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I. INTRODUCTION

On April 28, 2023, Columbia Water Company (Columbia Water or Company) filed Supplement No. 121 to Tariff Water – Pa.P.U.C. No. 7 (Supplement No. 121). Supplement No. 121 changes the schedule of rates for all customers in the Columbia and Marietta Rate Divisions to produce an increase in total annual operating revenues for water service of approximately \$999,900, or 14.2%, based upon a Future Test Year (FTY) ending December 31, 2023. The Company takes the position that based upon data, it would be entitled to a revenue increase of \$1,294,828, but it has applied a “Black Box Customer Discount” to decrease its request for relief.

By order entered on June 15, 2023, the Commission suspended the rate filing until January 27, 2024, and directed an investigation to determine the lawfulness, justness, and reasonableness of the rates, rules, and regulations contained in the rate filings. The Commission must act on Columbia Water’s rate requests on or before the public meeting currently scheduled for January 18, 2024.

After making adjustments to rate base, expenses and the rate of return, this decision recommends a maximum water revenue increase of approximately \$944,893.

II. HISTORY OF THE PROCEEDINGS

On April 28, 2023, Columbia Water Company (Columbia Water or Company) filed Supplement No. 121 to Tariff Water – Pa.P.U.C. No. 7. Supplement No. 121 changes the schedule of rates for all customers in the Columbia and Marietta Rate Divisions to produce an increase in total annual operating revenues for water service of approximately \$999,900, or 14.2%, based upon the data for a Future Test Year ending December 31, 2023.

On May 9, 2023, the Office of Small Business Advocate (OSBA) filed a Notice of Appearance and Rate Case Complaint, Public Statement and Verification. On May 17, 2023, the Office of Consumer Advocate (OCA) filed a Notice of Appearance and Rate Case Complaint.

Also on May 17, 2023, the Bureau of Investigation and Enforcement (I&E) filed a Notice of Appearance. Two consumer complaints were filed on June 9, 2023.

On June 15, 2023, the Commission issued an order suspending Supplement No. 121 by operation of law until January 27, 2024. That same day, the Office of Administrative Law Judge issued a hearing notice which scheduled a Prehearing Conference for June 23, 2023. The presiding officers assigned by the Commission issued a prehearing conference order which explained the purpose of the prehearing conference and required parties who chose to participate to file a prehearing conference memorandum.

The Prehearing Conference convened as scheduled. Counsel for Columbia Water, I&E, OCA and OSBA (the Parties) appeared. The Parties agreed to a schedule for the service of written testimony and exhibits, and evidentiary hearings were scheduled to take place August 28, 2023. The Parties also agreed to two public input hearings that would be held on July 12, 2023. We issued a prehearing order on June 23, 2023, which memorialized the litigation schedule.

On June 27, 2023, Columbia Water filed a motion for a protective order which was not opposed by any party. We granted the motion by order entered on June 28, 2023.

In accordance with the litigation schedule, the Parties served written direct, rebuttal, surrebuttal and rejoinder testimony.

The evidentiary hearing convened on August 28, 2023. The Parties offered their written testimony for admission into the record. That testimony was admitted and the Parties were directed to provide electronic copies to the court reporter.¹ OSBA cross-examined OCA witness Jerome Mierzwa and presented rebuttal testimony of OSBA witness Brian Kalcic. We requested Company witness Dylan D'Ascendis to testify.

¹ We deemed the Parties' provision of their testimony to the court reporter as compliance with 52 Pa. Code § 5.412a.

We provided the Parties with briefing instructions at the close of the evidentiary hearing. We memorialized those instructions by order entered on August 30, 2023.

III. PUBLIC INPUT HEARINGS

We convened two public input hearings on July 12, 2023, at 1:00 p.m. and 6:00 p.m. No Columbia Water customers participated in either public input hearing.

IV. FINDINGS OF FACT

1. Columbia Water serves approximately 12,000 customers. Columbia Water St. 1 at 4.

2. Columbia Water has three water rate divisions: The Columbia Rate Division; the Marietta Rate Division and the East Donegal Township Municipal Authority (EDTMA) Rate Division. Columbia Water St. 1 at 2-3

3. The Columbia Rate Division applies to water service provided in Columbia and Mountville Boroughs and in West Hempfield, portions of East Donegal and Manor Townships, all located in Lancaster County. Columbia Water St. 1 at 2-3.

4. The Marietta Rate Division applies to water service provided in Marietta Borough and portions of East Donegal Township in Lancaster County and portions of Hellam Township in York County. Columbia Water St. 1 at 2-3.

5. The East Donegal Township Municipal Authority Rate Division, which was established after Columbia acquired EDTMA pursuant to Commission Order at Docket No. A-2021-3027134, applies to water service provided in portions of East Donegal Township, Lancaster County that were previously served by EDTMA. Columbia Water St. 1 at 2-3.

6. The Historic Test Year (HTY) for the Company's rate filing is December 31, 2022.

7. The FTY for the Company's rate filing is December 31, 2023.

Rate Base

8. The Company's proposed rate base represents the Company's claimed measures of value at the end of the FTY and equals \$18,750,106. Exhibit GDS No. 1-R at 1-9.

9. The Company's claim for rate base was modified to exclude the plant assets associated with the former EDTMA system that was acquired by the Company in March 2022. Columbia Water St. 2 at 14.

10. The Company's pro forma revenues at present rates is \$7,244,926. Exhibit GDS No. 1-R at 1-1.

11. 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 St. No. 1 at 16.

Expenses

12. The Company's rate case expense is approximately \$390,330. Exhibit GDS No. 1 at 1-16 (Revised).

13. Columbia Water filed base rate cases in 2008, 2013, 2017 and 2023.

14. The Company's HTY expense for materials and supplies is \$337,390. Exhibit GDS No. 1 at 1-15 (Revised).

15. Expense data from 2020 is no longer representative of the current costs to operate the Company. Columbia Water St. 2-RJ at 9.

16. The Company undertakes roadway restoration projects every year to maintain adequate, efficient, safe, and reasonable service. Columbia Water St. 1-R at 2.

17. The \$18,000 expense claim related to the Kinderhook roadway restoration project is not a normal annual expense. See Columbia Water Exh. DTL-1R (Columbia Water reply to I&E-RE-14-D).

18. The Company acquired the EDTMA system on March 31, 2022, three months into the HTY of this proceeding. Columbia Water St. 2-R at 11.

19. The Company has separately tracked and identified certain expenses associated with the EDTMA Rate Division, including expenses that increased in the FTY because of providing service to the EDTMA Rate Division, and removed them from the Company's filing. Columbia Water St. 2 at 10; *see also* Exhibit GDS No. 1-R at 1-5.

20. The costs to upgrade the Company's billing software is a one-time expense. Columbia Water St. 2-R at 19.

21. Columbia Rate Division customers separately pay a PENNVEST surcharge at a flat rate of \$9.69 per month. The Columbia Water Company Supplement No. 117 To Tariff – Water Pa. P.U.C. No. 7, 4 (Order Feb. 9, 2023).

22. The Company's PENNVEST surcharge revenue is included in the Company's total operating revenues for HTY and FTY, as depicted in GDS Exhibit No. 1-R at 1-1.

23. The PENNVEST surcharge is collected from the Company's customers to pay for plant investment that was funded by PENNVEST loans. Columbia Water St. 2-R at 21-22.

24. To the extent the Company receives a tax deduction related to PENNVEST loans to recognize the payment of interest, such costs have been reflected in the Company's interest expense deduction for state income tax purposes. Columbia Water St. No. 2-R at 22.

25. This interest expense deduction includes the interest expense associated with the Company's weighted cost of debt included in this rate case plus the interest expense associated with its PENNVEST loans. Columbia Water St. No. 2-R at 23.

26. The state income tax rate of 8.99% is the rate currently in effect throughout the duration of the FTY. Columbia Water St. 2-R at 23.

Rate of Return

27. The Company's actual capital structure is composed of 36.66% long-term debt and 63.34% common equity. Columbia Water St. 4 at 16; I&E St. 1 at 26.

28. The Company's long-term debt cost rate is 3.15%. Columbia Water Exhibit DWD-1 at 1; I&E St. No. 1, p. 21.

29. Reasonable investors use a variety of tools and do not rely exclusively on a single source of information or single model. Columbia Water St. 4 at 19.

30. The use of multiple generally accepted common equity cost rate models also adds reliability and accuracy when arriving at a recommended common equity cost rate. Columbia Water St. 4 at 19.

31. A proxy group of the following six water companies is reasonable: American States Water Company, American Water Works Company, Inc., California Water Service Group, Essential Utilities Inc., Middlesex Water Company, and SJW Group. Columbia Water St. 4 at 15; OCA St. 4 at 5, 16-17.

32. The Discounted Cash Flow (DCF) model seeks to explain the value of an asset as the present value of future cash flows, discounted at the appropriate rate. Columbia Water St. 4 at 20.

33. The CAPM model is a market-based model founded on the principle that investors expect higher returns for incurring additional risk. OCA St. 4 at 35.

34. The CAPM analysis can better capture forward-looking changes in the market that are occurring currently than the DCF. Columbia Water St. 4 at 10-11.

Rate Allocation and Rate Design

35. The Company's Cost of Service Study (COSS) uses the Base-Extra Capacity Method, as described in water rates manuals published by the American Water Works Association, to allocate pro forma costs. Columbia Water St. 3 at 8 -9.

36. The Company's Columbia and Marietta Rate Divisions rely upon a single general metered service (GMS) rate schedule that is applicable to all residential, commercial, industrial and public authority customers. OSBA St. 1 at 3.

37. Transmission and distribution expenses are not just for maintaining the transmission and distribution pipes but also are incurred, in part, for the maintenance and repair of meters and services. Columbia Water St. 3.

38. The ratio of the Company's total meters and services plant investment to the Company's total Transmission and Distribution (T&D) plant in service is 15.7%. OSBA St. No. 1, at 8-9.

39. The Company's COSS takes into account estimates for max-day and peak-hour peaking factors by rate tier, in the absence of granular and more detailed data. OCA St. 3-SR at 9.

Quality of Service

40. The Company's water pressure throughout its system meets all standards. Columbia Water St. 1 at 8.

41. There have been no formal or informal service complaints since January 2018, and only one informal complaint in 2020 and one in 2021, both of which were evaluated by the Commission's Bureau of Consumer Services and were not found to be justified complaints. Columbia Water St. 1 at 9.

42. The Company has routinely exercised system isolation valves, including critical valves, exercising 136 valves (135 critical valves) in 2018, 342 valves (126 critical valves) in 2019, 456 valves (131 critical valves) in 2020, 356 valves (135 critical valves) in 2021, and 497 valves (150 critical valves) in 2022. Columbia Water St. 1 at 9.

43. The Company's ArcGIS data for its isolation valves contains detailed information on each one of its valves, such as the specific date it was inspected and its location. Columbia Water St. 1-R at 8-9.

44. Columbia Water is required to maintain specific minimum and maximum chlorination levels in its water. Columbia Water St. 1-R at 10-11.

45. The Company tests for and reports these values weekly. Columbia Water St. 1-R at 10-11.

46. The Company meets or exceeds all Federal and State water quality standards and requirements. Columbia Water St. 1 at 8.

V. DISCUSSION

A. Legal Standards

At issue here is the Company's request for a general base rate increase, which is governed by Section 1308(d) of the Code. Section 1308(d) of the Code provides the procedures for changing base rates, the time limitations for the suspension of the new rates, and the time limitations on the Commission's actions.² "Under traditional ratemaking, utilities may not change rates charged to customers outside of a base rate case."³

Section 1301(a) of the Code mandates that "[e]very rate made, demanded, or received by any public utility ... shall be just and reasonable, and in conformity with [the] regulations or orders of the [C]ommission."⁴ Pursuant to the just and reasonable standard, a utility may obtain "a rate that allows it to recover those expenses that are reasonably necessary to provide service to its customers[,] as well as a reasonable rate of return on its investment."⁵ There is no single way to arrive at just and reasonable rates, and "[t]he [Commission] has broad discretion in determining whether rates are reasonable" and "is vested with discretion to decide what factors it will consider in setting or evaluating a utility's rates."⁶

² 66 Pa.C.S. § 1308(d).

³ *McCloskey v. Pa. Pub. Util. Comm'n*, 127 A.3d 860, 863 n.2 (Pa. Cmwlth. 2015).

⁴ 66 Pa.C.S. § 1301(a).

⁵ *City of Lancaster Sewer Fund v. Pa. Pub. Util. Comm'n*, 793 A.2d 978, 982 (Pa. Cmwlth. 2002) (City of Lancaster).

⁶ *Popowsky v. Pa. Pub. Util. Comm'n*, 683 A.2d 958, 961 (Pa. Cmwlth. 1996) (Popowsky II).

A public utility is entitled to an opportunity to earn a fair rate of return on the value of the property dedicated to public service.⁷ In determining a fair rate of return, the Commission must adhere to the constitutional standards established by the United States Supreme Court in the seminal cases *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679 (1923) (*Bluefield*) and *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) (*Hope Natural Gas*). In *Bluefield*, the 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 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 reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market and business conditions generally.^[8]

Twenty years later, in *Hope Natural Gas*, the Supreme Court reiterated:

[f]rom 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

⁷ *Pa. Gas & Water Co. v. Pa. Pub. Util. Comm'n*, 341 A.2d 239 (Pa. Cmwlth. 1975) (citations omitted).

⁸ *Bluefield*, 262 U.S. at 692-93.

in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.^[9]

The Commission is required to investigate all general rate increase filings.¹⁰ The burden of proof to establish the justness and reasonableness of every element of a public utility's rate increase request rests solely upon the public utility in all proceedings filed under Section 1308(d) of the Code.¹¹ Section 315(a) of the Code provides as follows:

Reasonableness of rates. – In any proceeding upon the motion of the commission, involving any proposed or existing rate of any public utility, or in any proceedings upon complaint involving any proposed increase in rates, the burden of proof to show that the rate involved is just and reasonable shall be upon the public utility.^[12]

The evidence necessary to meet that burden must be substantial.¹³

In general rate increase proceedings, the burden of proof does not shift to parties challenging a requested rate increase. Rather, the utility's burden of establishing the justness and reasonableness of every component of its rate request is an affirmative one, and that burden remains with the public utility throughout the course of the rate proceeding. There is no similar burden placed on parties to justify a proposed adjustment to the company's filing. The Pennsylvania Supreme Court has held:

[T]he appellants did not have the burden of proving that the plant additions were improper, unnecessary or too costly; on the contrary, that burden is, by statute, on the utility to demonstrate

⁹ *Hope Natural Gas*, 320 U.S. at 603.

¹⁰ *Popowsky II*, 683 A.2d at 961.

¹¹ 66 Pa.C.S. § 315(a); see also, *Lower Frederick Twp. Water Co. v. Pa. Pub. Util. Comm'n*, 409 A.2d 505 (Pa. Cmwlth. 1980) (*Lower Frederick*); see also, *Brockway Glass Co. v. Pa. Pub. Util. Comm'n*, 437 A.2d 1067 (Pa. Cmwlth. 1981).

¹² 66 Pa.C.S. § 315(a).

¹³ *Lower Frederick*, 409 A.2d at 507.

the reasonable necessity and cost of the installations, and that is the burden which the utility patently failed to carry.^[14]

However, in proving that its proposed rates are just and reasonable, a public utility need not affirmatively defend every claim it has made in its filing, even those which no other party has questioned:

[w]hile it is axiomatic that a utility has the burden of proving the justness and reasonableness of its proposed rates, it cannot be called upon to account for every action absent prior notice that such action is to be challenged.^[15]

Additionally, Section 315(a) of the Code cannot reasonably be read to place the burden of proof on the utility with respect to an issue the utility did not include in its general rate case filing and which, frequently, the utility would oppose.¹⁶ The burden of proof must be on the party who proposes a rate increase beyond that sought by the utility.¹⁷ The mere rejection of evidence contrary to that presented by the public utility is not an impermissible shifting of the evidentiary burden.¹⁸

When parties have been ordered to file briefs and fail to include all the issues they wish to have reviewed, the issues not briefed have been waived.¹⁹ The Commission is not required to consider expressly and at length each contention and authority brought forth by each party to the proceeding.²⁰ “A voluminous record does not create, by its bulk alone, a multitude

¹⁴ *Berner v. Pa. Pub. Util. Comm'n*, 116 A.2d 738, 744 (Pa. 1955).

¹⁵ *Allegheny Ctr. Assocs. v. Pa. Pub. Util. Comm'n*, 570 A.2d 149, 153 (Pa. Cmwlth. 1990) (citation omitted); see also *Pa. Pub. Util. Comm'n v. Equitable Gas Co.*, 73 Pa.P.U.C. 310 (1990).

¹⁶ 66 Pa.C.S. § 315(a).

¹⁷ *Pa. Pub. Util. Comm'n v. Metro. Edison Co.*, Docket No. R-00061366 (Opinion and Order entered Jan. 11, 2007).

¹⁸ *U.S. Steel Corp. v. Pa. Pub. Util. Comm'n*, 456 A.2d 686 (Pa. Cmwlth. 1983).

¹⁹ *Jackson v. Kassab*, 812 A.2d 1233 (Pa. Super. 2002); *Brown v. Pa. Dep't of Transp.*, 843 A.2d 429 (Pa. Cmwlth. Ct. 2004).

²⁰ *Univ. of Pa. v. Pa. Pub. Util. Comm'n.*, 485 A.2d 1217 (Pa. Cmwlth. 1984).

of real issues demanding individual attention . . . ”²¹ Further, a Commission decision is adequate where, on each of the issues raised, the Commission was presented with a choice of actions, each fully developed in the record, and its choice on each issue amounts to an implicit acceptance of one party's thesis and rejection of the other party's contention.²²

B. General Summary

A utility's revenue requirement represents the total revenue that the utility needs to collect through rates charged to the public to cover its cost of service. The formula to calculate the utility's revenue requirement is:

$$RR = E + ROR(RB)$$

Where:

RR = Revenue Requirement
E = Expenses (including depreciation and taxes)
ROR = Overall Rate of Return
RB = Rate Base

Columbia Water requests an increase in revenue in the amount of \$999,990 based upon data for a FTY ending December 31, 2023. Columbia Water takes the position that based upon data, it would be entitled to a revenue increase of \$1,294,828, but it has applied a “Black Box Customer Discount” to decrease its request for relief.²³ Columbia Water's last rate filing for a general rate increase resulted in a settlement. According to the Company, this rate increase request is necessary to ensure that the Company earns a fair return on its investments, including the capital additions that the Company has placed into service since its last base rate proceeding and that are projected to be placed in service during the FTY. Columbia Water asserts that the increase request is also necessary to support its ongoing Commission-approved long-term infrastructure replacement program designed to enhance safety and reliability. Lastly, Columbia

²¹ *Application of Midwestern Fidelity Corp.*, 363 A.2d 892, 902, n.6 (Pa. Cmwlth. 1976).

²² *Popowsky v. Pa. Publ. Util. Comm'n*, 706 A.2d 1197 (Pa. 1997).

²³ *See* Columbia Water Main Brief at 5.

Water avers that the increase request is necessary to recover higher levels of operating expenses that are necessary for the provision of safe and reliable water distribution service, which are the result of, among other things, increasing economic inflation, supply chain shortages, and general cost increases.

I&E contends that the Company has justified a revenue increase in the amount of \$703,712.²⁴ OCA, in turn, recommends other adjustments and argues that the Company is only entitled to an additional \$657,819 in revenue.²⁵ Neither advocate recommended a further adjustment based upon the Company's proposed Black Box Customer Discount.

As set forth in the analysis below, we recommend approval of a revenue increase in the amount of \$944,893.

VI. RATE BASE

The appropriate determination of a utility's rate base is the starting point for setting reasonable rates:

[a] utility's rate base is essentially the company's "prudent" capital investment, net of accumulated depreciation, plus other additions, such as cash working capital (CWC), 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. Stated differently, it is the net asset base from which the utility provides electric, natural gas, or, in this instance, water service, and upon which the utility is provided the opportunity to earn a rate of return. Thus, the rate base value is a key variable in the determination of a utility's revenue requirement.^[26]

²⁴ I&E Main Brief at 3.

²⁵ OCA Main Brief at 7.

²⁶ *Pa. Pub. Util. Comm'n v. City of Bethlehem – Water Dep't*, Docket No. R-2020-3020256 at 51 (Opinion and Order entered Apr. 15, 2021).

A. Plant in Service and Depreciation Reserve

The Company's claim for utility plant in service begins with the actual Historic Test Year ending balance as of December 31, 2022.²⁷ For its Columbia Division, this HTY ending balance for its Columbia rate division was approximately \$42,491,763.²⁸ The HTY ending balance for its Marietta rate division was approximately \$6,100,848.²⁹ The Company's booked utility plant in service funded by PENNVEST³⁰ loans has not been included in this base rate filing.³¹

The HTY figures were then increased to reflect FTY plant additions of \$2,681,975, net of retirements of approximately \$17,194 associated with the anticipated construction projects.³² Company witness Shambaugh provided the anticipated additions and retirements of water assets for the FTY in Supporting Schedule 3 of Exhibit GDS No. 1 (Revised).³³ Company witness Lewis also provided a description of the projects to be completed during the FTY, which included needed improvements to the Company's distribution facilities.³⁴

The Company's claim for rate base was also modified to exclude the plant assets associated with the former EDTMA that were acquired by the Company in March 2022.³⁵ The

²⁷ Exhibit GDS No. 1, Supporting Schedule No. 4.

²⁸ Exhibit GDS No. 1 at 2-9 (Revised).

²⁹ Exhibit GDS No. 1 at 2-16 (Revised).

³⁰ Pennsylvania Infrastructure Investment Authority. PENNVEST is company that funds sewer, storm water and drinking water projects throughout the Commonwealth of Pennsylvania. *See* <https://www.pennvest.pa.gov> (About Us page).

³¹ Exhibit GDS No. 1 at 1-5 (Revised); *see* Schedules 3 and 4.

³² Exhibit GDS No. 1 at 1-5 (Revised).

³³ Exhibit GDS No. 1 at 2-5 (Revised) – 2-6 (Revised).

³⁴ Columbia Water St. 1 at 17-18.

³⁵ Columbia Water St. 2 at 14.

Company is not seeking to earn a return on and of the capital assets that serve the EDTMA Rate Division as part of this proceeding.³⁶

None of the other parties to this proceeding challenged the Company's claim for utility plant in service at the end of the FTY.

The Company's total level of accumulated depreciation in its rate case filing was approximately \$20,935,229.³⁷ The Company's depreciation reserve was calculated by Company witness Shambaugh and is based upon the Straight Line/Average Service Life Method and was applied to the original costs of Company plant in service at December 31, 2022 and December 31, 2023, with the PENNVEST-funded plant removed.³⁸ The Company also removed any depreciation reserve associated with the Company's EDTMA capital assets to coincide with the removal of those assets from plant in service.³⁹ Deductions were also made to the December 31, 2023 accrued depreciation amounts to reflect the depreciation attributed to Contributions in Aid of Construction.⁴⁰

OCA initially recommended an adjustment to the Company's accumulated depreciation claim, but subsequently withdrew its recommendation.⁴¹ There were no other disputes for depreciation reserve.

³⁶ *Id.*

³⁷ Exhibit GDS No. 1 at 1-19 (Revised). The term "depreciation" used in this decision also includes amortization, where applicable, such as amortization of contributions in aid of construction.

³⁸ Exhibit GDS No. 1 at 1-5 (Revised).

³⁹ *Id.*

⁴⁰ GDS Exhibit No. 1 at 1-5 (Revised) – 1-6 (Revised).

⁴¹ OCA St. 1-SR at 22.

B. Uncontested Additions and Deductions from Rate Base

None of the other Parties disputed the Company's addition to rate base for materials and supplies, or deductions from rate base for contributions in aid of construction or accumulated deferred income tax.

C. Contested Issue: Cash Working Capital Addition to Rate Base

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. In short, cash working capital 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 cash working capital claim; therefore, any adjustments to the Company's Operating and Maintenance expense (O&M Expense) claims impacts the cash working capital allowance.

The Company's claim for cash working capital was calculated based on the 45-day, or 12.5 percent-of-operating expense method.⁴² This method has been approved by the Commission as a reasonable, cost-effective way to calculate cash working capital for smaller utilities.⁴³ Based on certain adjustments to the Company's claimed operating expenses made during the course of this proceeding, the Company's revised cash working capital claim is \$501,510.⁴⁴ The Company did not claim cash working capital for interest on long-term debt or taxes.⁴⁵

⁴² Columbia Water St. 2 at 13.

⁴³ *Id.*; see also 2009 Base Rate; *Luckie v. Clean Treatment Sewage Co.*, Docket No. R-911918 (Opinion and Order entered Jan. 23, 1992); *Pa. Pub. Util. Comm'n v. Bloomsburg Water Co.*, Docket No. R-870854 (Opinion and Order entered Jul. 21, 1988).

⁴⁴ Exhibit GDS No. 1-R at 1-9.

⁴⁵ Columbia Water Main Brief at Appendix A, Tables IV and V, Row "Company Claim".

While OCA and I&E do not dispute the Company's method of calculating cash working capital, OCA and I&E both recommend downward adjustments to the Company's claim because of their respective adjustments to the Company's claimed operating expenses.⁴⁶ OCA has recommended a negative adjustment in the amount of \$25,501.⁴⁷ I&E has recommended a negative adjustment of \$6,373 based on expense adjustments they have recommended during this case.⁴⁸

Based on our adjustments to O&M expenses which are discussed in more detail below, we recommend a negative adjustment to cash working capital of \$15,285.⁴⁹ The Company's claimed rate base is \$18,750,106.⁵⁰ Deducting the \$15,285 cash working capital adjustment from this amount results in a recommended rate base of \$18,734,821.

No cash working capital adjustments are recommended for interest on long-term debt or taxes since the Company did not claim cash working capital for these expenses.⁵¹ Under the 45-day method, certain expenses, including taxes, may be excluded from cash working capital calculations.⁵²

VII. REVENUE AT PRESENT RATES

The Company's claim for pro forma revenues at present rates is \$7,244,926.⁵³ Company witness Shambaugh prepared the Company's claimed revenues at present rates along

⁴⁶ See OCA St. 1 at 6; see also I&E St. 1 at 17.

⁴⁷ OCA St. 1SR, Sch. JLR-4.

⁴⁸ I&E St. 1-SR at 9.

⁴⁹ See Rate Case Tables, Table VI, Row "ALJ Adjustment."

⁵⁰ See Exhibit GDS No. 1-R at 1-9; Columbia Water Main Brief, Appendix A, Table I.

⁵¹ See Rate Case Tables, Tables IV and V.

⁵² See A Guide To Utility Ratemaking, Page 123, available at https://www.puc.pa.gov/General/publications_reports/pdf/Ratemaking_Guide2018.pdf.

⁵³ Exhibit GDS No. 1-R at 1-1.

with Company witness Fox. The Company's claim for pro forma revenues was developed by taking the per books revenue for the HTY and making several adjustments.⁵⁴ Company witness Shambaugh made a correction to the Company's initial claim regarding the treatment of PENNVEST revenues in the rate model.⁵⁵ This correction was reviewed and accepted by OCA.⁵⁶

Neither I&E nor OCA proposed adjustments to the Company's level of revenues at present rates and instead accepted the Company's correction to revenues made by Mr. Shambaugh in rebuttal.⁵⁷ We agree that the Company's claim for pro forma revenue should be approved without modification.

VIII. EXPENSES

The law is clear that a utility is entitled to recover its reasonably and prudently incurred expenses.⁵⁸ Operating and maintenance expenses, if properly and prudently incurred, are allowed as part of the overall rate computation. As such, a public utility is entitled to recover all reasonable and normal operating and maintenance expenses incurred by providing regulated service.⁵⁹ To the extent that expenses are not incurred, imprudently incurred, or abnormally overstated during the test year, they should be disallowed and found not recoverable through rates. The public utility requesting a rate increase and seeking to recover expenses has the burden of showing that the rate requested, including all claimed expenses, is just and reasonable.⁶⁰

⁵⁴ The reader is directed to the Company's Main Brief for a detailed discussion of this process.

⁵⁵ Columbia Water St. 2-R at 5.

⁵⁶ OCA St. 1-SR at 2.

⁵⁷ *Id.*; Columbia Water St. 2R at 5.

⁵⁸ *UGI Corp. v. Pa. Publ. Util. Comm'n*, 410 A.2d 923 (Pa. Cmwlth. 1980).

⁵⁹ *W. Pa. Water Co. v. Pa. Pub. Util. Comm'n*, 422 A.2d 906 (Pa. Cmwlth. 1980).

⁶⁰ 66 Pa.C.S. § 315(a); *See also Cup v. Pa. Pub. Util. Comm'n*, 556 A.2d 470 (Pa. Cmwlth. 1989).

The Company's claim for O&M Expense, as modified in the Company's rebuttal testimony, is approximately \$4,079,604.⁶¹

The Company's claimed annual accrual for depreciation expense is \$1,174,375 based upon the utility plant in service as of December 31, 2023.⁶² This amount excludes the annual depreciation expense associated with contributions in aid of construction (CIAC).⁶³ This also excludes the annual depreciation expense of \$192,875 associated with the EDTMA plant assets, which are not included in rate base as part of this filing.⁶⁴

While the Parties debated and discussed certain expense items in the Company's claim, several expense disputes were resolved in testimony.⁶⁵ Others were uncontested.

The remaining expense items that are disputed are discussed and resolved below. These expenses include the Company's claim for rate case expense, materials and supplies expense, other-maintenance expense and office expense, and the allocation of EDTMA expenses.

A. Rate Case Expense

The Company's claim for O&M Expense includes a claim for rate case expense. The claimed rate case expense is approximately \$390,330.⁶⁶ The Company further proposed to normalize the cost for ratemaking purposes over a 36-month period (*i.e.*, three years), because

⁶¹ Exhibit GDS No. 1-R at 1-5 through 1-8.

⁶² Columbia Water St. 2 at 11.

⁶³ *Id.*.

⁶⁴ *Id.*; see Supporting Schedule Nos. 4 and 5 of Exhibit GDS No. 1.

⁶⁵ See OCA Main Brief at 9-10.

⁶⁶ Exhibit GDS No. 1 at 1-16 (Revised).

the Company anticipates a three-year interval between this proceeding and the Company's next base rate case.⁶⁷

No Party opposed the Company's claimed level of rate case expense on a total basis. We find that the Company's claimed rate case expense is reasonable. However, we recommend a 5-year, or 60-month, normalization period for this expense.

According to I&E and OCA, Columbia's claimed 36-month normalization period is not supported by the Company's historic filing frequency.⁶⁸ I&E and OCA argue that the normalization period for rate case expense should be based upon the Company's historical rate case filing frequency. I&E noted that in determining the length of normalization, the Commission has typically looked to the average number of months between a company's rate case filings.⁶⁹ I&E's witness looked at Columbia Water base rate cases in 2008, 2013, 2017 and 2023, calculated the average number of months between each base rate filing, and concluded that Columbia Water's rate case expense should be normalized over 59 months. OCA offered a normalization period of five years, or 60 months.

The Company counters that the Commission can and should consider other factors.⁷⁰ Specifically, the Company asserts that while history can provide guidance on anticipated future conditions, it cannot and should not be the sole basis for determining revenue requirements as this would defeat the purpose of using a FTY in setting rates. In Columbia Water's view, the Company has demonstrated that there are conditions that were not present in

⁶⁷ Columbia Water St. 2-R at 17.

⁶⁸ I&E St. 1 at. 9-10.

⁶⁹ *Id.* at 12-13; *See, e.g., Pa. Pub. Util. Comm'n. v. PECO Energy Co.- Gas Div.*, Docket No. R-2020-3018929, at 117-119 (Opinion and Order entered June 22, 2021); *Pa. Pub. Util. Comm'n. v. Columbia Gas of Pa., Inc.*, Docket No. R-2020-3018835, at 78-79 (Opinion and Order entered Feb. 19, 2021); *Pa. Pub. Util. Comm'n. v. City of DuBois – Bureau of Water*, Docket No. R-2016-2554150, at 65-66 (Opinion and Order entered Mar. 28, 2017) (reconsideration of rate case expense claim denied by Order entered May 18, 2017); *Pa. Pub. Util. Comm'n. v. Emporium Water Co.*, Docket No. R-2014-2402324, at 50 (Opinion and Order entered Jan. 28, 2015).

⁷⁰ *See, e.g., Butler Township*, 473 A.2d at 222-223 (the Court affirmed that while historic practice was informative, it need not be the exclusive factor relied upon by the Commission).

the Company's previous rate cases that supports a normalization period of three years. Notably, the Company has an agreement to maintain existing rates for its EDTMA customers.⁷¹ That agreement expires on March 31, 2025, or less than two years from the time of this filing.⁷² The Company will need to address the rates associated with its EDTMA rate division at the expiration of that agreement. Additionally, the Company is currently implementing its second Long-term Infrastructure Improvement Plan with the Company committing to expend \$840,000 over the next three years to replace aging infrastructure.⁷³ The Company's Lead Service Line Replacement Program is also pending before the Commission, which, if approved, will result in additional expenditures not incorporated into this rate case.⁷⁴ Lastly, the Company states that it has experienced significant price increases over the past few years that will likely persist.⁷⁵

The Commonwealth Court explained the purpose of normalizing an expense for ratemaking purposes in *Butler Township Water Co. v. Public Utility Commission*:

[n]ormalization of an expense is the name given to the adjustment of an item of recurring expense where the amount of the expense incurred in the test year is greater or less than that which the utility may be expected to incur annually during an estimated life of new rates. The amortization of an expense is different; it is the process by which the full amount of an atypical, nonrecurring expense is recovered over a fixed number of years. Unlike an amortized expense, a normalized expense may result in the recovery of an amount greater or less than the amount of the expense actually incurred. Hence, where as here, an expense is normalized over a period of years and the utility

⁷¹ Columbia Water St. 2-RJ at 12.

⁷² Columbia Water St. 2-RJ at 12; see also Application of Columbia Water Co. for approval of the right to: (1) acquire, by sale, substantially all the water system assets of East Donegal Twp. Mun. Auth.; and (2) offer, render, furnish or supply water service to the public in additional portions of East Donegal Twp., Lancaster Cnty., Pa., Docket No. A-2021-3027134, at 11 (Order entered Feb. 3, 2022) ("Columbia Water covenanted in the APA's Section 14(a) not to raise rates for EDTMA customers for a period of three (3) years from the date of closing, except for limited circumstances.").

⁷³ Columbia Water St. 2-R at 17.

⁷⁴ *Petition of Columbia Water Co. for Approval of its Second Long-Term Infrastructure Improvement Plan*, Docket No. P-2022-3034702 at 11 (Opinion and Order entered Dec. 8, 2022).

⁷⁵ Columbia Water St. 2-R at 18.

finds it necessary to seek rate relief before the end of the term of normalization, the utility may not recover the balance of the normalized expense in the new proceedings. Conversely, if the rates granted to a utility remain in effect beyond the normalization period the utility may recover more than it originally spent.^[76]

Accordingly, the Commission prefers using “an actual historic filing pattern [because it] often presents the best evidence of a representative time period to anticipate the company’s future behavior with respect to filing its next rate case.”⁷⁷

The recent experience of the Commission proves the value of the preference. For example, 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.⁷⁸ 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. Similarly, in 2019, Wellsboro Electric Company filed a base rate case requesting a normalization of its rate case expense over a period of three years due to its intent to file a base rate case within that time frame.⁷⁹ The Commission found that there was substantial evidence that warranted a deviation from the traditional practice of relying on historical filing frequency. In that case, Wellsboro had not filed a base rate case; thereby demonstrating there was no actual need to deviate from historic practices and that projections related to when a base rate case will be filed are largely inaccurate.

We are not persuaded that the drivers of Columbia Water’s stated intent to file a base rate in three years necessitate the exercise of discretion to adopt a three-year normalization

⁷⁶ Butler Twp. Water Co. v. Pa. Pub. Util. Comm'n, 473 A.2d 219, 222 (Pa. Cmwlth. 1984).

⁷⁷ *Pa. Pub. Util. Comm'n v. Emporium Water Co.*, Docket No. R-2014-2402324, at 48 (Opinion and Order entered Jan. 28, 2015).

⁷⁸ *Pa. Pub. Util. Comm'n v. PPL Elec. Utils. Corp.*, Docket No. R-2012-2290597, at 47-48 (Opinion and Order entered Dec. 28, 2012).

⁷⁹ *Pa. Pub. Util. Comm'n v. Wellsboro Elec. Co.*, Docket No. R-2019-3008208, at 70-73 (Opinion and Order entered April 29, 2020).

period. The Company argues that it should be allowed to use a three-year normalization period because it will need to address the rates of its EDTMA rate division after its agreement to freeze rates ends in 2025. Yet, as OCA observes, the evidence in the EDTMA acquisition proceeding suggests there may be no need for a base rate filing in the near term.⁸⁰ Columbia Water projected that current EDTMA rates would generate net operating income of \$150,080 annually.⁸¹ As for capital improvements, the Company told the Commission that those would be funded through EDTMA net operating income and borrowed funds, which might include PENNVEST loans.⁸² The Company already has a PENNVEST surcharge mechanism in place, to which it can incorporate new PENNVEST loans without filing a base rate case.⁸³ Infrastructure investment, including lead service line replacement, will be recovered either in this base rate proceeding or in the Company's distribution system improvement charge (DSIC).

In sum, Columbia Water has not persuaded us that departure from the Commission's strong preference for normalizing rate case expense based upon a utility's historic filing pattern is justified. Therefore, we recommend that the Company's claimed rate case expense of \$390,330 be normalized for a five-year period. This results in an adjustment of \$52,311.⁸⁴

B. Materials and Supplies

The Company's claim for O&M Expense included a claim for materials and supplies of \$432,400 for the year ending December 31, 2023.⁸⁵ The Company's claim for

⁸⁰ *Application of Columbia Water Co.*, A-2021-3027134 (Order entered Feb. 3, 2022) (*EDTMA 2022*).

⁸¹ *EDTMA 2022*, at 14.

⁸² *Id.* at 10.

⁸³ See, e.g., *The Columbia Water Co. Supplement No. 117 To Tariff – Water Pa. P.U.C. No. 7*, Docket R-2022-3036936, 4 (Order entered Feb. 9, 2023).

⁸⁴ See Rate Case Tables, Table II, Row "Rate Case Expense".

⁸⁵ Exhibit GDS No. 1 at 1-15 (Revised).

materials and supplies was based on the Company's 2022 per books value of \$377,390 with a going-level adjustment of \$55,010 to reflect known and measurable increasing costs to the Company during a period of inflation and supply chain shortages.⁸⁶

OCA disagreed with the Company's claim for materials and supplies expense.⁸⁷ OCA asserts that the Company's 2022 per books value was abnormally high for a highly variable cost element of Company operations.⁸⁸ OCA also asserts that the \$55,010 going-level adjustment includes one-time costs of \$18,000 that should be normalized over a period of five years rather than recovered annually by the Company.⁸⁹ OCA, thus, recommends that the Commission average materials and supplies expense using the average of the most recent three years (2020, 2021, and 2022), reducing the Company's claim by \$59,017, and normalize the \$18,000 one-time costs over a period of five years, reducing the Company's claim by another \$14,400.⁹⁰

As we discuss more fully below, we do not recommend an adjustment to the Company's 2022 per books amount of \$377,390 for materials and supplies. However, we agree with OCA's \$14,400 reduction of the Company's going-level adjustment.

1. Historic Test Year Expense

First, OCA witness Rogers disputed the Company's selection of the HTY annual expense in the amount of \$337,390 as an appropriate normal base amount, where her review of the past five years of this annual expense showed the HTY amount as abnormally high and the expense category as a highly variable cost element.⁹¹

⁸⁶ *Id.*

⁸⁷ OCA St. 1 at 7.

⁸⁸ *Id.* at 8.

⁸⁹ *Id.* at 7.

⁹⁰ *Id.* at 9; *see also* OCA St. 1, Sch. 7-8.

⁹¹ OCA St. 1 at 7-8 and chart (footnotes omitted).

	2018	2019	2020	2021	2022
Materials and Supplies Expense	\$277,720	\$319,473	\$282,301	\$295,427	\$377,390

Based upon her review, she recommended that the HTY level of Materials and Supplies expense should be adjusted to \$318,373, based upon the average of actual expense for the most recent three years.⁹² Ms. Rogers' normalized amount of \$318,373 gives weight to the Company's actual HTY level of expense, while also accounting for the variation of actual materials and supplies expense experienced by the Company over three years.

Witness Rogers also considered the Company's assertion that costs in this category have been impacted by inflation and material shortages.⁹³ Based upon consideration of current economic developments, Ms. Rogers was not persuaded that material shortages will persist and observed economic information suggesting that growth in inflation is slowing.⁹⁴ In her view, material costs that had risen due to shortages could be expected to abate as shortages end. Federal Reserve efforts to slow inflation would have the effect of preventing new or additional inflation from negating the change in materials costs as supplies improve.⁹⁵ Using her skills as an economist, Ms. Rogers' surrebuttal provides additional point-by-point replies to the Company's theories of the influence and direction of inflation and supply chain constraints.⁹⁶

Columbia Water counters that the evidence relied upon by OCA to support its assumptions are highly speculative and are not reasonably likely to occur. First, OCA cites the Consumer Price Index (CPI), arguing that there has been a decline in the 12-month percentage

⁹² The three-year average is \$318,373, based upon 2020 expense of \$282,301, 2021 expense of \$295,427, and 2022 expense of \$377,390. OCA Sch. JLR-7.

⁹³ OCA St. 1 at 8 (citing Columbia Water reply to I&E-RE-D-14 (Columbia Water Exh. DTL-1R)).

⁹⁴ OCA St. 1 at 8.

⁹⁵ OCA St. 1SR at 4, 8-12.

⁹⁶ *Id.* at 3-7, 8-12.

change in the CPI to support their assertion that inflation is on the decline. However, as Mr. Shambaugh testified, the CPI represents a basket of goods and services consumed by the average urban consumer, not the goods and services that Columbia Water will need to purchase in the ordinary course of its operations.⁹⁷ OCA witness Rogers concedes this point.⁹⁸ Moreover, as Company witness Shambaugh demonstrated, the 12-month percentage change in the CPI, while recently declining year over year, was still historically high compared to the previous ten years.⁹⁹

The Company criticized OCA's recommendation to average the three most recent years of materials and supplies expense (2020, 2021, and 2022). Company witness Shambaugh explains that "using data from the year 2020 is flawed because that no longer represents a normal year of expenses as it predates the significant inflation that has occurred to date and does not represent the actual costs to operate the Company's business anymore."¹⁰⁰ Moreover, Company witnesses Lewis and Shambaugh testified that the Company's materials and supplies expense through August 7, 2023, is on pace to significantly exceed the Company's claim for materials and supplies expense in the FTY:

[T]he Company has taken a conservative approach in setting its claimed level of materials and supplies expense. The Company is already on track to exceed the claimed level of materials and supplies expense based on current levels of spend. For example, for the period January 1, 2023 through August 7, 2023, the total expensed was \$293,841. That is an average of \$1,348 per day ($\$293,841 / 219 \text{ days} = \$1,342 \text{ per day}$). Annualized, that works out to \$489,830 ($\$1,348 \times 365 \text{ days} = \$489,830$). The \$489,830 is about \$112,440 more than the HTY 2022 amount of \$377,390 and \$57,430 more than the FTY 2023 amount of \$432,400.^[101]

⁹⁷ Columbia Water St. 2-RJ at 7.

⁹⁸ *Id.* at 7; *see also* OCA St. 1-SR at 4.

⁹⁹ Columbia Water St. 2-RJ at 7-8.

¹⁰⁰ Columbia Water St. 2-RJ at 9.

¹⁰¹ Columbia Water St. 2-R at 15.

Thus, the Company has provided actual evidence that its FTY claims for materials and supplies expense is on pace to be met and exceeded this year by over 13%.

We agree with the Company that the Commission should not accept OCA's adjustment to the HTY expense for materials and supplies. We find the explanation of the Company's witnesses for the HTY value to be more compelling than the analysis of OCA's witness. The Company has presented evidence that based on its current, actual levels of spending, it will significantly exceed its claimed level of materials and supplies expense for the FTY. This known and measurable evidence should not be dismissed in favor of OCA's view of potential future economic conditions.¹⁰²

2. The Company's Going-Level Adjustment

OCA's second adjustment to the Company's materials and supplies expense claim is directed at a portion of the Company's going-level adjustment.¹⁰³ This going-level adjustment included normalization of a \$18,000 expense for a road restoration project, referenced as the Kinderhook Project. Ms. Rogers concluded that this \$18,000 Kinderhook Road restoration project does not reflect an annually recurring cost and therefore should be normalized, to prevent rates from being set to recover costs that are not incurred annually. This OCA revised going-level adjustment would still include recognition, at a normalized level, of this abnormal type of road restoration work expense.¹⁰⁴

The Company argues that the Commission should not accept OCA's adjustment. According to Columbia Water, the nature of the materials and supplies expense account is to reflect and recover costs related to a variety of projects and Company operations that are similar

¹⁰² *Pa. Pub. Util. Comm'n v. The Columbia Water Co.*, Docket R-2008-2045157 (Opinion and Order entered June 10, 2009)(*2009 Rate Case*) (rejecting OTS' recommendation to average the three most recent years of office expense in favor of Columbia Water's position to use known and measurable data from the most recent year of office expense).

¹⁰³ OCA St. 1 at 7-9; *see* Columbia Water Exh. GDS No. 1 at 1-15 (Revised), 1-17 (Revised).

¹⁰⁴ OCA Sch. JLR-8 SR.

in scope and effort from year to year.¹⁰⁵ In other words, while these costs relate to a specific roadway restoration project occurring in 2023, the Company undertakes similarly scoped projects every year to maintain adequate, efficient, safe, and reasonable service.¹⁰⁶ As Company witness Shambaugh testified, it is not realistic to assume the Company will not have expenses related to future main breaks.

The Company's attempt to cast the Kinderhook Project expense as a normal and annual expense is not persuasive. The project was described as an unusual roadway repair caused by a watermain break:

there was a water main break on Kinderhook Road which caused significant damage to this PaDOT roadway requiring full lane pavement restoration which will occur in 2023. Normally pavement restoration for a water main repair is confined to patch over the repair area. The restoration of this roadway is estimated to cost \$18,000.^[107]

Although the Company identified another restoration project in 2023 that is similar in scope, this does not adequately support its assertion that the expense identified with Kinderhook Road is a normal annual expense. Accordingly, we agree with OCA that \$18,000 should be normalized over five years and will reduce the Company's FTY Material and Supply Expense by \$14,400.¹⁰⁸

C. Other – Maintenance

The Company's claim for O&M Expense included a claim for other-maintenance expense of \$288,451 for the year ending December 31, 2023.¹⁰⁹ The Company's claim for other-

¹⁰⁵ Columbia Water St. 2-R at 16.

¹⁰⁶ Columbia Water St. 2-R at 16.

¹⁰⁷ Columbia Water Exh. DTL-1R (Columbia Water reply to I&E-RE-14-D).

¹⁰⁸ See Rate Case Tables, Table II, Row "Materials and Supplies – Going Level".

¹⁰⁹ Exhibit GDS No. 1-R at 1-5.

maintenance expense was based on the Company's 2022 per books amount of \$263,888 with a going-level adjustment of \$36,902 to reflect known and measurable increasing costs to the Company during a period of rampant inflation and supply chain shortages.¹¹⁰

OCA disagreed with the Company's claim for other-maintenance expense for the same reasons it disagrees with the Company's claim for materials and supplies expense.¹¹¹ OCA asserts there will be improvements in the supply chain resulting in price decreases and that such price decreases would not be offset by future inflation in the short-term because recent actions by the Federal Reserve have reduced current inflation rates.¹¹² OCA, thus, recommends that the Commission average the other-maintenance expense by using the average of the most recent three years (2020, 2021, and 2022), reducing the Company's claim by \$28,660.¹¹³

For the reasons explained above regarding the Company's materials and supplies expense, we do not recommend adoption of OCA's adjustment. The evidence provided by OCA is not substantial or compelling evidence to support its argument that prices will return to comparable levels from 2020 and 2021.¹¹⁴ What is more compelling is that the Company must be permitted to recover costs it has already actually incurred and will incur this year to provide reasonably adequate, efficient, and safe service to its customers.

D. Office Expenses

The Company's initial claim for O&M Expense includes a claim for office expense of \$92,156, which included a going-level adjustment of \$35,995 due to an upgrade to the Company's billing software and increased support costs.¹¹⁵

¹¹⁰ *Id.* Note that approximately \$12,339 was removed as being related to the EDTMA division.

¹¹¹ OCA St. 1 at 9-11.

¹¹² OCA St. 1-SR at 10-11.

¹¹³ OCA St. 1, Sch. JLR-9.

¹¹⁴ Columbia Water St. 2-RJ at 7-8.

¹¹⁵ Exhibit GDS No. 1 at 1-15 (Revised), 1-18 (Revised).

OCA witness Rogers testified that \$25,995 of the Company's claim for Office expense is attributable to the billing software upgrade.¹¹⁶ Based on this information, OCA recommended that the billing software upgrade expense of \$25,995 be normalized over five years to prevent rates from being set to recover costs that are not incurred annually.¹¹⁷ Ms. Rogers proposed to normalize these costs over a period of five years consistent with her normalized period for rate case expense.¹¹⁸ Ms. Roger's adjustment reduced the Company's initial claim for office expense by approximately \$20,796.¹¹⁹

The Company does not dispute that the costs to upgrade the Company's billing software is a one-time expense.¹²⁰ However, the Company disagrees with OCA's recommended normalization period. According to Columbia Water, these costs should be normalized over a period of three years consistent with the Company's recommended normalization period for rate case expense.¹²¹ The Company reduced its initial claim by approximately \$17,330 based upon a three-year normalization period.¹²²

Both OCA and Columbia Water agree that the normalization period for rate case expense is appropriate for the expense related to the Company's software upgrade. Based upon our discussion of the appropriate normalization period for rate case expense of five years, the Company's expense claim for the billing software upgrade should likewise be normalized for a period of five years, resulting in an adjustment of \$3,466 for the difference between the OCA's claim and the Company's revised claim.¹²³

¹¹⁶ OCA St. 2 at 11.

¹¹⁷ *Id.* at 11:9-12.

¹¹⁸ *Id.* at 11.

¹¹⁹ CWC St. 2-R at 19.

¹²⁰ Columbia Water St. 2-R at 19.

¹²¹ *Id.*

¹²² *Id.*; Exhibit GDS No. 1-R.

¹²³ *See* Rate Case Tables, Table II, Row "Office Expenses".

E. EDTMA Expenses

Presently, the Company serves customers in three rate divisions: Columbia, Marietta, and EDMTA. Columbia Water acquired the EDTMA system on March 31, 2022.¹²⁴ However, in this base rate proceeding, the Company's revenue requirement request is based solely on the Columbia and Marietta Rate Divisions. Accordingly, to coincide with the removal of the capital assets and revenues associated with the EDTMA Rate Division, the Company also removed expenses attributable to the EDTMA Rate Division.¹²⁵ The expenses that were removed from the Company's per books amounts were identified in Supporting Schedule No. 10 of Exhibit GDS No. 1 and reduced the Company's claim for O&M Expense by approximately \$153,369.¹²⁶ Among the expenses removed were wages and salaries of three employees, utilities, chemical expense, lease fees, engineering costs, and insurance costs.¹²⁷ Additionally, the Company removed FTY increases that were directly related to the EDTMA Rate Division, which included additional deductions to salaries and wages related to salary increases for employees that perform work for the EDTMA Rate Division, incremental rental property expense, fees associated with electronic payments, and water testing costs.¹²⁸ Removal of the FTY expenses associated with the EDTMA Rate Division further reduced the Company's claim for O&M Expense by an additional \$19,621.¹²⁹

OCA witness Rogers evaluated the Company's claim that all directly assigned costs related to EDMTA had been removed. However, she determined that further adjustments should be made to account for certain indirect costs, such as overheads and costs not directly

¹²⁴ Columbia Water St. 2-R at 11.

¹²⁵ Columbia Water St. 2 at 10.

¹²⁶ *Id.*

¹²⁷ Exhibit GDS No. 1, Supporting Schedule No. 10.

¹²⁸ Columbia Water St. 2 at 10-11.

¹²⁹ Exhibit GDS No. 1 at 1-15 (Revised).

assigned.¹³⁰ She recommended further adjustments because, in her view, certain general operating costs benefit all customers, and the EDMTA division should therefore be responsible for a portion of these costs. According to Ms. Rogers, the Company's revised rate case claim unreasonably burdens the Columbia and Marietta Rate Divisions with the responsibility for all of these general operating costs, where the Company only removed those costs which could directly be assigned to the EDMTA division exclusively.¹³¹

OCA witness Rogers developed a recommendation to remove from the Company's cost of service elements of expenses for which the EDMTA Rate Division should be responsible.¹³² First, Ms. Rogers developed allocation factors related to allocation of rate base, revenues, customers, all labor, and then an average allocator.¹³³ In applying the factors, Ms. Rogers considered some particulars of the Company's adjusted expense claim for that category.¹³⁴ Ms. Rogers explained that she took a conservative approach and did not remove potentially shared costs from expense categories where Columbia Water had already removed directly assigned expenses, i.e. employees, employee pensions and benefits, and general liability insurance. Ms. Rogers stated, "I detailed the shared elements I expected existed in those categories and asked that the Company provide clarity in rebuttal on if the directly assigned expenses already incorporated and removed those shared cost elements."¹³⁵

Although the Company's witness Shambaugh disagreed with OCA's position that Columbia Water had failed to remove relevant expenses related to service to EDTMA Rate Division, he recommended reduction of OCA's EDTMA adjustments by 25% to reflect the acquisition of EDTMA three months into the HTY. Ms. Rogers revised her calculations to

¹³⁰ OCA St. 1 at 14-15.

¹³¹ OCA St. 1 at 15.

¹³² *Id.* at 16-19; OCA Sch. JLR-15.

¹³³ OCA St. 1 at 16.

¹³⁴ *Id.* at 16-19.

¹³⁵ OCA St. 1SR at 17-18; OCA St. 1 at 18-19.

reflect the date of acquisition of EDTMA and applied a 25 percent reduction to only the 2022 HTY portion of the FTY expense.¹³⁶

While the Company generally agrees that customers in the Marietta and Columbia Rate Divisions should not be responsible for costs associated with service to the EDTMA Rate Division, the Company objects to OCA's further reduction to its proposed allocation of expenses. According to Columbia Water, OCA inappropriately adjusts the Company's materials and supplies account, even though OCA has recommended an average adjustment that relies, in part, on cost data from 2020 and 2021, well before the Company acquired EDTMA on March 31, 2022.¹³⁷ In other words, the Company asserts that OCA's recommendations are unreasonably duplicative in that they recommend reductions by averaging costs from years prior to the acquisition of EDTMA and then use arbitrary allocation factors to further reduce these pre-EDTMA expenses by allocating them to the EDTMA Rate Division and removing them from this filing, which is further compounded by not taking into account the EDTMA expenses that the Company already removed from the filing. The Company argues that these adjustments are patently unreasonable and do not reflect the actual costs of operating the EDTMA Rate Division.

Both the Company and OCA point to the Commission's decision in *Columbia Water 2013*. In that case, the Company had filed for a rate increase approximately seven months after acquiring the Marietta Gravity Water System. The Company's filing did not seek a rate increase from the customers of the former Marietta Gravity Water System, instead requesting an increase only from its Columbia Rate Division. The Company allocated certain expenses, including 4.3% of office expenses and officers' and directors' compensation, to the Marietta Rate Division and removed them from the filing. Notwithstanding, OCA recommended additional adjustments to several Company expense accounts on the basis of broad and speculative allocation factors to reflect expenses that, in OCA's opinion, should have been allocated to the Marietta Rate Division. The Commission did not allow some of OCA's recommended allocation

¹³⁶ OCA St. 1SR at 20.

¹³⁷ Columbia Water Main Brief at 24.

of indirect costs to the Marietta Rate Division because to do so was “premature.” However, the Commission accepted the Company’s lesser cost allocations.

We agree that it is appropriate to remove a portion of the Company’s general operating costs that can be attributed to the cost of serving the customers in the EDTMA Rate Division. Columbia Water has only removed direct costs. While Ms. Rogers was required to use some data that may predate the acquisition of EDTMA, any negative impact from the use of that data is mitigated by the 25% reduction of the Company’s HTY expense and is also outweighed by the benefit to Columbia and Marietta customers because they will not be required to bear the indirect costs of the EDTMA customers.

Columbia Water does not argue here that it did not have adequate time to develop data regarding indirect costs attributable to service to EDTMA. Indeed, the Company had adequate time to track the direct costs attributable to EDTMA. We find OCA’s proposed method of allocation of indirect costs related to EDTMA reasonable and fair. However, with the denial of OCA’s \$59,017 HTY materials and supplies expense adjustment described above, we recommend that the following \$53,936 in indirect costs be allocated to the EDTMA Rate Division.¹³⁸

¹³⁸ See Rate Case Tables, Table II, Row “EDTMA Expenses”.

Account Description	EDTMA Allocation Percentage	OCA Revised Proposed Allocation Amount	ALJ Adjusted Allocation Amount
Officers, Directors & Majority Stockholders	4.94%	\$1,359	\$1,359
Materials and Supplies	8.39%	\$22,193	\$27,142 ¹³⁹
Accounting	8.39%	\$2,287	\$2,287
Legal	8.39%	\$2,027	\$2,027
Management Fees (Bank Charges)	8.39%	\$8,128	\$8,128
Testing	8.39%	\$1,939	\$1,939
General Liability	4.94%	\$1,447	\$1,447
Workman's Compensation	4.94%	\$73	\$73
Bad Debt Expense	6.33%	\$582	\$582
Membership Dues	8.39%	\$841	\$841
Stockholders Expenses	8.39%	\$117	\$117
Uniforms	8.39%	\$376	\$376
Director's Fees & Expenses	8.39%	\$7,097	\$7,097
Mailing	6.33%	\$257	\$257
Travel	8.39%	\$31	\$31
Education	8.39%	\$233	\$233
Total		\$48,987	\$53,936

IX. TAXES

A. Income Taxes

The Company's FTY claim for income taxes (current and deferred) under proposed rates, as modified in its rebuttal testimony, is set forth in Exhibit GDS No. 1-R, Supporting Schedule 2, Page 1. The Company only claimed state income tax. The Company did

¹³⁹ See Rate Case Tables, Table II, Note 4.

not claim any federal income tax in this proceeding as it has sufficient tax loss carryforwards to avoid federal tax liability for the foreseeable future.¹⁴⁰

Other than disallowances of state income tax related to proposed adjustments to O&M Expense and return on equity, the only issues raised regarding state income tax concern the taxable nature of the PENNVEST surcharge revenue, interest synchronization, and the applicable state income tax rate.

1. State Income Tax Rate

The Company's filing relies on a state income tax rate of 8.99%. OCA opposes the use of an 8.99% state income tax rate because the Company's rate increase request is suspended until January 27, 2024 and, once new rates go into effect, the applicable tax rate will be 8.49%.¹⁴¹ However, the Company continues to support the use of a state income tax rate of 8.99% because that is the rate currently in effect throughout the duration of the FTY in this proceeding.¹⁴² OCA's concerns are also ameliorated by the Commission's requirement that future state income tax reductions be flowed-through annually through the State Tax Adjustment Surcharge (STAS).¹⁴³

For the purposes of ratemaking, it is appropriate to use the state tax rate that is in effect during the FTY. Therefore, we agree with the Company's use of the current state income tax rate for the calculation of state income tax expense.

¹⁴⁰ Exhibit GDS No. 1-R at 2-3.

¹⁴¹ Columbia Water St. 2-R at 23.

¹⁴² *Id.*

¹⁴³ *See* 52 Pa. Code § 69.52.

2. PENNVEST Surcharge Revenue

In the Company's filing, the Company reflected its PENNVEST surcharge revenue in the Company's total operating revenues for HTY and FTY, as depicted in GDS Exhibit No. 1-R at 1-1. The PENNVEST surcharge is collected from the Company's customers to pay for plant investment that was funded by PENNVEST loans.¹⁴⁴ As the Company stated in its response to I&E discovery:

Pennvest revenue **is not from a loan or grant**. Pennvest revenue is the revenue the Company receives from its Pennvest surcharge ... The Pennvest loan is just like any other loan. Revenue used to pay back the loan is taxable for both state and federal purposes just like all other revenue is. The Pennvest surcharge is simply the vehicle for collecting revenue to pay the loan."¹⁴⁵

Accordingly, the Company's claim for state income tax is based, in part, upon the revenue received from the PENNVEST surcharge.

In testimony, I&E disagreed with the Company's treatment of PENNVEST revenue as a below-the-line item for income tax purposes.¹⁴⁶ Rather, I&E asserted that the Company has not provided any support for its claim that the loan itself is taxable and that the revenues and expenses associated with the PENNVEST loan should be net zero for income tax purposes.¹⁴⁷ I&E witness Keller did not respond to the Company's rebuttal testimony which explained the tax treatment of the PENNVEST revenue, but continued to reflect PENNVEST revenue as non-taxable income in surrebuttal testimony.¹⁴⁸ I&E also did not discuss this issue in

¹⁴⁴ Columbia Water St. 2-R at 21-22.

¹⁴⁵ *Id.* (emphasis in original); *see also* I&E Exhibit No. 1 at 1 (emphasis added).

¹⁴⁶ I&E St. 1 at 5-7.

¹⁴⁷ *Id.* at 7.

¹⁴⁸ I&E St. 1-SR at 3.

either its Main Brief or Reply Brief. When parties have been ordered to file briefs and fail to include all the issues they wish to have reviewed, the issues not briefed have been waived.¹⁴⁹

Nevertheless, we find that the Company has provided reasonable evidence to refute I&E's position. First, as Mr. Shambaugh testified, the loan itself is not taxable income when the Company receives it. However, over time, as the Company collects the PENNVEST surcharge from customers to pay the debt service, those revenues are treated as taxable income, just like any other revenue received by the Company.¹⁵⁰ Moreover, to the extent the Company does receive a tax deduction related to these PENNVEST loans to recognize the payment of interest, such costs have been reflected in the Company's interest expense deduction for state income tax purposes, thus, appropriately reflecting the tax impacts associated with these loans for the benefit of the Company's ratepayers.¹⁵¹ Therefore, the Company correctly reflected the tax impacts of the PENNVEST surcharge revenue in its rate case filing. Adopting I&E's position would fail to recognize income tax expenses duly incurred by the Company.

3. Interest Synchronization

To determine the tax-deductible interest for ratemaking, OCA witness Rogers multiplied OCA's recommended rate base by the weighted cost of debt included in the capital structure.¹⁵² As Ms. Rogers explained, "[t]his procedure synchronizes the interest deduction for tax purposes with the interest component of return on rate base to be recovered from ratepayers."¹⁵³ Based upon this approach and with application of the prospective 8.49% state income tax rate, Ms. Rogers calculated an increase in state tax expense.¹⁵⁴ OCA witness Rogers

¹⁴⁹ *Jackson v. Kassab*, 812 A.2d 1233 (Pa. Super. 2002); *Brown v. Pa. Dep't of Transp.*, 843 A.2d 429 (Pa. Cmwlth. Ct. 2004).

¹⁵⁰ Columbia Water St. 2-R at 5-9.

¹⁵¹ Columbia Water St. No. 2-R at 22; *see also* Exhibit GDS No. 5-R.

¹⁵² OCA St. 1 at 25.

¹⁵³ *Id.*

¹⁵⁴ *Id.*; OCA Sch. JLR-17.

updated OCA interest synchronization adjustment in surrebuttal, with application of the prospective 8.49% tax rate, the Company's revised Interest Deduction value, as applied to OCA adjusted rate base and use of OCA weighted cost of debt.¹⁵⁵

Company witness Shambaugh critiqued OCA's interest synchronization adjustment:

[o]rdinarily, I would not disagree with Ms. Rogers' method of calculating interest expense based upon her recommended measures of value and weighted cost of debt for the Company. However, as I indicated above, the Company's claimed level of interest expense includes the interest expense associated with PENNVEST loans, which are not otherwise reflected in Ms. Roger's measures of value.^[156]

Mr. Shambaugh cited to Supporting Schedules 1 and 2 of Exhibit GDS No. 1R as showing the "interest expense associated with the payment of PENNVEST loans" in the calculation of the Company's state income tax.¹⁵⁷

OCA and the Company further debated the issue in rebuttal and rejoinder testimony. Based upon the Company's clarification in Mr. Shambaugh's rejoinder, OCA now accepts the Company's position regarding inclusion of the interest expense associated with the PENNVEST loans in the interest synchronization adjustment.¹⁵⁸

Our recommended adjustments to interest synchronization adopt the Company's claimed interest expense of \$688,965 as the starting point to flow through the income tax effects

¹⁵⁵ OCA St. 1SR at 27; OCA Sch. JLR-18 SR.

¹⁵⁶ Columbia Water St. 2R at 23.

¹⁵⁷ *Id.* at 22.

¹⁵⁸ OCA Main Brief at 32.

of the \$15,285 rate base adjustment described above and are reflected in the rate tables set forth in the appendix to this Recommended Decision.¹⁵⁹

B. Taxes Other than Income Taxes

1. Regulatory Assessments

The Company's regulatory assessments claim was calculated based upon the proposed revenues under proposed rates of approximately \$8,244,826 and applying the relevant assessment factors.¹⁶⁰ OCA only challenged the calculation of these amounts insofar as their recommended level of revenue under proposed rates differs from that of the Company.¹⁶¹ The Company recognized that a final determination of regulatory assessments will occur upon a final Commission determination of the total proposed revenue requirement amount in this proceeding.¹⁶²

There is no dispute regarding the Company's method for calculating regulatory assessments. Based upon our determination of the total proposed revenue requirement amount the Company will be permitted to recover \$53,835 in regulatory assessments.¹⁶³

2. Payroll Tax, Public Utility Realty Tax and Property Taxes

The Company set forth its claims for payroll tax, public utility realty tax and property taxes.¹⁶⁴ No party challenged Columbia Water's claimed level of these taxes.

¹⁵⁹ See Rate Case Tables, Table III.

¹⁶⁰ Exhibit GDS No. 1-R at 2-4.

¹⁶¹ See OCA St. 1 at 13.

¹⁶² Columbia Water St. 2-R at 24.

¹⁶³ See Rate Case Tables, Table V, Row "PUC Assessment", Column "ALJ Adjusted Taxes at Present Rates".

¹⁶⁴ See Columbia Water Main Brief at 42-43.

X. RATE OF RETURN

A. Introduction

Rate of return is one of the components of the revenue requirement formula. Specifically, it is 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.

A fair and reasonable overall rate of return is one that will allow the utility an opportunity to recover those costs prudently incurred by all classes of capital used to finance the rate base during the prospective period in which its rates will be in effect.

Bluefield and *Hope Natural Gas* are the seminal cases that present the legal standards applicable to regulators calculating utility rates of return. *Bluefield* and *Hope Natural Gas* set forth the principles,¹⁶⁵ listed below, that are generally accepted by Pennsylvania and other regulators throughout the country as the appropriate criteria for measuring a fair rate of return:

- A utility is entitled to the opportunity of 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 the opportunity of a return level reasonably sufficient to assure financial soundness;
- A utility is entitled to the opportunity of a return sufficient to maintain and support its credit and raise necessary capital; and,
- A fair return can change (increase or decrease) along with economic conditions and capital markets.

The Company asserts that its capital structure should be set at its actual capital structure of 36.66% long-term debt and 63.34% common equity. The Company's long-term cost of debt should be set at 3.15% and its cost of equity at 11.25%. The Company's overall rate of return should be set at 8.28%.

¹⁶⁵ The language of these decisions has been often quoted. Rather than reproducing the language here, the reader is directed to *Bluefield*, 262 U.S. at 692-93, and *Hope Natural Gas*, 320 U.S. at 603.

No party has challenged the Company's claimed cost rates for long-term debt, 3.15%.¹⁶⁶ The issues of dispute involve Columbia Water's capital structure ratio and cost rate of common equity.

B. Capital Structure

As explained by Columbia Water's expert, Dylan D'Ascendis, the Company's actual capital structure for rate base, excluding PENNVEST debt, is composed of 36.66% long-term debt and 63.34% common equity.¹⁶⁷ In his view, the use of a different capital structure will have an adverse impact on the Company's ability to render safe and reasonable service because the Company will have less financial flexibility:

[s]afe and reliable service cannot be maintained at a reasonable cost if utilities do not have the financial flexibility and strength to access the competitive markets on reasonable terms. The authorization of a capital structure other than the Company's actual capital structure will weaken its financial condition and adversely impact the Company's ability to address expenses and investment, to the detriment of customers and shareholders. Safe and reliable service for customers cannot be sustained over the long term if the interests of shareholders and bondholders are minimized such that the public interest is not optimized.^[168]

Thus, in his view, the use of the Company's actual capital structure is appropriate to ensure a healthy balance sheet, strong credit ratings, and a supportive regulatory environment, so that the Company has access to capital on reasonable terms.

I&E and OCA oppose the use of Columbia Water's actual capital structure. I&E witness Keller recommended that 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

¹⁶⁶ Columbia Water Exh. DWD-1 at 1.

¹⁶⁷ Columbia Water St. 4 at 16.

¹⁶⁸ *Id.* 4 at 17.

structure is generally expected to be representative of the industry norm.¹⁶⁹ In base rate cases, a proxy group 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.

Witness Keller goes on to explain that the five-year average capital structure of his proxy group ranged from 42.44% to 58.43% long-term debt, and 41.75% to 57.18% common equity, with the overall five-year average being 49.16% long-term debt and 50.76% common equity.¹⁷⁰ This demonstrates that the hypothetical 50% long-term debt and 50% common equity capital structure imputed by I&E is 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.

OCA advocates the use of a slightly different hypothetical capital structure. OCA witness Garrett recommends a hypothetical capital structure of 50.6% common equity and 49.4% long-term debt based upon the average of the companies in the proxy group which utilize common equity ratios between 39.9% and 58.7%.¹⁷¹ Mr. Garrett testified that a higher Weighted Average Cost of Capital (WACC) results in higher rates. Thus, a utility is incentivized to increase its WACC. According to Mr. Garrett, "a commission standing in the place of competition must ensure that the regulated utility is operating at the lowest reasonable WACC."¹⁷² According to OCA, by adopting Mr. Garrett's recommended capital structure, the Commission will ensure that wealth is not unfairly transferred from ratepayers to stockholders.

¹⁶⁹ I&E St. No. 1 at 27-28.

¹⁷⁰ *Id.* at 28.

¹⁷¹ *See* Columbia Water Exh. DJG-14.

¹⁷² OCA St. 2 at 60.

OCA witness Garrett testified that a 49.4% debt ratio is reasonable, citing more than 2,000 firms in the United States with higher debt ratios than 50%.¹⁷³ The average of the proxy group utilized by Mr. D'Ascendis is 49.4%. Columbia Water's proposed 36.66% debt ratio is well below that average and the range of debt ratios of the proxy group (39.9% to 58.7%).¹⁷⁴ Additionally, Mr. Garrett noted that there are several industries that are relatively comparable to public water utilities, and all of them have much higher debt ratios than the one proposed by Columbia Water.¹⁷⁵ The Company's proposal of a 36.66% debt ratio is significantly lower than General Utilities (59%), Power (60%), Telecommunications (Wireless) (60%), and Cable TV (68%) industries.¹⁷⁶

Both I&E and OCA are correct that the Commission has the authority to impose a hypothetical capital structure in certain circumstances.¹⁷⁷ However, the weight of Commission precedent favors the use of a utility's actual capital structure, absent evidence of an abuse of management discretion. Further, the Commission has rejected the argument that the resulting higher rates, by itself, is evidence that a utility's capital structure is unreasonable. In reversing the ALJ's recommendation to adopt a hypothetical capital structure in Columbia Water's 2013 base rate, the Commission approved the use of the Company's similar, actual capital structure:

[u]pon review, we shall adopt the Company's pro forma capital structure as of December 31, 2013, consisting of 35.6% long-term debt and 64.4% common equity. We agree with the Company that circumstances have not changed materially since the Commission approved a nearly identical capital structure of 35.8% long-term debt and 64.2% in the Company's last rate case. *2009 Rate Case Order* at 71. We also agree with Columbia's assertion that adopting a hypothetical 50/50 capital structure, rather than the Company's actual capital structure,

¹⁷³ OCA St. 2 at 62.

¹⁷⁴ See OCA Exh. DJG-14.

¹⁷⁵ OCA St. 2 at 64.

¹⁷⁶ *Id.* at 61.

¹⁷⁷ E.g., *Pa. Pub. Util. Comm'n v. Aqua Pa., Inc.*, Docket No. R-2021-3027385 (Opinion and Order entered May 16, 2022)(*Aqua*). See also *Carnegie Natural Gas Company v. Pa. Pub. Util. Comm'n*, 433 A.2d 938 (Pa. Cmwlth. 1981); *Emporium Water Co. v. Pa. Pub. Util. Comm'n.*, 955 A.2d 456 (2008).

would be somewhat arbitrary, and would fail to recognize the benefits to ratepayers of the Company having ready access to capital markets due to its strong capital structure.^[178]

Columbia Water's capital structure in this base rate is similar to its capital structure that was approved by the Commission in 2009¹⁷⁹ and 2013.¹⁸⁰ In both of those cases, the Commission found that the debt-to-equity ratio in the Company's actual capital structure was reasonable. The Company's capital structure in this case is less equity-rich than the previous two Commission decisions, where the Commission held that the Company's capital structure was not weighted on the equity side.

Neither I&E nor OCA have produced evidence that Columbia Water's actual capital structure is the result of mismanagement or an abuse of management discretion. Nor has either statutory advocate identified any change in circumstances which would distinguish the Commission's rejection of a hypothetical capital structure in the 2009 and 2013 Rate Cases. Instead, both I&E and OCA make general arguments which were considered and rejected by the Commission when it approved a similar capital structure in those cases.¹⁸¹

C. Cost of Common Equity

Columbia Water, I&E and OCA each made recommendations regarding a cost of common equity. Columbia Water considered multiple methodologies and ultimately recommends a return on equity (ROE) of 11.25%. Although I&E calculated an ROE based on both a discounted cash flow (DCF) method and a capital asset pricing model (CAPM) method,

¹⁷⁸ *Pa. Pub. Util. Comm'n v. The Columbia Water Company*, Docket No. R-2013-2360798, at 27 (Opinion and Order entered Jan. 23, 2014).

¹⁷⁹ The Company's actual capital structure consisted of 35.8% long-term debt and 64.2% common equity.

¹⁸⁰ The Company's actual capital structure consisted of 35.6% long-term debt and 64.4% common equity.

¹⁸¹ *See 2009 Rate Case*, Recommended Decision pp. 48-49.

I&E’s recommendation is based solely on its DCF calculation of 7.84%. OCA considered both DCF and CAPM results and recommended an ROE of 8.8%.¹⁸²

As we explain in greater detail below, we find that each ROE recommendation is problematic. We recommend a return on common equity of 9.55%.

1. Proxy Groups

Company witness D’Ascendis used a proxy group of six water companies, which will be referred to as the “Utility Proxy Group.” Company witness D’Ascendis explained the characteristics for qualifying for the Utility Proxy Group in his direct testimony.¹⁸³ The following six companies met his criteria: American States Water Company; American Water Works Company, Inc.; California Water Service Group; Essential Utilities Inc.; Middlesex Water Company; and SJW Group.¹⁸⁴

OCA accepted Mr. D’Ascendis’ Utility Proxy Group.¹⁸⁵ OCA reasoned that different arguments could be raised for the exclusion or inclusion of a particular utility within the proxy group, but by using the same proxy group, OCA is removing selection of the proxy as a variable in analyzing rate of return. Using the same proxy group will assist in focusing on the primary factors driving the cost of equity estimate and demonstrate the unreasonableness of Columbia Water’s conclusions concerning rate of return.¹⁸⁶

¹⁸² OCA alternately recommended 9.4% if the Commission adopted the hypothetical capital structure advocated by OCA’s expert.

¹⁸³ Columbia Water St. 4 at 14– 15.

¹⁸⁴ *Id.* at 15.

¹⁸⁵ OCA St. 2 at 17.

¹⁸⁶ *See Id.* at 16-17.

In contrast, I&E witness Keller excluded Essential Utilities, Inc. (Essential) from his proxy group.¹⁸⁷ Essential did not pass I&E’s selection criterion that required at least 50% of revenues be attributable to regulated water operations. Witness Keller explains that this is important because revenues represent the percentage of cash flow a company receives from each business line related to providing a good or service.¹⁸⁸ However, I&E’s decision to rely solely on revenues to determine whether a company should be included in the proxy group is flawed. The more direct measure is the measure of earnings. As stated by Mr. D’Ascendis:

[m]easures of income are far more likely to be considered by the financial community in making credit assessments and investment decisions than are measures of revenue. From the perspective of credit markets, measures of financial strength and liquidity are focused on cash from operations, which is directly derivative of earnings, as opposed to revenue. As part of its rating methodology, for example, Moody’s Investor Service (“Moody’s”) assigns a 40.00% weight to measures of financial strength and liquidity, of which 22.50% specifically relates to the ability to cover debt obligations with cash from operations.^[189]

Essential’s net operating income attributable to regulated water operations is 63.12%, which indicates that its market data reflects that of a regulated water utility and that it would be appropriate for inclusion in a water utility proxy group.¹⁹⁰

We agree that Essential is appropriately included in a water utility proxy group. Measures of income are far more likely to be considered by the financial community in making credit assessments and investment decisions than measures of revenue:

[m]easures of income are far more likely to be considered by the financial community in making credit assessments and investment decisions than are measures of revenue. From the

¹⁸⁷ I&E St. 1 at 25.

¹⁸⁸ *Id.*

¹⁸⁹ Columbia Water St. 4-R at 85.

¹⁹⁰ Columbia Water St. 4 at 9.

perspective of credit markets, measures of financial strength and liquidity are focused on cash from operations, which is directly derivative of earnings, as opposed to revenue. As part of its rating methodology, for example, Moody’s Investor Service (“Moody’s”) assigns a 40.00% weight to measures of financial strength and liquidity, of which 22.50% specifically relates to the ability to cover debt obligations with cash from operations.

Just as rating agencies focus on measures of cash from operations, equity analysts rely on measures of income in assessing equity valuation levels; common measures of relative value include the price-to-earnings ratio, and the ratio of Enterprise Value to earnings before interest, taxes, depreciation, and amortization (“EBITDA”). Revenue, however, may be several steps removed from the earnings and cash flows that form the basis of equity valuations. Focusing on revenue may mislead the analyst into assuming a given operating unit is the primary driver of expected growth, when the majority of earnings and cash flows are derived from other business segments. Here, we are considering whether the underlying utility is the principal source of long-term growth, and as such, focusing on revenue may obscure important elements of the analysis.

...

Based on its 2022 SEC Form 10-K, Essential’s net operating income attributable to regulated water operations is 63.12%, which would indicate that its market data reflects that of a regulated water utility and that it would be appropriate for inclusion in a water utility proxy group.^[191]

Accordingly, we reject I&E’s position to remove Essential from the Utility Proxy Group.

2. Discounted Cash Flow (DCF)

The DCF model seeks to explain the value of an asset as the present value of future cash flows, discounted at the appropriate rate.¹⁹² The DCF is the “dividend discount model” of financial theory, which maintains that the value (price) of any security or commodity

¹⁹¹ Columbia Water St. 4-R at 8-9.

¹⁹² Columbia Water St. 4 at 20.

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.¹⁹³ In sum, the DCF recognizes the time value of money, is forward-looking, and has wide-spread regulatory acceptance.

As part of his analysis, Company witness D'Ascendis used a single-stage constant growth DCF model.¹⁹⁴ For his dividend yield, Mr. D'Ascendis used the unadjusted dividend yields of the Utility Proxy Group's dividends divided by the average of the closing market prices for the 60 trading days ending February 2, 2023. However, he adjusted the dividend yields upward to reflect one-half the average projected growth rate since the companies in the Utility Proxy Group increase their quarterly dividend at various times during the year.¹⁹⁵ For his growth rates, Mr. D'Ascendis used analysts' five-year forecasts of Earnings Per Share (EPS) growth in his DCF analysis. Based on his DCF analysis, Mr. D'Ascendis concluded that the indicated ROE was 9.13% which is an average of the mean result and the median result for the Utility Proxy Group.¹⁹⁶

The result of I&E's DCF analysis was 7.84%. This recommendation includes a dividend yield of 2.01% and a recommended growth rate of 5.83%.¹⁹⁷ I&E witness Keller's analysis used 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

¹⁹³ I&E St. No. 1 at p. 31.

¹⁹⁴ Columbia Water St. 4 at 21.

¹⁹⁵ *Id.*

¹⁹⁶ *Id.* at 22.

¹⁹⁷ I&E St. 1 at 42.

period 1.¹⁹⁸ However, since forecasts were available for all companies in Mr. Keller’s proxy group, no dividend adjustments were necessary.

OCA’s witness Garrett, explained that generally, there are three primary inputs into the DCF model: (1) stock price; (2) dividend; and (3) the long-term growth rate.¹⁹⁹ According to Mr. Garrett, “[t]he stock prices and dividends are known inputs based on recorded data, while the growth rate projection must be estimated.”²⁰⁰

Mr. Garrett considered two variations of the DCF model for his analysis: one using a sustainable growth rate, and one using analysts’ growth rates.²⁰¹ The sustainable growth rate DCF variation produced a cost of equity of 6.0%, and the analysts’ growth rate DCF variation produced a cost of equity of 9.4%.²⁰² Concerning the sustainable growth DCF variation, Mr. Garrett testified, “the result of the sustainable growth DCF Model is unreasonably low in terms of estimating cost of equity. Using the results of the CAPM as a check for reasonableness, it is clear that the results of this variation of the DCF Model is an outlier in this particular case.”²⁰³

Mr. Garrett testified that Mr. D’Ascendis’ DCF Model produced a result that falls within Mr. Garrett’s reasonable range for the authorized ROE.²⁰⁴ However, when informed by an appropriate CAPM analysis, Columbia Water’s calculated base DCF result is likely higher than Columbia Water’s cost of equity.²⁰⁵ According to OCA, Mr. D’Ascendis’ equity results are

¹⁹⁸ I&E St. 1 at pp. 40-41.

¹⁹⁹ OCA St. 2 at 25.

²⁰⁰ *Id.*

²⁰¹ *Id.* at 32.

²⁰² *Id.*

²⁰³ *Id.* at 33.

²⁰⁴ OCA St. 3 at 33.

²⁰⁵ *See* OCA Main Brief at 46.

inflated through the addition of several premiums, which bloats Mr. D’Ascendis’ recommended equity.²⁰⁶

3. CAPM

Company witness D’Ascendis also prepared a CAPM analysis to estimate the cost of common equity for the Utility Proxy Group.

Witness D’Ascendis testified that the CAPM analysis determines a “risk-free” interest rate based on U.S. Treasury obligations and an equity risk premium that is proportional to the beta measure of systematic risk of a stock, which are summed to produce the cost rate of equity.²⁰⁷ For his analysis, however, Mr. D’Ascendis also uses the Empirical CAPM (ECAPM). According to Mr. D’Ascendis, the ECAPM is a helpful measure because, as Mr. D’Ascendis testified, the standard CAPM underestimates the return required from low-beta securities, such as those of the Utility Proxy Group.²⁰⁸ For his risk-free rate, Mr. D’Ascendis has used a risk-free rate of 3.85%, which is based on the average of the Blue Chip consensus forecast of the expected yields on 30-year U.S. Treasury bonds.²⁰⁹ In determining his market risk premium of 10.00%, Mr. D’Ascendis derives it from an average of various sources as set forth in his direct testimony.²¹⁰ The result of Mr. D’Ascendis’ CAPM/ECAPM analysis was 11.76%, which is an average of the median and mean result for his Utility Proxy Group.²¹¹

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

²⁰⁶ OCA St. 2 at 33.

²⁰⁷ Columbia Water St. 4 at 36–37.

²⁰⁸ *Id.* at 37.

²⁰⁹ *Id.* at 40.

²¹⁰ *Id.* at 40–41.

²¹¹ *Id.* at 42.

risk-free rate of return; β = beta, which measures the systematic risk of an asset, and R_m = the expected rate of return on the overall stock.²¹²

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 (Value Line).²¹³ 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%.²¹⁴ This, in turn, yields a cost of equity result of 11.09%.²¹⁵

OCA witness Garrett testified: "The basic CAPM equation requires only three inputs to estimate the cost of equity: (1) the risk-free rate; (2) the beta coefficient; and (3) the equity risk premium."²¹⁶ He then estimated that the Company's CAPM cost of equity is 8.2%.²¹⁷

4. Other Models

The Company also presented the results of other models to support its assertion that an ROE of 11.25% is reasonable. Company witness D'Ascendis also used a risk premium analysis to determine the cost of common equity. The risk premium analysis is based upon the fundamental principle that an equity investor in a given company has a greater investment risk than a bond holder in the same company.²¹⁸

²¹² I&E St. 1 at 43.

²¹³ *Id.* at 44; *See also* Columbia Water St. 4 at 9-10.

²¹⁴ I&E St. 1 at 47.

²¹⁵ *Id.*

²¹⁶ OCA St. 2 at 34.

²¹⁷ *Id.* at 44; *see* OCA Exh. DJG-12.

²¹⁸ Columbia Water St. 4 at 23.

In his testimony, witness D’Ascendis compared the CAPM analysis to the Predictive Risk Premium Model (PRPM or risk premium analysis).²¹⁹ Witness D’Ascendis explained that this model was developed from the work of Robert F. Engle, who shared the Nobel Prize in Economics in 2003 for methods of analyzing economic time series with time-varying volatility. Witness D’Ascendis stated that Mr. Engle found that volatility changes over time and is related from one period to the next, especially in financial markets. Mr. Engle discovered that the volatility in prices and returns “clusters” over time and is therefore highly predictable and can be used to predict future levels of risk and risk premiums. Witness D’Ascendis explained that the PRPM estimates the risk/return relationship directly, as the predicted equity risk premium is generated by the prediction of volatility or risk. The PRPM is not based on an *estimate* of investor behavior, but instead on the evaluation of the results of that behavior (*i.e.*, the variance of historical equity risk premiums).²²⁰

In addition to the PRPM, Mr. D’Ascendis also utilized the total market approach Risk Premium Model (RPM), which adds a prospective public utility bond yield to an average of: (1) an equity risk premium that is derived from a beta-adjusted total market equity risk premium; and (2) an equity risk premium based on the S&P Utilities Index.²²¹ Using the total market approach, Mr. D’Ascendis calculated a common equity cost rate of 11.57% for the Utility Proxy Group.²²²

Finally, Mr. D’Ascendis developed a further analysis based upon a group of twenty domestic, non-price regulated companies (Non-Utility Proxy Group) that are comparable in total risk to his Utility Proxy Group and applied the same three market-based costs of equity models to determine an appropriate cost of equity for Columbia Water in this case.²²³ This analysis is based on the principle set forth by the United States Supreme Court that a utility

²¹⁹ Columbia Water St. 4 at 24, 36.

²²⁰ *Id.* at 24.

²²¹ *Id.* at 26.

²²² *Id.* at 35.

²²³ *Id.* at 43.

should be afforded an opportunity to earn a return on its property equal to that being earned on investments in other businesses with corresponding risks and uncertainties.²²⁴

5. Company Adjustment

Mr. D'Ascendis also made adjustments to his final recommendation to reflect a size adjustment and a financial risk adjustment. With respect to the size adjustment, Mr. D'Ascendis included an upward adjustment of 1.00% to the indicated range of common equity cost rates to reflect the increased business risk due to the small size of the Company relative to the Utility Proxy Group.²²⁵ According to the Company, this adjustment appropriately recognizes that Columbia Water's smaller size relative to the Utility Proxy Group indicates greater relative business risk for the Company because, all else being equal, size has a material bearing on risk.²²⁶ Both I&E and OCA question the Company's proposed adjustment because it is their position that it is unnecessary and not supported by financial literature. I&E witness Keller opines that Columbia's proposed size adjustment is unnecessary because none of the technical literature cited by Company witness D'Ascendis supporting investment adjustments related to the size of a company is specific to the utility industry; therefore, such an adjustment is not appropriate.²²⁷ OCA's witness Mr. Garrett agrees that the adjustment is unnecessary:

even if a small size premium were consistently observable in the market, I do not believe that would automatically apply to regulated utilities. To say otherwise would ignore the reality that regulated utilities do not face the same downside bankruptcy risk that a purely competitive firm would face. Essentially, operating utilities are too important to fail. In the event a utility faced financial hardship, the regulatory environment (i.e. customers, taxpayers, etc.) could not afford to let the utility fail. Thus, even

²²⁴ *Bluefield*, 262 US 668.

²²⁵ Columbia Water St. 4 at 50.

²²⁶ *Id.* at 47.

²²⁷ I&E St. No. 1-SR, p. 26.

though CWC is smaller than the companies in the proxy group, that does not mean it is inexorably riskier.^[228]

Mr. D'Ascendis also made a downward adjustment of eleven basis points to the indicated range of ROEs to reflect the Company's financial risk relative to the proxy group.²²⁹ To determine his downward adjustment to account for financial risk, Mr. D'Ascendis applies two models: the Modigliani-Miller Method (M&M Method) and the Hamada Equation.²³⁰ These methods underscore the notion that the level of financial risk affects the cost of capital, including the cost of common equity.²³¹ The M&M Method indicated a downward adjustment of -0.13% based on the differences in financial risk between Columbia Water and the Utility Proxy Group.²³² The Hamada Equation, which involves un-levering the Utility Proxy Group's betas based on the Utility Proxy Group's least financially risky actual capital structure, then re-levering the betas using Columbia Water's recommended capital structure, indicated a downward adjustment of -0.10% for the Utility Proxy Group.²³³ Accordingly, Mr. D'Ascendis reflected a downward adjustment of -0.11% to the indicated range of ROEs.

After applying the 1.00% size adjustment and the negative 0.11% financial risk adjustment to the indicated range of ROEs between 10.09% and 11.09%, based on the Utility Proxy Group results, Mr. D'Ascendis determined that a range of common equity cost rates between 10.98% and 11.98% is applicable to Columbia Water.²³⁴

²²⁸ OCA St. 2SR at 6-7.

²²⁹ Columbia Water St. 4 at 54.

²³⁰ *Id.* at 52.

²³¹ *Id.*

²³² *Id.* at 53.

²³³ *Id.* at 53-54.

²³⁴ *Id.* at 55.

6. Recommendation

Regulators determine the proper cost of capital for a utility company. Although Pennsylvania has no law describing the specific model that must be used to establish a cost of capital, the Commission has stated its preference for using the DCF model.²³⁵ However, “the use of multiple models adds reliability to the estimation of the common equity cost rate, with the prudence of using multiple cost of common equity models supported in both the financial literature and regulatory precedent.”²³⁶ As observed by Mr. D’Ascendis, the DCF can undervalue the rate of return.²³⁷ I&E witness Keller observes that the CAPM can be overly subjective.²³⁸ Yet, the CAPM is more responsive to fluctuations in interest rates.²³⁹

Indeed, the Commission has recently signaled that, given recent developments in the economy, it is appropriate to consider the results of a CAPM analysis because it is better suited to reflect changing market conditions than the DCF alone:

[w]e are persuaded by the arguments of Aqua that the ALJ erred by concluding I&E used its DCF and CAPM results to determine Aqua’s ROE. In this regard, we note that although I&E did use its CAPM as a comparison to its DCF result, it made no CAPM based adjustment to its final ROE recommendation. I&E M.B. at 47. As Aqua points out, *infra*, the U.S. economy is currently in a period of high inflation. To help control rising inflation, the Federal Open Market Committee has signaled that it is ending its policies designed to maintain low interest rates. Aqua Exc. at 9. Because the DCF model does not directly account for interest

²³⁵ *Pa. Pub. Util. Comm’n v. Columbia Gas of Pa., Inc.*, Docket No. R-2020-3018835 (Opinion and Order entered Feb. 19, 2021); *Pa. Pub. Util. Comm’n v. Citizens’ Elec. Co. of Lewisburg, PA*, Docket No. R-2019-3008212 (Opinion and Order entered Apr. 27, 2020); *Pa. Pub. Util. Comm’n v. Valley Energy, Inc.*, Docket No. R-2019-3008209 (Opinion and Order entered Apr. 27, 2020); *Pa. Pub. Util. Comm’n v. Wellsboro Elec. Co.*, Docket No. R-2019-3008208 (Opinion and Order entered Apr. 29, 2020); *Pa. Pub. Util. Comm’n v. UGI Util., Inc. – Elec. Div.*, Docket No. R-2017-2640058 (Opinion and Order entered Oct. 25, 2018) (*UGI Elec 2018*); *Pa. Pub. Util. Comm’n v. City of DuBois – Bureau of Water*, Docket No. R-2016-2554150 (Opinion and Order entered Mar. 28, 2017).

²³⁶ Columbia Water St. 4-R at 22.

²³⁷ *Id.* at 17.

²³⁸ I&E St. 1 at 47.

²³⁹ Columbia Water St. 4 at 10-11.

rates, consequently, it is slow to respond to interest rate changes. However, I&E's CAPM model uses forecasted yields on ten-year Treasury bonds, and accordingly, its methodology captures forward looking changes in interest rates.^[240]

Similarly, after reviewing the analyses of the expert opinions presented in this case, not only on the subject of ROE, but also expert opinions regarding forecasting for the future test year relating to projected expenses, it is appropriate to consider the CAPM results and their ability to account for market changes such as those occurring currently, in addition to the DCF results.²⁴¹

As we explained above, we have accepted the proxy group selected by the Company and OCA. The Company's witness explanation for using earnings as a metric rather than revenue is persuasive and results in a proxy group of a reasonable size. OCA used the same proxy group and did not offer any criticism.

However, the DCF and CAPM results presented by the Company and OCA each include inputs and assumptions that bias their results. OCA and the Company each challenge the other's CAPM calculation, based on inputs used for equity or market risk premiums.

Mr. Garrett relied on expert surveys and the implied Equity Risk Premium (ERP) methods for analyzing the CAPM for Columbia Water. Mr. Garrett used the 2023 expert survey from the IESE Business School,²⁴² which reported an average ERP of 5.7%.²⁴³ Mr. Garrett also collected data for the S&P 500 from the last six years to arrive at the implied equity risk premium of 5.4%.²⁴⁴ Mr. Garrett testified of two renowned experts who calculated the ERP at

²⁴⁰ *Pa. Pub. Util. Comm'n v. Aqua Pa., Inc.* Docket No. R-2021-3027385 at 154 (Opinion and Order entered May 16, 2022)(*Aqua*).

²⁴¹ *See* Columbia Water St. 4 at 10– 11.

²⁴² Implied Equity Risk Premium. *See* OCA St. 2 at 41, n. 54.

²⁴³ OCA St. 2 at 39.

²⁴⁴ *Id.* at 42.

4.9% (Mr. Damodaran) and 6.0% (Mr. Kroll).²⁴⁵ The average of the survey and the three implied ERP calculations is 5.5%, the ERP that Mr. Garrett used in his CAPM Analysis.²⁴⁶

OCA explained that the risk premium used by the Company is overstated and OCA's methodology is more reasonable. OCA's witness Garrett observed that Mr. D'Ascendis' calculation of the ERP estimate is "clearly not within the range of reasonableness."²⁴⁷ Mr. Garrett's four calculations – three of which are independently calculated by other, non-involved experts, all fall within a range between 4.9% and 6.0%.²⁴⁸ According to witness Garrett, Mr. D'Ascendis' erroneous calculation of ERP is over 10 standard deviations higher than the data relied upon by Mr. Garrett, which once again is informed by independent, non-involved experts.

In determining his market risk premium of 10.00%, Mr. D'Ascendis derives it from an average of various sources as set forth in his direct testimony.²⁴⁹ The Company argues that OCA's argument that witness D'Ascendis' equity risk premium of 10.00% is overstated should be denied. According to the Company, OCA witness Garrett argues that Mr. D'Ascendis' ERP is much higher than his ERP of 5.5% because Mr. D'Ascendis relied on data as old as 1926.²⁵⁰ However, as explained by Mr. D'Ascendis, Mr. Garrett's estimates cannot be compared to Mr. D'Ascendis' estimates because Mr. Garrett relied on unpredictable and unreasonable forecasts and non-transparent data.²⁵¹ Moreover, some of Mr. Garrett's cited sources contradict his own approach to forecasting market risk premiums.²⁵² Rather, contrary to Mr. Garrett's claims, Mr. D'Ascendis' market risk premium estimate of 10.00% falls within the 54th percentile

²⁴⁵ OCA St. 2 at 44.

²⁴⁶ *Id.* at 43.

²⁴⁷ OCA St. 2-SR at 3.

²⁴⁸ OCA St. 2 at 44.

²⁴⁹ Columbia Water St. 4 at 40-41.

²⁵⁰ OCA St. 2 at 46.

²⁵¹ Columbia Water St. 4-R at 48-49. *See also* Section VII.D.3.a, *infra*.

²⁵² Columbia Water St. 4-R at 49-50.

of historical MRPs.²⁵³ Thus, the Company concludes OCA's comparison is neither appropriate, nor useful.

I&E is also critical of the Company's CAPM analysis. I&E witness Keller objects to Columbia witness D'Ascendis' use of an empirical capital asset pricing model (ECAPM) to adjust his CAPM results upward.²⁵⁴ 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.²⁵⁵

I&E witness Keller explains that 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 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.²⁵⁶

Columbia witness D'Ascendis claims that numerous tests of the ECAPM have confirmed the validity to which security returns and betas are related, and further suggests that the actual SML defined by the ECAPM is not as steeply sloped as the predicted SML.²⁵⁷ I&E witness Keller rejects this rationale. While some studies indicate that the ECAPM 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. Moreover, 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

²⁵³ Columbia Water St. 4-R at 60.

²⁵⁴ I&E St. No. 1-SR at 24-25.

²⁵⁵ I&E St. No. 1 at 73.

²⁵⁶ *Id.* at 52-53.

²⁵⁷ Columbia Water St. 4 at 37 (implying beta does not accurately measure systematic risk); I&E St. No. 1 at 53.

equity. Therefore, I&E asserts that the Commission should reject Columbia witness D'Ascendis' reliance on an ECAPM analysis.

We do not find the ECAPM results to be appropriate, however, and we generally believe that the various assessments of the CAPM analyses by the Company and OCA to be valid. Given the sizable gap between the Company's and OCA's equity risk premium we cannot solely subscribe to either party's result. It appears the equity risk may be overstated by the Company, and we find the Company's CAPM result unsatisfactory. However, we do not believe that the Company's equity risk premium is as overstated as OCA represents. Indeed, the OCA's CAPM result was an outlier among all three parties CAPM results and may be understated.

We must reject I&E's DCF and CAPM results because they are based on a proxy group that excludes Essential Utilities. We further note that although I&E took note of the result of Mr. Keller's CAPM analysis, he clearly did not use it as a meaningful comparison. Indeed Mr. Keller's CAPM result of 11.09% is substantially higher than his DCF result of 7.84%, yet he made no adjustment to his ROE recommendation.²⁵⁸

Having considered the analyses and recommendations of all of the Parties and finding none completely satisfactory, we recommend the Commission adopt an ROE of 9.55%. We arrive at this result by averaging the DCF and CAPM results of the Company and OCA:

	DCF	CAPM	Average
CW	9.13	11.45	10.29
OCA	9.40	8.20	8.80
Average	9.27	9.83	9.55

This method of setting an ROE is less than ideal, but for a variety of reasons, including the disparity in CAPM and DCF results, a relatively small proxy group, among other things, it was difficult to identify a better methodology. We believe this ROE result offsets the flaws in the

²⁵⁸ This gap of 325 basis points illustrates the potential problems related to relying solely on the DCF to establish a reasonable ROE.

Company's and OCA's calculations. This result is higher than the DCF results of either the Company or OCA, but it accounts for some level of interest rate volatility that is captured by a CAPM analysis. This recommended ROE results in an adequate rate of return to provide the Company with a sufficient ability to attract capital, but it also results in reasonable rates for the Company's customers.²⁵⁹

We offer no adjustment to the ROE based on size or financial risk. While it is acknowledged that Company may face an increased business risk due to its small size, we find this risk is mitigated by the use of the actual capital structure excluding the PENNVEST debt. Further, we do not see the need to adjust for financial risk as we determined the capital structure to be appropriate.

XI. RATE STRUCTURE

The Company has proposed to unify the rates of the Columbia and Marietta rate divisions in this proceeding, with increases to the customer charges and adjustments to the volumetric charges, and excluding the Company's PENNVEST surcharge rate. Under the Company's current tariff, the Company's Columbia and Marietta Rate Divisions rely upon a single general metered service (GMS) rate schedule that is applicable to all residential, commercial, industrial and public authority customers. In other words, the Company's customer and consumption charges do not vary by customer class.

In the Columbia Division, the GMS rate schedule contains a three-step, declining-block consumption charge, with the 3rd rate block applicable to usage of more than 250,000 gallons per month. In the Marietta Division, the GMS rate schedule contains a four-step, declining-block consumption charge, with the 4th block applicable to usage of more than 50,000 gallons per month. Except for the consumption charge applicable to the first 1,000 gallons of

²⁵⁹ Both the Company and OCA use median or average ROE results to arrive at their recommendations. See Columbia Water St. 4 at 22; OCA St. 4 at 7-8.

usage, the Company's Marietta Division rates for metered service are lower than the corresponding Columbia Division GMS charges.²⁶⁰

In this proceeding, Columbia Water is proposing to consolidate its Columbia Division and Marietta Division GMS rate schedules.²⁶¹ Specifically, if approved by the Commission, the Company's water service customers, in both the Columbia and Marietta Divisions, will be charged using a single, three-step declining-block, GMS rate schedule.²⁶²

No Party opposed the unification of rates in the Columbia and Marietta Divisions, and we recommend the Commission approve this rate design proposal.

A. Cost of Service

The purpose of the cost of service study performed for the Company is to allocate the total water cost of service to the several customer classifications.²⁶³ As explained below, other factors may be considered in revenue allocation, such as the amount of the rate increase and gradualism.

Although class cost of service studies may appear to have great precision, the Commission has repeatedly recognized that the COSS is only a guide to designing rates and is only one factor, albeit an important one, to be considered in the rate setting process.²⁶⁴

²⁶⁰ OSBA St. 1 at 3-4.

²⁶¹ Columbia Water St. 3 at 2.

²⁶² OSBA St. 1 at 4.

²⁶³ Columbia Water St. 3 at 8. OCA witness Mierzwa explained, there is some correlation between the rate blocks and classes, in that based on the demand factors the Company used in its cost of service study, most residential customers are in Tier one, most commercial customers are in Tier two, and most industrial customers are in Tier Three. Tr. 80.

²⁶⁴ See, e.g., *Pa. Pub. Util. Comm'n v. West Penn Power Co.*, Docket No. R-901609 (Opinion and Order entered Dec. 14, 1990); *Pa. Pub. Util. Comm'n v. Pa. Power & Light Co.*, Docket Nos. R-822169 (Opinion and Order entered Aug. 19, 1983) (*Pa. Power & Light*).

The Commonwealth Court has, however, concluded that the class cost of service is the “polestar” of utility ratemaking.²⁶⁵ Despite its heightened importance in the ratemaking process, cost allocation remains an inexact science, and there is no single “correct” cost allocation methodology. There are, however, two fundamental principles—cost causation and consistency. Cost causation means that costs should be allocated based on what causes a cost to be incurred or what causes a cost to vary. Consistency means that once a reasonable cost allocation methodology is established, it should not be changed without a compelling reason.

The Company’s COSS uses the Base-Extra Capacity Method (BEC), as described in the water rates manual published by the American Water Works Association entitled, “M1 Principles of Water Rates, Fees, and Charges,” to allocate pro forma costs. In support of this method, Company witness Fox testified as follows:

[t]he Base-Extra Capacity method is built upon the allocation of both the utility’s investment in plant and its proposed revenue requirements to the various functional cost categories of the utility. These functional cost categories include base, extra capacity, customer and direct fire protection. Base or average day capacity costs reflect items that vary based upon the amount of water used under average usage conditions. Extra capacity costs are usually divided between maximum day and maximum hour and include those costs that are designed to meet demands in excess of the average day and maximum day respectively. As the name implies, customer costs generally vary based upon the number of customers connected to the system and are usually divided between meter costs and billing costs. Finally direct fire protection includes those costs that are incurred in order to not only maintain fire hydrants within the system but also to provide for a portion of the cost recovery of the system oversizing that is required to provide sufficient flows and pressures in order to adequately address a fire event. Once the costs have been allocated to the functional categories, they are assigned to the various customer classes based upon each customer class’ usage characteristics and their associated responsibility for those costs. After the cost responsibility for each customer class has been

²⁶⁵ See *Lloyd v. Pa. Pub. Util. Comm’n*, 904 A.2d 1010, 1020 (Pa. Cmwlth. 2006) (*Lloyd*).

determined a rate structure can then be designed that appropriately recovers those costs.^[266]

Thus, the Company has utilized a generally accepted COSS method to determine the cost to serve its customers.

Although, no Parties challenged the Company's use of the Base-Extra Capacity Method, OSBA's witness Brian Kalcic took note that Columbia Water, like almost all water public utilities across the Commonwealth, does not possess daily or hourly consumption data, by customer class.²⁶⁷ In Mr. Kalcic's view, the workaround for a water utility is to gather 24/7/365 usage data from a statistically valid sample of each of the utility's GMS customer classes. OSBA notes that Columbia Water does not possess a customer class demand study, therefore Columbia Water did not perform the third step of the BEC cost methodology. Consequently, the Company's COSS does not provide cost-based GMS class revenue targets, which, according to OSBA would otherwise be available to guide GMS rate design in this proceeding.²⁶⁸

Although the Company's COSS lacks a certain level of precision, a cost of service study is but one consideration in the development of a reasonable rate design.²⁶⁹ The Company, OCA and OSBA were each able to recommend a revenue allocation and rate design that each party believes results in reasonable rates. Therefore, for the purposes of this rate filing, we accept the Company's COSS as adequate.

B. Revenue Allocation

The allocation of revenue among a utility's various rate classes, while informed by science and engineering, also involves consideration of ratemaking policy and principles of

²⁶⁶ Columbia Water St. 3 at 8-9.

²⁶⁷ OSBA St. No. 1 at 7.

²⁶⁸ *Id.*

²⁶⁹ See OCA St. 3 at 7 (citing James C. Bonbright et al., *Principles of Public Utility Rates* (2d ed. 1988) (*Bonbright*)).

gradualism. The application of science and policy to the allocation of a revenue increase is within the Commission’s discretion: “[T]here is no set formula for determining proper ratios among the rates of different customer classes. What is reasonable under the circumstances, the proper difference among rate classes, is an administrative question for the Commission to decide.”²⁷⁰

The Commission recently explained the interplay among ratemaking methodologies and the consideration of other factors to set just and reasonable rates:

[t]hese norms, or traditional ratemaking methodologies, are used to determine a utility’s cost of providing service, or its revenue requirement, and to determine appropriate rate structure, which includes, among other things, the appropriate allocation of the revenue requirement to various customer classes. However, while these ratemaking norms provide a rational and methodical way to analyze and determine the utility’s cost of service, they also permit the consideration and weighing of important factors or principles in setting just and reasonable rates, such as quality of service, gradualism, and rate affordability.

We acknowledge that there are several factors that must be considered when designing a rate recovery proposal, one of which is the concept of gradualism and affordability, which are classic small water company challenges faced by many similar-sized utilities across the nation. However, while affordability is permitted to be considered, it is but one of many factors to be considered and weighed by the Commission in determining a utility’s rates. The rate increase reflects the business challenges the Company currently faces, including required investments in the repair/replacement or improvement of its distribution systems, including acquired troubled water utilities’ distribution system; and the high costs associated with maintaining a distribution system necessary to provide safe and reliable water and wastewater service within the Commonwealth.^[271]

²⁷⁰ *Peoples Nat. Gas Co. v. Pa. Pub. Util. Comm’n*, 409 A.2d 446, 456 (Pa. Cmwlth. 1979)(citations omitted).

²⁷¹ *Pa. Pub. Util. Comm’n v. Cmty. Utils. Inc.*, Docket R-2021-3025206 at 65-66 (Opinion and Order entered Jan. 13, 2022)(citations omitted).

To develop his allocation, Company witness Fox first used the COSS to allocate costs to the Company's proposed fire protection rates:

[s]ince costs associated with public fire hydrants should not be charged to private fire services, I first removed the costs directly related to hydrants from the total fire service allocation. Based on the relative potential demands presented on Exhibit DF-2 (Revised), I split the remaining fire service demand costs (net of hydrant expenses) to public and private fire service. In the case of the public fire service charges, I added the allocated public fire service costs to the direct hydrant expenses and divided by the total number of public fire hydrants, net of the 104 "grandfathered" hydrants, in CWC's system to arrive at an annual per hydrant charge.

For public fire service charges, I also allocated only 25% of these overall costs to public fire protection customers to comply with Section 1328 of the Public Utility Code. The remaining 75% was redistributed to the fixed charges, utilizing the readiness-to-serve component.

To derive the private fire service charges, I simply determined the number of private fire service equivalents using the fire demand factors described earlier in my testimony. This cost per equivalent was then applied to the equivalency factors for each private fire service size to derive the fire service charge for each size private fire service.^[272]

Company witness Fox then allocated revenue requirements to the Company's customer charges. The costs were split into two components (a) those costs related to meters and service pipes (which vary by the size of the meter and service) and (b) those costs related to billing, meter reading, and collections (which vary by the number of billings).²⁷³

Lastly, Company witness Fox calculated consumption-based charges by allocating revenue requirements to base (average use), maximum day, and peak hour demands. Once the

²⁷² Columbia Water St. 3 at 11 (footnotes omitted). Exhibit DF – 4RJ presents the Company's updated derivation of fire protection charges and Exhibit DF-7RJ presents a comparison of the Company's COS-based, and proposed fire protection charges.

²⁷³ Columbia Water St. 3 at 12. The proposals for customer charges are addressed in more detail below.

costs were allocated to these components, they were distributed to each consumption block's proportionate share of each component.²⁷⁴ Specifically, consumption falling into consumption blocks which produce more peak hour demands, were distributed a greater percentage of the peak hour costs.²⁷⁵ Consumption based rates were then calculated based on the distributed costs and relative demand per consumption block.²⁷⁶

OCA generally agrees with the Company's allocation of volumetric costs to the various rate tiers. OCA notes with approval the Company's proposal to unify and increase the existing consumption blocks for the Columbia and Marietta rate divisions to provide usage-based revenues at the Company's as-filed for request.²⁷⁷ The Company's final proposed volumetric rates for the three tiers, on a unified basis, are set forth in Columbia Water witness Fox's rejoinder testimony.²⁷⁸ This proposal modifies (reduces) the differentials that exist between Tier 1 and Tiers 2 and 3 for the Company's current rates.

OCA witness Mierzwa favored Company witness Fox's approach over the OSBA proposal to assign a uniform percentage rate increase.²⁷⁹ Mr. Mierzwa recognized that more granular and detailed data such as monthly usage by block rate was not available in this case, to then be used with AWWA Manual demand factors in developing volumetric rates.²⁸⁰ Mr. Fox and Mr. Mierzwa agreed, however, that the existing Tier 2 and 3 rates for the Columbia rate division were deeply discounted relative to Tier 1.²⁸¹ Mr. Mierzwa found that the ratios applied by Mr. Fox to Tier 1 (most residential customers), Tier 2 (most commercial customers), and Tier

²⁷⁴ *Id.*

²⁷⁵ *Id.*

²⁷⁶ *Id.*

²⁷⁷ *Id.*

²⁷⁸ Columbia Water Exh. DF-9Rej at 1-2.

²⁷⁹ OCA St. 3R at 4; OCA St. 3SR at 5-9.

²⁸⁰ Tr. 79.

²⁸¹ OCA St. 3SR at 6-7.

3 (most industrial customers) were not unreasonable, when compared with the AWWA Manual typical maximum hour factors.²⁸²

In contrast, OSBA opposed changing the existing rate differentials on the basis that Columbia Water did not provide a traditional class cost of service study in this case and, as such, there was “no cost justification for assigning anything other than uniform increases to such classes in this proceeding.”²⁸³ According to OSBA, Mr. Kalcic’s approach to rate design and revenue allocation recognizes the lack of GMS-related record evidence in this proceeding. Consequently, the OSBA recommends that the Commission adopt a GMS rate design that provides for uniform increases to the Company’s Columbia Division GMS customer classes, to the extent feasible, while maintaining the Company’s existing Columbia Division rate structure.²⁸⁴ OSBA argues that there is no record evidence that provides cost justification for anything other than assigning uniform increases to the Company’s Columbia Division residential, commercial, industrial, and public authority classes at the conclusion of this base rate case.²⁸⁵

We agree with the general allocation proposal of the Company that is supported by OCA. There is no evidence that the existing differentials among the rate tiers has any cost justification. Therefore, there is not necessarily an evidentiary basis to assign uniform increases as advocated by OSBA either. That is, both approaches to revenue allocation are, to some degree, arbitrary and dependent upon professional judgment.

However, there are benefits to ratepayers by approving the approach of the Company and OCA. As noted by the Company, the existing differentials between the rate tiers

²⁸² Tr. 80.

²⁸³ OSBA St. 1S at 5; Tr. 79.

²⁸⁴ OSBA St. No. 1 at 13.

²⁸⁵ *Id.*; OSBA St. No. 1-S at 5.

are significant.²⁸⁶ The Company's proposal reduces the severity of these differentials. Further, the Company's position that increasing the higher volume tiers at a larger percentage increase would provide a stronger pricing signal to promote conservation is persuasive. Customer conservation may provide a benefit of delaying, reducing or avoiding the costs of capital improvement projects.²⁸⁷

C. Customer Charges

The Company, I&E, OCA and OSBA each make recommendations regarding the appropriate customer charges for Columbia Water's customers. The Company's proposed customer charge for the 5/8 meter tier would result in an increase of customer charges by 43.5% for Columbia Rate Division customers and by 80.4% for Marietta Rate Division customers.²⁸⁸ I&E's recommended customer charges that would increase the customer charge for the 5/8 inch meter by 18.2% for Columbia and 48.7% for Marietta.²⁸⁹ OSBA recommends customer charge increases of 34.6% for Columbia and 69.3% for Marietta.²⁹⁰

OCA witness Mierzwa's primary recommended customer charge for a 5/8" meter service is \$12.15 per month for Columbia and Marietta Rate Division customers, based upon the Company's revised allocations of costs to the customer-related function and inclusive of Public Fire costs.²⁹¹ This represents a 17.7% increase for Columbia Rate Division customers and a 48% increase for Marietta Division customers.²⁹²

²⁸⁶ The Tier 1 volumetric charge is more than 2.5 times the current Tier 2 volumetric charge and 3.75 times more than the current Tier 3 volumetric charge in the Columbia division. OCA St. 3SR at 8.

²⁸⁷ Columbia Water St. 3-R at 11.; OCA St. 1 at 11.

²⁸⁸ See Columbia Water Exh. DF-9RJ at 1.

²⁸⁹ I&E Exh. 2-SR, Sch. 2.

²⁹⁰ OSBA Sch. BK-4S.

²⁹¹ OCA St. 3SR at 2, 4; OCA Sch. JDM-1SR.

²⁹² OCA St. 3-SR at 5.

For the cost of service-based reasons, including the need for gradualism, that are discussed below, the OCA's customer charges should be adopted.

Company witness Fox allocated revenue requirements to the Company's customer charges. The costs were split into two components (a) those costs related to meters and service pipes (which vary by the size of the meter and service) and (b) those costs related to billing, meter reading, and collections (which vary by the number of billings).²⁹³

The dispute among the Parties generally involves the designation of certain costs as indirect costs that are more appropriately recovered in the volumetric charges. Specifically, OCA raised concerns regarding (1) the allocation of bad debt expense, (2) allocation of indirect costs such as general and administrative expenses, regulatory commission expenses, and general plant investment costs, (3) allocation of the remaining 75% of the public fire protection cost of service, and (4) allocation of volumetric usage costs of \$114,935, through the monthly customer charges.²⁹⁴

I&E similarly recommends removing several revenue requirement items from the customer charge including plant in service and corresponding depreciation expenses for several items such as buildings and land, transportation, laboratory equipment, communications equipment, general and field equipment, etc., and reallocating them to the volumetric charges.²⁹⁵

²⁹³ Columbia Water St. 3 at 12.

²⁹⁴ OCA St. 3 at 7-8. The Company ultimately agrees to and has removed the \$114,935 in volumetric charges from the fixed customer charge.

²⁹⁵ I&E St. 1 at 11. I&E excludes \$860,296 O&M expense (allocating 0%) relating to transmission and distribution from the customer charge. I&E further excludes from the customer charge rate base from the following categories: \$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. We note that it does not appear that the Company allocated any portion of Laboratory Equipment to the customer charge. See Exhibit DF-2RJ.

OSBA's analysis centers on the treatment of Transmission and Distribution costs. The Company determined that 30% of these costs are customer-related and should be recovered in the customer charges. In contrast, OSBA contends that 15.7% is more appropriate because it represents the ratio of Columbia Water's total meters and services plant investments to the Company's total T&D plant in service.²⁹⁶ For its part, I&E recommends that there be no classification of T&D O&M Expense as customer related.²⁹⁷

The Company argues costs included in its calculation of customer charges are sufficiently connected to the provision of service and consistent with Commission precedent. Specifically, those costs related to indirect O&M Expenses, indirect depreciation expenses, are essential to the maintenance of customer facilities, and are related to the work of personnel working on customer facilities and customer accounting.

While the Commission generally disfavors the inclusion of indirect costs into the calculation of customer charges, the Commission has nevertheless permitted the allocated portions of certain indirect costs.²⁹⁸ We agree with OCA that the Company's analysis includes numerous overhead costs that cannot reasonably be considered "direct costs" required to connect and maintain a customer's account.²⁹⁹ Rather, they are simply overhead costs that Columbia Water incurs in rendering service to its customers. The fact that some of these costs may be fixed, does not in and of itself make them direct costs that should be collected from a customer charge. Rather, the appropriate test is "whether the costs would increase with the addition of a customer and decrease with the subtraction of a customer."³⁰⁰ By this cost functional standard,

²⁹⁶ OSBA St. 1 at 8-9.

²⁹⁷ I&E St. 2 at 11.

²⁹⁸ *Pa. Pub. Util. Comm'n v. PPL Elec. Utils. Corp.* Docket R-2012-2290597 (Opinion and Order entered Dec. 28, 2012); *Pa. Pub. Util. Comm'n v. Aqua Pa., Inc.*, Docket No. R-00038805 (Opinion and Order entered Aug. 5, 2004) ("*Aqua 2004 Order*").

²⁹⁹ OCA St. 3 at 8; OCA St. 3SR at 3.

³⁰⁰ OCA St. 3SR at 3; *see, Pa. Pub. Util. Comm'n v. PPL Gas Utils. Corp.*, Docket No. R-00061398, 137 (Order Feb. 8, 2007); *Pa. Pub. Util. Comm'n v. PPL Elec. Util. Corp.*, 2004 Pa.P.U.C. LEXIS 40, *82-84 (2004); *Pa. Pub. Util. Comm'n v. Nat'l Fuel Gas Dist. Corp.*, 83 Pa.P.U.C. 262, 371 (1994); *Pa. Pub. Util. Comm'n*

Mr. Mierzwa disagreed with the Company's inclusion of indirect costs such as general and administrative expenses, building rental costs, and office furniture and equipment costs in customer charges.³⁰¹ The Company also improperly included \$11,800 in bad debt expense, even though these costs do not vary directly or indirectly with the addition or subtraction of a customer.³⁰²

We agree with OCA and OSBA that the percentage of T&D expenses appropriate for allocation to the customer charge as customer-related should be 15.7% and not the 30% allocator applied by Columbia Water witness Fox.³⁰³ OSBA's allocator, as based upon the ratio of Columbia Water's total meters and services plant investment to Columbia Water's Transmission and Distribution Plant in service, is better supported than the Company's position that a 30% allocator is reasonable.³⁰⁴

We recommend that the Commission adopt OCA's proposed customer charges. The Commission allows some allocation of expenses that are classically considered indirect expenses in recognition that some portion of these expenses are attributable to the cost to serve individual customers. I&E's exclusion of indirect expenses does not take this factor into account. However, we believe that the Company includes expenses that are more appropriately recovered through volumetric charges. OCA's primary customer charge recommendation is sufficiently based upon cost of service principles and consideration of other sound principles of rate design and serves to moderate the increase in fixed monthly charges for Columbia and Marietta customers. OCA's analysis allows the most reasonable level of recovery of direct and

v. Metro. Edison Co., 60 Pa.P.U.C. 349 (1985); *Pa. Pub. Util. Comm'n v. W. Penn Power Co.*, 59 Pa.P.U.C. 552 (1985); *Pa. Pub. Util. Comm'n v. W. Penn Power Co.*, 1994 Pa.P.U.C. LEXIS 144, *154 (1994).

³⁰¹ OCA St. 3SR at 3; OCA St. 3 at 8.

³⁰² OCA St. 3 at 9.

³⁰³ OCA St. 3R at 1-2.

³⁰⁴ OCA St. 3SR at 3; *see also* OSBA St.1 at 8-9; OSBA Exh. BK-1 1R (Columbia Water reply to OSBA-III-2a).

indirect costs through the fixed customer charge. Therefore, we recommend that the Commission adopt OCA's proposed methodology for calculating customer charges.³⁰⁵

D. Scaleback

To account for a lower level of revenue increase allowance, the Company's customer and volumetric rates must be scaled back. I&E recommends that the Commission scale back only the usage portion of customer rates. As explained by I&E witness Sakaya, there would be no need to scale back public fire protection 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."³⁰⁶ As a result, because the revenue being collected for public fire protection is already well below what the COSS demonstrates is required, usage rates for public fire protection would not need to be scaled back.

OCA witness Mierzwa's first recommendation is that the level of customer charge recommended by OCA "be proportionately scaled back to reflect the reduced revenue increase."³⁰⁷ Corresponding to the Commission's adoption of the OCA customer charge recommendation, Mr. Mierzwa noted that at the Company's as-filed for revenue increase, an amount of revenues would be shifted to usage-based rates on a proportional basis.³⁰⁸ At a lesser allowed revenue increase, Mr. Mierzwa explained "the customer charges and volumetric rates determined in the first step should be proportionately scaled back to account for the reduction in Columbia Water's revenue increase."³⁰⁹

³⁰⁵ The indirect costs excluded by OCA in its primary proposal are appropriate. We therefore do not recommend OCA's alternative customer charge proposal.

³⁰⁶ I&E St. 2-SR at 12-13.

³⁰⁷ OCA St. 3 at 8.

³⁰⁸ OCA St. 3R at 4.

³⁰⁹ OCA St. 3R at 5.

OSBA contends that in the event that the Commission awards Columbia Water less than its requested base rate increase of \$999,900, Mr. Kalcic recommends that the Commission scale back proportionately the dollar increases applied to each element of Columbia Division's rates under the OSBA recommended rate design. Doing so will retain the relative magnitude of the OSBA's recommended Columbia Division class increases while facilitating the consolidation of Columbia Division and Marietta Division rates at the conclusion of this case.³¹⁰

OSBA criticizes OCA's proposed scale back methodology for essentially the same reasons that it opposes OCA's proposed revenue allocation. According to OSBA, OCA's scale back proposal would assign greater than proportional rate relief to the Residential and Public classes, at the expense of the Commercial and Industrial classes.

The Company submits that if the Commission grants less than the Company's requested increase and adopts the Company's customer charges, I&E's recommendation that the Commission scale back only the usage portion of customer rates is appropriate.

We recommend that both the customer charges and volumetric rates be scaled back as proposed by OCA. This method of scale back apportions the revenue increase consistently and preserves the benefits of the recommended revenue allocation.

E. Black Box Customer Discount

In its filing, the Company implemented a Black Box Customer Discount Adjustment to reduce the Company's increase to \$999,900. According to the Company, the Black Box Customer Discount Adjustment reduces the Company's claimed level of O&M expense for the FTY such that a \$999,900 increase results in a net operating income sufficient to allow the Company to earn a fair rate of return of 8.28% for ratemaking purposes.

³¹⁰ OSBA St. No. 1, at 16.

Our adjustments to expenses result in a recommended revenue increase of \$944,893 at a rate of return of approximately 7.2% for ratemaking purposes. It is unnecessary to apply a further discount. We do not recommend that the Commission apply a Black Box Customer Discount.

XII. QUALITY OF SERVICE

In his Direct Testimony, Company witness David Lewis, President and General Manager of the Company, discussed the Company’s current quality of service and performance. As Mr. Lewis discussed, the Company “meets or exceeds all Federal and State water quality standards and requirements.”³¹¹ Moreover, the Company’s “water pressure throughout its system meets all standards.”³¹² Also, there have been no formal or informal service complaints since January 2018, and only one informal complaint in 2020 and one in 2021, both of which were evaluated by the Commission’s Bureau of Consumer Services and were not found to be justified complaints.³¹³

Additionally, Company witness Lewis testified at length about the Company’s efforts to serve the community, which included working to extend service to nearby communities where there was a strong need for public water,³¹⁴ acquiring EDTMA,³¹⁵ reducing its power consumption to benefit ratepayers and the environment,³¹⁶ focusing on water conservation by, among other things, installing water meters to monitor for water leaks and record hourly usage, deploying leak detection pods, installing a riparian buffer zone on Company property to improve

³¹¹ Columbia Water St. 1 at 8.

³¹² *Id.*

³¹³ *Id.* at 9.

³¹⁴ *Id.* at 10.

³¹⁵ *Id.* at 10– 11.

³¹⁶ *Id.* at 11.

the water quality of a nearby creek,³¹⁷ and establishing an e-billing program for its customers.³¹⁸ The Company has also completed numerous projects on its facilities and plant to undertake several additional projects during the FTY to both address aging infrastructure and reliability of its facilities.³¹⁹ According to Mr. Lewis, the Company has demonstrated exemplary performance over the past several years in improving its service, responding to its customer’s needs and providing outstanding, quality service to its customers at just and reasonable rates.

OCA made several recommendations regarding the Company’s operation of its systems and practices in this proceeding. OCA, by way of its expert witness, Terry Fought, recommended that the Company: (1) (a) exercise critical valves on a one to three-year schedule; (b) exercise non-critical valves on a seven to ten-year schedule and (c) maintain useful records of when each valve was exercised; (2) provide more detailed information when compiling a complaint log; and (3) contact a customer regarding an informal complaint and provide certain information.³²⁰

A. Isolation Valves

In the Company’s last base rate proceeding, the Company agreed to do annual reporting regarding the Company’s present isolation valve exercising³²¹ which includes critical valve exercising per the Commission’s 2014 Management Audit at Docket No. D-2014-2405415.³²² The Company routinely exercised system isolation valves, including critical valves, exercising 136 valves (135 critical valves) in 2018, 342 valves (126 critical valves) in 2019, 456

³¹⁷ *Id.*

³¹⁸ *Id.* at 12.

³¹⁹ Columbia Water St. 1 at 14– 18.

³²⁰ OCA St. 4 at 6, 8.

³²¹ “Isolation valves are installed on water mains so that the water can be shut off in sections of the distribution system in case of a water main break or for main repairs and replacements. Isolation valves are also used to isolate unsafe water and to separate different pressure zones.” OCA St. 4 at 2– 3.

³²² Columbia Water St. 1 at 9; *see also Pa. Pub. Util. Comm’n v. Columbia Water Co.*, Docket No. R-2017-2598203 (Opinion and Order entered Mar. 1, 2018).

valves (131 critical valves) in 2020, 356 valves (135 critical valves) in 2021, and 497 valves (150 critical valves) in 2022.³²³

Columbia Water's system has 3,481 valves.³²⁴ Columbia Water has exercised all of its 150 critical isolation valves and 1,530 non-critical valves within the past five years.³²⁵ The Company has 1,425 non-critical valves that it has not exercised within the past five years. Out of those 1,425 valves, if the Company's records show that any isolation valves have not been exercised within the past ten years, Mr. Fought recommended that subset of the 1,425 valves should be exercised within the next five years.³²⁶ According to Mr. Fought, this would put the Company on track to exercise all of its non-critical isolation valves on a seven to ten-year cycle going forward.³²⁷

The Company opposes Mr. Fought's "aggressive" isolation valve exercise schedule. According to Mr. Lewis, OCA's proposal would render, at most, marginal benefits:

[v]alves are designed and manufactured to stay open for decades and still be able to close when needed; by design, frequent valve exercising is not necessary. The valves in Columbia Water's system are gate valves, robust pieces of equipment specifically designed to remain open for long periods of time. 99.9% of all gate valves remain open and are designed to do so. The normal operating condition of a gate valve is the open position. Manufacturers know that gate valves will remain open for decades at a time and thus gate valves are designed with resilient seats. Of all the valves that the Company has exercised, it is very rare to find a gate valve that does not operate at all. In fact, we

³²³ Columbia Water St. 1 at 9. *See* Annual Reports filed at Docket No. R-2017-2598203.

³²⁴ Columbia Water St. 1R at 5.

³²⁵ *Id.* at 8.

³²⁶ OCA St. 4 at 6-7; OCA St. 4SR at 4.

³²⁷ OCA St. 4 at 3-4.

have found less than five valves with such issue in the past 10 years of exercising thousands of valves.^[328]

Furthermore, the Company argues, there are some valves in the Company's system that should not be exercised for it could have a detrimental effect on the Company's system, such as in-line valves which are to remain closed to keep the Company's pressure zones separate.³²⁹ In other words, there will always be a number of valves that show up as "not exercised" since they cannot, indeed should not, be exercised by the Company, for the reasons discussed above. The Company's superior knowledge of its system and its managerial discretion should not be disturbed here.

Lastly, the Company disagrees with Mr. Fought's belief that its records for maintaining the locational data and the dates of exercising its valves are inconvenient. Contrary to OCA witness Fought's claims, this ArcGIS data contains detailed information on each one of its valves, such as the specific date it was inspected and their location.³³⁰ The information was provided to OCA in a Google Earth file following the standard protocol for providing ArcGIS information to an entity that does not have access to ArcGIS.

The Company has been complying with its isolation valve exercising requirements from the Commission's Order in the 2017 proceeding, starting that process approximately six years ago and is on pace to exercise the remaining non-critical exercise valves over the next four years.³³¹ However, any such requirement must not be given priority over other maintenance and operation work given its limited number of employees and system needs.³³² Thus, while the Company will endeavor to exercise the remaining 1,425 valves over the next five years, and can agree to report on its efforts, the Company does not agree to a strict standard of

³²⁸ Columbia Water St. 1-R at 6.

³²⁹ Columbia Water St. 1-R at 6– 7.

³³⁰ *Id.* at 8– 9.

³³¹ *Columbia Water 2017*, at 13; *see also* Columbia Water St. 1-RJ at 6.

³³² Columbia Water St. 1-RJ at 6.

exercising all its non-critical valves on a ten-year cycle without provision of additional funding to hire additional employees and obtain additional equipment – neither of which OCA provided for in their recommended imposition of these new and unnecessary undertakings.³³³

We do not recommend that the Commission adopt OCA's recommendations regarding the exercise of isolation valves. The Company has demonstrated compliance with its requirements set forth in the previous settlement, has already exercised all critical isolation valves over the past five years and is on pace to exercise the remaining 1,425 non-critical isolation valves over the next five years. The Company's existing records for its isolation valves provide the necessary data and are appropriate for the Company's purposes.

The Company has agreed to continue to report on its efforts.³³⁴ The Commission and other interested parties can evaluate whether continued monitoring, oversight, or direction is necessary or appropriate. This recommendation is consistent with the Commission's recent decision in an Aqua Pennsylvania, Inc. rate case proceeding, where the Commission rejected OCA's proposed five-year inspection cycle for non-critical isolation valves. However, the Commission also directed Aqua Pennsylvania, Inc. to develop and implement a more formal isolation valve inspection and exercise program and schedule.³³⁵

B. Complaint Log

In his direct testimony, Mr. Fought stated that the Company provided a one-page complaint log that, although not submitted in an Excel format, was adequate for reviewing because of the small number of recorded complaints.³³⁶ However, Mr. Fought then recommended that to “comply with the requirements of 52 Pa. Code § 65.3, the Company should

³³³ *Id.*

³³⁴ Columbia Water St. 1-RJ at 6.

³³⁵ *Pa. Pub. Util. Comm'n v. Aqua Pennsylvania, Inc.*, Docket No. R-2021-3027385 (Opinion and Order entered May 16, 2022) at Pages 358-359.

³³⁶ OCA St. 4 at 7.

provide future complaint logs in an Excel format with more details about the character and final disposition of the complaints and if the complainant was satisfied.”³³⁷

Mr. Fought’s recommendation should not be adopted. Section 65.3(b) of the Commission’s regulations states:

(b) *Records of complaints.* A public utility shall preserve for a period of at least 5 years, written service complaints showing the name and address of the complainant, the date and character of the complaint and the final disposition of the complaint.^[338]

The Company complied with this regulation as it supplied the information in writing to OCA as part of discovery. The regulation does not specify a format or require that it be in Excel format.³³⁹ Moreover, contrary to the claims of OCA witness Fought, the regulation does not require the Company to provide “other details” or state whether the complaint was satisfied. Mr. Fought also acknowledged that the log was adequate for reviewing.³⁴⁰ For these reasons, OCA’s recommendation should be denied.

C. Customer Complaint

In his direct testimony, OCA witness Fought, stated that “OCA is aware that a customer on Blue Bell Drive, Mountville, PA is concerned about the water taste and says that high chlorine content eats away house piping” and that the Company “should contact the customer to offer to test the water and investigate the complaint” and “should report on its actions and disposition of the complaint.”³⁴¹

³³⁷ OCA St. 4 at 8.

³³⁸ 52 Pa. Code § 65.3(b).

³³⁹ Columbia Water St. 1-R at 9.

³⁴⁰ OCA St. 4 at 7.

³⁴¹ OCA St. 4 at 8.

Company witness Lewis explained the Company's process for preserving the quality of its water:

Columbia Water is required to maintain specific minimum and maximum chlorination levels in its water. The Company tests for and reports these values weekly. The data the Company provided to OCA concerning testing shows the Company has not violated those limits. The Company must abide by regulatory chlorine requirements, not adjust chlorination levels to any one specific customer's tastes thereby putting other customers in danger from water that is not properly chlorinated. Moreover, as I'm certain Mr. Fought knows, chlorine does not "corrode pipes." Much like chlorine monitoring and reporting, the Company must and does test for corrosiveness and comply with related water quality standards. The records the Company provided to OCA shows it has not violated any water quality standards related to corrosion.^[342]

Moreover, the Company was ultimately able to reach out to the customer and resolved the complaint, as Company witness Lewis testified:

[y]es. Columbia Water contacted this customer on August 23, 2023 and left a message. The customer returned the Company's call and the Company arranged to meet with the customer at his home today, August 25, 2023.

At the meeting, the Company discussed with the customer his concerns. The customer was specifically concerned that the smell of chlorine seemed strong in his opinion. The Company took water samples at his home and the results are all within acceptable and required levels. These sampling results were sent to the customer today. While the customer did not complain at the meeting about corrosivity allegations, the Company tested his water for these issues, which also came back within allowable and required limits. The Company also explained to the customer that based on his statement that he had a sensitive sense of smell, that was likely why he could smell the chlorine. The Company now considers this customer's complaint

³⁴² Columbia Water St. 1-R at 10– 11 *see also* Exhibit DTL 4-R.

resolved, and will follow up with the customer if he has any additional questions concerning the testing results.^[343]

The Company has addressed the concerns of OCA witness Fought in a reasonable manner.

D. Recommendation

The Company has demonstrated that it has offered excellent quality of service in this proceeding. The Company provided OCA with its customer complaint log, access to its facilities for a site visit, and confirmed that it has not had any formal consumer complaints since its last base rate proceeding.³⁴⁴ Moreover, no customer testified or complained at the Public Input Hearings and the Company has reasonably addressed the concern of a consumer in this proceeding. There is no evidence to suggest that that Columbia Water is not adequately maintaining an appropriate level of service for the purpose of approving an increase in revenue.

XIII. CONCLUSIONS OF LAW

1. The Commission has jurisdiction over the parties and subject matter in this proceeding. 66 Pa.C.S. §§ 501, 1301, 1308(d).

2. Every rate made, demanded, or received by any public utility, or by any two or more public utilities jointly, shall be just and reasonable, and in conformity with regulations or orders of the commission. 66 Pa.C.S. § 1301.

3. “No public utility shall ... make or grant any unreasonable preference to any person, corporation ... No public utility shall establish or maintain any unreasonable difference as to rates, either as between localities or as between classes of service.” 66 Pa.C.S. § 1304.

³⁴³ Columbia Water St. 1-RJ at 7.

³⁴⁴ Columbia Water St. 1-R at 11.

4. The burden of proving the justness and reasonableness of every element of the utility's rate increase rests solely upon the public utility. 66 Pa.C.S. § 315(a); *Lower Frederick Twp. v. Pa. Pub. Util. Comm'n*, 409 A.2d 505 (Pa. Cmwlth. Ct. 1980).

5. While the burden of proof remains with the public utility throughout the rate proceeding, the Commission has stated that where a party proposes an adjustment to a ratemaking claim of a utility, the proposing party bears the burden of presenting some evidence or analysis tending to demonstrate the reasonableness of the adjustment. *Pa. Pub. Util. Comm'n v. Aqua Pa., Inc.*, Docket No. R-00072711 (Opinion and Order entered July 17, 2008).

6. The Commission must consider the efficiency, effectiveness and adequacy of service of each utility when determining just and reasonable rates in exchange for customers paying rates for service, which include the cost of utility plant in service and a rate of return. 66 Pa.C.S. § 523.

7. The Commission has the discretionary authority to deny a proposed rate increase, in whole or in part, if the Commission finds that the service rendered by the public utility is inadequate. 66 Pa.C.S. § 526(a); *Pa. Pub. Util. Comm'n v. Columbia Gas of Pa. Inc.*, Docket No. R-2020-3018835 (Opinion and Order entered February 19, 2021).

8. A Commission decision is adequate where, on each of the issues raised, the Commission was merely presented with a choice of actions, each fully developed in the record, and its choice on each issue amounted to an implicit acceptance of one party's thesis and rejection of the other party's contention. *Popowsky v. Pa. Pub. Util. Comm'n*, 706 A.2d 1197 (Pa. 1997).

9. A utility is entitled to recover its reasonably incurred expenses. *UGI Utils. Corp. v. Pa. Pub. Util. Comm'n*, 410 A.2d 923 (Pa. Cmwlth. 1980). Expenses include such items as the cost of operations and maintenance (labor, fuel and administrative costs, e.g.), depreciation and taxes. *Pa. Power Co. v. Pa. Pub. Util. Comm'n*, 561 A.2d 43 (Pa. Cmwlth. 1989).

10. The rate of 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 raise the money necessary for the proper discharge of public duties. *Bluefield Waterworks & Improvement Co. v. Pub. Serv. Comm'n of W.V.*, 262 U.S. 679 (1923).

11. Establishment of a rate structure is an administrative function peculiarly within the expertise of the Commission. *Emporium Water Co. v. Pa. Pub. Util. Comm'n*, 955 A.2d 456 (Pa. Cmwlth. 2008); *City of Lancaster v. Pa. Pub. Util. Comm'n*, 769 A.2d 567 (Pa. Cmwlth. 2001). The question of reasonableness of rates and the difference between rates in their respective classes is an administrative question for the Commission to decide. *Pa. Power & Light Co. v. Pa. Pub. Util. Comm'n*, 516 A.2d 426 (Pa. Cmwlth. 1986); *Park Towne v. Pa. Pub. Util. Comm'n*, 433 A.2d 610 (Pa. Cmwlth. 1981).

12. The basic factor in allocating revenue is to have the rates reflect the cost of service. *Lloyd v. Pa. Pub. Util. Comm'n*, 904 A.2d 1010 (Pa. Cmwlth. 2006).

XIV. ORDER

THEREFORE,

IT IS RECOMMENDED:

1. That Columbia Water Company shall not place into effect the rules, rates and regulations contained in proposed Supplement No. 121 to Tariff Water – PA. P.U.C. No. 7 as filed.

2. That Columbia Water Company be authorized to file tariffs, tariff supplements and/or tariff revisions, on at least one day's notice, and pursuant to the provisions of 52 Pa. Code §§ 53.1, et seq., and 53.101, designed to produce an annual operating revenue of

approximately \$944,893 and consistent with the Commission's Opinion and Order to become effective for service rendered on and after January 27, 2024.

3. That Columbia Water Company shall file detailed calculations with its water tariff filings, which shall demonstrate to this Commission's satisfaction that the filed rates comply with the proof of revenues, in the form and manner customarily filed in support of compliance tariffs and pursuant to 52 Pa. Code § 5.592.

4. That Columbia Water Company shall allocate the authorized increase in operating revenue to each service, rate schedule, and customer class within each rate schedule, in the manner prescribed in the Commission's Opinion and Order in this matter.

5. That Columbia Water Company shall continue to report on its progress exercising isolation valves as an attachment to its annual report. This requirement shall continue until the Columbia Water Company provides a verified statement with a general rate increase filing that it has exercised all remaining isolation valves, including East Donegal Township Municipal Authority water system valves, at least once, other than valves that cannot be exercised in a manner that ensures adequate service.

6. That Columbia Water shall comply with all directives, inclusions and recommendations contained in the instant Opinion and Order, whether or not the subject of individual ordering paragraphs, as fully as if they were the subject of specific ordering paragraphs.

7. That the complaints filed against the proposed rate increase by the Office of Consumer Advocate (at Docket No. C-2023-3040746), the Office of Small Business Advocate (at Docket No. C-2023-3040567), are sustained in part and dismissed in part and shall be marked closed.

8. That the Formal Complaints of Mr. Vincent Collier III (at Docket No. C-2023-3041198), and by Ms. Sandra Shaub (at Docket No. C-2023-3041197) are dismissed.

9. That the inquiry and investigation of the Pennsylvania Public Utility Commission at Docket No. R-2023-3040258 be terminated and marked closed.

Date: October 23, 2023

_____/s/
Mary D. Long
Administrative Law Judge

_____/s/
Charece Z. Collins
Administrative Law Judge

XV. APPENDIX

TABLE I
Columbia Water Company
INCOME SUMMARY
R-2023-3040258

	Pro Forma Present Rates (1)	Company Adjustments (1)	Pro Forma Present Rates (Revised) (1)	ALJ Adjustments	ALJ Pro Forma Present Rates	ALJ Revenue Increase	Total Allowable Revenues
	\$	\$	\$	\$	\$	\$	\$
Operating Revenue	7,244,926	0	7,244,926	0	7,244,926	944,893	8,189,819
Expenses:							
O & M Expense	4,079,604	0	4,079,604	(124,112)	3,955,492	1,323	3,956,815
Depreciation	1,174,375	0	1,174,375	0	1,174,375	0	1,174,375
Taxes, Other	240,832	0	240,832	0	240,832	6,211	247,043
Income Taxes:							
State	58,409	0	58,409	11,175	69,584	84,269	153,853
Federal	0	0	0	0	0	0	0
Pennvest Expense	1,308,122	0	1,308,122	0	1,308,122	0	1,308,122
Total Expenses	6,861,342	0	6,861,342	(112,937)	6,748,405	91,803	6,840,208
Net Inc. Available for Return	383,584	0	383,584	(112,937)	496,521	853,090	1,349,612
Rate Base	18,750,106	0	18,750,106	(15,285)	18,734,821		18,734,821
Rate of Return	2.05%		2.05%				7.20376000%

Notes and Sources:

(1) Company Main Brief

TABLE I(A)
Columbia Water Company
RATE OF RETURN
R-2023-3040258

	<u>Structure</u>	<u>Cost</u>	<u>After-Tax Weighted Cost</u>	<u>Effective Tax Rate Complement</u>	<u>Pre-Tax Weighted Cost Rate</u>
Total Cost of Debt			1.15479000%		
Long-term Debt	36.66%	3.15%	1.15479000%		1.15%
Short-term Debt	0.00%	0.00%	0.00000000%		
Preferred Stock	0.00%	0.00%	0.00000000%	0.910100	0.00%
Common Equity (1)	<u>63.34%</u>	9.55%	<u>6.04897000%</u>	0.910100	<u>6.65%</u>
	<u>100.00%</u>		<u>7.20376000%</u>		<u>7.80%</u>
Pre-Tax Interest Coverage	6.76				
After-Tax Interest Coverage	6.24				

Notes and Sources:

TABLE I(B)
Columbia Water Company
REVENUE FACTOR
R-2023-3040258

100%	<u>1.00000000</u>
Less:	
Uncollectible Accounts Factor (1)	0.00140045
PUC, OCA, OSBA, DPC Assessment Factors (1)	0.00657336
Gross Receipts Tax	0.00000000
Other Tax Factors	<u>0.00000000</u>
	0.99202619
State Income Tax Rate (1)	<u>0.08990000</u>
Effective State Income Tax Rate	<u>0.08918315</u>
Factor After Local and State Taxes	0.90284304
Federal Income Tax Rate (1)	<u>0.00000000</u>
Effective Federal Income Tax Rate	<u>0.00000000</u>
Revenue Factor (100% - Effective Tax Rates)	<u><u>0.90284304</u></u>

Notes and Sources:

(1) Company Main Brief

TABLE II
Columbia Water Company
SUMMARY OF ADJUSTMENTS
R-2023-3040258

<u>Adjustments</u>	<u>Rate Base</u>	<u>Revenues</u>	<u>Expenses</u>	<u>Depreciation</u>	<u>Taxes-Other</u>	<u>State Income Tax</u>	<u>Federal Income Tax</u>
	\$	\$	\$	\$	\$	\$	\$
RATE BASE:							
CWC:							
Int. & Div. (Table IV)	0						
Taxes (Table V)	0						
O & M (Table VI)	(15,285)						
REVENUES:							
		0				0	0
EXPENSES:							
Rate Case Expense (1)			(52,311)			4,703	0
Materials and Supplies - Going-Level (2)			(14,400)			1,295	0
Office Expenses (3)			(3,466)			312	0
EDTMA Expenses (4)			(53,936)			4,849	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
TAXES:							
Interest Synchronization (Table III)						16	0
TOTALS	<u>(15,285)</u>	<u>0</u>	<u>(124,112)</u>	<u>0</u>	<u>0</u>	<u>11,175</u>	<u>0</u>

Notes and Sources: _____

TABLE III
Columbia Water Company
INTEREST SYNCHRONIZATION
R-2023-3040258

	Amount \$
Company Rate Base Claim	18,750,106
ALJ Rate Base Adjustments	<u>(15,285)</u>
ALJ Rate Base	18,734,821
Weighted Cost of Debt	<u>1.15479000%</u>
ALJ Interest Expense - Rate Base	216,348
ALJ Interest Expense - PENNVEST Loan 80180 (2)	366,363
ALJ Interest Expense - PENNVEST Loan 85182 (3)	64,064
Company Adjustment (4)	<u>42,013</u>
ALJ Interest Expense - Total	688,788
Company Claim (1)	<u>688,965</u>
Net ALJ Interest Adjustment	177
State Income Tax Rate	<u>8.99%</u>
State Income Tax Adjustment	<u>16</u>
Net ALJ Interest Adjustment	177
State Income Tax Adjustment	<u>16</u>
Net ALJ Adjustment for F.I.T.	161
Federal Income Tax Rate	<u>0.00%</u>
Federal Income Tax Adjustment	<u><u>0</u></u>

Notes and Sources:

(1) Company Main Brief

(2) See Docket R-2022-3036936, Appendix A - Loan 80180 Amortization Schedule and

TABLE IV
Columbia Water Company
CASH WORKING CAPITAL - Interest and Dividends
R-2023-3040258

Accrued Interest			Preferred Stock Dividends		
	Long-Term Debt	Short-Term Debt			
Company Rate Base Claim	\$18,750,106	\$18,750,106	Company Rate Base Claim	\$18,750,106	
ALJ Rate Base Adjustments	<u>(\$15,285)</u>	<u>(\$15,285)</u>	ALJ Rate Base Adjustments	<u>(\$15,285)</u>	
ALJ Rate Base	\$18,734,821	\$18,734,821	ALJ Rate Base	\$18,734,821	
Weighted Cost of Debt	<u>1.15479000%</u>	<u>0.00%</u>	Weighted Cost Pref. Stock	<u>0.00000000%</u>	
ALJ Annual Interest Exp.	<u>\$216,348</u>	<u>\$0</u>	ALJ Preferred Dividends	<u>\$0</u>	
Average Revenue Lag Days (2)	90.0	90.0	Average Revenue Lag Days (2)	90.0	
Average Expense Lag Days	<u>45.0</u>	<u>0.0</u>	Average Expense Lag Days	<u>0.0</u>	
Net Lag Days	<u>45.0</u>	<u>90.0</u>	Net Lag Days	<u>90.0</u>	
Working Capital Adjustment					
ALJ Daily Interest Exp.	\$593	\$0	ALJ Daily Dividends	\$0	
Net Lag Days	<u>45.0</u>	<u>90.0</u>	Net Lag Days	<u>90.0</u>	
ALJ Working Capital (3)	\$0	\$0		\$0	
Company Claim (1)	<u>\$0</u>	<u>\$0</u>	Company Claim (1)	<u>\$0</u>	
ALJ Adjustment	<u>\$0</u>	<u>\$0</u>		<u>\$0</u>	
Total Interest & Dividend Adj.	<u>\$0</u>				

Notes and Sources:

(1) Company Main Brief.

(2) The 45-day method assumes that Net Lag Days equals 45. Since the Company claims Average Expense Lag Days is 45, Average Revenue Lag Days must be 90 for Net Lag Days to be 45.

(3) No cash working capital adjustment is made for accrued interest since the Company did not claim cash working capital for accrued interest.

TABLE V
Columbia Water Company
CASH WORKING CAPITAL -TAXES
R-2023-3040258

Description	Company Proforma Tax Expense Present Rates	ALJ Adjustments	ALJ Pro forma Tax Expense Present Rates	ALJ Allowance	ALJ Adjusted Taxes at Present Rates	Daily Expense	Net (Lead)/Lag Days (1)	Accrued Tax Adjustment
PUC Assessment	\$47,624	\$0	\$47,624	\$6,211	\$53,835	\$147.49	0.00	\$0
Public Utility Realty	\$73,910	\$0	\$73,910		\$73,910	\$202.49	0.00	\$0
Capital Stock Tax	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
State Income Tax	\$58,409	\$11,175	\$69,584	\$84,269	\$153,853	\$421.52	0.00	\$0
Federal Income Tax	\$0	\$0	\$0	\$0	\$0	\$0.00	0.00	\$0
Totals	\$179,943	\$11,175	\$191,118	\$90,480	\$281,598	\$771.50	0.00	\$0
						ALJ Allowance		0
						Company Claim (1)		0
						ALJ Adjustment		0

Notes and Sources:
(1) Company Main Brief

TABLE VI
Columbia Water Company
CASH WORKING CAPITAL -- O & M EXPENSE
R-2023-3040258

Description	Company Pro forma F.T.Y. Expense	ALJ Adjustments	ALJ Pro forma Expenses	(Lead)/ Lag Days	Lag Dollars
O&M (2)	\$4,079,604	(\$124,112)	\$3,955,492	45.00	\$177,997,129
Less: Uncollectibles	<u>(\$11,800)</u>	<u>\$0</u>	<u>(\$11,800)</u>	<u>45.00</u>	<u>(\$531,000)</u>
Totals	<u>\$4,067,804</u>	<u>(\$124,112)</u>	<u>\$3,943,692</u>	<u>45.00</u>	<u>\$177,466,129</u>
ALJ Average Revenue Lag (3)	90.0				
Less: ALJ Avg. Expense Lag	<u>45.0</u>				
Net Difference	45.0	Days			
ALJ Pro forma O & M Expense per Day	<u>\$10,805</u>				
ALJ CWC for O & M	\$486,225				
Less: Company Claim (1)	<u>\$501,510</u>				
ALJ Adjustment	<u>(\$15,285)</u>				

Notes and Sources:

(1) Company Main Brief, changed to a positive value to reflect that the Company's claim increases rate base.

(2) See Table II, Notes 1 - 4.

(3) See Table IV, Note 2.