



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

BUREAU OF  
INVESTIGATION  
&  
ENFORCEMENT

September 12, 2023

**Via Electronic Filing**

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

Re: Pennsylvania Public Utility Commission, v.  
Columbia Water Company  
Docket No. R-2023-3040258  
**I&E Main Brief**

Dear Secretary Chiavetta,

Enclosed for electronic filing please find the **Main Brief of the Bureau of Investigation and Enforcement (I&E)** for the above-captioned proceedings.

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

Respectfully,

A handwritten signature in black ink that reads 'Carrie B. Wright'.

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Enclosures

cc: Honorable Mary D. Long, Administrative Law Judge (*via email & First-Class Mail*)  
Honorable Charece Z. Collins, Administrative Law Judge (*via email only*)  
Per Certificate of Service

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Pennsylvania Public Utility Commission	:		
	:		
v.	:	Docket No.	R-2023-3040258
	:		
Columbia Water Company	:		

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**MAIN BRIEF  
OF THE  
BUREAU OF INVESTIGATION AND ENFORCEMENT**

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Dated: September 12, 2023

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## **I. INTRODUCTION**

### **A. History of the Proceeding**

On April 28, 2023, Columbia Water Company (Columbia, CWC or Company), filed Supplement No. 121 to Tariff Water Pa. P.U.C. No. 7 which proposed an annual distribution revenue increase of \$999,990 (14.2%), to become effective August 30, 2019. Columbia used the Fully Projected Future Test Year (FPFTY) ending December 31, 2023 as the basis for its rate increase request.

On June 15, 2023, pursuant to 66 Pa. C.S. § 1308(d), the Commission ordered suspension of the proposed tariff changes until January 27, 2024, unless permitted by Commission Order to become effective at an earlier date. The Commission directed that the case be assigned to the Office of Administrative Law Judge (OALJ) for scheduling of hearings as may be necessary for the Administrative Law Judge (ALJ) to render a Recommended Decision. On June 20, 2023, the Company filed a tariff suspension, voluntarily suspending its proposed tariff to January 27, 2024. A Prehearing Conference was held on June 23, 2023 at 10:00 a.m., before Administrative Law Judges Mary D. Long and Charece Z. Collins (the ALJs). Pursuant to the procedural schedule agreed to at the Prehearing Conference, the parties exchanged direct, rebuttal, and surrebuttal testimony, as well as oral rejoinder outlines. I&E served the following testimony and exhibits:

- I&E Statement No. 1, I&E Exhibit No. 1, I&E Statement No. 1-SR, and I&E Exhibit No. 1-SR, the prepared direct and surrebuttal testimony and exhibits of I&E witness Christopher Keller, who addressed the Company's operating and maintenance expenses, and overall revenue requirement, as well as rate of return;



- I&E Statement No. 2, I&E Exhibit No. 2, I&E Statement No. 2-SR, and I&E Exhibit No. 2-SR the prepared direct and surrebuttal testimony and exhibit of I&E witness Esyan Sakaya, who addressed the Company’s rate base and rate structure requests.

Hearings were held telephonically on August 28, 2023. I&E now files this Main Brief pursuant to the procedural schedule established in this case.

## **B. Burden of Proof**

The Company carries the burden of proof to show its rate proposal is just and reasonable.<sup>1</sup> Columbia must satisfy its burden of proof by presenting a preponderance of evidence.<sup>2</sup> A preponderance of the evidence is evidence that is more convincing, by even the smallest amount, than that presented by another party.<sup>3</sup> In base rate cases, the Commission has affirmed the utility’s burden to establish the justness and reasonableness of every component of its rate request.<sup>4</sup> The burden of proof does not shift to parties challenging a requested rate increase.<sup>5</sup> Additionally, the Company must produce substantial evidence to satisfy its burden.<sup>6</sup> Substantial evidence is “such relevant and competent evidence having a rational probative force which a reasonable mind might accept as adequate to support a conclusion.”<sup>7</sup> Thus, Columbia must affirmatively prove the justness and reasonableness of each element of each of its claims.

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<sup>1</sup> See 66 Pa. C.S. § 315(a); *Irwin A. Popowsky v. Pa. P.U.C.*, 674 A.2d 1149 (Pa. Cmwlth. 1996).

<sup>2</sup> *Samuel J. Lansberry, Inc. v. Pa. P.U.C.*, 578 A.2d 600 (Pa. Cmwlth. 1990).

<sup>3</sup> *Se-Ling Hosiery v. Margulies*, 70 A.2d 854 (Pa. 1950).

<sup>4</sup> See, e.g., *Pa. P.U.C. v. PPL Electric Utilities Corporation*, 2012 WL 6758304 (Pa. P.U.C. 2012); *Pa. P.U.C. v. Aqua Pennsylvania, Inc.*, 2004 WL 2314523 (Pa. P.U.C. 2004).

<sup>5</sup> Id.

<sup>6</sup> See *Brockaway Glass v. Pa. P.U.C.*, 437 A.2d 1067 (Pa. Cmwlth. 1981); *Lower Frederick Township v. Pa. P.U.C.*, 409 A.2d 505 (Pa. Cmwlth. 1980).

<sup>7</sup> *Dutchland Tours, Inc. v. Pa. P.U.C.*, 337 A.2d 922, 925 (Pa. Cmwlth. 1975).

## II. SUMMARY OF ARGUMENT

### A. Statement of the Questions Involved

*Question:* Has Columbia met its obligation to present a preponderance of substantial evidence to demonstrate each element of each of its claims in its base rate increase proposal is just and reasonable?

*Suggested Answer:* No. I&E expert witnesses have provided testimony demonstrating certain claims are not just and reasonable. Therefore, Columbia's proposal should only be approved to the extent consistent with and as modified by I&E's analyses and recommendations presented below.

### B. Summary

I&E avers Columbia has failed to fully carry its burden of proof with respect to its proposed revenue increase of \$999,990. To the contrary, I&E's presentation of expert witness testimony demonstrates that Columbia should receive a revenue increase of no more than \$703,712.<sup>8</sup> I&E's recommendation is based upon specific adjustments offered by I&E witnesses, as set forth herein and summarized in Table I (Income Summary), Table II (Summary of I&E Adjustments), and Table III (Rate of Return).<sup>9</sup>

#### 1. Rate Base

I&E witness Sakaya accepted Columbia's revised<sup>10</sup> rate base claim of \$18,750,106.<sup>11</sup> The Company also agreed with I&E witness Cline's adjustment to

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<sup>8</sup> I&E St. No. 1-SR, p. 3.

<sup>9</sup> Tables I, II, and III are attached at Appendix A.

<sup>10</sup> Exhibit GDS 1-R, p. 1-9.

<sup>11</sup> I&E Statement No. 2-SR, pp. 2-3.

Materials and Supplies based on a 13-month average. However, I&E recommends the Commission adjust the Company's CWC allowance downwards to reflect I&E's recommendations regarding expenses.

## **2. Revenues**

Based on use of a three-year average, I&E witness Cline recommends revenue from Forfeited Discounts increase by \$1,734, and the Company include revenue from Forfeited Discounts equal to the percentage of sales the Company is ultimately granted the opportunity to recover through rates by the Commission.

## **3. Expenses**

I&E witness Christopher Keller recommends downward adjustments to Columbia's as-filed expense claim Rate Case Expense. As demonstrated by I&E witness Keller, Columbia did not provide an adequate basis to prove that its rate case expense claim was just and reasonable.

## **4. Fair Rate of Return**

I&E witness Christopher Keller calculates a fair rate of return for Columbia is 5.50%. I&E witness Keller adopted Columbia's cost of long-term debt. I&E witness Keller also imputed a hypothetical capital structure in place of Columbia's actual capital structure. I&E witness Keller calculated a 7.84% return on equity. As endorsed by the Commission, I&E witness Keller's analysis primarily relies on his Discounted Cash Flow ("DCF") analysis, with use of the Capital Asset Pricing Model ("CAPM") as a comparison.

I&E witness Keller submits Columbia witness D'Ascendis significantly overstates

a just and reasonable return for the Company, reflecting a 11.25% return on equity. First, Columbia witness D'Ascendis uses a flawed proxy group. Second, Columbia witness D'Ascendis uses Columbia's actual capital structure which falls far outside the range or reasonableness when compared to the capital structures of similar utilities. Third, Columbia witness D'Ascendis improperly gives other methods equal weighting to his DCF analysis. The Commission has clearly stated the DCF method should be the primary method to determine cost of common equity. Additionally, as part of his flawed used of various methods, Columbia witness D'Ascendis inappropriately (1) relies upon proprietary software to perform a flawed predictive risk premium ("PRPM") analysis;<sup>12</sup> (2) compares Columbia to competitive, non-regulated companies;<sup>13</sup> (3) estimates a risk-free rate based on 30-year U.S. Treasury Bonds as part of his CAPM analysis; (4) uses an empirical capital asset pricing model to adjust his CAPM results upward; and (5) claims a market-to-book ratio above 1.0 should discount the DCF method. Finally, Columbia witness D'Ascendis unjustly claims the Company's return on equity should be adjusted upwards by 100 basis points for a size adjustment. I&E witness Keller submits evidence demonstrating a size adjustment for Columbia and the utility industry generally is inappropriate.

## **5. Taxes**

I&E made no specific adjustments to Columbia's claim for taxes, however, I&E's various recommendations have a flow-through impact on the Company's taxes for the

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<sup>12</sup> As explained by I&E witness Keller, PRPM is a type of risk premium ("RP") analysis.

<sup>13</sup> As explained by I&E witness Keller, such analysis is a blend of the Comparable Earnings ("CE") approach into the DCF, RP, and CAPM methods.

FPFTY as depicted in the attached Table I.

## **6. Customer Rate Structure**

Upon review of Columbia's customer cost analysis, I&E witness Sakaya compiled his own customer cost analysis which, although similar to the Company's, excluded items that I&E does not agree are direct customer costs. Based upon his customer cost analysis, I&E witness Sakaya determined that Columbia's proposed customer charges were excessive. Further, I&E witness Sakaya recommended that if the Commission accepts his customer charges, but grants Columbia an increase lower than the \$999,900 that it requested, only the usage portion of rates be scaled back. If, however, the Commission were not to accept I&E witness Sakaya's recommended customer charges then a scale back of the customer charges that was proportional to the increase granted would be appropriate.

## **7. Miscellaneous Issues**

Apart from the issue described above, and in more detail below, I&E did not make further recommendations or adjustments to Columbia's claims in this proceeding.

## **III. RATE BASE**

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

The Company's initial rate base claim for the Future Test Year ("FTY") was

\$18,753,197.<sup>14</sup> In rebuttal testimony, the Company updated this claim as a result of updates that were made to the Company’s cash working capital claim. The revised rate base claim was \$18,750,106.<sup>15</sup> I&E witness Sakaya did not recommend any revisions to the Company’s claim<sup>16</sup> and the cash working capital adjustment recommended below is simply a flow through of I&E’s O&M adjustment.

**A. Deductions from Rate Base – Cash Working Capital**

The Company claimed \$504,601 for Cash Working Capital (“CWC”), which was later revised to \$501,510.<sup>17</sup> For ratemaking purposes, CWC is the capital needed to operate a utility between the rendition of service and the receipt of revenues in payment for services rendered.<sup>18</sup> In short, CWC covers the lag between the payment of operating expenses and the receipt of revenues from ratepayers. All cash-based expenses are included in the Company’s overall CWC claim; therefore, any adjustments to the Company’s O&M expense claims impact the CWC allowance. I&E ultimately recommended that Columbia’s O&M expense claims be reduced by \$50,981, which reduced the Company’s CWC allowance by \$6,373.<sup>19</sup> Because I&E’s recommended expense adjustments are prudent for the reasons discussed herein, the CWC allowance of \$495,137 ( $\$501,510 - \$6,373$ )<sup>20</sup> is reasonable.

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<sup>14</sup> Columbia Statement No. 2, p. 12 and GDS Ex. No. 1 (Errata) p. 1-19 (Revised).

<sup>15</sup> Columbia Exhibit GDS 1-R, p. 1-9.

<sup>16</sup> I&E Statement No. 2-SR, p. 3.

<sup>17</sup> Columbia Exhibit GDS 1-R, p. 1-9.

<sup>18</sup> I&E Statement No. 1, p. 16.

<sup>19</sup> I&E Statement No. 1-SR, p. 4.

<sup>20</sup> I&E Statement No. 1-SR, p. 4.

## **B. Conclusion**

Based upon the foregoing, I&E recommends a total \$6,373 deduction from Columbia's claimed rate base of \$18,750,106 related to the O&M adjustments presented by I&E witness Keller and described in detail below.

## **IV. REVENUES**

I&E did not make any specific revenue adjustments in this proceeding.

## **V. EXPENSES**

A public utility is entitled to recover all of its reasonably incurred expenses necessary to provide service to customers.<sup>21</sup> Accordingly, Operating and Maintenance ("O&M") expenses, if properly incurred, may justly inform a rate increase proposal. However, if expenses are unreasonable, e.g., overstated, abnormal, unnecessary, or simply have not been incurred for the test year, they should not be relied upon. As explained above, the Company has the burden of proof regarding the justness and reasonableness of each expense. In this case, I&E's only expense adjustment was to rate case expense as explained in detail below.

### **A. Rate Case Expense**

The nature and types of individual expenditures that comprise a utility's allowable claim for Rate Case Expense are those directly incurred to compile, present, and defend a utility's request for a base rate increase before the Commission. The actual expenditures and estimated costs typically found in an allowable Rate Case Expense claim include

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<sup>21</sup> *Butler Township Water Company v. Pa. P.U.C.*, 473 A.2d 219, 221 (Pa. Cmwlth. 1984); *UGI Corp. v. Pa. P.U.C.*, 410 A.2d 923, 932 (Pa. Cmwlth. 1980); *Western Pennsylvania Water Company v. Pa. P.U.C.*, 422 A.2d 906, 908 (Pa. Cmwlth. 1980).

legal fees for outside counsel, fees to outside consultants, and the cost of printing, document assembly, and postage.<sup>22</sup> In this proceeding, Columbia’s total rate case expense claim is \$392,330 normalized over three years, resulting in an annual rate case expense claim of \$130,777( $\$392,330 \div 3$ ).<sup>23</sup>

The Commission characterizes rate case expense as a normal operating expense that should be accorded the same rate-making treatment as any other normalized expense.<sup>24</sup> To determine the length of normalization, the Commission has typically looked to the average number of months between a company’s rate case filings.<sup>25</sup>

Columbia’s claimed 36-month normalization period is not supported by the Company’s historic filing frequency.<sup>26</sup> Based upon Columbia’s actual filing history,

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<sup>22</sup> I&E Statement No. 1, pp. 8-9.

<sup>23</sup> I&E Statement No.1, p. 9-10 (citing Columbia GDS Exhibit 1-Errata Accounting Schedules, p. 1-16(Revised)).

<sup>24</sup> See *Pa. P.U.C. v. Apollo Gas Co.*, 54 Pa. PUC 358, 373 (Pa. P.U.C. 1980).

<sup>25</sup> I&E Statement No. 1, pp. 12-13; See, e.g., *Pa. P.U.C. v. PECO Energy Company- Gas Division*, Docket No. R-2020-3018929, Opinion and Order, pp. 117-119 (Order Entered June 22, 2021), *Pa. P.U.C. v. Columbia Gas*, Docket No. R-2020-3018835, Opinion and Order, pp. 78-79 (Order Entered February 19, 2021), *Pa. P.U.C. v. City of DuBois – Bureau of Water*, Docket No. R-2016-2554150, pp. 65-66 (Order Entered March 28, 2017) (reconsideration of rate case expense claim denied by Order entered May 18, 2017); *Pa. P.U.C. v. Emporium Water Company*, Docket No. R-2014-2402324, p. 50 (Order Entered January 28, 2015); *Popowsky v. Pa. P.U.C.*, 674 A.2d 1149, 1154 (Pa. Cmwlth. 1996); *Pa. P.U.C. v. Borough of Media Water Works*, 1990 WL 10702673 (Pa. P.U.C. 1990). It should be noted, in 2012, the Commission granted PPL Electric Utilities Corporation (“PPL”) permission to normalize its rate case expense over a 24-month period based on the expected timing of future base rate case filings. *Pa. P.U.C. v. PPL Electric Utilities Corporation*, Docket No. R-2012-2290597, pp. 47-48 (Order Entered December 28, 2012). That particular base rate case was filed on March 30, 2012; however, PPL did not file its next base rate case until March 31, 2015, which was 36 months after the 2012 rate case filing. The 12-month discrepancy between PPL’s projection in 2012 when it would next file and its actual filing date of the subsequent rate case shows that future projections are unreliable when determining an appropriate normalization period for the rate case expense. I&E’s recommended normalization period in 2012 PPL proceeding was a 32-month interval based on the Company’s historic filing frequency. I&E Statement No. 2, pp. 13-14 at Docket No. R-2012-2290597. The I&E recommendation in that instance produced a much more accurate result than the Company’s stated future intention to file a rate case.

<sup>26</sup> I&E Statement No. 1, pp. 9-10.



I&E witness Keller calculated a 59-month average as follows:<sup>27</sup>

DOCKET NO.	DATE FILED	TIME ELAPSED
R-2023-3040258	April 28, 2023	➤ 70 mos. ➤ 50 mos. ➤ 57 mos.
R-2017-2598203	June 27, 2017	
R-2013-2360798	April 25, 2013	
R-2008-2045157	July 15, 2008	

I&E’s recommended 59-month normalization period results in an annual rate case expense allowance of \$79,796 ( $(\$392,330 \div 59 \text{ months}) \times 12 \text{ months}$ ), which is a reduction of \$50,981 ( $\$130,777 - \$79,796$ ) to the Company’s claim.<sup>28</sup>

Columbia witness Shambaugh disagrees with I&E witness Keller’s reliance on historical filing frequency. Columbia witness Shambaugh states that Columbia will need to address the costs and revenues of East Donegal Township Municipal Authority (“EDTMA”) because the agreement in place to maintain those rates expires in less than three years. Thus, he indicates, Columbia will need to file a base rate case to address this issue.

I&E, however, submits this does not merit deviation from the Commission’s endorsed practice of reviewing historical filing frequency. And finally, as Commonwealth Court recognized, a normalization proposal based on a utility’s intent to file future base rate cases disregards well-established ratemaking principles. “The period of normalization is determined by examining the utility’s actual historical rate filings, not

<sup>27</sup>  $(70 \text{ mo.} + 50 \text{ mo.} + 57 \text{ mo.}) \div 3 = 59 \text{ mo.}$

<sup>28</sup> I&E Statement No. 1, p. 10.

upon the utility's intentions."<sup>29</sup> In addition, the Commission's orders in the *Emporium Water Company*<sup>30</sup> base rate case; the *City of DuBois*<sup>31</sup> base rate case, the *Columbia Gas*<sup>32</sup> and the *PECO Gas*<sup>33</sup> base rate case where the Commission found in favor of I&E's recommendation for a normalization period based on the actual historic filing frequency, which is more reliable than the future speculation or simple stated intention to file a rate case.<sup>34</sup> As commonly found by the Commission, the Company's reliance on the time elapsed since its last case is limited and not a representative consideration of the Company's overall recent historic filing record.<sup>35</sup>

In summary, Columbia's concerns are unfounded and speculative, and Columbia's claimed three-year normalization period would result in an unreasonable increase in rates. Therefore, the Commission should adopt I&E's recommended disallowance of \$50,981 for Rate Case Expense.

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<sup>29</sup> *Popowsky v. Pa. P.U.C.* 674 A.2d 1149, 1154 (1996); accord *Pa. P.U.C. v. Borough of Quakertown*, Docket No. R-2011-2251181 (Order entered September 13, 2012) (adopting the ALJ's determination that the period of rate case normalization is determined by examining the utility's actual history of rate filings, not the utility's intentions); *Pa. P.U.C. v. City of Lancaster – Bureau of Water*, Docket No. R-2010-2179103 (Order entered July 14, 2011); *Pa. P.U.C. v. City of Lancaster – Sewer Fund*, Docket No. R-00049862 (Order entered August 26, 2005) (rejecting the Company's claimed 18-month normalization period based on its expectations and approving a normalization period determined by examining the utility's history of actual rate filings and not the utility's intentions).

<sup>30</sup> *See Pa. P.U.C. v. Emporium Water Company*, Docket No. R-2014-2402324, p. 50 (Order Entered January 28, 2015).

<sup>31</sup> *See Pa. P.U.C. v. City of DuBois - Bureau of Water*, Docket No. R-2016-2554150, pp. 65-66 (Order Entered March 28, 2017) and *Pa. P.U.C. v. City of DuBois - Bureau of Water*, Docket No. R-2016-2554150, p. 13 (Order Entered May 18, 2017).

<sup>32</sup> *Pa. P.U.C. v. Columbia Gas of Pennsylvania Inc.*, Docket No. R-2020-3018835, p. 78 (Order Entered February 19, 2021).

<sup>33</sup> *Pa. P.U.C. v. PECO Energy Company – Gas Division*, Docket No. R-2020-3018929, p. 119 (Order Entered June 17, 2021).

<sup>34</sup> I&E St. No. 1, p. 10; I&E St. No. 1-SR, p. 7.

<sup>35</sup> I&E Statement No. 1, pp. 12-13, and I&E Statement No. 1-SR, p. 6.

## VI. TAXES

I&E made no specific recommendations related to adjustments to taxes. Any such adjustments would simply be the result of the flow-through of other I&E adjustments. As noted by I&E witness Keller, “[a]ll adjustments to Columbia’s claims for revenues, expenses, taxes, and rate base must be continually brought together in the Administrative Law Judge’s Recommended Decision and again in the Commission’s Final Order.”<sup>36</sup> As such, all adjustments to taxes related to I&E’s recommendations occur as a result of this principle.

## VII. FAIR RATE OF RETURN

### A. Introduction

A rate of return allows payment to a utility’s debt holders with interest and fair compensation for its equity shareholders. Rate of return is expressed as the amount of revenue an investment generates in the form of net income and is usually expressed as a percentage of the amount of capital invested over a given period of time.

In *Bluefield Water Works & Improvements Co. v. Public Service Comm. of West Virginia*<sup>37</sup> and *Federal Power Commission v. Hope Natural Gas Co.*<sup>38</sup> the U.S. Supreme Court expressed the legal standards for determining rates of return. In *Bluefield*, the U.S. Supreme Court stated:

A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on

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<sup>36</sup> I&E Statement No. 1-SR, p. 9.

<sup>37</sup> 262 U.S. 679 (1923) (“*Bluefield*”).

<sup>38</sup> 320 U.S. 591 (1944) (“*Hope Natural Gas*”).

investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be too high or too low by changes affecting opportunities for investment, the money market and business conditions generally.<sup>39</sup>

The U.S. Supreme Court affirmed these principles in *Hope Natural Gas*, stating:

From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. By that standard the return to equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.<sup>40</sup>

Therefore, the principles followed by regulators through the U.S. to measure a fair rate of return include the following:

- A utility is entitled to a return similar to that being earned by other enterprises with corresponding risks and uncertainties, but not as high as those earned by highly profitable or speculative ventures;
- A utility is entitled to a return level reasonably sufficient to assure financial soundness;
- A utility is entitled to a return sufficient to maintain and support its credit and raise necessary capital;

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<sup>39</sup> *Bluefield*, 262 U.S. 679, 692-93.

<sup>40</sup> *Hope Natural Gas*, 320 U.S. 591, 603.

- A fair return can change (increase or decrease) along with economic conditions and capital markets.<sup>41</sup>

In accordance with these principles, I&E witness Christopher Keller recommends the following rate of return for Columbia:<sup>42</sup>

<u>Type of Capital</u>	<u>Ratios</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	50 %	3.15 %	1.58 %
Common Equity	<u>50 %</u>	7.84 %	<u>3.92 %</u>
Total	<u>100.00 %</u>		<u>5.5 %</u>

I&E witness Keller accepts Columbia’s claimed cost rates of long-term debt.

However, I&E witness Keller rejects Columbia’s capital structure comprised of 33.66% debt and 63.34% equity and method for calculating return on common equity. Instead, I&E witness Keller calculates his recommended return on equity pursuant to the Discounted Cash Flow (“DCF”) methodology frequently used by the Commission while using the Capital Asset Pricing Model (“CAPM”) as an alternate means to verify the reasonableness of his return.

## **B. Capital Structure**

A utility’s capital structure is comprised of long-term debt and common equity and represents how the utility has financed its rate base with various sources of funds.

Columbia’s claimed capital structure consists of 33.66% long-term debt and 63.34% common equity.

<sup>41</sup> I&E Statement No. 2, pp. 3-4. *See also Pennsylvania Gas & Water Company v. Pa. P.U.C.*, 341 A.2d 239, 249-252 (Pa. Cmwlth. 1975).

<sup>42</sup> I&E Statement No. 1-SR, p. 7, p. 34.

I&E witness Keller recommended a hypothetical capital structure of 50% long-term debt and 50% common equity be employed in this proceeding. As explained by Mr. Keller, a capital structure is generally expected to be representative of the industry norm.<sup>43</sup> In base rate cases, a proxy group, which will be discussed in more detail below, is used to determine the industry norm. When a utility's capital structure falls well outside the range of the proxy group's capital structure, it is generally expected that the use of the utility's actual capital structure will result in either an overstated or understated rate of return. In those instances, a hypothetical capital structure must be used.

The Commission clearly has the authority and discretion to employ a hypothetical capital structure where the utility's capital structure is weighted too heavily on either the debt or equity side.

An important element of a utility's rates is the utility's cost of capital, which indicates the fair rate of return to be allowed on the fair value of its property used and useful in the public service, after allowance for proper operating expenses, taxes, depreciation and any other legitimate item. Where a utility's actual capital structure is too heavily weighted on either the debt or equity side, the commission, which is responsible for determining a capital structure which allocates the cost of debt and equity *in their proper proportions*, must make adjustments to the utility's capital structure. In *Lower Paxton*, this court gave the following explanation for using a hypothetical capital structure:

***The capital structure of a corporation may affect, sometimes drastically, the cost of capital.***

The capital structure is, in reality, little more than those dollars represented by its common and preferred stock and its debt. In some cases where the public utility is a wholly-owned subsidiary,

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<sup>43</sup> I&E St. No. 1, pp. 27-28.

its capital structure may not be comparable to another public utility which is obliged to obtain its equity and debt financing in the open market. In other words, *it may have on balance a too heavily weighted* debt or equity.<sup>44</sup>

The five-year average capital structure of I&E witness Keller's proxy group ranged from 42.44% to 58.43% long-term debt, and 41.75% to 57.18% equity, with the overall five-year average being 49.16% long-term debt and 50.76% common equity.<sup>45</sup> This demonstrates that the hypothetical 50% long-term debt and 50% equity capital structure imputed by I&E is far closer to the industry norm than the Company's actual capital structure, thereby making the hypothetical capital structure the appropriate capital structure to use in this instance.

To further demonstrate why the hypothetical capital structure was appropriate, I&E witness Keller calculated the cost savings to ratepayers if his hypothetical capital structure was utilized. In his example, Mr. Keller maintained the Company's claimed return on equity of 11.25% and claimed rate base but employed his 50%/50% capital structure. I&E witness Keller demonstrated that by simply utilizing a 50/50 capital structure, even at the Company's inflated 11.25% return on equity, ratepayers would save \$279,480.<sup>46</sup>

In rebuttal testimony Columbia witness D'Ascendis criticized I&E's use of a hypothetical capital structure and implies that if the 50/50 capital structure proposed by

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<sup>44</sup> *Carnegie Natural Gas Company v. Pa. P.U.C.*, 433 A.2d 938 (Pa. Cmwlth. 1981), citing *Lower Paxton Township v. Pa. P.U.C.* 317 A.2d 917 (Pa. Cmwlth. 1974) (other citations omitted) (emphasis added). See also *Emporium Water Company v. Pa. P.U.C.*, 955 A.2d 456 (2008).

<sup>45</sup> I&E St. No. 1, p. 28.

<sup>46</sup> I&E Statement No. 1, pp. 28-29.

I&E were employed, Columbia would need to raise significant debt.<sup>47</sup> This argument is without merit. As I&E witness Keller explains, the use of a hypothetical capital structure never implies that the Company is obligated to acquire more debt to make its actual capital structure match that of the hypothetical.<sup>48</sup> Rather, the hypothetical capital structure is simply a tool to reflect the industry norm.

As discussed above, the Commission has acknowledged that debt and equity must be “in proper proportions” and that “on balance” it must not be “too heavily weighted” one way or another. How much is “too much” is undefined and case-specific. As the Commission is very careful to acknowledge:

Regardless of the procedure employed in determining fair rate of return, we must exercise “informed judgment.” . . . A fair rate of return for a public utility, however, is not a matter which is to be determined by the application of a mathematical formula. ***It requires the exercise of informed judgment based upon an evaluation of the particular facts presented in each proceeding.*** There is no one precise answer to the question as to what constitutes a proper rate of return.<sup>49</sup>

It is appropriate to adjust a utility’s capital structure if the record demonstrates, as it does here, that a hypothetical capital structure would better “achieve a fair balance between the consumer and the stockholder interests.”<sup>50</sup> Accordingly, I&E recommends that the Company’s claimed actual capital structure of 33.66% debt/63.34% equity be

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<sup>47</sup> Columbia Statement No. 4-R, pp. 3-4.

<sup>48</sup> I&E Statement No. 1-SR, p. 15.

<sup>49</sup> *Pa. P.U.C. v. Pennsylvania Power and Light Company*, 67 P.U.R.4<sup>th</sup> 30, 79 (1985) (“*PP&L 1985 Base Rate Case*”) (emphasis added).

<sup>50</sup> *Pa. P.U.C. v. Western Utilities, Inc.*, 88 Pa. P.U.C. 124, 1998 WL 201481 (Pa. P.U.C. 1998) \*7 (citations omitted).



rejected as I&E's recommended 50% debt/50% equity capital structure adheres to sound ratemaking principles.

### **C. Cost of Long-Term Debt**

I&E accepts Columbia's claimed cost rate of long-term debt of 3.15%. I&E witness Keller opines the Company's claimed cost rate of long-term debt is reasonable as it is representative of the industry. The implied long-term cost of debt range of I&E witness Keller's proxy group is 3.19% to 5.67%. While the 3.15% is slightly below this range, it is sufficiently close to the low end of the range, and therefore is appropriate to use for this proceeding.<sup>51</sup>

### **D. Return on Common Equity**

#### **1. Introduction**

As recommended by I&E witness Keller, a 7.84% return on common equity, based upon I&E witness Keller's use of a similarly-situated proxy group of companies, best balances the interests of the ratepayers and the Company.

#### **2. Proxy Group**

A proxy (or barometer) group is a group of companies that act as a benchmark for determining the utility's rate of return. A proxy group is also typically used because using data exclusively from one company may be less reliable than using a group of companies because the data for one company may be subject to short-term anomalies that distort its return on equity. Use of a proxy group smooths these potential anomalies. Use

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<sup>51</sup> I&E Statement No. 1, p. 30.

of a proxy group also satisfies the long-established principle of utility regulation that seeks to provide the utility the opportunity to earn a return equal to that of similar risk enterprises.<sup>52</sup>

I&E witness Keller selected his proxy group based on the following criteria:<sup>53</sup>

1. Fifty percent or more of the company's revenues must be generated from the regulated water utility industry;
2. The company's stock must be publicly traded;
3. Investment information for the company must be available from more than one source, which includes Value Line;
4. The company must not be currently involved in an announced merger or material acquisition at the time of this analysis;
5. The company must have four consecutive years of historic earnings data;

I&E witness Keller's proxy group comprises American Water Works, American States Water Company, California Water Services Group, Middlesex Water Company, and SJW Group.<sup>54</sup> Columbia's proxy group contains the same companies as I&E witness Keller, with the addition of Essential Utilities, Inc.<sup>55</sup> I&E witness Keller excluded Essential Utilities because it violated his criteria that 50% or more of the company's revenues be generated from regulated water utility operations.<sup>56</sup> I&E recommends the use of its proxy group that excludes Essential Utilities as Essential Utilities is not comparable to Columbia because it does not provide a similar level of regulated business.

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<sup>52</sup> I&E Statement No. 2, pp. 9-10.

<sup>53</sup> I&E Statement No. 2, pp. 9-10.

<sup>54</sup> I&E Statement No. 1, p. 24.

<sup>55</sup> Columbia Exhibit DWD-2, p. 3.

<sup>56</sup> I&E Statement No. 1, p. 25

### 3. I&E's Discounted Cash Flow Analysis

Although there are four methods commonly presented to estimate the cost of common equity, I&E witness Keller uses the DCF method applied to his proxy group of similar utilities to calculate a fair return on equity. I&E witness Keller's analysis is in accordance with the Commission's historical use of the DCF as the primary methodology to determine a utility's cost of equity.<sup>57</sup>

In sum, the DCF is the "dividend discount model" of financial theory, which maintains that the value (price) of any security or commodity is the discounted present value of all future cash flows. The DCF model assumes that investors evaluate stocks in the classical economic framework, which maintains that the value of a financial asset is determined by its earning power, or its ability to generate future cash flows.<sup>58</sup>

The DCF recognizes the time value of money, is forward-looking, and has widespread regulatory acceptance. I&E witness Keller confirms the reasonableness of his DCF calculation with a comparison to the CAPM results because the Commission has expressed an interest in having results from another methodology as a point of comparison. While the CAPM is also forward-looking, and is based on the concept of

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<sup>57</sup> See *Pa. P.U.C. v. UGI Utilities, Inc. – Electric Division*, Docket No. R-2017-2640058 (Order Entered October 25, 2018) ("*UGI Utilities, Inc. – Electric Division*"), pp. 104-106, 121; *Pa. P.U.C. v. City of DuBois – Bureau of Water*, Docket No. R-2016-2554150 (Order Entered March 28, 2017) ("*City of DuBois – Bureau of Water*"), pp. 96-98; *Pa. P.U.C. v. PECO Energy Co.*, 87 Pa. PUC 184, 212 (Pa. P.U.C. 1997); *Pa. P.U.C. v. Philadelphia Suburban Water Co.*, 71 Pa. PUC 593, 623-32 (Pa. P.U.C. 1989); *Pa. P.U.C. v. Western Pennsylvania Water Co.*, 67 Pa. PUC 529, 559-70 (Pa. P.U.C. 1988); *Pa. P.U.C. v. Consumers Pennsylvania Water Company – Roaring Creek Division*, 87 Pa. PUC 826 (Pa. P.U.C. 1997). *Pa. P.U.C. v. City of Bethlehem*, 84 Pa. PUC 275, 304-05 (Pa. P.U.C. 1995); *Pa. P.U.C. v. Media Borough*, 77 Pa. PUC 446, 481 (Pa. P.U.C. 1992).

<sup>58</sup> I&E Statement No. 1, p. 31.

risk and return, it and the other methodologies have flaws that should discount their use as primary determinants.<sup>59</sup>

I&E witness Keller recommends a cost of common equity of 7.84%. This recommendation includes a dividend yield of 3.41% and a recommended growth rate of 5.83%.<sup>60</sup> I&E witness Keller's analysis uses a spot dividend yield, a 52-week dividend yield, and earnings growth forecasts. I&E witness Keller employs the standard DCF model formula,  $K = D_1/P_0 + g$ , where  $K$  = the cost of equity,  $D_1$  = the dividend expected during the year;  $P_0$  = the current price of the stock; and  $g$  = the expected growth rate. When a forecast of  $D_1$  is not available,  $D_0$  (the current dividend) must be adjusted by  $\frac{1}{2}$  the expected growth rate in order to account for changes in the dividend paid in period 1.<sup>61</sup> However, since forecasts were available for all companies in Mr. Keller's proxy group, no dividend adjustments were necessary.

#### **a) Dividend yields**

A representative yield must be calculated over a time frame sufficient to avoid short-term anomalies and stale data. I&E witness Kellers's dividend yield calculation places equal emphasis on the most recent spot (2.01%) and 52-week average (2.00%) dividend yields resulting in an average dividend yield of 2.01%.<sup>62</sup>

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<sup>59</sup> I&E Statement No. 2, pp. 32-35.

<sup>60</sup> I&E Statement No. 1, p. 42.

<sup>61</sup> I&E Statement No. 1, pp. 40-41.

<sup>62</sup> I&E Statement No. 1, pp. 41-42.

## **b) Growth rates**

I&E witness Keller used earnings growth forecasts to calculate his expected growth rate. His earnings forecasts are developed from projected growth rates using 5-year estimates from established forecasting entities for his proxy group of companies, yielding an average 5-year growth forecast of 5.83%.<sup>63</sup>

## **c) Comparison to CAPM**

I&E witness Keller's analysis of a return on equity using the CAPM methodology uses the standard CAPM formula  $K = R_f + \beta(R_m - R_f)$ , where  $K$  = the cost of equity,  $R_f$  = the risk-free rate of return;  $\beta$  = beta, which measures the systematic risk of an asset, and  $R_m$  = the expected rate of return on the overall stock.<sup>64</sup>

For his CAPM analysis, I&E witness Keller chose the risk-free rate of return ( $R_f$ ) from the projected yield on 10-year Treasury Bonds as the most stable risk-free measure. With this choice, I&E witness Keller balanced out issues related to use of long term bonds and short term T-Bills. For his beta, I&E witness Keller used the average of the betas from the Value Line Investment Survey.<sup>65</sup> To arrive at a representative expected return on the overall stock market, I&E witness Keller reviewed Value Line's 1700 stocks and the S&P 500 Index. The result of the overall stock market returns based on I&E witness Keller's CAPM analysis is 13.39%.<sup>66</sup> This, in turn, yields a cost of equity result of 11.09%.<sup>67</sup>

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<sup>63</sup> I&E Statement No. 1, p. 42.

<sup>64</sup> I&E Statement No. 1, p. 43.

<sup>65</sup> I&E Statement No. 1, p. 44.

<sup>66</sup> I&E Statement No. 1, p. 47.

<sup>67</sup> I&E Statement No. 1, p. 47.

I&E witness Keller gave no specific weight to his CAPM results because of his concerns that unlike the DCF, which measures the cost of equity directly by measuring the discounted present value of future cash flows, the CAPM measures the cost of equity indirectly and can be manipulated by the time period used. However, I&E submits that for purposes of providing another point of comparison, the 11.09% CAPM analysis confirms the reasonableness of I&E witness Keller’s 7.84% return under his DCF calculation.

**E. Columbia’s Proposed Return on Common Equity**

Columbia witness D’Ascendis relies on the DCF, CAPM, and RP methodologies in presenting his recommended return on equity. Based upon the use of his proxy groups, Columbia witness D’Ascendis calculates the following equity returns:<sup>68</sup>

<u>Measure</u>	<u>Proxy Group</u>
DCF	9.13%
RP	12.05%
CAPM	11.76%
<b>Cost of Common Equity</b>	<b>11.25%</b>

In addition to calculating an average return on equity of 11.25%, Columbia witness D’Ascendis’s recommended common equity cost rate reflects a business risk adjustment. Specifically, he recommends a 100 basis points upwards adjustment to

<sup>68</sup> Columbia Exhibit\_(DWD-1R), Schedule DWD-1, Page 2 of 2.

reflect his claim that Columbia has higher business risk than his proxy group.<sup>69</sup> The 11.25% recommended by the Company includes the 100 basis point risk, or size, adjustment.

I&E witness Keller opposes Columbia witness D'Ascendis's calculated return on equity for several reasons. First, as stated above in the discussion of proxy groups, Columbia witness D'Ascendis's selected proxy group is flawed in that one of his selections fails to meet I&E witness Keller's criteria. Second, Mr. D'Ascendis gives undue weight to the CAPM and RP methods. Third, Columbia witness D'Ascendis's adjustment for business risk is unsupported and inappropriate.

### **1. Columbia's Flawed Proxy Group**

Mr. D'Ascendis determined his proxy group of six water companies by using the following criteria:

1. The company is included in the Water Utility Group of Value Line's Standard Edition.
2. The company has 60% or greater of 2021 total operating income or 60% or greater of 2021 total assets attributable to regulated water operations.
3. At the time of the preparation of Mr. D'Ascendis' testimony, the company must not have publicly announced it was involved in any major merger or acquisition activity.
4. The company must not have cut or omitted its common dividends during the five years ended 2021 or through the time of the preparation of Mr. D'Ascendis' testimony.
5. The company must have Value Line and Bloomberg Professional Services (Bloomberg) adjusted betas.

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<sup>69</sup> Columbia Statement No. 1, pp. 11.

6. The company must have a positive Value Line five-year dividends per share (DPS) growth rate projection.
7. The company must have Value Line, Zacks, or Yahoo! Finance consensus five-year earnings per share (EPS) growth rate projections.<sup>70</sup>

Columbia witness D'Ascendis's proxy group identified in direct testimony included 6 companies: American Water Works, American States Water Co., California Water Services Group, Essential Utilities, Middlesex Water Co., and SJW Group.<sup>71</sup>

In direct testimony, I&E witness Keller disputes Mr. D'Ascendis's proxy group. While both proxy groups contain five of the same companies, Columbia witness D'Ascendis' Utility Proxy Group includes one companies that I&E does not use.

I&E Keller excluded Essential Utilities, Inc. because the first criterion that requires 50% or more of a company's revenue must be generated from regulated water utility operations.<sup>72</sup> This criterion is important because revenues represent the percentage of cash flow a company receives from each business line related to providing a good or service and, in this situation, if less than fifty percent of revenues come from the regulated water sector, the companies are not comparable to the subject utility because they do not provide a similar level of regulated business. As a result, the results from the proxy group become skewed. As a result, the Commission should use I&E witness Keller's proxy group as most comparable to Columbia in developing an appropriate cost of equity.

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<sup>70</sup> Columbia Statement No. 4, pp. 14-15.

<sup>71</sup> Columbia Exhibit DWD-2, p. 3.

<sup>72</sup> I&E Statement No. 1, p. 25.



## 2. Columbia’s Flawed Weighting and Use of DCF, CAPM, and RP methods.

After forming his proxy group, Columbia witness D’Ascendis calculated common equity costs with data inputs specific to these companies using the DCF, CAPM, and RP methods.<sup>73</sup> By contrast, I&E witness Keller recommended using the DCF method as the primary method to determine the cost of common equity and using the results of the CAPM as a comparison to the DCF results.<sup>74</sup>

As explained above, I&E witness Keller’s analysis is consistent with the methodology commonly endorsed by the Commission in base rate proceedings and should be approved here. Just recently, the Commission affirmed reliance primarily on the DCF and rejected giving equal weight to the other methodologies. In *City of Dubois – Bureau of Water*, the Commission stated:

[T]he City’s cost of equity in this proceeding should be based upon the use of the DCF methodology, with the other methodology results used as a check on the reasonableness of the DCF results. We note that we have primarily relied upon the DCF methodology in arriving at previous determinations of the proper cost of equity and utilized the results of methods other than the DCF, such as the CAPM and RP methods, as a check upon the reasonableness of the DCF derived equity return calculation, tempered by informed judgement. We are not persuaded by the arguments of the City that we should assign equal weight to the multiple methodologies.<sup>75</sup>

In *UGI Utilities, Inc. – Electric Division*, the Commission stated:

The ALJs adopted the positions of I&E and the OCA that the DCF method should be the primary method used to determine the cost of common equity, and that the results of the CAPM

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<sup>73</sup> I&E Statement No. 1, p. 54.

<sup>74</sup> I&E Statement No.1, pp. 33-34.

<sup>75</sup> *City of DuBois – Bureau of Water*, pp. 96-97.

should be used as a comparison to the DCF results. The ALJs found no reason to deviate from these preferred methods in this proceeding. Therefore, the ALJs recommended against the use of the RP and CE methods proffered by UGI. Further, the ALJs noted that the companies analyzed under the CE model are too dissimilar to a regulated public utility company. R.D. at 60, 76, 81-82 ...[W]e shall adopt the positions of I&E and the OCA and shall base our determination of the appropriate cost of equity on the results of the DCF method and shall use the CAPM results as a comparison thereto. As both Parties noted, the use of the DCF model has historically been our preferred methodology. This was recently affirmed in *Pa. PUC, et. al v. City of Dubois-Bureau of Water*, Docket No. R-2016-2554150, *et. al.* (Order entered March 28, 2017). Like the ALJs, we find no reason to deviate from the use of this method in the instant case. Accordingly, we shall deny UGI's Exceptions on this issue.<sup>76</sup>

Even more recently, in both *Columbia Gas*<sup>77</sup> and *PECO Energy Company – Gas Division* decision,<sup>78</sup> the Commission affirmed I&E's use of the DCF methodology as the primary methodology to determine the return on equity with the CAPM as a comparison.

As endorsed by the Commission, I&E witness Keller did use the CAPM method as a comparison to the DCF results. However, there are disadvantages associated with the CAPM and it should not be used as a primary method. The CAPM is a less reliable model because it measures the cost of equity indirectly and risk premiums vary depending on the debt and equity being compared. The CAPM uses U.S. Treasury Bonds and, typically, the return of the S&P 500 as proxies for the risk-free rate and overall market return, respectively. However, its result can be manipulated based on the inputs

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<sup>76</sup> *UGI Utilities, Inc. – Electric Division*, pp. 103-106.

<sup>77</sup> *Pa. P.U.C. v. PECO Energy Company – Gas Division*, Docket No. R-2020-3018929, Opinion and Order, p. 171 (Order Entered June 22, 2021).

<sup>78</sup> *Pa. P.U.C. v. Columbia Gas*, Docket No. R-2020-3018835, Opinion and Order, p. 127 (Order Entered February 19, 2021).

used; therefore, it introduces a greater amount of subjectivity with respect to determining the cost of equity of a given company.<sup>79</sup> CAPM has also been subject to criticism from academic literature.

I&E witness Keller excluded the RP method from his analysis because it is a simplified version of the CAPM and, in addition to being subject to the same faults listed above, the RP method does not recognize company-specific risk through beta.<sup>80</sup>

**a) Inappropriate Use of PRPM**

Columbia witness D'Ascendis inappropriately relied upon EvIEWS© statistical software to perform a predictive risk premium analysis ("PRPM"). I&E witness Keller objects to Columbia witness D'Ascendis's PRPM on several bases. First, the PRPM does not solve the problem of the RP method because it is still an indirect measure of the cost of equity and it uses historic data that may not represent the current or future economic conditions. Second, the PRPM is not a commonly used method and cannot be evaluated or recreated without purchasing the EvIEWS© software. Relatedly, the required use of specialized software is, to I&E knowledge, proprietary. I&E avers it is inappropriate to require non-company witnesses to purchase this software simply to recreate Columbia witness D'Ascendis's flawed analysis. Accordingly, I&E recommends the Commission reject the Company's RP and PRPM approaches due not only to the flaws I&E has identified in the RP methodology, but also due to the fact that without the proprietary

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<sup>79</sup> I&E Statement No. 1, p. 51.

<sup>80</sup> I&E Statement No. 1, p. 51.

software, the results are not able to be duplicated, and thus, not able to be properly evaluated.

### **b) Risk-Free Rate**

I&E witness Keller recommends the Commission reject Columbia witness D'Ascendis's method of calculating the risk-free rate used for his CAPM analysis.<sup>81</sup> Columbia witness D'Ascendis's claim is based upon expected yields on 30-year U.S. Treasury Bonds for the six quarters ending with the second calendar quarter of 2024, and long term projections for the years 2024 to 2028 and 2029 to 2033.<sup>82</sup> I&E Keller has multiple criticisms. First, long-term Treasury Bonds have substantial maturity risk associated with the market risk and the risk of unexpected inflation and normally offer higher yields to compensate investors for these risks.<sup>83</sup> Using the 10-year Treasury Note is more appropriate to balance the short-term volatility risk and the long-term inflation risk.

Second, the further out into the future one projects, the less reliable the information becomes. In I&E witness Keller's opinion, using an estimated risk-free rate that is far years beyond the test year is unreasonable and unnecessary. In this instance, the time period reflected in the risk free rate should include the period in which rates will be in effect. Columbia is not setting rates far into the future, therefore, I&E witness Keller's reliance on the 10-year Treasury Note is appropriate given that it will cover the time period in which Columbia's rates are expected to be in effect.

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<sup>81</sup> I&E Statement No. 1, pp. 23-24.

<sup>82</sup> Columbia Statement No 4, p. 40.

<sup>83</sup> I&E Statement No. 1, p. 60

Third, the Commission has recognized the 10-year Treasury Note as the superior measure for the risk-free rate by stating the following:<sup>84</sup>

We agree with I&E and the ALJs that using the yield on the 10-year Treasury Note provides a better measure of the risk-free rate of return than using the yield on the 30-year Treasury Bond, as recommended by UGI. In our view, using the 10-year Treasury Note balances the shortcomings 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.

In sum, I&E witness Keller's use of the yield on a 10-year Treasury Note is appropriate because it better reflects the life of the underlying investment and has been recognized by this Commission as the appropriate measure of the risk free rate.

### **c) Inappropriate Use of ECAPM Analysis**

I&E witness Keller objects to Columbia witness D'Ascendis's use of an empirical capital asset pricing model ("ECAPM") to adjust his CAPM results upward.<sup>85</sup>

Specifically, I&E witness Keller asserts ECAPM merely adds a measure of subjectivity to the CAPM as an attempt to refine its predicted Security Market Line ("SML") through an additional factor that corrects none of the underlying problems of the model.<sup>86</sup>

I&E witness Keller explains ECAPM is a modified version of the CAPM which attempts to address the belief that actual risk versus return correlation is flatter than what is predicted by the CAPM. The implication is that the CAPM under-estimates returns

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<sup>84</sup> *UGI Utilities, Inc. – Electric Division*, p. 99.

<sup>85</sup> I&E Statement No. 1-SR, pp. 24-25.

<sup>86</sup> I&E Statement No. 1, p. 73.

with lower levels of risk and over-estimates the returns associated with higher levels of risk. It is assumed that the resulting flattened SML addresses the claimed inaccuracy of the CAPM.<sup>87</sup>

Columbia witness D'Ascendis claims that numerous tests of the CAPM have confirmed the validity to which security returns and betas are related, and further suggests that the actual SML defined by the CAPM is not as steeply sloped as the predicted SML.<sup>88</sup> I&E witness Keller rejects this rationale. While some studies indicate that the CAPM inaccurately defines the SML, the degree to which the CAPM requires adjustment is variable. As stated above, the ECAPM merely adds a measure of subjectivity to the CAPM. Additionally, the additional layer of subjectivity introduced by ECAPM only provides a stronger basis to rely on the DCF, as I&E witness Keller has done, as the primary method to calculate a utility's cost of equity. Therefore, the Commission should reject Columbia witness D'Ascendis's reliance on an ECAPM analysis.

#### **d) Inappropriate Use of Market-to-Book Ratios**

I&E witness Keller rejects Columbia witness D'Ascendis criticism that the market based DCF understates the return required by investors.<sup>89</sup> Columbia witness D'Ascendis claims this understatement exists because the market-to-book ratio for the proxy group

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<sup>87</sup> I&E Statement No. 1, pp. 52-53.

<sup>88</sup> Columbia Statement No. 4, p. 37. Thereby implying beta does not accurately measure systematic risk. I&E Statement No. 1, p. 53.

<sup>89</sup> I&E Statement No. 1-SR, pp. 20-21.

companies is above 1.0.<sup>90</sup> I&E witness Keller explains the flaw in Columbia witness D'Ascendis's claim as follows:<sup>91</sup>

Although there are differences between the book value and market value of water utilities, Mr. D'Ascendis' assertion that the difference causes the DCF to undervalue the rate of return assumes that investors are unaware of the difference. The forecasted growth rates used in the DCF are set by analysts based on current conditions and what they expect the future could be for the stock. If a market-to-book ratio is above 1.0, no rational investor would invest in a utility stock that has been trading above book value for several years and be surprised that rates continue to be set based on the book value capital structure. A market-to-book ratio of above 1.0 for utility stocks reflects their value in the market and implies that investors expect future cash flows to be more valuable than the historical accounting value of the company. Since the stock market is impacted by regulatory policies and economic and financial conditions, a market-to-book ratio could be less than 1.0 when the stock market is in a depression or a company is experiencing under-performance, so it is inappropriate to evaluate DCF results with the market-to-book ratio.

Simply put, Columbia witness D'Ascendis has not demonstrated investors expect utility returns to be set on a different basis than book value. Accordingly, as recommended by I&E witness Keller, the Commission should reject Columbia witness D'Ascendis' criticism of the DCF model through analysis of market-to-book ratios.

### **3. Columbia's Inappropriate Equity Adjustment**

Columbia witness D'Ascendis's rate of return recommendations are also overstated by his assignment of an inappropriate equity adjustments.

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<sup>90</sup> Columbia Statement No. 4-R, pp. 17.

<sup>91</sup> I&E Statement No. 1-SR, pp. 20-21.

### a) Unsupported Size Adjustment

In addition to the inflated return on equity resulting from Columbia witness D'Ascendis' faulty methods described above, Columbia proposes a 100-basis point addition to his indicated common equity cost rate because he opines that smaller companies are less able to cope with significant events affecting sales, revenues or earnings.<sup>92</sup>

I&E witness Keller rebutted this claim by citing the variance year-to-year of returns for large- and small-capitalization stocks listed on the NYSE, AMEX, and NASDAQ.<sup>93</sup> I&E witness Keller also opines that Columbia's proposed size adjustment is unnecessary because none of the cited technical literature supports investment adjustments related to the size of a company is specific to the utility industry; therefore, such an adjustment is not appropriate.<sup>94</sup> In *UGI Utilities, Inc. – Electric Division*, the Commission rejected use of technical literature not specific to the regulated utility industry to support a size adjustment.<sup>95</sup>

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<sup>92</sup> Columbia Statement No. 4, p. 47.

<sup>93</sup> I&E Statement No. 2-SR, p. 29 (citing Ibbotson *Stocks, Bonds, Bills & Inflation: 2015 Yearbook*, pp. 100, 109, 112 (“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 10<sup>th</sup> 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.... 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.... 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.”)).

<sup>94</sup> I&E Statement No. 1-SR, p. 26.

<sup>95</sup> *UGI Utilities, Inc. – Electric Division*, p. 100.



Specific to the utility industry, I&E witness Keller cites an article stating a size adjustment for risk is not applicable to utility companies.<sup>96</sup> In the article “Utility Stocks and the Size Effect: An Empirical Analysis,” Dr. Annie Wong concludes:

The objective of this study is to examine if the size effect exists in the utility industry. After controlling for equity values, there is some weak evidence that firm size is a missing factor from the CAPM for the industrial but not for utility stocks. This implies that although the size phenomenon has been strongly documented for the industrials, the findings suggest that there is no need to adjust for the firm size in utility rate regulation.<sup>97</sup>

Columbia witness D’Ascendis attempts to refute Dr. Wong’s study by citing a review of her study authored by Thomas M. Zepp.<sup>98</sup> As explained by I&E witness Keller, Dr. Zepp’s article does not contain credible enough evidence to refute Dr. Wong’s findings. First, it simply speculates on other possible reasons for her results and references the results of two other studies. The first study, completed by California Public Utilities Commission Staff in 1991, is not included in the article, and, therefore, Dr. Zepp’s opinions cannot be properly evaluated. Dr. Zepp also draws his conclusions about an entire industry based on the second study, which examines the effects of size on only four water utility companies.<sup>99</sup> Additionally, Dr. Zepp admitted the limited relevance of the two studies, stating “*to the extent that water utilities are representative of all utilities, there is support for smaller utilities being more risky than larger ones*”.<sup>100</sup>

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<sup>96</sup> I&E Statement No. 1, pp. 58.

<sup>97</sup> Wong, Annie, “Utility Stocks and the Size Effect: An Empirical Analysis” *Journal of the Midwest Finance Association* (1993), pp. 95-101.

<sup>98</sup> Columbia Statement No. 4-R, pp. 35-36.

<sup>99</sup> I&E Statement No. 1-SR, p. 28.

<sup>100</sup> Columbia Statement No. 2-R, pp. 36 (emphasis added, citing Zepp, Thomas M. "Utility Stocks and the Size Effect --- Revisited", *The Quarterly Review of Economics and Finance*, 43 (2003)).

As a result, I&E recommends the Commission deny Columbia's claimed 100 basis point size adjustment as it is neither supported by the technical literature, nor has the Company demonstrated its need is supported by the evidence presented in this case.

#### **F. Overall Rate of Return**

The Company's proposed overall rate of return is 8.28%.<sup>101</sup> I&E's proposed overall rate of return is 5.50%.<sup>102</sup> I&E submits that the evidence in this proceeding does not support the inputs that went into the development of Columbia's proposed return on equity or overall rate of return, and therefore the I&E's proposed overall return of 5.50% should be adopted.

#### **G. Conclusion**

Columbia's claimed rate of return overstates its need for a revenue increase. Columbia's requested rate of return is not supported by a reasonable measure of returns in today's market. The evidence demonstrates that Columbia's claim for a return on equity of 11.25% and an overall rate of return of 8.28% overstates what reasonable investors should expect from a regulated public utility and is not necessary for Columbia to safely and reliably provide service to its ratepayers.

When adjusted by I&E to more reasonable levels that approximate expected returns in today's economy for similarly-situated water utilities, Columbia's evidentiary support for its \$999,900 rate increase is substantially reduced. As demonstrated by I&E

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<sup>101</sup> Columbia Statement No. 4, p. 3.

<sup>102</sup> I&E Exhibit No. 1, Sch. 4.

witness Keller, the appropriate overall rate of return that will result in just and reasonable rates is 5.50% with an included 7.84% cost rate of common equity.

## **VIII. TAXES**

I&E's various recommendations have a flow-through impact on the Company's taxes for the FPFTY as depicted in the attached Table I.

## **IX. RATE STRUCTURE**

A utility's rate structure reflects how a proposed revenue increase will be allocated among rate classes. Under Section 1304 of the Public Utility Code, the rate structure cannot either advantage or disadvantage a class or contain an unreasonable difference in rates.<sup>103</sup> To survive a challenge under Section 1304, a utility must show any difference can be justified by the difference in costs to deliver service to each class.<sup>104</sup>

### **A. Cost of Service Study - Customer Cost Analysis**

I&E makes various recommendations based on Columbia's customer cost analysis and the result of the customer cost analysis generated by I&E witness Sakaya.

A customer cost analysis is a part of a cost of service study that is used to determine the appropriate fixed customer charges for the various classes and meter sizes. It is necessary to perform a customer cost analysis because a fixed customer charge represents the revenue that the Company is guaranteed to receive each month, regardless of the level of usage. As acknowledged in the seventh edition of the American Water

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<sup>103</sup> 66 Pa.C.S. § 1304. Accordingly, if there is a reasonable basis for a difference, a utility may charge different rates for different classes of customers. *See Peoples Natural Gas Company v. Pa. P.U.C.*, 409 A.2d 446 (Pa. Cmwlth. 1979).

<sup>104</sup> *Philadelphia Suburban Water Company v. Pa. P.U.C.*, 808 A.2d 1044, 1060 (Pa. Cmwlth. 2002).

Works Association M1 Manual, there is a tradeoff between revenue stability from a high customer charge, and affordability and conservation from a low customer charge and higher usage rates.<sup>105</sup>

There are two different types of customer costs: direct and indirect. A direct customer cost is a cost that changes with the increase or decrease of a single customer. An indirect customer cost is a customer related cost that does not change with the increase or decrease of a single customer. Fixed costs assigned to the customer charge are limited to those fixed costs for which there is a direct impact from an individual customer. For example, each individual customer requires a meter and a bill. Therefore, fixed costs associated with meters and billing are properly attributable to the fixed customer charge. The Commission has allowed, in past instances, certain indirect customer costs to be included in a customer cost analysis and thus recovered in a customer charge. As an example, in previous cases, the Commission has allowed the indirect cost of Employee Pension and Benefits.

In this proceeding, Columbia provided a customer cost analysis; however, I&E witness Sakaya disagreed with some items the Company included in its analysis. Therefore, I&E witness Sakaya excluded those items and the resulting I&E customer charge recommendations are based on his analysis without the inclusion of those items. Specifically, I&E witness Sakaya excluded the following items from his customer cost analysis: \$860,298 of O&M expense related to Transmission and Distribution under plant

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<sup>105</sup> AWWA Manual of Water Supply Practices M1 Principles of Water Rates, Fees, Charges, Seventh Edition. pp. 154-155.

in service; these include \$366,160 of Franchise, \$15,280 of General Land, \$577,536 of General Structures and Improvements, \$747,565 of Transportation Equipment, \$8,856 of Stores Equipment, \$297,850 of Tools, Shop and General Equipment, \$47,353 of Laboratory Equipment, \$548,850 of Power Operated Equipment, \$194,639 of Communications Equipment, \$187,685 of Miscellaneous Equipment, and \$75,699 of Other Tangible Equipment. In addition, I&E witness Sakaya also made corresponding reductions to annual depreciation expense and increased accrued depreciation expense for the plant items that need to be removed.<sup>106</sup>

Regarding the removal of these items from the customer cost analysis, Columbia witness Fox noted his disagreement stating that he believes that all customer costs included in his allocation of plant assets are essential in providing service to customers and necessary for the maintenance of facilities, meters, and services noting that meters could not be maintained without land, buildings, transportation, laboratory, general, field, and communication equipment. In addition, he claims that it is reasonable to include 30% of transmission and distribution expense in the customer cost analysis because 30% of the expense represent a direct customer expense.<sup>107</sup>

I&E witness Sakaya explains, however, that Columbia is incorrect:

...only direct costs and some indirect costs should be included in the customer cost analysis. For example, the Company's inclusion of land and buildings is misplaced because these amounts do not change with the gain or loss of a customer. As for maintenance and related expenses, since the Company does not incur maintenance expense on each individual customer's

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<sup>106</sup> I&E Statement No. 2, p. 11.

<sup>107</sup> Columbia Statement No. 3-R, pp. 6-7

meter each month (unlike depreciation expense that is incurred on each meter each month), the inclusion of meter and related “meter maintenance” expense should be excluded. As for transmission and distribution expense, since transmission expense would be related to mains, then 100% of transmission related expense should be excluded. For the remaining distribution expense, the Company failed to show what percentage of total distribution and maintenance expense is distribution expense and how it determined that 30% of such a large expense is directly related to an individual customer.<sup>108</sup>

Using his methodology, I&E witness Sakaya determined that Columbia incurs \$12.19 per month to provide service to a 5/8” meter customer.<sup>109</sup> The various other I&E customer charge recommendations are set forth below. As the methodology utilized by I&E witness Sakaya is consistent with Commission precedent and follows the principle that only those costs that directly change with the addition of a customer should be included in the customer charge, I&E’s customer cost analysis should be relied upon when setting the customer charges in the instant proceeding.

## **B. Revenue Allocation**

I&E made no specific changes to the Company’s revenue allocation.

## **C. Tariff Structure**

### **1. Customer Charge - Proposal**

Columbia has two divisions: the Columbia Division and the Marietta division. Both I&E and Columbia Water agree that unifying the rates at this juncture would be appropriate; however, I&E and Columbia disagree on what those rates should be. The

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<sup>108</sup> I&E Statement No. 2-SR, p. 8.

<sup>109</sup> I&E Statement No. 2-SR, p. 7

Company and I&E's proposed increases to the customer charges are as follows:

**Columbia Division**

<u>All Classes</u> <u>Meter Size</u>	<u>Monthly</u> <u>Present</u>	<u>Monthly</u> <u>Increase</u>	<u>Company</u> <u>Monthly</u> <u>Proposed</u>	<u>Percent</u> <u>Increase</u>	<u>I&amp;E</u> <u>Rates</u>	<u>Percent</u> <u>Increase</u>
(A)	(B)	(C)	(D)	(E)	(F)	(G)
5/8	\$10.31	\$5.00	\$15.31	48.5%	\$12.19	18.2%
3/4	\$15.49	\$6.39	\$21.88	41.3%	\$17.07	10.2%
1	\$25.82	\$9.21	\$35.03	35.7%	\$26.82	3.9%
1-1/2	\$51.64	\$16.26	\$67.90	31.5%	\$51.19	-0.9%
2	\$82.62	\$24.72	\$107.34	29.9%	\$80.45	-2.6%
3	\$154.89	\$57.64	\$212.53	37.2%	\$158.46	2.3%
4	\$258.15	\$72.71	\$330.86	28.2%	\$246.20	-4.6%
6	\$516.32	\$143.24	\$659.56	27.7%	\$490.00	-5.1%
8	\$826.10	\$227.90	\$1,054.00	27.6%	\$782.50	-5.3%
10	\$0.00	\$1,514.18	\$1,514.18		\$0.00	
12	\$2,219.74	\$609.24	\$2,828.98	27.4%	\$1,442.96	-35.0%

**Marietta Division**

<u>All Classes</u> <u>Meter Size</u>	<u>Monthly</u> <u>Present</u>	<u>Monthly</u> <u>Increase</u>	<u>Company</u> <u>Monthly</u> <u>Proposed</u>	<u>Percent</u> <u>Increase</u>	<u>I&amp;E</u> <u>Rates</u>	<u>Percent</u> <u>Increase</u>
(H)	(I)	(J)	(K)	(L)	(M)	(N)
5/8	\$8.20	\$7.11	\$15.31	86.7%	\$12.19	48.7%
3/4	\$12.30	\$9.58	\$21.88	77.9%	\$17.07	38.8%
1	\$20.50	\$14.53	\$35.03	70.9%	\$26.82	30.8%
1-1/2	\$41.00	\$26.90	\$67.90	65.6%	\$51.19	24.9%
2	\$65.60	\$41.74	\$107.34	63.6%	\$80.45	22.6%
3	\$123.00	\$89.54	\$212.54	72.8%	\$158.46	28.8%
4	\$205.00	\$125.87	\$330.87	61.4%	\$246.20	20.1%
6	\$410.00	\$249.59	\$659.59	60.9%	\$490.00	19.5%
8	\$738.00	\$316.05	\$1,054.05	42.8%	\$782.50	6.0%
10	\$943.00	\$571.18	\$1,514.18	60.6%	\$1,123.80	19.2%
12	\$0.00	\$2,828.98	\$2,828.98		\$1,442.96	

Columbia's proposal allows it to receive greater revenue recognition from fixed monthly charges with less contribution from usage charges.

Specifically, I&E witness Sakaya's recommendation is based on the Company's customer cost analysis with the removal of those items discussed above, which do not change with the addition or removal of a customer.

The main crux of what the appropriate customer charge is relies upon having an appropriate customer cost analysis. As I&E witness Sakaya has demonstrated:

Because of the inclusion of these indirect and non-customer related expenses, Columbia's customer charge is higher than it should be. As previously stated, only direct costs and some indirect costs should be included in the customer cost analysis. Columbia's attempt to include line items for plant or plant related expenses that do not change with the gain or loss of a customer, or that which do not incur maintenance expenses on each individual customer's meter each month is artificially increasing the customer charge.<sup>110</sup>

I&E has shown that its customer cost analysis contains only the appropriate costs which change with the addition or removal of a customer, as well as those items which in the past the Commission has allowed. Therefore, as the I&E customer cost analysis is more appropriate than the Company's customer cost analysis, the I&E recommended customer charges are more appropriate than Columbia's proposed customer charges and should be adopted by the Commission.

#### **D. Scale Back of Rates**

If the Commission grants less than the Company's requested increase and adopts the I&E customer charges, I&E recommends that the Commission scale-back only the usage portion of customer rates.<sup>111</sup> However, as explained by I&E witness Sakaya, there

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<sup>110</sup> I&E Statement No. 2-SR, pp. 9-10.

<sup>111</sup> I&E Statement No. 2, p. 14.



would be no need to scale back public fire rates. He notes, “[u]sing the revised COSS provided by the Company on July 25, 2023, the Company claimed that public fire protection required \$874,717 in revenue while the proof of revenue at Company proposed rates for public fire protection for both Columbia and Marietta division only totaled \$294,926.”<sup>112</sup> As a result, the revenue being collected for public fire is already well below what the COSS demonstrates is required, usage rates for public fire would not need to be scaled back.

#### **E. Summary**

I&E’s customer cost analysis, customer charge, and scale back proposals are based on sound Commission ratemaking policies and precedent and should be adopted in total.

#### **X. CONCLUSION**

Columbia has failed to bear its burden of proof with respect to each and every element of its proposed \$999,990 rate increase. The Company’s proposal must be amended to reflect the necessary and appropriate adjustments proposed by the Bureau of Investigation & Enforcement’s fixed utility financial analyst and engineer witnesses. For the reasons stated herein, the Bureau of Investigation & Enforcement respectfully requests the Administrative Law Judges and the Commission to adopt its recommendations in this proceeding, which include adjustments and modifications as supported herein and reflected on the attached I&E tables and grant Columbia Water a

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<sup>112</sup> I&E Statement No. 2-SR, pp. 12-13.

rate increase of no more than \$703,712.

Respectfully submitted,

A handwritten signature in cursive script that reads "Carrie B. Wright".

Carrie B. Wright  
Prosecutor  
PA Attorney ID No. 208185

Bureau of Investigation and Enforcement  
Pennsylvania Public Utility Commission  
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Dated: September 12, 2023

# **APPENDIX A**

TABLE I							
Columbia Water Company							
INCOME SUMMARY							
R-2023-3040258							
	Pro Forma Present Rates (1)	Company Adjustments (2)	Pro Forma Present Rates (Revised) (2)	I&E Adjustments	I&E Present Rates	I&E Revenue Increase	Total Allowable Revenues
	\$	\$	\$	\$	\$	\$	\$
Operating Revenue	6,443,005	801,921	7,244,926	0	7,244,926	703,712	7,948,638
Expenses:							
O&M Expense	4,277,665	1,110,061	5,387,726	(50,980)	5,336,746	0	5,336,746
Depreciation	1,367,250	(192,875)	1,174,375	0	1,174,375	0	1,174,375
Taxes, Other	244,834	(4,002)	240,832	0	240,832	4,626	245,458
Income Taxes:							
State	75,946	(17,537)	58,409	39,897	98,306	62,848	161,154
Federal	0	0	0	0	0	0	0
Total Expenses	5,965,695	895,647	6,861,342	(11,083)	6,850,259	67,474	6,917,733
Net Income Available for Return	477,310	(93,726)	383,584	11,083	394,667	636,238	1,030,905
Rate Base	18,750,106	0	18,750,106	(6,373)	18,743,733		18,743,733
Rate of Return	2.55%		2.05%		2.11%		5.50%

TABLE I(A)					
Columbia Water Company					
RATE OF RETURN - I&E RECOMMENDED					
R-2023-3040258					
	Structure	Cost	After-Tax Weighted Cost	Effective Tax Rate Complement	Pre-Tax Weighted Cost Rate
Total Cost of Debt			1.58000000%		
Long-term Debt	50.00%	3.15%	1.58000000%		1.58%
Short-term Debt	0.00%	0.00%	0.00000000%		
Preferred Stock	0.00%	0.00%	0.00000000%	0.910100	0.00%
Common Equity	50.00%	7.84%	3.92000000%	0.910100	4.31%
	<u>100.00%</u>		<u>5.50000000%</u>		<u>5.89%</u>
Pre-Tax Interest Coverage	3.73				
After-Tax Interest Coverage	3.48				



# **APPENDIX B**

## **PROPOSED FINDINGS OF FACT**

### **Rate Base**

1. The Company claimed \$504,601 for Cash Working Capital, which was later revised to \$501,510. Columbia Exhibit GDS No. 1-R, p. 1-9.
2. For ratemaking purposes, cash working capital is the capital needed to operate a utility between the rendition of service and the receipt of revenues in payment for services rendered. I&E Statement No. 1, p. 16.
3. A reduction of \$6,373 resulting from I&E's rate case expense adjustment reduces the Company's cash working capital allowance to \$495,137. I&E Statement No. 1-SR, p. 9.

### **Expenses**

4. Columbia's claim for Rate Case Expense for the FPFTY would be \$81,500 if normalized over a period of 48 months. I&E Statement No. 1, p. 7.

### **Fair Rate of Return**

5. Rate of return is one of the components of the revenue requirement formula, which is  $RR = E + D + T + (RB \times ROR)$ , where RR = Revenue Requirement; E = Operating Expense; D = Depreciation Expense; T = Taxes; RB = Rate Base; and ROR = Overall Rate of Return. I&E Statement No. 1, pp. 18.
6. Columbias's actual capital structure includes 36.66% Long-Term Debt and 63.34% Common Equity. I&E Statement No. 1, p. 26.
7. Columbia's cost of long-term debt is 3.15%. I&E Statement No. 1, p. 21.
8. Using a DCF analysis, Columbia's cost of common equity is 7.84%. I&E Statement No. 1, p. 22.
9. Using a CAPM analysis, Columbia's cost of common equity is 7.59%. I&E Statement No. 2, p. 31.
10. Based on the hypothetical capital structure, cost of long-term debt, preferred stock, and cost of common equity, Columbia's rate of return is 5.50%. I&E Statement No. 1, p. 2.
11. A size adjustment to return on equity is not applicable to utility companies. I&E Statement No. 1-SR, pp. 26-31.



# **APPENDIX C**

**PROPOSED CONCLUSIONS OF LAW**

1. The Company carries the burden of proof to show its rate proposal is just and reasonable. 66 Pa.C.S. § 315(a); *Irwin A. Popowsky v. Pa. P.U.C.*, 674 A.2d 1149 (Pa. Cmwlth. 1996).
2. Wellsboro must satisfy its burden of proof by presenting a preponderance of evidence. *Samuel J. Lansberry, Inc. v. Pennsylvania Public Utility Commission*, 578 A.2d 600 (Pa. Cmwlth. 1990).
3. A preponderance of the evidence is evidence that is more convincing, by even the smallest amount, than that presented by another party. *Se-Ling Hosiery v. Margulies*, 70 A.2d 854 (Pa. 1950).
4. In base rate cases, the Commission has affirmed the utility's burden to establish the justness and reasonableness of every component of its rate request. *Pa. P.U.C. v. PPL Electric Utilities Corporation*, 2012 WL 6758304 (Pa. P.U.C. 2012); *Pa. P.U.C. v. Aqua Pennsylvania, Inc.*, 2004 WL 2314523 (Pa. P.U.C. 2004).
5. The burden of proof does not shift to parties challenging a requested rate increase. *Pa. P.U.C. v. PPL Electric Utilities Corporation*, 2012 WL 6758304 (Pa. P.U.C. 2012); *Pa. P.U.C. v. Aqua Pennsylvania, Inc.*, 2004 WL 2314523 (Pa. P.U.C. 2004).
6. The Company must produce substantial evidence to satisfy its burden of proof. *Brockaway Glass v. Pa. P.U.C.*, 437 A.2d 1067 (Pa. Cmwlth. 1981); *Lower Frederick Township v. Pa. P.U.C.*, 409 A.2d 505 (Pa. Cmwlth. 1980).
7. Substantial evidence is "such relevant and competent evidence having a rational probative force which a reasonable mind might accept as adequate to support a conclusion." *Dutchland Tours, Inc. v. Pa. P.U.C.*, 337 A.2d 922, 925 (Pa. Cmwlth. 1975).

**Expenses**

8. A public utility is entitled to recover all of its reasonably incurred expenses necessary to provide service to customers. *Butler Township Water Company v. Pa. P.U.C.*, 473 A.2d 219, 221 (Pa. Cmwlth. 1984); *UGI Corp. v. Pa. P.U.C.*, 410 A.2d 923, 932 (Pa. Cmwlth. 1980); *Western Pennsylvania Water Company v. Pa. P.U.C.*, 422 A.2d 906, 908 (Pa. Cmwlth. 1980).

9. The Commission characterizes rate case expense as a normal operating expense that should be accorded the same rate-making treatment as any other normalized expense. *Pa. P.U.C. v. Apollo Gas Co.*, 54 Pa. PUC 358, 373 (Pa. P.U.C. 1980).
10. To determine the length of rate case expense normalization, the Commission looks to the average number of months between a company's rate case filings. *Pa. P.U.C. v. City of DuBois - Bureau of Water*, Docket No. R-2016-2554150, pp. 65-66 (Order entered March 28, 2017) (reconsideration of rate case expense claim denied by Order entered May 18, 2017); *Pa. P.U.C. v. Emporium Water Company*, Docket No. R-2014-2402324, p. 50 (Order entered January 28, 2015); *Popowsky v. Pa. P.U.C.* 674 A.2d 1149, 1154 (Pa. Cmwlth. 1996); *Pa. P.U.C. v. Borough of Media Water Works*, 1990 WL 10702673 (Pa. P.U.C. 1990).

### **Fair Rate of Return**

11. A utility is entitled to a return similar to that being earned by other enterprises with corresponding risks and uncertainties, but not as high as those earned by highly profitable or speculative ventures. *Bluefield Water Works & Improvements Co. v. Public Service Comm. of West Virginia*, 292 U.S. 679 (1923); *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944); *Pennsylvania Gas & Water Company v. Pa. P.U.C.*, 341 A.2d 239, 249-252 (Pa. Cmwlth. 1975).
12. A utility is entitled to a return level reasonably sufficient to assure financial soundness. *Bluefield Water Works & Improvements Co. v. Public Service Comm. of West Virginia*, 292 U.S. 679 (1923); *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944); *Pennsylvania Gas & Water Company v. Pa. P.U.C.*, 341 A.2d 239, 249-252 (Pa. Cmwlth. 1975).
13. A utility is entitled to a return sufficient to maintain and support its credit and raise necessary capital. *Bluefield Water Works & Improvements Co. v. Public Service Comm. of West Virginia*, 292 U.S. 679 (1923); *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944); *Pennsylvania Gas & Water Company v. Pa. P.U.C.*, 341 A.2d 239, 249-252 (Pa. Cmwlth. 1975).
14. A fair return can change (increase or decrease) along with economic conditions and capital markets. *Bluefield Water Works & Improvements Co. v. Public Service Comm. of West Virginia*, 292 U.S. 679 (1923); *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944); *Pennsylvania Gas & Water Company v. Pa. P.U.C.*, 341 A.2d 239, 249-252 (Pa. Cmwlth. 1975).

15. The PUC historically uses the DCF as the primary methodology to determine a utility's cost of equity. *Pa. P.U.C. v. UGI Utilities, Inc. – Electric Division*, Docket No. R-2017-2640058 (Order Entered October 25, 2018), pp. 104-106, 121; *Pa. P.U.C. v. City of DuBois – Bureau of Water*; Docket No. R-2016-2554150 (Order Entered March 28, 2017), pp. 96-98; *Pa. P.U.C. v. PECO Energy Co.*, 87 Pa. PUC 184, 212 (Pa. P.U.C. 1997); *Pa. P.U.C. v. Philadelphia Suburban Water Co.*, 71 Pa. PUC 593, 623-32 (Pa. P.U.C. 1989); *Pa. P.U.C. v. Western Pennsylvania Water Co.*, 67 Pa. PUC 529, 559-70 (Pa. P.U.C. 1988); *Pa. P.U.C. v. Consumers Pennsylvania Water Company – Roaring Creek Division*, 87 Pa. PUC 826 (Pa. P.U.C. 1997). *Pa. P.U.C. v. City of Bethlehem*, 84 Pa. PUC 275, 304-05 (Pa. P.U.C. 1995); *Pa. P.U.C. v. Media Borough*, 77 Pa. PUC 446, 481 (Pa. P.U.C. 1992).
16. The PUC disfavors comparisons to non-utility companies for rate of return analysis. *Pa. P.U.C. v. UGI Utilities, Inc. – Electric Division*, Docket No. R-2017-2640058 (Order Entered October 25, 2018), p. 105; *Pennsylvania Public Utility Commission v. Philadelphia Electric Co.* 33 PUR 4<sup>th</sup> 319, 341 (Pa P.U.C. 1980).
17. The PUC recognizes the 10-year Treasury Note as the superior measure for the risk-free rate. *Pa. P.U.C. v. UGI Utilities, Inc. – Electric Division*, Docket No. R-2017-2640058 (Order Entered October 25, 2018), p. 99.
18. The PUC does not recognize technical literature not specific to the regulated utility industry to support a size adjustment to return on equity. *Pa. P.U.C. v. UGI Utilities, Inc. – Electric Division*, Docket No. R-2017-2640058 (Order Entered October 25, 2018), p. 100.

### Customer Rate Structure

19. A utility's rate structure cannot either advantage of disadvantage a class, or contain an unreasonable difference in rates. 66 Pa.C.S. §1304.
20. If there is a reasonable basis for a difference, a utility may charge different rates for different classes of customers. *Peoples Natural Gas Company v. Pa. P.U.C.*, 409 A.2d 446 (Pa. CmwltH 1979).
21. A utility must show any difference in rates can be justified by the difference in costs to deliver service to each class. *Philadelphia Suburban Water Company v. Pa. P.U.C.*, 808 A.2d 1044, 1060 (Pa. CmwltH. 2002).

22. Act 58 of 2017 set forth statutory standards for alternative ratemaking, but does not expressly determine which alternative rate methodologies, if any, are to be used. 66 Pa. C.S. § 1330; *Implementation of Act 58 of 2018 Alternative Ratemaking for Utilities*, Docket No. M-2018-3003269 (Order entered April 25, 2019), p.3.
23. Commission regulations concerning alternative distribution ratemaking mechanisms and rate designs are designed to promote efficiency, avoid unnecessary future capital investments, reflect cost of service principles, consider customer impacts, and establish a rate structure that is just and reasonable. 52 Pa. Code § 69.3301.
24. Commission regulations concerning alternative ratemaking include fourteen non-exclusive factors for consideration when determining just and reasonable alternative distribution ratemaking mechanisms and rate designs. 52 Pa. Code § 69.3302.

# **APPENDIX D**

**PROPOSED ORDERING PARAGRAPHS**

**THEREFORE, IT IS RECOMMENDED:**

1. The Columbia Water Company shall not place into effect the rates contained in Supplement No. 121 to Tariff Water Pa. P.U.C. No. 7, which have been found to be unjust and unreasonable and therefore, unlawful.
2. That Columbia Water Company shall be permitted to file tariffs, tariff supplements or tariff revisions containing proposed rates, rules and regulations to increase annual revenues in the total amount of not more than \$703,712.
3. That Columbia Water Company tariffs, tariff Supplements or tariff revisions may be filed to be effective on at least one day's notice after entry of the Commission's Final Order, for service rendered on and after the date of entry of the Commission's Final Order in this matter.
4. That Columbia Water Company shall allocate the authorized increase in operating revenues to each customer class and rate schedule within each class in the manner set forth in the Recommended Decision.
5. That Columbia Water Company shall comply with all directives, conclusions and recommendations in this Recommended Decision that are not the subject of individual ordering paragraphs as fully as if they were the subject of specific ordering paragraphs.
6. That, upon acceptance and approval by the Commission of the tariff supplements filed by Columbia Water Company, consistent with its Final Order, the investigation at Docket R-2023-3040258 be marked closed.
7. That the complaint filed by the Office of Consumer Advocate in this proceeding at Docket Number C-2023-3040746 be dismissed and marked closed.
8. That the complaint filed by the Office of Small Business Advocate in this proceeding at Docket Number C-2023-30040567 be dismissed and marked closed.

