economic History. I also hold a Masters of Business 15 Administration from Rutgers University with a concentration in Finance and International 16 Business, which was conferred with high honors. I am a Certified Rate of Return Analyst ("CRRA") and a Certified Valuation Analyst ("CVA"). 17 My full professional 18 qualifications, including my expert witness appearances, are provided in Attachment A

1 Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PENNSYLVANIA 2 **PUBLIC UTILITY COMMISSION?** 3 A. Yes. I have testified before the Pennsylvania Public Utility Commission ("Commission" 4 or "PUC") on several occasions as shown on Attachment A. 5 6 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING? 7 A. The purpose of my testimony is to describe the fair market value appraisal of the 8 wastewater operations of the City of York ("York" or the "City") that my staff and I 9 performed on its behalf. York is selling their operations to Pennsylvania American Water 10 Company ("PAWC"). Our report is entitled "Valuation Report City of York June 15, 11 2021." The appraisal and its report were developed to meet the criteria established in 12 Section 1329 of the Pennsylvania Public Utility Code ("Code"), 66 Pa. C.S. § 1329 13 ("Determination of the fair market value of water and wastewater assets"). 14 In its 2015-2016 legislative session, the Pennsylvania Legislature passed Act 12 of 15 2016 and Governor Wolf signed into law Section 1329 of the Code establishing the 16 legislative guidelines facilitating the acquisition of municipal water and wastewater 17 systems by private investor-owned utilities and other entities which are rate-regulated by 18 the PUC. 19 **QUALIFICATION AS UTILITY VALUATION EXPERT** 20 Q. ARE YOU ON THE COMMISSION'S REGISTRY OF UTILITY VALUATION 21 **EXPERTS?** 22 A. Yes. I am considered a UVE in the Commonwealth of Pennsylvania approved by the PUC

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(Utility Code 9919278).

1	Q.	PLEASE DESCRIBE THE PROCESS BY WHICH SCOTTMADDEN WAS
2		PLACED ON THE COMMISSION'S REGISTRY OF UTILITY VALUATION
3		EXPERTS.
4	A.	After passage of Section 1329 of the Code, the Commission established an application
5		process by which the Commission would approve and designate firms to be placed on the
6		Commission's "Registry of Utility Valuation Experts." ScottMadden submitted its
7		application and the required proof of experience on October 13, 2016 and received
8		confirmation and approval from the Commission of ScottMadden's placement on the
9		Commission's UVE Registry on December 7, 2016. ScottMadden has remained on the
10		Commission's registry ever since.
11		
12	Q.	HAVE YOU EVER HAD YOUR PROFESSIONAL CREDENTIALS REVOKED
13		OR SUSPENDED?
14	A.	No.
15		
16	Q.	DO YOU HAVE SPECIFIC EXPERIENCE WITH THE VALUATION AND
17		APPRAISAL OF UTILITY ASSETS?
18	A.	Yes. Please see Attachment A for the details of my valuation assignments.
19		
20	Q.	HAVE YOU, SCOTTMADDEN, OR ANY OF ITS STAFF DERIVED ANY
21		MATERIAL FINANCIAL BENEFIT FROM THE SALE OF YORK'S ASSETS
22		OTHER THAN FEES FOR YOUR SERVICES RENDERED?
23	A.	No.

ARE YOU, SCOTTMADDEN, OR ANY OF ITS STAFF AN IMMEDIATE 1 Ο. 2 FAMILY MEMBER OF A DIRECTOR, OFFICER, OR EMPLOYEE OF EITHER PAWC OR YORK? 3 4 A. No. 5 6 Q. IS SCOTTMADDEN IN COMPLIANCE WITH APPLICABLE PENNSYLVANIA 7 LAWS? 8 A. Yes. 9 10 Q. DOES SCOTTMADDEN HAVE THE FINANCIAL AND TECHNICAL FITNESS, 11 **INCLUDING PROFESSIONAL LICENSES** AND **TECHNICAL** 12 CERTIFICATIONS, TO PERFORM A FAIR MARKET VALUATION OF THE 13 **ASSETS OF YORK?** 14 Yes. A. 15 16 Q. ARE YOU AWARE OF ANY FACT, INCLUDING BUT NOT LIMITED TO ANY 17 POTENTIAL CONFLICT OF INTEREST, THAT WOULD CAST DOUBT UPON 18 YOUR ABILITY TO PROVIDE A THOROUGH, OBJECTIVE, UNBIASED, AND 19 FAIR VALUATION IN THIS PROCEEDING? 20 A. No. 21 22 ARE YOU ADVOCATING FOR ANY PARTY OR OUTCOME? Q.

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A.

No.

1		FEES PAID FOR UTILITY VALUATION EXPERT SERVICES
2	Q.	HOW IS SCOTTMADDEN BEING COMPENSATED FOR ITS SERVICES IN
3		THIS MATTER?
4	A.	ScottMadden is being compensated on a fee basis, which includes a fixed fee upon delivery
5		of the initial valuation report, and hourly rates for any services rendered thereafter. True,
6		correct, and complete copies of ScottMadden's invoices to York for this matter, as of the
7		date of Application filing, are attached to PAWC's Application as Appendix A-7.2 and I
8		incorporate those invoices in my direct testimony as if set forth in their entirety.
9		
10	Q.	WILL SCOTTMADDEN RECEIVE FEES FOR ITS SERVICES REGARDLESS
11		OF WHETHER THE COMMISSION APPROVES THE PROPOSED
12		TRANSACTION OR WHETHER IT CLOSES?
13	A.	Yes.
14		
15	Q.	ARE THESE FEES CONSISTENT WITH COMPENSATION RECEIVED FOR
16		SIMILAR SERVICES PROVIDED TO OTHER CLIENTS?
17	A.	Yes.
18		FAIR MARKET VALUATION OF YORK'S ASSETS
19	Q.	PLEASE IDENTIFY APPENDIX A-5.2 TO THE APPLICATION IN THIS
20	_	PROCEEDING?
21	Α.,	Appendix A-5.2 of PAWC's Application includes my appraisal report dated June 15, 2021,
22		which I prepared for York to be filed in this proceeding.

1 Q. HOW DO YOU RECOGNIZE IT?

- 2 A. I personally prepared and supervised ScottMadden personnel in preparing the report, and
- 3 recognize it as ScottMadden's work product.

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- 5 Q. IS APPLICATION APPENDIX A-5.2 A TRUE, COMPLETE, AND ACCURATE
- 6 COPY OF YOUR VALUATION REPORT?
- 7 A. Yes, and I incorporate it into my direct testimony as if set forth in its entirety.

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- 9 Q. PLEASE DESCRIBE THE PROCESS BY WHICH YOU PREPARED THE
- 10 **VALUATION REPORT.**
- 11 In accordance with Section 1329 of the Code, PAWC and York engaged Buchart Horn, A. 12 Inc. ("Buchart Horn") as the licensed engineer to conduct an assessment of the City's 13 tangible assets. York engaged ScottMadden to prepare the fair market valuation report for 14 their operations. York provided financial statements regarding their operations and a copy of the Engineering Assessment of the City of York Wastewater System Assets 15 16 ("Engineering Assessment") developed by Buchart Horn as required by Section 17 1329(a)(4). In addition, ScottMadden performed an on-site visit of the above ground 18 facilities and conducted intensive interviews of York staff on January 27, 2021. After those

activities and data gathering, we developed the appraisal.

The appraisal contains a letter of transmittal; a narrative report explaining our methodology and conclusions; a statement of assumptions and limiting conditions; a statement of the Valuation Analyst's Representations; a statement of the professional

1 qualifications of Dylan W. D'Ascendis, CVA, CRRA and Matthew R. Howard; and 2 various schedules and appendices. 3 The intent of the valuation report is to provide the appraisal results, as well as the entire appraisal work file, in sufficient detail to satisfy the parties' and Commission's 4 5 review requirements of Section 1329 and the Commission's Final Implementation Order, In re: Implementation of Section 1329 of the Public Utility Code, Docket No. M-2016-6 7 2543193 (Order entered October 27, 2016). In addition to a copy of my appraisal report, I have provided supporting work papers for the appraisal report. The relevant work papers 8 9 have been submitted to the Commission with the Application and provided to the public 10 advocates in live electronic format. ScottMadden considers the live electronic files, which 11 are in Excel format, to be CONFIDENTIAL. 12 IS THERE ANYTHING THAT YOU WOULD CHANGE IN THE VALUATION 13 Q. 14 REPORT SINCE ITS PREPARATION? 15 A. No. 16 17 THE FAIR MARKET VALUATION OF THE Q. WAS CITY'S ASSETS DETERMINED IN COMPLIANCE WITH THE UNIFORM STANDARDS OF 18 PROFESSIONAL APPRAISAL PRACTICE ("USPAP")? 19

Yes. Included in ScottMadden's cover letter is a statement of our report's compliance with

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USPAP.

1 Q. DID YOU EMPLOY THE COST, MARKET AND INCOME APPROACHES IN

2 **PREPARING YOUR VALUATION?**

3 A. Yes. We developed our appraisal utilizing the cost, market, and income approaches as

required by USPAP and Section 1329 of the Code. These approaches are summarized

5 below.

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Table 1: Summary of Indicated Values

Valuation Approach	Indicated Value		
Cost Approach	\$160,911,998		
Market Approach	\$313,412,789		
Income Approach	\$249,443,744		

7 Q. DID YOU RELY UPON A LICENSED ENGINEER'S ASSESSMENT OF THE

TANGIBLE ASSETS OF YORK IN PERFORMING YOUR VALUATION?

9 **A.** Yes. PAWC and York engaged Buchart Horn as the licensed engineer to conduct an assessment of York's tangible assets. York provided a copy of the Engineering Assessment developed by Buchart Horn as required by Section 1329(a)(4). A copy of the Engineering Assessment is included as **Appendix A-15-a** to the Application.

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Q. DID THE LICENSED ENGINEER'S ASSESSMENT INCLUDE AN INVENTORY

OF THE USED AND USEFUL UTILITY PLANT ASSETS TO BE TRANSFERRED

COMPILED BY YEAR AND ACCOUNT?

17 A. Yes.

18

19 Q. DID THE LICENSED ENGINEER'S ASSESSMENT LIST ALL NON-

DEPRECIABLE PROPERTY SUCH AS LAND AND RIGHTS-OF-WAY?

1	A.	Yes.
2		
3	Q.	TO THE BEST OF YOUR KNOWLEDGE, WAS THE LICENSED ENGINEER'S
4		INVENTORY DEVELOPED FROM AVAILABLE RECORDS, MAPS, WORK
5		ORDERS, DEBT ISSUE CLOSING DOCUMENTS FUNDING CONSTRUCTION
6		PROJECTS, AND OTHER SOURCES TO ENSURE AN ACCURATE LISTING OF
7		UTILITY PLANT INVENTORY BY UTILITY ACCOUNT?
8	A.	Yes. However, due to the lack of records from the period prior to 2008, Buchart Horn
9		noted that they were required to estimate original costs for all assets in place prior to 2008.
10		
11	Q.	DO YOU HAVE ANY REASON TO DOUBT THE ACCURACY OF THE
12		LICENSED ENGINEER'S INVENTORY OF THE ASSETS?
13	A.	No.
14		
15	Q.	DID YOU INCORPORATE THE LICENSED ENGINEER'S ASSESSMENT INTO
16		YOUR COST APPROACH IN DEVELOPING YOUR VALUATION?
17	A.	Yes.
18		
19	Q.	DID YOU CONDUCT AN ON-SITE INSPECTION OF YORK'S ASSETS, AND IF
20		SO, WHAT WAS ITS RESULT ON THE APPRAISAL?
21	A.	Yes. I travelled to York's Wastewater Treatment Plant on January 27, 2021 for interviews
22		with management and a tour of the treatment plant. The information gathered during the
23		interviews were used to finalize assumptions regarding York's operations if they were not

1		being acquired. As far as an inspection of individual York assets, I relied on the				
2		Engineering Assessment for that information.				
3						
4	Q.	DID YOU HAVE TO EXERCISE PROFESSIONAL DISCRETION IN				
5		DEVELOPING ANY ASPECT OF YOUR VALUATION?				
6	A.	Yes. The use of professional discretion is detailed throughout Appendix A-5.2 where				
7		applicable.				
8						
9	Q.	PLEASE DESCRIBE ANY ASSUMPTIONS, EXTRAORDINARY				
10		ASSUMPTIONS, HYPOTHETICAL CONDITIONS, AND/OR LIMITING				
11		CONDITIONS THAT YOU APPLIED TO THE VALUATION.				
12	A.	The Statement of Assumptions and Limiting Conditions and the Valuation Analyst's				
13		Representations are provided in Appendices A and B to Appendix A-5.2 of the Application				
14		Two examples of the limiting conditions for this valuation are:				
15		• Financial statements for the years 2019 and 2020 were not available; nor				
16		were projected capital expenditure as based on the most recent Engineering				
17		Assessment; and				
18		Original costs prior to 2008 were estimated as original cost records were				
19		not available, as outlined in the Engineering Assessment.				
20						
21	Q.	HOW DID YOU DEVELOP THE WEIGHTING APPLIED TO EACH APPROACH				
22		IN YOUR APPRAISAL AND WHY ARE THE INDIVIDUAL WEIGHTS YOU				
23		CHOSE APPROPRIATE FOR THE PROPOSED TRANSACTION?				

No method of valuation will produce the exact value of a business. A valuation study cannot incorporate market conditions at the time of sale or predict a potential investor's desire, or lack thereof, to acquire the business. York's desire to sell additional assets to the potential acquirer may increase the desire of some investors, and as a result, increase the value of both sets of assets. Our valuation and report cannot incorporate these considerations.

A.

I have determined the range of values of York based on the relative weighting of the three valuation methods, as will be discussed below. The weightings indicate the value placed on each appraisal method from the valuation expert. In my opinion, the income and market approaches should receive weights of 45%, and the cost approach a weight of 10%. The reason for this is the Cost Approach does not completely represent York's fair market value of the tangible assets and does not include the value of the contracts with the Surrounding Municipalities, which need to be valued separately and added to the Cost Approach value in order to make the Cost Approach comparable to the results of the Income and Market Approaches. In this instance, the value of York is not only reflected in its physical assets, but its intermunicipal flow volumes. The range of values and relative weightings of the valuation approaches are set forth in Table 2, below:

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Table 2: Conclusion of Value for York

Valuation Approach	Indicated Value	Weight	Weighted Value
Cost	\$160,911,998	10%	\$16,091,200
Market	\$313,412,789	45%	\$141,035,755
Income	\$249,443,744	45%	\$112,249,685
Indicated Value		100%	\$269,376,640

Cost Approach

Q. REGARDING YOUR APPLICATION OF THE COST APPROACH, WHAT METHOD DID YOU USE TO DETERMINE THE COST APPROACH RESULT?

I used a trended original cost method to determine the original cost new, less depreciation ("RCNLD") of York's assets. In order to arrive at the Reproduction Cost New for York's assets, I began with the original cost of the assets provided by the Engineering Assessment and used the Handy-Whitman Index ("HW Index") to determine the current reproduction value. The HW Index is prepared specifically for electric, gas, and water utilities, and is the only publication of its kind available to the public. The HW Index has been published continuously since 1924. The Index is comprised of historical index values for various accounts prescribed by the NARUC Uniform System of Accounts, as well as for construction, material, and labor, by geographic region of the United States. For assets not included in the HW Index, specifically laboratory equipment, transportation equipment, and host computers and mainframes, I used the Producer Pricing Index.

The trended original cost method consists of the development of adjustment factors from the time when the asset was put into service to the current date. For example, an average main (NARUC account 331) placed into service in 1985 with an original cost of

\$100,000 would be trended forward by the ratio of the index value at the current date divided by the index value at the time of installation. The index value of NARUC account 331 in January 2021 is 883.00, and the index value at 1985 when the assets were installed was 254.00, which means the ratio applied to the original cost of the main would be 3.48.1 This would translate into a current cost for that main of \$347,638.2

The next step in deriving the RCNLD for York's assets is to quantify the amount of physical deterioration, functional obsolescence, and economic obsolescence of the assets. Physical deterioration is caused by use, wear and tear, and the aging process. Functional obsolescence is caused by changes in design or construction to create efficiencies not present in the current asset. Economic obsolescence is a loss in value due to external factors not in the control of York such as economic conditions. The most common measure of physical deterioration is the reserve held for depreciation, which is based on the asset's remaining life versus its average useful life. Functional obsolescence is measured by comparing the subject asset to a replacement asset with current technology. The Engineering Assessment found no significant functional obsolescence for York's assets. Economic obsolescence is usually measured by market conditions, which have been supportive towards the water and wastewater industries in the recent past, as well as prospectively, so I do not believe there is significant economic obsolescence present in York's assets. Since the only applicable measure of loss of value is physical deterioration, the useful lives for each asset were determined, and reserves for depreciation were calculated for each York asset if original costs were available. As mentioned previously,

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^{883.00 / 254.00 = 3.48}.

 $^{(883.00 / 254.00) \}times \$100,000 = \$347,638.$

1		assets prior to 2008 did not have original costs assigned, so I relied upon the estimation of
2		original cost provided by the Engineering Assessment.
3		
4	Q.	HOW DID YOU CALCULATE THE DEPRECIATION RESERVE FOR EACH
5		ASSET?
6	A.	First, I determined the useful life for each asset,3 then I reduced the original cost of each
7		asset each year by 1/useful life until the asset was fully depreciated or through 2021, which
8		ever one came first and put that value into the depreciation reserve.
9		
10	Q.	WHAT IS THE INDICATED VALUE OF YORK BASED ON THE COST
11		APPROACH?
12	A.	Using the HW and Producers Pricing Indices to trend the original cost, less depreciation of
13		York's assets forward, I derived a Reproduction Cost New minus depreciation of
14		\$160,911,998 as shown on Schedule 1 of Appendix A-5.2 .
15		As stated above, the value derived from the cost approach is based solely on York's
16		underlying assets, which means it does not take into account the expected cash flows of
17		these assets. This is especially important given the impact of the Surrounding
18		Municipalities (as outlined below) that York provides wastewater treatment and
19		conveyance for. Additionally, even though the HW Index takes into account the changes
20		in the cost of various factors over time in different regions throughout the country, it cannot

Useful lives are based on the System of Accounts for Water and Wastewater Utilities - with 200 or more connections from the Public Utility Commission of Texas with several exceptions. I used a 75-year useful life for mains as determined by the PUC in Docket No. A-2019-3008491, a 50-year useful life for structures, and a 10-year useful life for transportation equipment. My use of both 50 and 10-year useful lives for structures and transportation equipment was not challenged by PUC Staff in Docket No. A-2019-3015173.

take into account intricacies such as terrain (e.g. mountains in Appalachia versus farmland in Pennsylvania) or changes in development and zoning since original installation. All else remaining equal, different terrains or changes in laws will translate into different timeframes to complete the project, which will directly affect costs.

5 Market Approach

- 6 Q. REGARDING YOUR APPLICATION OF THE MARKET APPROACH, WHAT
- 7 METHODS DID YOU USE TO DETERMINE THE MARKET APPROACH
- 8 **RESULT?**
- 9 **A.** I used the market value of invested capital to net plant multiple and comparable sales methods.

- 12 Q. PLEASE DISCUSS THE MARKET VALUE OF INVESTED CAPITAL TO NET
- 13 **PLANT METHOD.**
- 14 The market value of invested capital to net plan method applies a market value of invested A. 15 capital to net plant ratio of a comparable risk group to the original cost less depreciation 16 ("OCLD") of the subject company to derive an indicated market value. As shown on page 17 2 of Schedule 2 of Appendix A-5.2, market value of invested capital to net plant ratios of 18 the water utility proxy group used to derive the weighted average cost of capital ("WACC") 19 in the income approach range from 0.9251x to 2.4940x. Using York's OCLD of \$82,267,297,4 indicated values range from \$76,107,891 to \$205,173,566, with an average 20 21 of \$146,242,945 as shown on page 3 of Schedule 2 of Appendix A-5.2. I also applied 22 York's OCLD to the market value of invested capital to net plant ratio of The York Water

Page 1 of Schedule 1, Column [4]

Company ("YORW"), which reflects a market-based entity facing similar risks, within a similar geographic region during a similar point-in-time. As shown on page 3 of Schedule 2 of **Appendix A-5.2**, the indicated value based on YORW's market value of invested capital to net plant ratio equals \$181,743,972.

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Q. PLEASE DESCRIBE THE COMPARABLE SALES METHOD.

I also researched transactions involving companies who acquired 100% of a water or sewer 7 A. 8 interest since 2015. That research returned 90 results from around the country, 29 of which were acquisitions in Pennsylvania, which are contained on pages 4-5 of Schedule 2 of 9 Exhibit A-5.2. A common ratio which can be used to determine York's market value is 10 11 transaction value per equivalent domestic unit ("EDU"). The purchase price per EDU ratios for the relevant transactions are shown on page 5 of Schedule 2 of Exhibit A-5.2. As 12 13 shown on page 5 of Schedule 2 of Exhibit A-5.2, the nationwide average purchase price 14 to EDU is approximately \$4,290, while the Pennsylvania average purchase price to EDU 15 is \$6,200. Given the 74,671.33 EDUs served by York, 5 indicated values using this 16 approach range from \$320,039,604 to \$462,832,120.

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Q. WHAT WERE THE RESULTS OF EACH ANALYSIS YOU PERFORMED?

The market value of invested capital to net plant analysis produced an indicated value of \$163,993,458.⁶ The comparable sales method produced a result of \$462,832,120.

6 Average of water utility derived and YORW derived values.

Calculated as total consumption divided by the average residential consumption: 765,552,1000 / 12,744 = 60,071.57; 4,485,624,312 / 60,071.57 = 74,671.33. Average residential consumption based on customers within the City of York.

		Page 18
1	Q.	WHICH RESULTS WERE USED TO DETERMINE YOUR MARKET
2		APPROACH RESULT? PLEASE EXPLAIN WHY THESE RESULTS WERE
3		USED.
4	A.	I averaged the average value of the market value of invested capital to net plant method
5		and Pennsylvania average comparable sales method result to come to an indicated value of
6		\$313,412,789. Given the number of comparable sales transactions in Pennsylvania I find
7		that result to be most applicable in this case. Similarly, as noted above, the use of YORW
8		provides an accurate reflection of the current market's assessment of operations that are
9		quite similar to York's. However, I also rely on the average of the water utility proxy
10		group to account for any dissimilarities that might be present between YORW and York.
11	Incon	ne Approach
12	Q.	WHAT ASSUMPTIONS DID YOU EMPLOY TO DEVELOP YOUR INCOME
13		APPROACH RESULT?
14	A.	In determining the indicated value using the income approach, I made assumptions
15		regarding York's operating revenue, operating expenses, and capital requirements.
16		The vast majority of York's revenues are tied to fees for the collection, treatment,
17		and conveyance of wastewater for customers within the City, and fees for treatment and
18		conveyance of wastewater for customers in the following surrounding municipalities:
19		Manchester Township, North York Township, Springettsburry Township, Spring Garden

Township, West Manchester Township, West York Borough, and York Township

(collectively, the "Surrounding Municipalities"). As such, revenues are dependent on two

factors; population growth and rate increases.

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Upon review of U.S. census data, I conclude that the population served by York within the City will be flat or slightly increasing going forward. However, reviewing U.S. census data for the Surrounding Municipalities, I found the average compound growth to be 0.38% for the period 2010-2020. Based on this, I applied a population growth factor of 0.38% to Charges for Services outside the City each year into perpetuity beginning 2021.

In regard to rate increases, on November 17, 2020 the City introduced an ordinance increasing rates for customers within the City by approximately 41.25%, which I applied to the 2021 Charges for Services within the City. Further, based on discussions with York, it was determined that yearly rate increases of 4% starting 2022 and into perpetuity were necessary, which I applied to Charges for Services both inside and outside the City.

General operating expenses for the City are primarily comprised of administrative, maintenance, operational, contracted and professional services, and various miscellaneous expenses. All expenses are assumed to increase at the projected level of the Consumer Price Index⁹ ("CPI").

For the expected system improvements for the period used in the income approach, I relied on an engineering report performed for York, dated as of December 10, 2019 (provided as Appendix I to **Exhibit A-5.2**). Specifically, the engineering report identified improvements based on level of priority, from "very high" to "very low". ¹⁰ Based on the respective priority levels, I assumed all improvements assigned very high priority would

I applied a population growth factor of 0.27% for the Surrounding Municipalities in 2020 based on the average compound growth rate from 2010-2019.

Appendix H of **Exhibit A-5.2**. Although the City eventually adopted a more modest rate increase after receipt of PAWC's proposal, the November 17. 2020 Ordinance provides an indication of the costs of operating the system absent the proposed sale to PAWC.

I employed a CPI projection of 2.20% per year, based on the long-term CPI projection published by *Blue Chip Financial Forecasts*, See, *Blue Chip Financial Forecasts*, Vol. 39, No. 12, December 1, 2020 at 14; Appendix J, at 24.

Appendix I, at 19-23. The priority levels were very high, high, medium-to-high, medium, medium-to-low, low, and very low.

occur in 2021 (\$11.9M) and those assigned high would occur in 2022 (\$6.6M). For all improvements assigned a priority of medium-to-high (\$17.9M), medium (\$0.43M), and medium-to-low (\$4.0M), I assumed those improvements would collectively occur during the period 2023-2025, reflecting an annual expenditure of \$7.5M for each of those three years. Lastly, I assumed all improvements classified as low priority (\$2.1M) could occur in 2026. Starting in 2027, I grew the \$2.1M from 2026 forward at the rate of inflation into perpetuity.

A.

Q. WHAT DISCOUNT RATE DID YOU USE TO CALCULATE YOUR INCOME APPROACH?

The discount rate is the investor-required expected rate of return on the assets. An investor in any company needs to be compensated for the risk of that investment, and a higher level of risk equates to a higher required rate of return. The overall rate of return in this instance is defined by the WACC. I have calculated a discount rate which relates to the traditional method of financing for publicly-traded water companies, which uses an equal mix between debt and equity capital.

For the common equity cost rate, I applied the Discounted Cash Flow ("DCF"), Risk Premium ("RPM") and Capital Asset Pricing Models ("CAPM") to a proxy group of publicly-traded water companies and a group of non-regulated companies comparable in total risk to the water utility group. Application of these cost of common equity models to these groups results in an indicated cost of common equity of 10.25% which is presented in Appendix J of Exhibit A-5.2.

Improvements assigned a very low priority did not have associated cost estimates.

The representative capital structure is a hypothetical capital structure based on the range of capital structures for fiscal year 2020 of the publicly-traded proxy group companies used to derive the cost of common equity. For the debt cost rate used in the WACC calculation, I used a 30-day average Moody's A2 public utility bond rate of 3.41%. Table 3 below illustrates the assumed WACC of an investor-owned water utility.

Table 3: Assumed WACC for Water Utility Company

Type of Capital	Cost Rate	Ratio	Weighted Cost
Long-Term Debt	3.41%	50.00%	1.71%
Common Equity	10.25%	50.00%	<u>5.13%</u>
Total		100.00%	6.84%

- Q. IF YOU USED A TERMINAL VALUE IN YOUR DISCOUNTED CASH FLOW ANALYSIS WHAT IS THE NUMBER OF YEARS OVER WHICH THE CASH
- 11 FLOWS ARE CONSIDERED?
- **A.** I considered those cash flows over 29 years (2021 2050).

- 14 Q. WHAT IS THE INDICATED VALUE OF YORK USING THE INCOME
- **APPROACH?**
- **A.** Inputting the estimated revenue, expense, and capital expenditure data into the model resulted in an indicated value of \$249,443,744.

The range of equity ratios of the proxy group companies were from 21.91% to 59.28% at 2020 fiscal year end.

Exhibit A-5.2, Appendix J, at 2.

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CONCLUSION

- 2 Q. WHAT IS YOUR CONCLUSION REGARDING THE FAIR MARKET VALUE OF
- 3 YORK'S WASTEWATER OPERATIONS TO BE PURCHASED BY PAWC?
- 4 A. The fair market value of York's wastewater operations is \$269,376,640 as of June 15, 2021.
- 5 The results of my appraisal and conclusions are summarized in the following table:

6 7

Table 4: Conclusion of Value for York

Valuation Approach	Indicated Value	Weight	Weighted Value
Cost	\$160,911,998	10%	\$16,091,200
Market	\$313,412,789	45%	\$141,035,755
Income	\$249,443,744	45%	\$112,249,685
Indicated Value		100%	\$269,376,640

- 8 Q. DID YOU MAKE ANY UPDATES TO YOUR APPRAISAL AFTER IT WAS
- 9 SUBMITTED TO THE SELLER/BUYER, AND IF SO, WHAT WAS THE
- 10 UPDATE, WHEN WAS IT MADE, AND WHY WAS IT NECESSARY?
- 11 A. I did not update or revise my appraisal after it was submitted to the Seller.

- 13 Q. DOES THIS CONCLUDE YOUR TESTIMONY?
- 14 A. Yes. However, I reserve the right to supplement my testimony as additional issues and
- facts arise during the course of the proceeding.



Attachment A: Professional Qualifications of Dylan W. D'Ascendis, CRRA, CVA **Partner**

Summary

Dylan is an experienced consultant and a Certified Rate of Return Analyst (CRRA) and Certified Valuation Analyst (CVA). He has served as a consultant for investor-owned and municipal utilities and authorities for 13 years. Dylan has extensive experience in rate of return analyses, class cost of service, rate design, and valuation for regulated public utilities. He has testified as an expert witness in the subjects of rate of return, cost of service, rate design, and valuation before 30 regulatory commissions in the U.S., one Canadian province, an American Arbitration Association panel, and the Superior Court of Rhode Island.

He also maintains the benchmark index against which the Hennessy Gas Utility Mutual Fund performance is measured.

Areas of Specialization

Regulation and Rates

Financial Modeling

Rate of Return

Utilities

SE

Valuation

Cost of Service

Mutual Fund Benchmarking

Regulatory Strategy

Rate Design

Capital Market Risk

Rate Case Support

Recent Expert Testimony Submission/Appearances

Jurisdiction

Massachusetts Department of Public Utilities

New Jersey Board of Public Utilities

Hawaii Public Utilities Commission

South Carolina Public Service Commission

American Arbitration Association

Topic

Rate of Return Rate of Return

Cost of Service, Rate Design

Return on Common Equity

Valuation

Recent Assignments

Provided expert testimony on the cost of capital for ratemaking purposes before numerous state utility regulatory agencies

Maintains the benchmark index against which the Hennessy Gas Utility Mutual Fund performance is measured

Sponsored valuation testimony for a large municipal water company in front of an American Arbitration Association Board to justify the reasonability of their lease payments to the City

Co-authored a valuation report on behalf of a large investor-owned utility company in response to a new state regulation which allowed the appraised value of acquired assets into rate base

Recent Publications and Speeches

- Co-Author of: "Decoupling, Risk Impacts and the Cost of Capital", co-authored with Richard A. Michelfelder, Ph.D., Rutgers University and Pauline M. Ahern. The Electricity Journal, March, 2020.
- Co-Author of: "Decoupling Impact and Public Utility Conservation Investment", co-authored with Richard A. Michelfelder, Ph.D., Rutgers University and Pauline M. Ahern. Energy Policy Journal, 130 (2019), 311-319.
- "Establishing Alternative Proxy Groups", before the Society of Utility and Regulatory Financial Analysts: 51st Financial Forum, April 4, 2019, New Orleans, LA.

"Past is Prologue: Future Test Year", Presentation before the National Association of Water Companies 2017 Southeast Water Infrastructure Summit, May 2, 2017, Savannah, GA.

- Co-author of: "Comparative Evaluation of the Predictive Risk Premium Model™, the Discounted Cash Flow Model and the Capital Asset Pricing Model", co-authored with Richard A. Michelfelder, Ph.D., Rutgers University, Pauline M. Ahern, and Frank J. Hanley, The Electricity Journal, May, 2013.
- "Decoupling: Impact on the Risk and Cost of Common Equity of Public Utility Stocks", before the Society of Utility and Regulatory Financial Analysts: 45th Financial Forum, April 17-18, 2013, Indianapolis, IN.



Sponsor	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Regulatory Commission of	Alaska	AND LEADING TO A TOTAL OF THE PARTY.	网络罗斯斯斯斯斯 斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯	
		Alaska Power Company; Goat Lake	Tariff Nos. TA886-2; TA6-521;	
Alaska Power Company	09/20	Hydro, Inc.; BBL Hydro, Inc.	TA4-573	Capital Structure
Alaska Power Company	07/16	Alaska Power Company	Docket No. TA857-2	Rate of Return
Alberta Utilities Commission	1			September 18 Septe
AltaLink, L.P., and EPCOR Distribution & Transmission, Inc.	01/20	AltaLink, L.P., and EPCOR Distribution & Transmission, Inc.	2021 Generic Cost of Capital, Proceeding ID. 24110	Rate of Return
Arizona Corporation Commi	ssion			A RIFE PARTIES
			Docket No. WS-01303A-20-	
EPCOR Water Arizona, Inc.	06/20	EPCOR Water Arizona, Inc.	0177	Rate of Return
Arizona Water Company	12/19	Arizona Water Company – Western Group	Docket No. W-01445A-19- 0278	Rate of Return
Arizona Water Company	08/18	Arizona Water Company – Northern Group	Docket No. W-01445A-18- 0164	Rate of Return
Arkansas Public Service Cor	nmission			Trate of regulii
CenterPoint Energy				
Resources Corp.	05/21	CenterPoint Arkansas Gas	Docket No. 21-004-U	Return on Equity
Colorado Public Utilities Con	nmission			(leading to a line in
Summit Utilities, Inc.	04/18	Colorado Natural Gas Company	Docket No. 18AL-0305G	Rate of Return
Atmos Energy Corporation	06/17	Atmos Energy Corporation	Docket No. 17AL-0429G	Rate of Return
Delaware Public Service Con	nmission			files a hardinan
Delmarva Power & Light Co.	11/20	Delmarva Power & Light Co.	Docket No. 20-0149 (Electric)	Return on Equity
Delmarva Power & Light Co.	10/20	Delmarva Power & Light Co.	Docket No. 20-0150 (Gas)	Return on Equity
Tidewater Utilities, Inc.	11/13	Tidewater Utilities, Inc.	Docket No. 13-466	Capital Structure
Public Service Commission of	of the Dist	rict of Columbia		
Washington Gas Light Company	09/20	Washington Gas Light Company	Formal Case No. 1162	Rate of Return
Federal Energy Regulatory C	ommissio			
S Power Grid California, LLC	10/20	LS Power Grid California, LLC	Docket No. ER21-195-000	Rate of Return
Florida Public Service Comm	ission			
Fampa Electric Company	04/21	Tampa Electric Company	Docket No. 20210034-EI	Return on Equity
Peoples Gas System	09/20	Peoples Gas System	Docket No. 20200051-GU	Rate of Return
Utilities, Inc. of Florida	06/20	Utilities, Inc. of Florida	Docket No. 20200139-WS	Rate of Return
lawaii Public Utilities Commi	ssion			
auniupoko Irrigation Company, Inc.	12/20	Launiupoko Irrigation Company, Inc.	Docket No. 2020-0217 / Transferred to 2020-0089	Capital Structure
anai Water Company, Inc.	12/19	Lanai Water Company, Inc.	Docket No. 2019-0386	Cost of Service / Rate Design
Manele Water Resources, LC	08/19	Manele Water Resources, LLC	Docket No. 2019-0311	Cost of Service / Rate Design
(aupulehu Water Company	02/18	Kaupulehu Water Company	Docket No. 2016-0363	Rate of Return
Aqua Engineers, LLC	05/17	Puhi Sewer & Water Company	Docket No. 2017-0118	Cost of Service / Rate Design



Sponsor	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Hawaii Resources, Inc.	09/16	Laie Water Company	Docket No. 2016-0229	Cost of Service / Rate Design
Illinois Commerce Commissi	ion			
Utility Services of Illinois, Inc.	02/21	Utility Services of Illinois, Inc.	Docket No. 21-0198	Rate of Return
Ameren Illinois Company d/b/a Ameren Illinois	07/20	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 20-0308	Return on Equity
Utility Services of Illinois, Inc.	11/17	Utility Services of Illinois, Inc.	Docket No. 17-1106	Cost of Service / Rate Design
Aqua Illinois, Inc.	04/17	Aqua Illinois, Inc.	Docket No. 17-0259	Rate of Return
Utility Services of Illinois, Inc.	04/15	Utility Services of Illinois, Inc.	Docket No. 14-0741	Rate of Return
Indiana Utility Regulatory Co	mmission			District to
Aqua Indiana, Inc.	03/16	Aqua Indiana, Inc. Aboite Wastewater Division	Docket No. 44752	Rate of Return
Twin Lakes, Utilities, Inc.	08/13	Twin Lakes, Utilities, Inc.	Docket No. 44388	Rate of Return
Kansas Corporation Commis	sion			
Atmos Energy	07/19	Atmos Energy	19-ATMG-525-RTS	Rate of Return
Kentucky Public Service Con	nmission			
Duke Energy Kentucky, Inc.	06/21	Duke Energy Kentucky, Inc.	2021-00190	Return on Equity
Bluegrass Water Utility Operating Company	10/20	Bluegrass Water Utility Operating Company	2020-00290	Return on Equity
Louisiana Public Service Con	nmission			
Southwestern Electric Power Company	12/20	Southwestern Electric Power Company	Docket No. U-35441	Return on Equity
Atmos Energy	04/20	Atmos Energy	Docket No. U-35535	Rate of Return
Louisiana Water Service, Inc.	06/13	Louisiana Water Service, Inc.	Docket No. U-32848	Rate of Return
Maryland Public Service Com	mission			
Washington Gas Light Company	08/20	Washington Gas Light Company	Case No. 9651	Rate of Return
FirstEnergy, Inc.	08/18	Potomac Edison Company	Case No. 9490	Rate of Return
Massachusetts Department o	f Public Ut	ilities		
Unitil Corporation	12/19	Fitchburg Gas & Electric Co. (Elec.)	D.P.U. 19-130	Rate of Return
Unitil Corporation	12/19	Fitchburg Gas & Electric Co. (Gas)	D.P.U. 19-131	Rate of Return
Liberty Utilities	07/15	Liberty Utilities d/b/a New England Natural Gas Company	Docket No. 15-75	Rate of Return
Minnesota Public Utilities Cor				THE DESCRIPTION OF THE PARTY OF
Northern States Power Company	11/20	Northern States Power Company	Docket No. E002/GR-20-723	Rate of Return
Mississippi Public Service Co	mmission			RANGE BAR ETER
Atmos Energy	03/19	Atmos Energy	Docket No. 2015-UN-049	Capital Structure
Atmos Energy	07/18	Atmos Energy	Docket No. 2015-UN-049	Capital Structure
Missouri Public Service Comr			ASSESSMENT LES PORTORS	- Suprici Structure
Spire Missouri, Inc.	12/20	Spire Missouri, Inc.	Case No. GR-2021-0108	Return on Equity



Sponsor	DATE CASE/APPLICANT		DOCKET NO.	SUBJECT	
Indian Hills Utility Operating		Indian Hills Utility Operating			
Company, Inc.	10/17	Company, Inc.	Case No. SR-2017-0259	Rate of Return	
Raccoon Creek Utility		Raccoon Creek Utility Operating			
Operating Company, Inc.	09/16	Company, Inc.	Docket No. SR-2016-0202	Rate of Return	
Public Utilities Commission of					
Southwest Gas Corporation	08/20	Southwest Gas Corporation	Docket No. 20-02023	Return on Equity	
New Hampshire Public Utilitie	es Commi				
Aquarion Water Company of New Hampshire, Inc.	12/20	Aquarion Water Company of New Hampshire, Inc.	Docket No. DW 20-184	Rate of Return	
New Jersey Board of Public L	Itilities				
Middlesex Water Company	05/21	Middlesex Water Company	Docket No. WR21050813	Rate of Return	
Atlantic City Electric Company	12/20	Atlantic City Electric Company	Docket No. ER20120746	Return on Equity	
FirstEnergy	02/20	Jersey Central Power & Light Co.	Docket No. ER20020146	Rate of Return	
Aqua New Jersey, Inc.	12/18	Aqua New Jersey, Inc.	Docket No. WR18121351	Rate of Return	
Middlesex Water Company	10/17	Middlesex Water Company	Docket No. WR17101049	Rate of Return	
Middlesex Water Company	03/15	Middlesex Water Company	Docket No. WR15030391	Rate of Return	
The Atlantic City Sewerage		The Atlantic City Sewerage		Cost of Service / Rate	
Company	10/14	Company	Docket No. WR14101263	Design	
Middlesex Water Company	11/13	Middlesex Water Company	Docket No. WR1311059	Capital Structure	
New Mexico Public Regulation	n Commis	sion	到达。4日 第一届多个银行		
Southwestern Public Service Company	01/21	Southwestern Public Service Company	Case No. 20-00238-UT	Return on Equity	
North Carolina Utilities Comm	ission				
Piedmont Natural Gas Co.Inc.	03/21	Piedmont Natural Gas Co., Inc.	Docket No. G-9, Sub 781	Return on Equity	
Duke Energy Carolinas, LLC	07/20	Duke Energy Carolinas, LLC	Docket No. E-7, Sub 1214	Return on Equity	
Duke Energy Progress, LLC	07/20	Duke Energy Progress, LLC	Docket No. E-2, Sub 1219	Return on Equity	
Aqua North Carolina, Inc.	12/19	Aqua North Carolina, Inc.	Docket No. W-218 Sub 526	Rate of Return	
Carolina Water Service, Inc.	06/19	Carolina Water Service, Inc.	Docket No. W-354 Sub 364	Rate of Return	
Carolina Water Service, Inc.	09/18	Carolina Water Service, Inc.	Docket No. W-354 Sub 360	Rate of Return	
Aqua North Carolina, Inc.	07/18	Aqua North Carolina, Inc.	Docket No. W-218 Sub 497	Rate of Return	
North Dakota Public Service C			Edition to 210 day 401	Trate of retain	
Northern States Power					
Company	11/20	Northern States Power Company	Case No. PU-20-441	Rate of Return	
Public Utilities Commission of	Ohio				
Aqua Ohio, Inc.	05/16	Aqua Ohio, Inc.	Docket No. 16-0907-WW-AIR	Rate of Return	
Pennsylvania Public Utility Co		·	Sociotio, 10 0001 1111 / life	Trate of return	
Vicinity Energy Philadelphia.					
Inc.	04/21	Vicinity Energy Philadelphia, Inc.	Docket No. R-2021-3024060	Rate of Return	
Delaware County Regional		Delaware County Regional Water		1.1.10 01.1.1010111	
Water Control Authority	02/20	Control Authority	Docket No. A-2019-3015173	Valuation	
Valley Energy, Inc.	07/19	C&T Enterprises	Docket No. R-2019-3008209	Rate of Return	
Wellsboro Electric Company	07/19	C&T Enterprises	Docket No. R-2019-3008208	Rate of Return	



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT	
Citizens' Electric Company of					
Lewisburg	07/19	C&T Enterprises	Docket No. R-2019-3008212	Rate of Return	
Steelton Borough Authority	01/19	Steelton Borough Authority	Docket No. A-2019-3006880	Valuation	
Mahoning Township, PA	08/18	Mahoning Township, PA	Docket No. A-2018-3003519	Valuation	
SUEZ Water Pennsylvania Inc.	04/18	SUEZ Water Pennsylvania Inc.	Docket No. R-2018-000834	Rate of Return	
Columbia Water Company	09/17	Columbia Water Company	Docket No. R-2017-2598203	Rate of Return	
Veolia Energy Philadelphia, Inc.	06/17	Veolia Energy Philadelphia, Inc.	Docket No. R-2017-2593142	Rate of Return	
Emporium Water Company	07/14	Emporium Water Company	Docket No. R-2014-2402324	Rate of Return	
Columbia Water Company	07/13	Columbia Water Company	Docket No. R-2013-2360798	Rate of Return	
Penn Estates Utilities, Inc.	12/11	Penn Estates, Utilities, Inc.	Docket No. R-2011-2255159	Capital Structure / Long-Term Debt Cos Rate	
South Carolina Public Service		A STATE OF THE RESIDENCE OF THE PARTY OF THE			
Blue Granite Water Co.	12/19	Blue Granite Water Company	Docket No. 2019-292-WS	Rate of Return	
Carolina Water Service, Inc.	02/18	Carolina Water Service, Inc.	Docket No. 2017-292-WS	Rate of Return	
Carolina Water Service, Inc.	06/15	Carolina Water Service, Inc.	Docket No. 2015-199-WS	Rate of Return	
Carolina Water Service, Inc.	11/13	Carolina Water Service, Inc.	Docket No. 2013-275-WS	Rate of Return	
United Utility Companies, Inc.	09/13	United Utility Companies, Inc.	Docket No. 2013-199-WS	Rate of Return	
Utility Services of South Carolina, Inc.	09/13	Utility Services of South Carolina, Inc.	Docket No. 2013-201-WS	Rate of Return	
Tega Cay Water Services, Inc.	11/12	Tega Cay Water Services, Inc.	Docket No. 2012-177-WS	Capital Structure	
Tennessee Public Utility Com	mission			- Suprice Structuro	
Piedmont Natural Gas Company	07/20	Piedmont Natural Gas Company	Docket No. 20-00086	Return on Equity	
Public Utility Commission of 1	Texas			distribution Equity	
Southwestern Public Service Company	02/21	Southwestern Public Service Company	Docket No. 51802	Return on Equity	
Southwestern Electric Power Company	10/20	Southwestern Electric Power Company	Docket No. 51415	Rate of Return	
Virginia State Corporation Cor	mmission				
Virginia Natural Gas, Inc.	04/21	Virginia Natural Gas, Inc.	PUR-2020-00095	Return on Equity	
Massanutten Public Service Corporation	12/20	Massanutten Public Service			
Aqua Virginia, Inc.	07/20	Corporation	PUE-2020-00039	Return on Equity	
WGL Holdings, Inc.		Aqua Virginia, Inc.	PUR-2020-00106	Rate of Return	
	07/18	Washington Gas Light Company	PUR-2018-00080	Rate of Return	
Atmos Energy Corporation	05/18	Atmos Energy Corporation	PUR-2018-00014	Rate of Return	
Aqua Virginia, Inc.	07/17	Aqua Virginia, Inc.	PUR-2017-00082	Rate of Return	
Massanutten Public Service Corp.	08/14	Massanutten Public Service Corp.	PUE-2014-00035	Rate of Return / Rate Design	



Valuation Engagements:

Sponsor	DATE	ASSETS VALUED	DESCRIPTION
City of York, PA	06/2021	Wastewater Operations	Authored Valuation Report, which will be a part of an Act 12 Filing
Aqua New Jersey, Inc.	05/2021	Confidential Wastewater Operations in NJ	Authored Valuation Report for internal purposes
Aqua New Jersey, Inc.	05/2021	Confidential Water and Wastewater Operations in NJ	Authored Valuation Report for internal purposes
Aqua Ohio, Inc.	05/2021	Confidential Water Operations in OH	Authored Valuation Report for internal purposes
Aqua Pennsylvania, Inc.	04/2021	Confidential Wastewater Operations in PA	Authored Valuation Report for internal purposes
Aqua New Jersey, Inc.	04/2021	Confidential Wastewater Operations in NJ	Authored Valuation Report for internal purposes
Aqua Pennsylvania, Inc.	02/2021	Confidential Wastewater Operations in PA	Authored Valuation Report for internal purposes
Artesian Water Company, Inc.	01/2021	Wastewater Operations for Delaware City, DE	Authored valuation report for internal purposes
EPCOR Distribution and Transmission, Inc., Alberta Canada	12/2020	Fiber Optic Cable Assets	Fiber optic cable available for lease for Internal purposes
EPCOR Distribution and Transmission, Inc., Alberta Canada	12/2020	Duct Bank Assets	Duct banks available for lease for Internal purposes
Borough of Lewistown, PA	08/2020	Water Operations	Authored valuation report for internal purposes
Artesian Water Company, Inc.	06/2020	Wastewater Operations for Town of Frankford, DE	Authored valuation report for internal purposes
Foster Township, PA	04/2020	Water Operations	Authored valuation report for internal purposes
City of Erie, PA	04/2020	Water Operations	Authored valuation report for internal purposes
Delaware County Regional Water Quality Control Authority	02/2020	Wastewater Operations	Authored Valuation Report, which will be a part of an Act 12 Filing
Aqua North Carolina, Inc.	02/2020	Confidential Water Operations in NC	Authored Valuation Report for internal purposes
Aqua New Jersey, Inc.	02/2020	Confidential Water Operations in NJ	Authored Valuation Report for internal purposes
Aqua Ohio, Inc.	11/2019	Confidential Wastewater Operations in OH	Authored Valuation Report for internal purposes
Steelton Water Authority	06/2018	Water Operations	Authored Valuation Report, which will be a part of an Act 12 Filing
Sara Golvinveaux McGinnes Trust	04/2018	Electric Operations of Block Island Power Company	Authored Valuation Report for Superior Court Trial
Mahoning Township, PA	09/2017	Water and Sewer Assets	Authored Valuation Report, which is part of an Act 12 Filing
Atmos Energy Corporation	09/2016	Intrastate Natural Gas Pipeline	Authored Valuation for internal purposes.
Springfield Township, PA	08/2014	Water and Sewer Assets	Co-Authored Valuation Report, which was part of House Bill 1379 Filing (similar to PA Act 12)





Sponsor	DATE	ASSETS VALUED	DESCRIPTION
Aqua Illinois, Inc.	07/2014	Village of Glenview, IL (North Maine Utilities) Sewer Assets	Co-Authored Valuation report for internal purposes
Erie City Water Authority, Erie, PA	12/2013	Water Assets	Sponsored Valuation Testimony in Arbitration Hearing
City of Allentown, PA	12/2012	Water and Sewer Assets	Assisted in the generation of Valuation Report