I&E Statement No. 2-SR
Witness: Anthony Spadaccio

**PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**v.**

**AQUA PENNSYLVANIA, INC.**
**&**
**AQUA PENNSYLVANIA WASTEWATER, INC.**

**Docket Nos. R-2021-3027385 & R-2021-3027386**

# Surrebuttal Testimony

**of**

**Anthony Spadaccio, CRRA**

**Bureau of Investigation & Enforcement**

**Concerning:**

**Rate of Return**

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**<u>INTRODUCTION OF WITNESS</u>**

**Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A. My name is Anthony Spadaccio. My business address is Pennsylvania Public Utility Commission, Commonwealth Keystone Building, 400 North Street, Harrisburg, PA 17120.

**Q. ARE YOU THE SAME ANTHONY SPADACCIO WHO IS RESPONSIBLE FOR THE DIRECT TESTIMONY CONTAINED IN I&E STATEMENT NO. 2 AND THE SCHEDULES IN I&E EXHIBIT NO. 2?**

A. Yes.

**Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

A. The purpose of my surrebuttal testimony is to address statements made by Aqua Pennsylvania, Inc. and Aqua Pennsylvania Wastewater, Inc. (referred to collectively as Aqua or Company) witness Paul R. Moul in his rebuttal testimony (AP Statement No. 7-R) regarding rate of return topics including the cost of common equity and the overall fair rate of return, which will be applied to the Company's rate base. In addition, I will address the management performance claim discussed by Company witness William C. Packer (AP Statement No. 1-R).

## SUMMARY OF MR. MOUL'S REBUTTAL TESTIMONY

**Q. SUMMARIZE MR. MOUL'S RESPONSE IN REBUTTAL TESTIMONY TO YOUR RECOMMENDATIONS MADE IN DIRECT TESTIMONY.**

A. Mr. Moul disputes my recommendations regarding an appropriate proxy group, my reliance on and application of the Discounted Cash Flow (DCF) method, the DCF growth rate, and disallowance of his leverage adjustments to the DCF and beta of his Capital Asset Pricing Model (CAPM). Further, Mr. Moul disagrees with the appropriate risk-free rate to use and my exclusion of a size adjustment in my CAPM analysis, my disagreement with his use of the Risk Premium (RP) and Comparable Earnings (CE) methods, and my recommended disallowance of additional basis points for management performance.

## PROXY GROUP

**Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING YOUR PROXY GROUP.**

A. Mr. Moul simply claims that I have erroneously excluded Artesian Resources from my water company proxy group.[1] Because the remaining seven companies in his Water Group are the same as my proxy group, he takes no further issue.

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[1] AP Statement No. 7-R, p. 2, lines 10-12.

**Q. WHAT IS YOUR RESPONSE TO MR. MOUL'S CLAIM THAT YOU ERRONEOUSLY EXCLUDED ARTESIAN RESOURCES FROM YOUR PROXY GROUP AND COST OF EQUITY ANALYSIS?**

A. As explained in my direct testimony, I have excluded Artesian Resources from my proxy group because it violates my third proxy group criterion which dictates that investment information for the company must be available from more than one source, which includes Value Line. Artesian Resources Corporation does not have a Value Line report, and therefore, does not have the projected dividend per share or projected earnings growth rate information necessary to perform my analysis.

**Q. HAVE YOU CHANGED YOUR PROXY GROUP AS A RESULT OF MR. MOUL'S REBUTTAL TESTIMONY?**

A. No.

**DISCOUNTED CASH FLOW**

**Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING YOUR DCF ANALYSIS.**

A. Mr. Moul agrees that results of a DCF analysis should be given weight, but he asserts that use of multiple methods provides a superior foundation to determine the cost of equity. He compares the Distribution System Improvement Charge (DSIC) rate determined by the Commission in the Quarterly Earnings Summary Reports to the rates calculated using market data. Additionally, Mr. Moul compares my cost of equity recommendation to Commission granted equity returns of various gas and electric utilities. He further disagrees with my results based on the outcomes of certain individual companies and disputes my growth rate analysis. Finally, Mr. Moul disagrees with my recommendation to reject his leverage adjustment.[2]

**EXCLUSIVE USE OF THE DCF**

**Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING YOUR USE OF THE DCF.**

A. Mr. Moul asserts that the use of more than one method provides a superior foundation for the cost of equity determination. He claims that the use of more than one method will capture the multiplicity of factors that motivate investors to commit their capital to a particular enterprise.[3]

**Q. WERE ANY METHODS OTHER THAN THE DCF EMPLOYED IN YOUR ANALYSIS?**

A. Yes. Although my recommendation was based primarily on the results of my DCF analysis, I also employed the CAPM as a comparison. For the reasons discussed in my direct testimony, the DCF method is the most reliable.[4] I have considered the fact that no method can perfectly predict the return on equity, which is why I also use the CAPM as a comparison to the DCF. Although no one method can capture every factor that influences an investor, including the results of methods less reliable than the DCF does not make the end result more reliable or more accurate. I agree with

[2] AP Statement No. 7-R, p. 10, ln. 7 through p. 17, ln. 26.
[3] AP Statement No. 7-R, p. 10, lines 11-16.
[4] I&E Statement No. 2, p. 16, ln. 9 through p. 17, ln. 22.

Mr. Moul that a proper determination of the cost of equity should not consider only a single method. Where we disagree is to what extent one should rely on each method. In direct testimony, I cited several cases that illustrate the methodology I employed is consistent with the methodology historically used by the Commission in base rate proceedings as recently as 2017, 2018, 2020, and 2021.[5]

**DSIC RATE**

**Q. SHOULD THE COMMISSION CONSIDER THE AUTHORIZED DSIC RATE ESTABLISHED IN THE QUARTERLY EARNINGS SUMMARY REPORTS AS AN APPROPRIATE MEASURE TO DETERMINE THE COST OF EQUITY IN THIS PROCEEDING?**

A. No. Mr. Moul's comparison between the I&E recommended return on equity in this proceeding and the Company's DSIC rate is misguided. The DSIC rate is designed to encourage its use and to incentivize accelerated pipeline replacement and infrastructure upgrades to bring aging infrastructure closer to meeting safety and reliability requirements in between base rate filings. To suggest the cost of equity must be at or above the DSIC rate in this base rate proceeding is inappropriate and not in the public interest. Additionally, the DSIC rate establishes a benchmark above which a utility company is considered "overearning" for use of the DSIC mechanism. As such, the DSIC rate does not serve as a proper measurement of a subject utility's cost of equity in a base rate proceeding since the DSIC rate is routinely higher than

[5] I&E Statement No. 2, p. 16, lines 1-7.

any return on equity approved in such base rate proceedings. In fact, 66 Pa. C.S. § 1358(b)(3) states the following:

> The distribution system improvement charge shall be reset at zero if, in any quarter, data filed with the commission in the utility's most recent annual or quarterly earnings report show that the utility will earn a rate of return that would exceed the allowable rate of return used to calculate its fixed costs under the distribution system improvement charge.

Finally, the DSIC mechanism serves to lower a utility's risk because it reduces the lag time in the recovery of a company's capital outlays. DSIC spending requires preapproval of eligible plant via a Long-Term Infrastructure Improvement Plan so there is little question as to the prudence of those expenditures.

**Q. IS IT APPROPRIATE TO COMPARE COMMISSION AUTHORIZED COST OF EQUITY RETURNS OF GAS AND ELECTRIC UTILITIES TO YOUR RECOMMENDED COST OF EQUITY IN THIS PROCEEDING?**

A. No. Different industries, or utility types, have varying factors such as financial risk, safety concerns, and competition. Commission staff, I&E, and other expert witnesses all use industry specific proxy groups in their analyses in order to use like companies to account for these differences.

## <u>EVALUATING THE DCF BASED ON INDIVIDUAL RESULTS</u>

**Q. SUMMARIZE MR. MOUL'S RESPONSE IN REBUTTAL TESTIMONY REGARDING THE RESULTS OF YOUR DCF.**

A. Mr. Moul explains that when some results are unreasonable on their face, the reliability of, or the witness' application of that method must be questioned. He points to the results of three of my companies and claims that they fall into the category of unreasonableness. Mr. Moul attempts to support his theory by arguing that the spread between the cost of debt and the cost of equity is 6.75%.[6]

**Q. WHAT IS YOUR RESPONSE TO MR. MOUL'S ATTEMPT TO DISAGGREGATE YOUR RESULTS?**

A. Mr. Moul derives his suggested 6.75% spread from his RP analysis.[7] I have refuted the use of the RP method both in my direct testimony,[8] and later in this testimony as it is an inferior method for calculating the cost of common equity. Further, the 8.90% result of my DCF analysis offers a 4.9% margin over the undisputed 4.00% cost of debt (8.90% - 4.00% = 4.90%). My recommended cost of equity is more than double the Company's cost of debt, which I certainly believe satisfies Mr. Moul's statement that, "It is a fundamental tenet of finance that the cost of equity must be higher than the cost of debt by a meaningful margin to compensate for the higher risk associated with a common equity investment."[9]

**<u>GROWTH RATE</u>**

**Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING YOUR GROWTH RATES.**

A. Mr. Moul argues that I should have removed the "unduly low" growth rate of Middlesex Water from my proxy group average. He suggests that had I done so, as

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6 AP Statement No. 7-R, p. 11, ln. 24 through p. 12, ln. 17.
7 AP Statement No. 7 p. 39, lines 1-3.
8 I&E Statement No. 2, p. 14, ln. 2 through p. 20, ln. 9.
9 AP Statement No. 7-R, p. 12, lines 9-12.

well as excluding Middlesex Water's accompanying dividend yield from my analysis, my DCF result would have increased from 8.90% to 9.58% (1.84% dividend yield + 7.74% growth rate).[10]

**Q. DO YOU AGREE WITH MR. MOUL'S RECALCULATION OF YOUR DCF RESULTS BASED ON THE REMOVAL OF MIDDLESEX WATER DUE TO WHAT HE DEEMS TO BE AN UNREASONABLY LOW GROWTH RATE?**

A. No. Mr. Moul removes this company from my analysis simply because he believes its growth rate and corresponding DCF result are too low. His recalculation results in a DCF that is 68 basis points (9.58% - 8.90%) higher than my recommendation, yet still 117 basis points (10.75% - 9.58%) below his cost of equity recommendation. Notably, if I were to eliminate the highest average growth rate and the highest average dividend yield of 9.90%[11] and 2.36%[12] respectively from my analysis, I would end up with an 8.34% as opposed to an 8.90% DCF result.

Mr. Moul's decision to remove Middlesex Water only serves to inflate the DCF result as his argument lacks objective rationale and defeats the purpose of using a proxy group. Markedly, Mr. Moul himself states, "The principal purpose of assembling a barometer group is to avoid relying on data for a single company that may not be representative and to thereby smooth out any abnormalities".[13] This acknowledgement is counterintuitive to his suggestion to remove Middlesex Water

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[10] AP Statement No. 7-R, p. 13, ln. 17 through p. 14, ln. 2.
[11] I&E Exhibit No. 2, Schedule 5.
[12] I&E Exhibit No. 2, Schedule 4.
[13] AP Statement No. 7-R, p. 12, lines 2-4.

from my analysis. Ironically, Mr. Moul employs Middlesex Water in his own analysis.

__**LEVERAGE ADJUSTMENT**__

**Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING HIS LEVERAGE ADJUSTMENT.**

A. First, Mr. Moul clarifies that his "leverage adjustment" is not a traditional "market-to-book" ratio adjustment. Next, he states that credit rating agencies do not measure the market-required cost of equity for a company, nor are they concerned with how it is applied in the rate-setting context. Rather, the credit rating agencies are only concerned with the interests of lenders and the timely payment of principal and interest by companies. Then, Mr. Moul questions my references to prior Commission orders. Finally, Mr. Moul disagrees with my claim that investors base their decisions on the book value of a company's debt and equity.[14]

**Q. HAVE YOU CLAIMED THAT MR. MOUL'S ADJUSTMENT IS A MARKET-TO-BOOK RATIO ADJUSTMENT?**

A. No. As I stated in direct testimony, "Mr. Moul does not propose to change the capital structure of the utility (a leverage adjustment), nor does he propose to apply the market-to-book ratio to the DCF model (a market-to-book adjustment)."[15]

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[14] AP Statement No. 7-R, p. 15, ln 18 through p. 18, ln. 13.
[15] I&E Statement No. 2, p. 39, ln. 20 through p. 40, ln. 2.

**Q. WHAT IS YOUR RESPONSE TO MR. MOUL'S REBUTTAL TESTIMONY CONCERNING CREDIT RATING AGENCIES?**

A. Mr. Moul has actually supported my argument that his proposed leverage adjustment is not needed by stating that the credit rating agencies are only concerned with the timely payment of principal and interest by utilities. Mr. Moul's stated need for the leverage adjustment is based on his assertion that the difference between the book value capital structure and his market value capital structure poses a financial risk difference.[16]

Financial risk does relate to the capital structure of a company, but it is created by the financing decisions (the use of debt or equity) and the amount of leverage or debt with which a company chooses to finance its assets. Financial risk and the book value capital structure of a company are represented in the financial statements, which are part of what is evaluated by rating agencies. Mr. Moul agrees with me that credit rating agencies use a company's booked debt obligations, found in the financial statements, in their analysis to assess financial risk and determine creditworthiness.[17]

**Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY ON YOUR REFERENCE TO PRIOR COMMISSION ORDERS.**

A. Mr. Moul refers to the discussion in my direct testimony about four recent cases where the Commission has rejected a "leverage adjustment." He explains that even though the Commission declined to make a "leverage adjustment" in a prior Aqua

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[16] AP Statement No. 7, p. 30, ln. 21 through p. 31, ln. 2.

[17] AP Statement No. 7-R, p. 15, lines 22-25.

Pennsylvania case, it does not invalidate its use. Further, he states, "Notably, the Commission did not repudiate the leverage adjustment in the Aqua case, but instead arrived at an 11.00% return on equity for Aqua by including a separate return increment for management performance."[18] Next, Mr. Moul claims that the adjustment proposed in the City of Lancaster case was much different than what he proposes in this case. Then, regarding UGI Electric, Mr. Moul acknowledges the Commission granted a "management performance increment," not a leverage adjustment when arriving at the allowed equity return. Finally, in the Columbia Gas case, Mr. Moul concedes that the Company accepted I&E's return on equity recommendation which did not include a leverage adjustment or addition of points for management performance.[19]

**Q. WHAT IS YOUR RESPONSE TO MR. MOUL REGARDING THE REFERENCED PRIOR COMMISSION ORDERS IN YOUR DIRECT TESTIMONY?**

A. In this proceeding, Mr. Moul is recommending a 234-basis point "leverage adjustment." To be clear, the Commission did in fact refuse to accept the leverage adjustment in the Aqua case by stating "…we reject the ALJ's recommendation to allow a 65 basis point leverage adjustment."[20] The management performance points awarded to Aqua were case-specific and in no way related to the proposed leverage adjustment. Regarding the City of Lancaster case, the Commission did not reject the

18 AP Statement No. 7-R, p. 16, lines 14-16.
19 AP Statement No. 7-R, p. 16, ln. 7 through p. 17, ln. 6.
20 *Pa. PUC v. Aqua Pennsylvania, Inc.,* Docket No. R-00072711, pp. 38-39 (Order entered July 31, 2008).

leverage adjustment based on the manner in which it was calculated, but rather, the Commission stated, "…the ALJ's recommendation is in error as any adjustment to the results of the market based DCF as we have previously adopted are unnecessary and will harm ratepayers."[21] Regarding the UGI Electric case, the Commission concluded that "…an artificial adjustment in this proceeding is unnecessary and contrary to the public interest. Accordingly, we decline to include a leverage adjustment in our calculation of the DCF cost of equity."[22] Regarding the most recent Columbia Gas case, the Commission stated,

> … we have adopted the ALJ's recommendation to use I&E's DCF methodology utilizing I&E's dividend yield of 3.34% and growth rate of 6.52%. As noted above, the ALJ did not specify a recommended cost of equity for Columbia in their Recommended Decision. However, we note that I&E's methodology results in an ROE of 9.86%.[23]

The ALJ's Recommended Decision stated the following:

> The ALJ agrees with BIE's reasoning that Columbia Gas' calculated return on equity was flawed for five reasons: (1) the weights given to the results of the Company's CAPM, RP, and CE analyses; (2) certain aspects of Columbia's discussion of risk; (3) Columbia Gas' application of the DCF including the forecasted growth rate and leverage adjustment used; (4) Columbia's inclusion of a size adjustment, reliance on the 30-year Treasury Bond for the risk- free rate, and the use of a double-adjusted *beta* in the CAPM analysis; and (5) the Company's request for an additional 20 basis points for "strong management performance" is unjustified.[24]

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[21] *Pa. PUC v. City of Lancaster – Bureau of Water*; Docket No. R-2010-2179103, p. 101 (Order entered July 14, 2011).

[22] *Pa. PUC v. UGI Utilities, Inc. – Electric Division;* Docket No. R-2017-2640058, pp. 93-94 (Order entered October 25, 2018).

[23] *Pa. PUC v. Columbia Gas of Pennsylvania*; Inc. Docket No. R-2020-3018835, p. 141 (Order entered February 19, 2021).

[24] *Pa. PUC v. Columbia Gas of Pennsylvania*; Inc. Docket No. R-2020-3018835, Recommended Decision, pp. 184-185.

While the Company accepted I&E's DCF return without regard to the leverage adjustment or management performance in the last base rate case, in the Recommended Decision, the ALJ clearly rejected the Company's proposed leverage adjustment and the Commission agreed with the ALJ's Recommended Decision.

Finally, in the PECO Energy – Gas Division case, the Commission stated,

> … we have adopted the ALJ's recommendation to use I&E's DCF methodology and to use I&E's CAPM calculation as a check on the reasonableness of the DCF determined cost of equity. Therefore, we shall adopt the ALJ's recommended 10.24% cost of equity. In our view, this is an appropriate cost of equity for PECO given the record developed in this proceeding.[25]

In the Recommended Decision, the ALJ agreed with I&E's recommended cost of equity which did not include a leverage adjustment.[26]

**Q. WHAT IS YOUR RESPONSE TO MR. MOUL'S ASSERTION THAT INVESTORS DO NOT BASE THEIR DECISIONS ON BOOK VALUE, BUT RATHER THE RETURN THEY EXPECT TO EARN ON THE DOLLARS THEY INVEST?**

A. Certainly, investors purchase securities such as stocks at market value as opposed to book value. In doing so, they accept the returns and associated risks implied by market prices. However, financial statements which are based on book values show the entire true financial position of a company which provide the foundation for investment and financing decisions. For example, financial institutions such as banks

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[25] *Pa. PUC v. PECO Energy Company – Gas Division*. Docket No. R-2020-3018929, p. 171 (Order entered June 22, 2021).

[26] *Pa. PUC v. PECO Energy Company – Gas Division*. Docket No. R-2020-3018929, Recommended Decision, p. 215.

lend money based on actual book values and not the current price of a stock. Further, almost all financial ratios used in financial analysis utilize at least one book value variable from either the income statement or the balance sheet.

Mr. Moul's assertion that an investor is unconcerned with the book value debt or "some accounting value of little relevance to them"[27] of a utility is unsupported. Clearly an investor takes the financial risk of the utility into consideration when determining a required return. In addition, the market capitalization information included in Value Line's reports and discussed by Mr. Moul is not the same as market value capital structure. Market capitalization refers to the number of shares outstanding multiplied by the current price. A market value capital structure refers to the ratio of market debt to market equity, which, to my knowledge, is not included in Value Line's reports. Therefore, Mr. Moul's contention that Value Line includes market capitalization data does not offer any support for his leverage adjustment.

**Q. HAS YOUR RECOMMENDATION CHANGED FROM YOUR DIRECT TESTIMONY REGARDING MR. MOUL'S LEVERAGE ADJUSTMENT?**

A. No. For the reasons discussed above, I continue to recommend that Mr. Moul's 234 basis point leverage adjustment be rejected.

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[27] AP Statement No. 7-R, p. 17, lines 18-20.

## CAPITAL ASSET PRICING MODEL

**Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING YOUR APPLICATION OF THE CAPM.**

A. Mr. Moul opines that my CAPM analysis understates the cost of equity for a few reasons, including my use of the yield on 10-year Treasury Notes for my risk-free rate, my refusal to use leveraged adjusted betas, and failure to make a size adjustment.[28] Each of these topics are discussed in more detail below.

### RISK-FREE RATE

**Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING YOUR USE OF THE YIELD ON THE 10-YEAR U.S. TREASURY NOTE.**

A. Mr. Moul claims that by using the 10-year Treasury Note, I introduced a systematic understatement of CAPM returns that can be traced to extraordinary monetary policy actions to deal with the recession created by the pandemic. He opines that his use of the yield on a 30-year U.S. Treasury Bond is more appropriate than my use of the yield on a 10-year Treasury Note because 30-year bonds are "more a reflection of investor sentiment of their required returns…" and are also less susceptible to Federal policy actions.[29]

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[28] AP Statement No. 7-R, p. 18, lines 17-21.
[29] AP Statement No. 7-R, p. 18, ln. 22 through p. 19, ln. 9.

**Q. DO YOU AGREE WITH MR. MOUL THAT USING THE YIELD OF A 30-YEAR U.S. TREASURY BOND IS MORE APPROPRIATE DUE TO A LONGER-TERM BOND BEING LESS SUSCEPTIBLE TO FEDERAL POLICY ACTIONS?**

A. No. As explained in my direct testimony,[30] I chose the 10-year Treasury Note as it balances the short-comings of the short-term T-Bill and the 30-year Treasury Bond. Although long-term Treasury Bonds have less risk of being influenced by federal policies, they have substantial maturity risk associated with the market risk. In addition, long-term treasury bonds bear the risk of unexpected inflation. As such, my choice of a 10-year Treasury Note is more appropriate. Additionally, as mentioned in my direct testimony, the Commission has recently agreed with I&E and recognized the 10-year Treasury Note as the superior measure of the risk-free rate of return.[31]

**Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING YOUR CALCULATION OF THE RISK-FREE RATE IN THE CAPM FORMULA.**

A. Mr. Moul opines that I have incorrectly given the same weight to the yield on the 10-year Treasury Note for the fourth quarter of 2021 as I do for the entire five-year period encompassing 2023 to 2027. He then recalculates the risk-free rate by averaging the 10-year Treasury yield forecasts by year from 2022 through 2027 to increase my calculated risk-free rate of 1.98% to 2.80%.[32]

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[30] I&E Statement No. 2, p. 25, ln. 4 through p. 26, ln. 2.
[31] *Pa. PUC v. UGI Utilities, Inc. – Electric Division,* Docket No. R-2017-2640058, p. 99 (Order entered October 25, 2018).
[32] AP Statement No. 7-R, p. 19, ln. 10 through p. 20, ln. 1.

**Q. DO YOU AGREE WITH MR. MOUL'S ANALYSIS OF YOUR RISK-FREE RATE?**

A. No. Mr. Moul's new calculation proposes to give equal weight to each separate year from 2022 to 2027. The flaw with this approach is that the further out into the future one forecasts, the less reliable and more speculative the estimates become; therefore, to give the less reliable estimates equal weight would not be sensible. It is more appropriate to weight the quarters and years as I have done in my direct testimony.[33] My calculation provides a more accurate estimation of the risk-free rate during the Fully Projected Future Test Year, as the further out one forecasts, the less reliable the information becomes.

**<u>LEVERAGED ADJUSTED BETAS</u>**

**Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING THE USE OF LEVERAGED ADJUSTED BETAS.**

A. Mr. Moul simply claims that I failed to use leveraged adjusted betas.[34] He does not offer an explanation beyond what he argued in his direct testimony.

**Q. IS THE USE OF "LEVERAGED ADJUSTED BETAS" IN CAPM ANALYSIS APPROPRIATE?**

A. No. Mr. Moul's adjustment only serves to inflate the result of his CAPM analysis which I have discussed in greater detail in my direct testimony.[35] <u>Value Line</u> is a

33 I&E Exhibit No. 2, Schedule 8.
34 AP Statement No. 7-R, p. 18, lines 18-19.
35 I&E Statement No. 2, p. 47, ln. 8 through p. 48, ln. 9.

well-known and trusted source that both investors and the Commission rely upon, therefore, it is not necessary to make any type of adjustment to the Value Line betas.

**SIZE ADJUSTMENT**

**Q. SUMMARIZE YOUR DIRECT TESTIMONY REGARDING A SIZE ADJUSTMENT.**

A. In direct testimony, I stated that Mr. Moul's 102 basis point CAPM size adjustment is unnecessary because none of the technical literature he cited in his direct testimony supporting investment adjustments related to the size of a company is specific to the utility industry. In addition, I presented an article by Dr. Annie Wong that demonstrates there is no need to make an adjustment for the size of a company in utility rate regulation. Then, I commented that Mr. Moul admits that Aqua's size is not of concern since he points out that the Company's size and financial risk are similar to the companies within his Water Group. Finally, I noted that the Commission has recently rejected the application of a size adjustment to the CAPM cost of equity calculation where it agreed that the same literature the Company cites is not specific to the utility industry.[36]

**Q. SUMMARIZE MR. MOUL'S RESPONSE IN REBUTTAL TESTIMONY REGARDING A SIZE ADJUSTMENT.**

A. Mr. Moul states that enormous changes have occurred in the industry since the article "Utility Stocks and the Size Effect: An Empirical Analysis" by Dr. Annie Wong was

[36] I&E Statement No. 2, p. 48, ln. 11 through p. 50, ln. 10.

published. He also references the Fama/French study, "The Cross-Section of Expected Stock Returns," to illustrate that his size adjustment is a separate factor from beta that helps explain systematic risk and returns. Additionally, Mr. Moul opines that external factors such as loss of larger customers and unexpected changes in expenses can affect the financial performance of a small company.[37]

**Q. DOES THE TIME WHICH HAS ELAPSED SINCE AN ARTICLE WAS WRITTEN NECESSARILY INVALIDATE ITS RESULTS?**

A. No. Although Mr. Moul states that enormous changes have occurred in the industry since the 1960s, he presents no evidence that these "changes" have caused the need for a size adjustment. To the contrary, Dr. Wong's study demonstrated that one does *not* need to be made in the regulated utility industry. As stated in my direct testimony, absent any credible article to refute Dr. Wong's findings, Mr. Moul's size adjustment to his CAPM results should be rejected.

**Q. DOES THE FAMA/FRENCH STUDY REFUTE DR. WONG'S ARTICLE?**

A. No. As stated in my direct testimony, Dr. Wong's article presents evidence that although a size effect may exist for industrial stocks, it does not exist for utility stocks. As the Fama/French study is not specific to utility stocks, it does not demonstrate that a size effect exists in the utility industry. In addition, the size effect that exists for industrial stocks varies to such an extent that it is difficult to predict. The difficulty in predicting the effect of size is demonstrated in the variance from

[37] AP Statement No. 7-R, p. 20, ln. 6 through p. 22, ln. 8.

year to year of the measurement of difference between the annual returns on the large and small-capitalization stocks of the NYSE/AMEX/NASDAQ in the Ibbotson *Stocks, Bonds, Bills & Inflation: 2015 Yearbook*. As stated on page 100 of the SBBI Yearbook,

> While the largest stocks actually declined in 2001, the smallest stocks rose more than 30%. A more extreme case occurred in the depression-recovery year of 1933, when the difference between the first and 10th decile returns was far more substantial. The divergence in the performance of small- and large- cap stocks is evident. In 30 of the 89 years since 1926, the difference between the total returns of the largest stocks (decile 1) and the smallest stocks (decile 10) has been greater than 25 percentage points.

Page 109 states,

> In four of the last 10 years, large-capitalization stocks (deciles 1-2 of NYSE/AMEX/NASDAQ) have outperformed small-capitalization stocks (deciles 9-10). This has led some market observers to speculate that there is no size premium. But statistical evidence suggests that periods of underperformance should be expected.

Page 112 states,

> Because investors cannot predict when small-cap returns will be higher than large-cap returns, it has been argued that they do not expect higher rates of return for small stocks.

**Q. ARE MR. MOUL'S CONCERNS REGARDING THE IMPACT OF LOSING LARGE CUSTOMERS OR UNEXPECTED INCREASES IN EXPENSES VALID?**

A. No. Water utilities benefit from a captive customer base with no choice of provider. Unlike gas and electric utility customers who may have competitive options such as solar, competing generation providers, net-metering, etc., water customers have little, if any other alternatives. Further, regulated utility companies have the option to file a base rate case to address declining revenues and to recover the increasing costs of doing business in addition to emergency rate relief provisions for large unforeseen impacts. In contrast, non-utility businesses that may be significantly impacted by events of this nature due to small operating size do not have these opportunities.

**Q. WHAT IS YOUR RECOMMENDATION REGARDING MR. MOUL'S SIZE ADJUSTMENT?**

A. I continue to recommend that his use of the 1.02% size adjustment be disallowed in calculating the CAPM.

**Q. MR. MOUL HAS RECALCULATED YOUR CAPM RESULTS.[38] DO YOU AGREE WITH HIS RECALCULATION?**

A. No. Mr. Moul's recalculation is incorrect for a couple of reasons. As stated in both my direct testimony and above, he used an inaccurate risk-free rate and an unnecessary size adjustment. Because of these factors, and the fact that he admits Aqua is not a small company compared to his water group, the recalculation of my CAPM results as Mr. Moul illustrates is unreliable and unnecessary.

**RISK PREMIUM**

**Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING THE RISK PREMIUM METHOD.**

A. Mr. Moul opines that the RP approach should be given serious consideration because

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[38] AP Statement No. 7-R, p. 20, lines 2-5.

it is straight-forward, understandable, and uses a company's own borrowing rate. He claims it provides a direct and complete reflection of a utility's risk and return. Mr. Moul also states that I make an unfounded assertion that the RP method does not measure the current cost of equity as directly as the DCF.[39]

**Q. DO YOU AGREE WITH MR. MOUL THAT THE RP METHOD PROVIDES A DIRECT AND COMPLETE REFLECTION OF A UTILITY'S RISK AND RETURN?**

A. No. The RP method produces an indirect measure when compared to the DCF method.

**Q. PLEASE COMMENT ON THE INDIRECT MEASURE OF THE RP METHOD VERSUS THE MORE DIRECT MEASURE OF THE DCF METHOD.**

A. Mr. Moul claims my statement that the Risk Premium method does not measure the current cost of equity as directly as the DCF is without foundation. In my direct testimony, I have clearly illustrated how the two measures are different.[40] The main reason is that the RP method determines the rate of return on common equity indirectly by observing the cost of debt and adding to it an equity risk premium. The DCF measures equity more directly through the stock information (using equity information), whereas the RP method measures equity indirectly using debt information.

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[39] AP Statement No. 7-R, p. 23, ln. 13 through p. 25, ln. 3.
[40] I&E Statement No. 2, p. 14, ln. 2 through p. 20, ln. 9.

## COMPARABLE EARNINGS

**Q. SUMMARIZE MR. MOUL'S REBUTTAL TESTIMONY REGARDING THE CE METHOD.**

A. Mr. Moul claims that using the CE method satisfies the comparability standard established in the *Hope* case. Additionally, he states, "the financial community has expressed the view that the regulatory process must consider the returns that are being achieved in the non-regulated sector to ensure that regulated companies can compete effectively in the capital markets."[41]

**Q. DO YOU BELIEVE THAT THE COMPANIES USED BY MR. MOUL IN HIS CE METHOD ANALYSIS ARE COMPARABLE TO AQUA?**

A. No. As explained in my direct testimony,[42] the companies in Mr. Moul's analysis are not utilities, and therefore, are too disparate to be used in a CE analysis. For example, the criteria Mr. Moul uses to choose the companies in his CE group results in the selection of companies such as Assurant Inc., Bio-Techne Corp., Dollar Tree Inc., Estee Lauder Companies Inc., Philip Morris International Inc., Quest Diagnostics Inc., Salesforce Com Inc., Target Corp., Tyson Foods, and Walgreens Boots just to name few.[43] All these companies operate in industries very different from a utility company and operate under varying degrees of regulation. Also, a large majority, if not all the companies Mr. Moul uses in his analysis, are not monopolies as utilities largely are. This means that they have significantly more competition and would

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41 AP Statement No. 7-R, p. 25, lines 4-23.
42 I&E Statement No. 2, p. 28, ln. 14 through p. 29, ln. 9.
43 AP Exhibit 4-A, Schedule 14.

require a higher return for the added risk. Further, the CE method should be excluded because it is entirely subjective as to which companies are comparable and it is debatable whether historical accounting returns are representative of the future.

## MANAGEMENT PERFORMANCE POINTS

**Q. SUMMARIZE THE COMPANY'S REBUTTAL TESTIMONY REGARDING MANAGEMENT PERFORMANCE POINTS.**

A. Mr. Moul continues to advocate for an unspecified amount of additional basis points to the cost of equity by relying on the testimony of Mr. Packer. He correctly notes that I believe the 22 basis points awarded to the Company for management performance almost 13 years ago are irrelevant. [44]

Mr. Packer acknowledges my position that Aqua should not be rewarded for doing what the Company is legally required to do, and that the savings resulting from true management effectiveness are available to be passed on to shareholders. As he did in direct testimony, he lists a variety of Aqua's performance indicators such as optimization of water quality and system reliability, testing and educating customers on emerging contaminants, cost containment, development of a new low-income customer assistance program, and the introduction of a new customer service interactive system map. In addition to the Company's 2008 rate case, Mr. Packer also provides PPL Electric's 2012 rate case and UGI Electric's 2017 rate case as examples of when the Commission granted increases for management performance. Mr. Packer

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[44] AP Statement No. 7-R, p. 26, lines 6-17.

insists that an "increment for exemplary management effectiveness" should be adopted if the Commission were to consider approving an ROE of less than 10.75%.[45]

**Q. WHAT IS YOUR RESPONSE TO THE COMPANY'S REBUTTAL TESTIMONY REGARDING THE CONSIDERATION OF ADDITIONAL BASIS POINTS FOR MANAGEMENT PERFORMANCE?**

A. As discussed in greater detail in my direct testimony,[46] I maintain that Aqua, or any utility company for that matter, should not reap additional rewards for programs funded by ratepayers or for meeting their obligations under 66 Pa C.S.A. §1501.

Also, while I am aware that under 66 Pa C.S.A. §523 the Commission shall consider a utility's performance, it is not mandatory that the Commission grant additional points. Moreover, I continue to assert that for any company, true strong management performance is earning a higher return through its efficient use of resources and cost cutting measures. The greater net income resulting from cost savings and true efficiency in management and operations is available to be passed on to shareholders. Additionally, it is nonsensical to support the idea that since ratepayers fund the initiatives and accomplishments Mr. Packer mentions, ratepayers should then in turn fund a higher equity return for Aqua's investors. Therefore, I continue to recommend that any addition of basis points to the cost of equity for management performance be disallowed.

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45 AP Statement No. 1-R, p. 26, ln. 4 through p. 30, ln. 4.
46 I&E Statement No. 2, p. 51, ln. 5 through p. 53, ln. 16.

**Q. DOES THE COMMISSION'S PAST ACCEPTANCE OF ADDITIONAL EQUITY POINTS TO RECOGNIZE MANAGEMENT PERFORMANCE MEAN THAT AQUA SHOULD ALSO RECEIVE AN ADJUSTED RETURN ON EQUITY?**

A. No. As previously mentioned, Aqua's 2008 rate case was approximately 13 years ago, and obviously should have no bearing on the current proceeding. The most recent example Mr. Packer provides, the 2017 UGI Electric rate case, is irrelevant to the determination of whether Aqua should be granted additional basis points to its cost of equity for management performance. Management performance is something that is very specific to each individual utility. Therefore, what the Commission has historically decided in this regard, and the management performance of other utilities (all in a period prior to the pandemic), has no bearing on whether Aqua should receive a higher return on equity to recognize its management performance. Notably however, in the 2017 UGI Electric case, which was decided in a pre-pandemic climate, the Commission awarded the Company a nominal five additional basis points for management effectiveness. Although the Company has not specified a certain number of basis points, the implication is that Aqua should receive much more than what UGI Electric was awarded.

**Q. HAS YOUR RECOMMENDATION REGARDING THE COMPANY'S REQUEST FOR ADDITIONAL BASIS POINTS REGARDING ITS MANAGEMENT PERFORMANCE CHANGED?**

A. No. I continue to recommend that any additional basis points for management performance be rejected.

## OVERALL RATE OF RETURN

**Q. HAS YOUR OVERALL RATE OF RETURN RECOMMENDATION CHANGED FROM YOUR DIRECT TESTIMONY?**

A. No. I continue to support each recommendation made in I&E Statement No. 2.

**Q. WHAT IS YOUR OVERALL RATE OF RETURN RECOMMENDATION?**

A. I recommend the following rate of return for Aqua:

**I&E**
**Summary of Cost of Capital**

| Type of Capital | Ratio | Cost Rate | Weighted Cost |
|---|---|---|---|
| Aqua Pennsylvania | | | |
| Long-Term Debt | 46.05% | 4.00% | 1.84% |
| Common Equity | 53.95% | 8.90% | 4.80% |
| Total | 100.00% | | **6.64%** |

**Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

A. Yes.