STATE OF CONNECTICUT

PUBLIC UTILITIES REGULATORY AUTHORITY
TEN FRANKLIN SQUARE
NEW BRITAIN, CT 06051

DOCKET NO. 23-08-32 **APPLICATION OF CONNECTICUT WATER COMPANY TO AMEND ITS RATE SCHEDULE**

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DECISION

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DECISION

I. INTRODUCTION

A. Summary

The Public Utilities Regulatory Authority (Authority or PURA) approves an annual revenue requirement for the Connecticut Water Company (CWC or Company) of $124,700,031 for the rate year, July 1, 2024 – June 30, 2025 (Rate Year). The Company may recover an additional $1,115,803 in executive compensation provided the Company achieves certain performance targets. The revenue requirement includes an allowed return on equity of 9.30%.

The Company had proposed an 18.4% increase ($21,755,828) in its currently authorized revenues of $118,245,047 for a total revenue of $140,000,875. The Company's proposal included a 10.50% return on equity, which is a 17% increase from the currently allowed 9.00% return on equity.

In addition to determining the revenue requirement, the Authority makes findings on myriad issues, including cost allocation and customer service.

B. Background of the Proceeding

CWC is a public service company within the meaning of General Statutes § 16-1. CWC is a subsidiary of Connecticut Water Service, Inc. (CTWS), which is a subsidiary of SJWNE LLC, which in turn is a subsidiary of SJW Group (SJWG). Patla Prefiled Test., Oct. 3, 2023, Ex. A.1, pp. 2, 5; Interrog. Resp. RRU-44. The Company currently provides water service to over 107,000 customers in 60 towns and cities in Connecticut and 3,000 wastewater customers in Southbury, Connecticut. Patla PFT, Ex. A.1, p. 4.

CWC previously increased its base rates in 2021, in Docket No. 20-12-30. Decision, July 28, 2021, Docket No. 20-12-30, Application of the Connecticut Water Company to Amend its Rate Schedules (July 2021 CWC Rate Case Decision); Decision, Nov. 17, 2021, Docket No. 20-12-30, Application of the Connecticut Water Company to Amend its Rate Schedules (Nov. 2021 CWC Rate Case Decision) (increasing base rates after granting CWC's motion for reconsideration, regarding adjustment to CWC's EADIT and the equivalent reduction allowed in rate base).

Since the filing of its application in Docket No. 20-12-30, CWC has acquired Miami Beach Water System in Old Lyme, Connecticut. Interrog. Resp. RRU-67.

On August 31, 2022, CWC submitted formal notice of its intent to file an application to amend its existing rate schedules.

C. Conduct of the Proceeding

On October 3, 2023, CWC filed an application to amend its existing rate schedules (Application) pursuant to General Statutes §§ 16-19 and 16-19e, Conn. Agencies Regs. §§ 16-1-46 and 16-1-53 *et seq.*, and the Standard Filing Requirements (SFRs).

The Authority held a noticed scheduling conference on October 13, 2023, via teleconference.

The Authority conducted a noticed revenue audit on October 27, 2023, via remote access, and a noticed audit of the books and records of the Company on October 31 and November 1, 2023, at the Company's offices, 93 West Main Street, Clinton, Connecticut.

The Authority held two noticed in-person public comment hearings; the first on November 1, 2023, at the Hall Memorial Library in Ellington, Connecticut, and the second on November 27, 2023, at the Jonathan Trumbull Library in Lebanon, Connecticut. The Authority also held a noticed virtual public comment hearing on December 14, 2023.

The Authority held noticed evidentiary hearings on January 23, 24, 25, 26, 29, 30, and 31, 2024, at PURA's offices, Ten Franklin Square, New Britain, Connecticut.

The Authority held a late filed exhibits hearing on February 8, 2024, at PURA's offices.

Parties had the opportunity to file briefs on or before March 11, 2024, and reply briefs on or before March 21, 2024.

The Authority issued a proposed final decision in this matter on May 29, 2024, and provided an opportunity for the parties and intervenors to file written exceptions and to present oral argument. The Authority heard oral argument on June 13, 2024, at PURA's Offices.[1]

D. Parties and Intervenors

The Authority recognized the following as parties to this proceeding: CWC, 93 West Main Street, Clinton, CT 06477; the Office of Consumer Counsel, Ten Franklin Square, New Britain, CT 06051; the Commissioner of the Department of Energy and Environmental Protection, 79 Elm Street, Hartford, CT 06106; and the Authority's Office of Education, Outreach, and Enforcement, Ten Franklin Square, New Britain, CT 06051.

The Authority designated the Connecticut Office of the Attorney General and Heritage Village Master Association, Inc., as intervenors to this proceeding.

E. Positions of Parties and Intervenors

CWC seeks a revenue requirement increase of $21,755,828, representing an 18.4% revenue increase. Late Filed Ex. 1, Ex. 1, Sch. A-1.0. Embedded in the Company's request is a proposed 10.5% return on equity (ROE). CWC Brief, p. 35.

The Authority's Office of Education, Outreach, and Enforcement (EOE)[2] actively participated in this proceeding, issuing nearly 250 interrogatories, providing expert

[1] A majority of the Commissioners heard the matter and/or read the record of the proceeding; therefore, although the Authority provided the opportunity for written exceptions and oral argument, it was not required to do so. See General Statutes § 4-179(a).

[2] Pursuant to General Statutes § 16-19j(b), the Authority appointed EOE as a party to this proceeding.

testimony, conducting cross examination during the evidentiary and late filed exhibit hearings, and filing a brief. EOE recommends that the Authority reject several portions of CWC's requested revenue requirement increase. EOE Brief, p. 1. EOE recommends that the Authority allow CWC an ROE of 8.09%, which represents the midpoint of a recommended range of 7.94% and 8.24%, as recommended by Aaron Rothschild, EOE's witness. Id.

The Office of Consumer Counsel (OCC) also actively participated in this proceeding, issuing nearly 400 interrogatories, providing expert testimony, conducting cross examination during the evidentiary and late filed exhibit hearings, and filing a brief. OCC recommends that the Authority reject CWC's requested revenue requirement increase and instead approve a revenue requirement increase of approximately $2.754 million. OCC Brief, p. 3. OCC proposes that the Authority allow CWC an ROE no greater than 9.00%, as recommended by J. Randall Woolridge, Ph.D., OCC's witness. Id.

The Department of Energy and Environmental Protection (DEEP) actively participated in this proceeding as well, by conducting cross examination during the evidentiary hearing and filing a brief. DEEP did not take a position on some issues presented in the Company's Application, including the Company's proposed revenue requirement and ROE, but made recommendations on various other topics, including the Company's proposed three-tier inclining block rate design structure, streamflow gauge funding, and reducing non-revenue water and leaks. DEEP Brief, pp. 1-2.

The Office of the Attorney General (OAG) participated in this proceeding by filing a brief. The OAG recommends that the Authority reject the bulk of the Company's requested revenue requirement increase. OAG Brief, p. 1. Further, the OAG supports an ROE between 8.09% and 9.125%. Id., p. 5.

The Heritage Village Master Association, Inc. (HVMA) also actively participated in this proceeding, issuing nearly 30 interrogatories, conducting cross examination during the evidentiary and late filed exhibit hearings, and filing a brief. The HVMA recommends that the Authority reject the Company's request to increase its revenue requirement. HVMA Brief, p. 3. Furthermore, the HVMA makes various other recommendations to the Authority specific to HVMA's constituents. Id.

F. Public Comment

The Authority held three public comment hearings, two in person and one virtually. On November 1, 2023, twenty-four people attended the public comment hearing at the Hall Memorial Library in Ellington, Connecticut; on November 27, 2023, 17 people attended the public comment hearing at the Jonathan Trumbull Library in Lebanon, Connecticut; and on December 14, 2023, approximately 34 people attended the remote public comment hearing. At the start of each public comment hearing, and prior to the admission of any public comment, CWC presented an explanation of its request, using a PowerPoint presentation.

Through the close of the evidentiary record, the Authority received 164 oral and written comments from entities; 22 people provided oral comments during the public comment hearings and 142 written comments were submitted. Of those who submitted

written comments, four were elected officials, three were organizations, one was a municipality, and the remainder were individual customers. The American Association of Retired Persons (ARP) also filed a petition in opposition to the Application, which was signed by 1,341 of its members. AARP Corresp., Dec. 19, 2023.

Most of the oral and written comments were in opposition to the Application; with the most common reasons being the requested increase was greater than the current inflation rate, the impacts of the proposed revenue requirement increase on fixed income households, particularly elderly customers, and the impacts of the proposed increase on low-and middle-income households. See, e.g., Gerber Corresp., Nov. 1, 2023; Flaherty Corresp., Jan. 19, 2024; Public Hr'g Tr., Nov. 1, 2023, 50:3-25, 51:1-19; Public Hr'g Tr., Dec. 14, 2023, 14:22-25, 15:1-25, 16:1-22.

The Authority also received comments that praised CWC employees' responsiveness both to municipalities and its residents. Public Hr'g Tr., Nov. 1, 2023, 19:15-18. The Company also received praise for its environmental and conservation efforts, particularly from the Pomperaug Watershed Coalition (PRWC). PRWC Corresp., Dec. 13, 2023.

II. STANDARD OF REVIEW

The Authority is statutorily charged with regulating the rates of Connecticut's public service companies. General Statutes § 16-19. The term "public service company" is defined by General Statutes § 16-1 to include water companies, such as CWC. Consequently, CWC must "file any proposed amendment of its existing rates with the [A]uthority in such form and in accordance with such reasonable regulations as the [A]uthority may prescribe." General Statutes § 16-19(a).[3] Once a proposed rate amendment has been filed, the Authority is responsible for making "such investigation of such proposed amendment of rates as is necessary to determine whether such rates conform to the principles and guidelines" in General Statutes § 16-19e, and the Authority must investigate whether the rates "are unreasonably discriminatory or more or less than just, reasonable and adequate, or that the service furnished by such company is inadequate to or in excess of public necessity and convenience . . . ." General Statutes § 16-19(a).

Importantly, the public service company bears "the burden of proving the proposed rate under consideration is just and reasonable." General Statutes § 16-22. In placing the burden on the company in rate cases, the General Assembly has attempted to remedy a critical challenge in setting rates — asymmetric access to information. The utility maintains most of the relevant and critical information necessary for the Authority to make findings of fact and associated determinations on rates. Therefore, the Authority and other parties are at an information disadvantage compared to the utility and must rely on the utility's application materials, the utility's responses to interrogatories, and the utility's witness testimony. Accordingly, the burden of proof established by General Statutes § 16-22 addresses the information imbalance by imposing an affirmative obligation on the utility to present sufficient evidence to support its proposed rate amendment.

[3] Conn. Agencies Regs. §§ 16-1-53 *et seq.* apply to rate amendment applications.

In administrative proceedings, which are subject to the provisions of the Uniform Administrative Procedures Act (UAPA), General Statutes § 4-166 *et seq.*, the appropriate standard of proof is the preponderance of the evidence. See Jones v. Connecticut Medical Examining Board, 309 Conn. 727, 734-35, 741 n.7 (2013) ("default rule is the preponderance of the evidence standard in the absence of legislation to the contrary"); Goldstar Medical Services, Inc. v. Dept. of Social Services, 288 Conn. 790, 821 (2008) (same). "That burden of proof is met when [the company] shows the facts supporting [its] case are found to be more probable than not." Connecticut Light & Power Co. v. Connecticut Dept. of Public Utility Control, No. CV094019951S, 2010 WL 797137, at *10 (Conn. Super. Ct. Feb. 5, 2010) (citing Tianti v. William Raveis Real Estate, Inc., 231 Conn. 690, 702 (1995)). Consequently, to carry its statutory burden, the utility must provide (or ensure the record contains) evidence that, inter alia, the requested rates are consistent with the principles that rates be "sufficient, but no more than sufficient," General Statutes § 16-19e(a)(4), and "reflect prudent and efficient management." General Statutes § 16-19e(a)(5).

Notably, the utility bears the burden of providing more than mere declarations of fact. Connecticut Natural Gas Corp. v. Public Utilities Commission, 29 Conn. Supp. 379, 394 (1971) (finding "no sacrosanctity about the testimony of any company officer regardless of his position which gives such testimony any godlike fiat that must be accepted out of hand" by the Authority). "Bald statements need to be covered with some evidential hair" before they are acceptable. Id. Further, "[a]n administrative agency is not required to believe any witness, even an expert." Goldstar, 288 Conn. at 830. It is the province of the trier of fact, in this case, the Authority, to "make determinations of credibility, crediting some, all, or none of a given witness' testimony." Id.

The Authority's review of the proposed rates is guided, in part, by the principle "that the level and structure of rates be sufficient, but no more than sufficient, to allow public service companies to cover their operating and capital costs, to attract needed capital and to maintain their financial integrity, and yet provide appropriate protection to the relevant public interests, both existing and foreseeable." General Statutes § 16-19e(a)(4). That language "tracks, almost verbatim, the language that the United States Supreme Court used in Hope when it interpreted the 'just and reasonable' requirement under the Natural Gas Act and the federal constitution." Connecticut Light & Power Co. v. Dept. of Public Utility Control, 216 Conn. 627, 635 (1990) (referencing Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591, 603 (1944)). A regulated utility is entitled to an opportunity to recover prudent operating expenses as well as capital costs, including a fair and reasonable rate of return on capital investments. See Federal Power Commission v. Hope Natural Gas Co., 320 U.S. at 603; Bluefield Waterworks & Improvement Co. v. Public Service Commission of West Virginia, 262 U.S. 679, 690 (1923) (company entitled to ask for fair return upon value of capital employed for public convenience); see also Duquesne Light Co. v. Barasch, 488 U.S. 299, 310 (1989) (affirming the holding in Hope that "[i]f the total effect of the rate order cannot be said to be unreasonable, judicial inquiry . . . is at an end."). "The prudence of a management decision depends on good faith and reasonableness, judged at the time the decision is made." Connecticut Light & Power Co. v. Dept. of Public Utility Control, 216 Conn. at 645.

Ultimately, however, rate setting requires "a balancing of the investor and consumer interests." Woodbury Water Co. v. Public Utilities Commission, 174 Conn. 258, 264 (1978) (quoting Federal Power Commission v. Hope Natural Gas Co., 320 U.S. at 603). Further, the constitution does not bind the Authority "to the use of any single formula or combination of formulae in determining rates," and the ratemaking process may involve "pragmatic adjustments." Woodbury Water Co. v. Public Utilities Commission, 174 Conn. at 264 (1978) (quoting Federal Power Commission v. Natural Gas Pipeline Co., 315 U.S. 575, 586 (1942)). In striking this balance and making pragmatic adjustments, the Authority is guided by the principles of General Statutes § 16-19e(a), noted above.

III. TEST YEAR

A test year "is employed to show what the probable operating and financial condition of the company will be in the immediate future, in order that rates may be fixed which will compensate the company for all operating expenses and provide it with a fair return." Southern New England Telephone Co. v. Public Utilities Commission, 29 Conn. Supp. 253, 258 (1970). The test year in each rate application must "consist of the most recent twelve-month period available ending at a calendar quarter." Conn. Agencies Regs. § 16-1-54. Test year financial data are "limited to the actual income and expenses as determined on the accrual basis during the subject period without adjustment or alteration." Id. Applicants are required to present financial data through the SFRs. See Conn. Agencies Regs. § 16-1-53.

Here, CWC has proposed the period beginning January 1, 2022, and ending on December 31, 2022, as the test year (Test Year). Application, p. 1.

IV. RATE BASE

A. Summary

Rate base is a fundamental principle of cost-of-service ratemaking. Rate base is the investor-supplied facilities and other investments necessary to supply a utility service to consumers in a safe, reliable, and cost-effective manner. For purposes of ratemaking, rate base is the capital on which the investor may earn a return. See Federal Power Commission v. Hope Natural Gas Co., 320 U.S. at 596 (rate base calculated from "the 'actual legitimate cost' of the company's interstate property less depletion and depreciation and plus unoperated acreage, working capital and future net capital additions"). A "company is entitled to ask [for] a fair return upon the value of that which it employs for the public convenience." Bluefield Waterworks & Improvement Co. v. Public Service Commission of West Virginia, 262 U.S. at 690.

Cost-of-service ratemaking provides a return on rate base, which is the capital that has been prudently invested by shareholders and put to public use. Id. Consequently, determining rate base requires a two-prong assessment. First, the utility must prove that the company's plant is in use and is serving the public. See Cedar Island Improvement Association. v. Clinton Electric Light & Power Co., 142 Conn. 359, 370 (1955) ("public utility company is entitled to a fair return upon the fair value of such of its property as is useful and being used in providing service"). Second, the company must prove that the capital investment was prudent and reasonable. See General Statutes § 16-19e(a)(5)

("the level and structure of rates charged customers shall reflect prudent and efficient management").

The "used and useful" standard is a "bedrock principle of utility regulation." Kentucky Utilities Co. v. Federal Energy Regulatory Commission, 760 F.2d 1321, 1324, n.4 (D.C. Cir. 1985). "Generally speaking, property not employed in the public service should not be incorporated into the base to be used to compute the fair rate of return. It must be kept in mind, however, that whether utility property is used or useful for inclusion in the rate base is a factual determination rather than a legal question." Southern New England Telephone Co. v. Public Utilities Commission, 29 Conn. Supp. 253, 259-60 (1970). The Authority does not allow for the inclusion of incomplete system additions or improvements into a company's pro forma rate base. See Decision, May 19, 2021, Docket No. 20-10-31, Application of Jewett City Water Company to Amend its Rate Schedules, p. 23. "[R]atepayers benefit from the plant additions when they are in-service and . . . ratepayers should not be responsible for providing a return on plant that is not in-service."). Id., p. 24.

Once a company has proven that property is used and useful, it must also establish that the capital investment was prudent and reasonable. See General Statutes § 16-19e(a)(5). Specifically, "there exists a distinction between, on one hand, utility property and, on the other hand, the cost of utility property allowed in rate base, because only that portion of utility property that is the result of prudent and reasonable management is included in rate base." Connecticut Light & Power Co. v. Dept. of Public Utility Control, 219 Conn. 61, 68 (1991). A company that, for example, made wasteful capital investments by paying twice the market rate for materials and labor could not establish that the entire investment was prudent and reasonable.

Consequently, to establish its rate base for ratemaking purposes, CWC must demonstrate, by a preponderance of the evidence, that the capital proposed for inclusion in rate base (1) is used and useful and (2) was invested prudently. Rate base is calculated by taking the test year net book value of prudent capital investments and accounting for other factors, including accumulated depreciation, working capital, and non-rate base capital such as deferred taxes. The test year is intended to "be representative of conditions which will probably prevail in the immediate future when the rates will be effective." Connecticut Natural Gas Corp. v. Public Utilities Commission, 29 Conn. Supp. at 390. Certain pro forma adjustments may be permitted to recognize capital investments and other changes to rate base that occur subsequent to the test year. Id., p. 390 ("company should be permitted to adjust the test year forward for a reasonable period of time where definitely ascertainable expenses are involved during such future period").

Here, the Company proposed an end-of-year Test Year rate base of $654,047,915 and pro forma adjustments, through 2024, of $64,410,754 ($50,675,203 through September 30, 2023, plus $7,983,753 through December 31, 2023, plus $5,751,798 through December 31, 2024), for a total rate base of $718,458,669. Late Filed Ex. 1, Ex. 1, Sch. B-1.0. The Company failed to provide evidence that $16,189,362 of the proposed rate base was both (1) used and useful and (2) prudent and reasonable. As shown in Table 1, below, and described in the following sections, the Authority adjusts certain components of the proposed rate base, resulting in a total approved rate base of

$702,269,307, which is $16,189,362 less than the total rate base requested by the Company.

Table 1: Pro Forma Rate Base

Rate Base Component	Pro Forma ($)	Adjustment ($)	Approved Pro Forma Rate Base ($)
Plant-in-Service	1,189,912,611	(32,537,794)	1,157,374,817
Accumulated Depreciation	(315,107,540)	20,996,982	(294,110,558)
Working Capital	7,569,536	(490,963)	7,078,573
Prepaid/Deferred Tax Assets	99,145,016	-	99,145,016
Deferred Tank & Well Maint.	2,576,177	(2,576,177)	-
Deferred Carbon Filters	374,029	(374,029)	-
Deferred Revenue	841,268	(841,268)	-
Rate Case Costs (20-12-30)	443,023	(443,023)	-
Rate Case Costs (23-08-32)	653,333	(653,333)	-
Storm Costs	356,757	(356,757)	-
Deferred Sales Tax	961,188	(961,188)	-
Sales Tax Regulatory Liability	(632,258)	632,258	-
Sales Tax Regulatory Asset	481,474	(481,474)	-
DPH Safe Drinking Water Fees	(327,746)	327,746	-
Pension/VEBA Reg. Asset	547,323	(547,323)	-
Deferred Long Term IT Maint.	126,923	-	126,923
Heritage/Avon TCJA Reg. Lia.	(307,067)	-	(307,067)
Deferred Income Taxes	(121,340,433)	2,116,981	(119,223,452)
Excess ADIT	(21,100,415)	-	(21,100,415)
FIN48 - Repair Tax Reserve	(5,701,000)	-	(5,701,000)
Customer Advances for Constr.	(22,668,686)	-	(22,668,686)
Unamortized CIAC	(98,325,850)	-	(98,325,850)
Security Deposits	(18,994)	-	(18,994)
Total Rate Base	**718,458,669**	**(16,189,362)**	**702,269,307**

Late Filed Ex. 1, Ex. 1, Sch. B-1.0, Sch. B-6.0, Sch. B-7.0, Sch. B-7.1, Sch. B-8.0, Sch. B-9.0.

B. Plant-in-Service

1. Summary of Approved Plant-in-Service

The Authority approves a plant-in-service of $1,157,374,817. The Company proposes a Test Year plant-in-service value of $1,090,826,315, with pro forma adjustments of $99,086,296, for total plant-in-service of $1,189,912,611 as of December 31, 2024 (midpoint of rate year). Late Filed Ex. 1, Ex. 1, Sch. B-1.0. The Authority adjusts the total plant-in-service by $32,537,794 because the Company did not provide sufficient evidence to demonstrate that all of its proposed projects are used and useful. This adjustment consists of plant additions and retirements purportedly made (or forecast to

be made) through December 31, 2024. The Authority also makes a corresponding reduction in the accumulated depreciation to reflect the approved plant-in-service.

Table 2: Approved Plant-in-Service

	Proposed ($)	Adjustment ($)	Approved ($)
Prior Approved (2020)	**976,386,299**	-	**976,386,299**
Net Additions to Test Year[4]	114,440,016	(2,353,206)	112,086,810
Test Year (2022)	**1,090,826,315**	**(2,353,206)**	**1,088,473,109**
Pro Forma Net Additions[5]	99,086,296	(30,184,588)	68,901,708
Total Plant-in-Service	**1,189,912,611**	**(32,537,794)**	**1,157,374,817**

Late Filed Ex. 21, Ex. 1.

2. Audit Procedure

To investigate the reasonableness of the capital additions proposed by CWC, PURA staff conducted audits at the Company's headquarters. The audits were aimed at promoting transparency, verifying responsible decision-making, and validating the legitimacy of project expenditures.

A critical component of the audit involved comparing the $976,386,299 plant-in-service balance from CWC's previous rate case with the current $1,189,912,611 request. Late Filed Ex. 1, Ex. 1, Sch. B-1.0; Late Filed Ex. 21, Ex. 1. This comparison ensured that all incremental capital investments being sought for recovery in rate base were fully disclosed and accounted for, safeguarding ratepayer interests. Concurrently, PURA Staff examined CWC's procurement policies and practices to assess whether they reflect prudent and efficient management. See General Statutes § 16-19e(a)(5). Another key aspect of the audit was the evaluation of alternative analyses presented by CWC for various projects. Specifically, PURA Staff evaluated different project execution decisions to assess whether they were cost effective and aligned with the best interests of ratepayers. To further validate the legitimacy of project expenditures, PURA Staff also conducted an in-depth review of invoices and supporting documentation provided by CWC. This examination aimed to verify that claimed costs were accurate, reasonable, and directly related to the capital additions under review.

3. Test Year Plant-in-Service

To determine the Test Year plant-in-service, the Authority adds the amount of completed capital investments made by the Company through the end of the Test Year to the Company's previously approved utility plant. As explained above, to establish its rate base for ratemaking purposes, CWC must demonstrate, by a preponderance of evidence, that the plant proposed for inclusion in rate base (1) is used and useful and (2) the capital

[4] See Table 3, Test Year Plant-in-Service Adjustments, below.

[5] See Table 9, Total Pro Forma Plant-In-Service Adjustment, below.

spent on such plant was invested prudently. To meet this burden, the Company must provide supporting evidence for each of these two prongs. As noted above, the testimony of a company officer alone may not be adequate evidence that capital investments were made prudently and resulted in used and useful plant-in-service. See Connecticut Natural Gas Corp. v. Public Utilities Commission, 29 Conn. Supp. at 394.

The Company proposes a total utility plant-in-service ending balance for the Test Year of $1,090,826,315 for water and sewer together. Late Filed Ex. 1, Ex. 1, Sch. B-2.1W, Plant in Service By Account – Water, Sch. B-2.1S, Plant in Service By Account – Sewer. This represents a requested increase of $114,440,016 ($1,090,826,315 – $976,386,299) from the Company's previously approved utility plant-in-service. See July 2021 CWC Rate Case Decision, Appx. A, p. 2.

As a result of the adjustments described below, the Authority approves $1,088,473,109 of Test Year plant-in-service as of December 31, 2022, which reflects gross plant additions of $117,204,702 since the last rate case decision, as well as gross plant retirements of $5,117,892 and PURA adjustments totaling $(2,353,206). Based on the evidence gathered during the audit described in Section IV.B.2, Audit Procedure, as well as other record evidence summarized below, the Authority finds that the Company demonstrated that its Test Year plant-in-service portfolio is prudent and used and useful, subject to the adjustments detailed in this section. The Company's proposal and corresponding Authority findings are summarized in the table below.

Table 3: Test Year Plant-in-Service Adjustments

	Proposed ($)	Adjustment ($)	Approved ($)
Prior Approved (2020)	**976,386,299**	**-**	**976,386,299**
2021 Plant Additions	48,024,640	(585,842)	47,438,798
2021 Plant Retirements	(88,792)	-	(88,792)
2021 Net Additions	**47,935,848**	**(585,842)**	**47,350,006**
2021 Ending Balance	**1,024,322,147**	**(585,842)**	**1,023,736,305**
2022 Plant Additions	70,964,044	(1,198,140)	69,765,904
2022 Plant Retirements	(5,029,100)	-	(5,029,100)
Misc. Adjustment	569,224	(569,224)[6]	-
2022 Net Additions	**66,504,168**	**(1,767,364)**	**64,736,804**
Test Year (2022)	**1,090,826,315**	**(2,353,206)**	**1,088,473,109**

Late Filed Ex. 21, Ex. 1.

Included in the Company's proposed plant additions is $80,245,396 of water infrastructure and conservation adjustment (WICA) expenditures. The WICA projects submitted for cost recovery are completed projects with cost recovery approved through the WICA proceedings, Docket Nos. 20-12-30WI01 through 20-12-30WI06.[7] The Company is seeking to reset the WICA charge, with cost recovery for those previously approved projects to be included through rate base. Interrog. Resp. RRU-115; Interrog. Resp. RRU-281.

The water plant-in-service includes six categories: (1) intangible plant; (2) source of supply plant; (3) pumping plant; (4) water treatment plant; (5) transmission and distribution plant; and (6) general plant, as well as certain plant acquisition adjustments. The sewer plant-in-service includes five categories: (1) intangible plant; (2) collecting sewer; (3) pumping sewer; (4) treatment and disposal sewer; and (5) general plant sewer. The Company's proposed plant-in-service additions, broken down by major property grouping, along with PURA adjustments thereto, are reflected in Table 4 below.

[6] The Company first identified this adjustment in Late Filed Exhibit 21. The number is hard-coded (no formula intact) and is without a corresponding explanation. Late Filed Ex. 21, Ex. 1 (see cell G11). As such, the Company did not provide an explanation for the adjustment or any supporting evidence. Consequently, the Authority disallows this adjustment.

[7] Docket No. 20-12-30WI01, Application of the Connecticut Water Company for a Water Infrastructure Conservation Adjustment Semi Annual Filing Report ($31,228,160); Docket No. 20-12-30WI03, Application of the Connecticut Water Company for a Water Infrastructure Conservation Adjustment Semi Annual Filing Report ($9,779,346); Docket No. 20-12-30WI05, Application of the Connecticut Water Company for a Water Infrastructure Conservation Adjustment Semi Annual Filing Report ($27,775,268); and Docket No. 20-12-30WI06, Application of the Connecticut Water Company for a Water Infrastructure Conservation Adjustment Semi Annual Filing Report ($11,462,622). The total WICA approved in WICA proceedings is $80,245,396.

Table 4: Test Year Plant-in-Service Adjustments by Major Property Grouping

Major Property Grouping	Proposed Test Year Plant-in-Service ($) (A)	Adjustments 2021 ($) (B)	Adjustments 2022 ($) (C)	Approved Test Year Plant-in-Service ($) (A)+(B)+(C)
WATER				
Intangible Plant	2,621,491	(25,539)	-	2,595,952
Source of Supply	64,672,978	-	(62,271)	64,610,707
Pumping Plant	71,813,492	(187,488)	(79,838)	71,546,166
Water Treatment	109,459,461	(242,591)	(736,124)	108,480,746
Trans. & Dist.	727,717,281	(130,224)	(234,852)	727,352,205
General Plant	94,136,479	-	(85,055)	94,051,424
Water Subtotal	**1,070,421,182**	**(585,842)**	**(1,198,140)**	**1,068,637,200**
SEWER				
Intangible Plant	272,936	-	-	272,936
Collecting	3,564,249	-	-	3,564,249
Pumping	1,539,865	-	-	1,539,865
Treatment & Disposal	14,584,760	-	-	14,584,760
General Plant	443,323	-	-	443,323
Sewer Subtotal	**20,405,133**	**-**	**-**	**20,405,133**
Misc. Adjustment	**-**	**-**	**(569,224)**	**(569,224)**
TOTAL	**1,090,826,315**	**(585,842)**	**(1,767,364)**	**1,088,473,109**

Late Filed Ex. 1, Ex. 1, Sch. B-2.1W, Sch. B-2.1S, Sch. B-2.0.

The Company's Application seeks recovery for projects that the Company has not yet demonstrated to be used and useful, and, therefore, those projects cannot be added to the Company's rate base at this time.[8] During the evidentiary hearing, the Company testified that it included costs for the design of incomplete projects and the identification of inventory for projects into its proposed rate base when the projects themselves are not fully complete. See, e.g., Hr'g Tr. Jan. 23, 2024, 224:5-25.

OCC presents a compelling argument, rooted in well-established regulatory principles, that ratepayers should not be obligated to fund projects that fail to meet the used and useful standard for utility service. OCC Brief, p. 14. OCC also argues that "a design alone cannot meet the traditional definition of used and useful," because "'used and useful' refers to a project being used and useful in providing utility service to the public." Id., p. 19. As such, OCC states that rates meant to compensate a utility for property utilized by the public should not be collected until the property is being used. Id. OCC continues by asking what would happen if a preliminary design was included in

[8] The Authority's determination in this proceeding does not preclude the Company from ultimately seeking to include these projects in rate base after demonstrating by a preponderance of the evidence in a future rate case proceeding that such projects are used and useful and prudently incurred.

rates, as the Company proposes, and the designed project was never built. Id., p. 20. OCC contends that no service would be provided by the design in that case.[9] OCC Brief, p. 20. Additionally, as OCC points out, "[a]ssets that are not in service are not being consumed by ratepayers, and therefore cannot incur recoverable depreciation expense." Id.

Accordingly, the Authority details a number of adjustments to the requested water utility plant-in-service to reflect certain projects that were not demonstrated by the Company to be used and useful as of the close of the evidentiary record in this proceeding.[10] Specifically, the projects depicted in Table 5 are not approved for inclusion in the Test Year plant-in-service balance.

Table 5: Projects Through Test Year, Not Used and Useful

Description	Project Number	2021 Cost ($)	2022 Cost ($)	Total through 2022 ($)
Egypt Road Treatment Facility	BU012373 & BU012043	363,886	4,462	368,348
PFAS Study & Avon Well #3	BU012522	25,539	-	25,539
Anvil Tank & Booster Design/Permit	BU012538 & BU012263	66,193	66,657	132,850
Gallup Well #1 Design	BU012381	-	254,254	254,254
Heritage Village WTP	BU012555	-	352,863	352,863
Guilford Well Treat. Bld. & Lagoon	BU012364	-	249,084	249,084
Developer Prelim. Investigation	BU012015	14,684	1,302	15,986
Future WICA Proj. Design/Mapping	BU012484	9,417	18,994	28,411
Northern Office Evaluation	BU012713	-	85,055	85,055
Hydraulic Modeling	BU01805	106,123	165,468	271,591
	Total	**585,842**	**1,198,140**	**1,783,982**

Late Filed Ex. 21, Ex. 2, Ex. 4.

A description of the evidence of each project's status follows:

(1) **Egypt Road Treatment Facility:** The evidence indicates that only the design was completed to secure Drinking Water State Revolving Fund (DWSRF) funding. Tr., 29:24, 266:5-9, 270:1-11, 1485:5-8, 24-25, 1486:1-2. The Company did not provide evidence of an in-service date or that the facility is used and useful at this time.

[9]OCC references the Company's own confusion with respect to the potential useful life of a design:
Q: And what is the useful life of a design project? Design of a project, put it that way. What is the useful life of a design of a project? You included it in rate base, so what is the amortization or what would be the depreciation period for a design?
A: I don't have an answer for that.
Tr., 405:25-406:5.

[10]The projects reflected in Table 5 also have corresponding adjustments in the interim pro forma period (2023), as discussed in Section IV.B.4, Pro Forma Plant Additions.

(2) **Per and Polyfluoroalkyl Substances (PFAS) (Avon Well 3):** The project is in an investigatory stage, with only a preliminary study completed that led into a design phase. Tr., 266:10-13. The Company testified that costs for preliminary efforts, such as studies and designs, are later reclassified for purposes of rate recovery. Tr., 1484:19-1488:8. The evidence indicates that the project is not used and useful at this time.

(3) **Anvil Tank and Booster:** The project design is completed, but the project is in the early construction phase and less than 15% complete. Tr., 1485:12-14, 1491:14-20. The evidence indicates that the project is not used and useful at this time.

(4) **Gallup Well 1D and C:** This project remains in the design phase. Tr., 270:14-25, 270:1-4, 1486:17-19. The evidence indicates that the project is not used and useful at this time.

(5) **Heritage Village:** This project is in the design and permitting phase. Late Filed Ex. 21, Ex. 1, Ex. 4; Late Filed Ex. 30. The evidence indicates that the project is not used and useful at this time.

(6) **Guilford Well Treatment Building and Lagoon:** This project is in the design phase. Tr., 222:19-25, 268:21-25, 269:1-19. The evidence indicates that the project is not used and useful at this time.

(7) **Developer Preliminary Investigation:** This project is a "budget item" that the Company opens each year "as a way to capture cost associated with the early stages of a future project." Tr., 387:17-20. While these investigations may be important for future project development, they do not represent a currently used and useful asset in providing utility service to customers. Given that these preliminary investigations are for future projects that have not yet been completed, these costs are not eligible for recovery in rate base at this time.

(8) **Future WICA Project Design/Mapping:** According to the Company, “[t]hese costs are associated with the very early project definition efforts before we have an approved WICA project to tie those costs to. These would all be transferred over to the appropriate WICA project once that project has been submitted and approved and then recovered under the corresponding WICA docket.” Tr., 389. As such, the costs represent early design efforts that are not yet associated with a completed project(s) providing utility service to customers.

(9) **Northern Office Evaluation:** This evaluation has so far resulted in "a report, cost estimates, conceptual layouts in report format that guides our decision making going forward." Tr., 342:17-20. However, these documents are not physical assets that contribute to the delivery of utility service at present; rather, they constitute planning documents that may inform hypothetical future decisions regarding the Northern Work Center. Furthermore, the Company acknowledged that the project is planned for completion within five years. Tr., 343:20-21. As such, the benefits of the evaluation are not yet realized and may not be for multiple years. The costs were not expended on a used and useful asset providing utility service to

customers; therefore, these costs are not eligible for recovery in rate base at this time.

(10) **Hydraulic Modeling:** The costs related to this project are for "specific alternatives analysis or capital improvement alternative evaluations for specific questions." Tr., 386:15-17. Additionally, in some cases, the additional work related to this modeling has not yet been performed. Tr., 386:24-25. These costs are not eligible for recovery in rate base at this time because the Company provided insufficient evidence supporting a finding that these costs are associated with a used and useful asset.

In summary, the Authority approves a Test Year plant-in-service ending balance of $1,088,473,109, which is an $112,086,810 increase ($1,088,473,109 – $976,386,299) from the Company's previously approved utility plant-in-service. See July 2021 CWC Rate Case Decision, Appx. A, p. 2.

4. Pro Forma Plant Additions

The Authority permits utilities to make pro forma adjustments to the test year plant-in-service for plant additions made subsequent to the test year. Specifically, the Company is permitted to include new plant additions, provided that the company can demonstrate that (1) the plant is currently used and useful and (2) the costs were prudently incurred. The company is permitted to submit evidence to meet this evidentiary burden through the close of the record; however, projects identified subsequent to the filing of the rate application may constitute an amendment to the application subject to Conn. Agencies Regs. § 16-1-58.

Here, the Company is seeking pro forma adjustments for continuing plant-in-service additions during the following three periods:

(1) Projects completed from the end of the Test Year through the first three quarters of 2023 (Q1-Q3) until the Company's rate amendment filing;

(2) Projects completed during the fourth quarter (Q4) of 2023 (October 1 to December 31, 2023); and

(3) Projects projected for completion in 2024, through December 31, 2024, the midpoint of the Rate Year.[11] See CWC Brief, Mar. 11, 2024, p. 13.

Regarding the first category of proposed pro forma additions (i.e., Q1-Q3 2023), the Company proposes $62,600,621 in gross plant additions ($59,439,215 for water projects and $3,161,406 for sewer projects) and $2,296,478 in retirements ($2,233,502 for water projects and $62,976 for sewer projects). Late Filed Ex. 21, Ex. 1, Ex. 6, Updated B-2.1W-A, Updated B-2.1S A.

[11]The second period (Q4 2023) generally coincides with the pendency of this proceeding. The Application was filed on October 3, 2023, and the evidentiary record closed on February 9, 2024. Therefore, the second period, during which the Company had the opportunity to submit evidence that capital projects are actually used, useful, and prudent, technically runs until February 9, 2024.

Regarding the second category of proposed pro forma additions (i.e., projects completed during the pendency of this proceeding, i.e., October 1, 2023, through the close of the evidentiary record on February 9, 2024), the Company proposes $12,208,100 in gross plant additions ($12,065,172 for water projects and $142,928 for sewer projects) and $2,232,455 in retirements (all water projects). Late Filed Ex. 21, Ex. 1, Ex. 7, Updated B-2.1W-A, Updated B-2.1S A.

Similar to the discussion in the above Section IV.B.3., Test Year Plant-in-Service, however, the Authority identified a number of adjustments to the requested water utility plant-in-service balance as of December 31, 2023, to reflect certain projects that were not demonstrated by the Company to be used and useful as of the close of the evidentiary record in this proceeding. Specifically, the following projects depicted in Table 6 are not approved for inclusion in the Pro Forma 2023 plant-in-service ending balance.

Table 6: 2023 Projects, Not Used and Useful

Description	Project No.	Q1-Q3 2023 Cost ($)	Q4 2023 Cost ($)	Total, 2023 ($)
Egypt Road Treatment Facility	BU012373 & BU012043	227,268	50,680	277,948
Anvil Tank and Booster Design/Permit	BU012538 & BU012263	1,603	-	1,603
Gallup Well #1 Design	BU012381	3,984	-	3,984
Heritage Village WTP	BU012555	4,813	111,538	116,351
Guilford Well Treat. & Lagoon	BU012364	4,356	49,115	53,471
Developer Prelim. Investigation	BU012015	(1,374)	-	(1,374)
Northern Office Evaluation	BU012713	20,093	-	20,093
Hydraulic Modeling	BU01805	5,638	90,423	96,061
Rettich Weiss Treat. Design	BU012368	45,250	276,768	322,018
Lead-Copper Rule Rev.	BU6162796	-	524,688	524,688
Total		**311,631**	**1,103,212**	**1,414,843**

Late Filed Ex. 21, Ex. 2, Ex. 4, Ex. 6, Ex. 7.

The Authority extends its findings from Section IV.B.3, Test Year Plant-in-Service, regarding Project Nos. BU012373 & BU012043, BU012538 & BU012263, BU012381, BU012555, BU012364, BU012015, BU012713, and BU01805, as the Company did not demonstrate that the corresponding projects were used and useful in the Pro Forma 2023 plant-in-service request either. Regarding the two additional projects depicted above, the first – Project No. BU012368 Rettich and Weiss Wells in the Guilford system – includes a pilot study for iron and manganese treatment for the wells. Interrog. Resp. OCC-1, Ex. 2, p. 15. The project is not yet complete. Tr., 1496:14-24. As there is no evidence that construction has begun, let alone completed, there is no evidence that the project is used and useful at this time.

Additionally, regarding Project No. BU6162796 Lead-Copper Rule Revisions PH1, as noted in the Company's project description, the costs related to this project were related to three tasks: (1) completion of a comprehensive Service Line Material inventory;

(2) preparation of sampling plans; and (3) determination of a list of schools and childcare facilities served by the Water System. See Application, Ex. A.5, p. 150. The project description primarily involves data collection, analysis, and documentation. The inventory, updated sampling plans, and identification of schools and childcare facilities do not directly extend the useful life or enhance the service potential of the Company's physical infrastructure. These are effectively compliance costs that should be expensed rather than capitalized. As such, while the Authority disallows these costs as part of the Company's requested 2023 pro forma plant additions, PURA will allow the costs to be recovered as allowable expenses. Specifically, the Authority permits the Company to include the project cost of $224,832 as a Rate Year expense. See Application, Ex. A.5, App. 1, pp. 150-51.

Based on the foregoing, Table 7 below depicts the approved pro forma plant-in-service ending balance as of December 31, 2023, subject to the PURA adjustments delineated in Table 6, above.

Table 7: Pro Forma Plant-in-Service Adjustments for 2023

Major Property Grouping	Approved Test Year Plant-in-Service, as of 12/31/2022 ($)	Proposed Pro Forma Additions (Q1-Q3) ($)	Proposed Pro Forma Additions (Q4) ($)	Adjustments ($)	Approved Pro Forma Plant-in-Service, as of 12/31/2023 ($)
	(A)	(B)	(C)	(D)	(A)+(B)+(C)+(D)
WATER					
Intangible Plant	2,595,952	-	-	-	2,595,952
Source of Supply	64,610,707	1,777,287	256,975	(164,997)	66,479,972
Pumping Plant	71,546,166	6,250,033	905,386	(288,008)	78,413,577
Water Treatment	108,480,746	16,193,739	3,757,169	(182,955)	128,248,699
Trans. & Dist.	727,352,205	26,058,538	3,979,223	(758,790)	756,631,176
General Plant	94,051,424	6,926,116	933,974	(20,093)	101,891,421
Water Subtotal	**1,068,637,200**	**57,205,713**	**9,832,727**	**(1,414,843)**	**1,134,260,797**
SEWER					
Intangible Plant	272,936	-	-	-	272,936
Collecting	3,564,249	768,800	53,769	-	4,386,818
Pumping	1,539,865	532,274	36,704	-	2,108,843
Treatment & Disp.	14,584,760	1,747,706	52,455	-	16,384,921
General Plant	443,323	49,650	-	-	492,973
Sewer Subtotal	**20,405,133**	**3,098,430**	**142,928**	**-**	**23,646,491**
Misc. Adjustment	(569,224)				
TOTAL	**1,088,473,109**	**60,304,143**	**9,975,655**	**(1,414,843)**	**1,157,388,064**

Late Filed Ex. 21, Ex. 1, Ex. 6, Ex. 7, Sch. Updated B-2.1W-A, Sch. Updated B-2.1S A.

With respect to the third category of proposed pro forma additions (i.e., plant projected for completion from February 9, 2024, through December 31, 2024, the midpoint of the Rate Year), the Company proposes $31,245,698 in gross plant additions ($30,717,198 for water projects and $528,500 for sewer projects) and $2,439,200 in retirements ($2,402,700 for water projects and $36,500 for sewer projects). Late Filed Ex. 21, Ex. 1, Ex. 8, Updated B-2.1W-B, Updated B-2.1S-B.

Inclusion of forecasted incomplete plant deviates from the fundamental principle that rate base should solely reflect prudently invested capital actively serving the public interest. See Cedar Island Improvement Association. v. Clinton Electric Light & Power Co., 142 Conn. at 370 (public utility company entitled to fair return upon useful property that is being used to provide service). The Company is not precluded from incorporating these plant additions into its rate base in a future proceeding when it can provide sufficient evidence that the projects (1) are used and useful and (2) constitute prudent investments.[12] See Decision, Aug. 25, 2023, Docket No. 22-08-08, Application of The United Illuminating Company to Amend its Rate Schedule (2023 UI Rate Case Decision), p. 18.

While the aforementioned principle precludes the inclusion of the Company's proposal regarding the third category of proposed pro forma additions (i.e., plant projected for completion from February 9, 2024, through December 31, 2024, the midpoint of the Rate Year), the Company asserts that by January 31, 2024 (i.e., prior to the close of the evidentiary record on February 9, 2024), it expended funds on ten projects totaling $284,133. Late Filed Ex. 21, Ex. 8. The Authority reviewed the associated projects and finds that the Company provided sufficient evidence to demonstrate that one project totaling $36,753 was used and useful as of January 31, 2024, and that the associated expenditures were prudently incurred. Late Filed Ex. 21, Ex. 8.

The remaining expenditures incurred between January 1, 2024, and the close of the evidentiary record, correspond to nine incomplete projects across the water segment. Late Filed Ex. 21, Ex. 8. While the evidence shows that the Company incurred expenses in 2024 associated with the nine projects, there is insufficient evidence that the corresponding projects are in service. Indeed, with the exception of the Ashford Park Structural Repairs, the expenditures for the projects represent only a small portion of the total project budgets. Id. Based on this evidence, the Authority can only conclude that these projects are not yet complete and, therefore, not eligible for inclusion in rate base at this time.

Additionally, regarding the Ashford Park Structural Repairs, the Company initially provided project costs through August 2023 of $37,081 and did not provide adequate evidence justifying the sizable increase to $145,445 reflected in its corresponding late filed exhibit. Application, Ex. A.5, p. 187; Late Filed Ex. 21, Ex. 8. As such, the Authority is unable to determine the prudence of the investment at this time. Moreover, the Customer Lead Service Lines, including Lead Service Line replacement, are part of the Company's ongoing WICA investment and thus not eligible for inclusion as a pro forma increase. Tr., 142:12-15.

[12] As is well established, a utility may seek recovery in a future rate case for any capital additions already incurred or incurred in the future, which are not already incorporated into rate base or reflected in rates. See Decision, Aug. 25, 2023, Docket No. 22-08-08, Application of The United Illuminating Company to Amend its Rate Schedule (2023 UI Rate Case Decision), p. 18. The Authority's finding that the Company provided insufficient evidence that proposed plant is used and useful does not bar future recovery in the way that a finding of imprudence would. See id., p. 18 n.14. Accordingly, the Company's concerns that accounting standards may force it to write off costs of projects that are not yet used and useful are misplaced. See CWC Exceptions, p. 19.

The table below summarizes the allowed pro forma adjustment for Projects completed prior to January 31, 2024.

Table 8: 2024 Pro Forma Projects with Expenditures, Not Used and Useful

Project	Description	Cost Incurred through Jan. 31, 2024 ($)	Allowed Pro Forma Adjustment ($)
BU6162738	Ashford Park Structural Repairs	147,445	-
BU6162936	Customer Lead Svc Line-Billable	6,111	-
BU01670	Gate Valve Replacements	21,603	-
BU011969	Service renewals- All Regions	35,250	-
BU011970	New Services - All Regions	17,236	-
BU01566	Curb Valve Replacement	1,619	-
BU01757	Billable Service Upgrades	(491)	-
BU011972	Hydrant Replacement - All Regions	15,443	-
BU01723	Billable Hydrants - Non Depr.	3,164	-
BU6162847	Server Operating System Upgrades	36,753	36,753
	Total	**284,133**	**36,753**

Late Filed Ex. 21, Ex. 8.

In summary, after accounting for pro forma adjustments authorized by PURA, the Authority approves a total plant-in-service balance of $1,157,374,817, as calculated below.

Table 9: Total Pro Forma Plant-In-Service Adjustment

	Proposed ($)	Adjustment ($)	Approved ($)
Test Year (2022)	**1,090,826,315**	**(2,353,206)**	**1,088,473,109**
2023 (Q1-3) Plant Additions	62,600,621	(311,631)	62,288,990
2023 (Q1-3) Plant Retirements	(2,296,478)	-	(2,296,478)
2023 (Q4) Plant Additions	12,208,100	(1,103,212)	11,104,888
2023 (Q4) Plant Retirements	(2,232,445)	-	(2,232,445)
2023 Net Additions	**70,279,798**	**(1,414,843)**	**68,864,955**
2024 (Q1-4) Plant Additions	31,245,698	(31,208,945)	36,753
2024 (Q1-4) Plant Retirements	(2,439,200)	2,439,200	-
2024 Net Additions	**28,806,498**	**(28,769,745)**	**36,753**
Total Pro Forma Net Additions	**99,086,296**	**(30,184,588)**	**68,901,708**
Total Pro Forma Plant-in-Service	**1,189,912,611**	**(32,537,794)**	**1,157,374,817**

Late Filed Ex. 21, Ex. 1, Ex. 6, Ex. 7, Ex. 8, Updated B-2.1W-A, Updated B.2-1W-B, Updated B-2.1S A, Updated B-2.1S-B.

5. Additional Considerations Related to Plant-in-Service

i. Liquidated Damages

On several occasions, contractors working for the Company completed work after the contracted completion date. See, e.g., Tr., 218:2-219:15. On those occasions, the Company did not enforce the liquidated damages provisions. Tr., 396:12-23. Liquidated damages clauses are a common feature in construction contracts. They serve a vital role in providing the utility with a mechanism to address a contractor that is not performing its work in a timely manner by providing a predetermined compensation (in these contracts, $1,000 for each working day beyond the target completion date) for foreseeable losses resulting from a contractor's breach. Tr., 326:19-327:10.

OCC argues that the Company "waived its right to collect liquidated damages amounting to $617,000" for three projects. OCC Brief, p. 93. However, OCC acknowledges that "it would be inappropriate to use a measure of waived liquidated damages as a basis for a revenue adjustment associated with this issue," and that "the record generally shows that the Company was continuously communicating with contractors about additional costs and other changes to contract plans – although any adjustments to project completion dates were not appropriately preserved via change orders or other contractual amendments." OCC Brief, p. 95. The Company testified that it weighed the benefit to the customer of possible recovery of damages against the cost of attempting to enforce the provisions. Tr., 396:23-25. The Company further testified that it "work[s] with contractors . . . closely and monitor[s] the construction progress [and] the delivery approach," and that there are "many variables associated with project[s], from weather to supply chain to field conditions." Tr., 396:25-397:4. Accordingly, the Company testified, "if the contractor has shown due diligence and [CWC has] been involved throughout the process," CWC does not enforce liquidated damages provisions. Tr., 397:5-8. However, the Company testified that it does not maintain a list or otherwise track each contract's completion date and the actual completion date. Tr., 328:19-23, 329:3-25.

Although the Company could have pursued liquidated damages from its contractors in some of these instances, the record in this proceeding does not support a revenue adjustment related to this issue. However, the Authority orders the Company to implement a system to diligently track all instances where a contractor breaches a construction contract, with a particular focus on violations that would trigger the enforcement of liquidated damages clauses. This tracking system shall, at a minimum, capture the following information:

(1) Name of the contractor;

(2) Date of the contract;

(3) Description of the breached provision;

(4) Specific details of the breach; and

(5) Actions taken by the Company in response to the breach (including reasons for not enforcing liquidated damages).

The Company shall provide a report demonstrating its compliance with the above tracking system in the Company's next rate case application. The Authority may take further action if the Company fails to maintain the required tracking system or if the Company otherwise demonstrates a lack of prudence in enforcing its contractual rights when doing so was a reasonable and appropriate step under the circumstances.

ii. Procurement Policies

The Company's policies and actions regarding competitive bidding raise concerns about transparency and cost effectiveness. Competitive bidding should be the default procurement method for large capital purchases. Competitive bidding serves as a cornerstone of transparent and cost-effective procurement practices within the regulated utility sector. It fosters fair competition, promotes accountability, and helps ensure that ratepayers receive the best value for their money. See General Statutes § 16-19e(a)(5) ("the level and structure of rates charged customers shall reflect prudent and efficient management").

The "primary document describing the Company's procurement policies and procedures," i.e., the CWC Procure to Pay Narrative 2023, indicates that capital purchases over $50,000 should be subject to a competitive bidding process unless they meet criteria for a bid waiver. Interrog. Resp. EOE-50, Ex. 1, p. 5. However, the Authority finds that the Company is broadly applying the term "bid waiver" in a manner that, effectively, circumvents the competitive bidding requirement.

The Company testified that approximately 75% of its large capital procurement decisions (i.e., purchases over $50,000) employed bid waivers rather than going through a competitive bidding process. Tr., 330:22-331:14. In addition, the Company testified that it maintains an "approved exempt vendor list," containing vendors that are exempt from the competitive bidding process. Tr., 205:20-24. The evidence shows the Company's significant reliance on exceptions, undermining the intended purpose of a competitive bidding process. While specific instances might justify bid waivers (e.g., emergencies, sole-source suppliers), their extensive use warrants scrutiny. Although the Company asserts that a different metric (dollars awarded) would present a less concerning picture, Tr., 331:11-14, the ratio of bid waivers to competitive procurement decisions remains troubling.

The failure to use a competitive bidding process may limit CWC's opportunities to secure the best possible price, and it raises questions regarding whether ratepayers are receiving optimal value for investments in infrastructure. Accordingly, the Company is directed to rigorously examine alternatives to bid waivers and to make demonstrable efforts to increase the frequency of competitive bidding processes. The Company must demonstrate that its procurement policies "reflect prudent and efficient management." General Statutes § 16-19e(a)(5). Accordingly, the Authority orders the Company to maintain an annual record of the following information:

(1) A list of all procurement decisions exceeding $50,000;

(2) The total number of procurement decisions exceeding $50,000;

(3) The number and percentage of those decisions utilizing bid waivers;

(4) The total cost of all procurement decisions utilizing bid waivers; and

(5) A detailed justification for each instance where a bid waiver was employed.

The Company shall provide a report to the Authority of those records in the Company's next rate case. The records will allow for ongoing monitoring of the Company's procurement practices, ensure greater transparency, and promote prudent and efficient management.

C. Accumulated Depreciation

The Company requests accumulated depreciation of $315,107,540 as of December 31, 2024, or the midpoint of the Rate Year. Late Filed Ex. 1, Ex. 1, Sch. B-3.0. The Authority approves a depreciation reserve of $294,110,558, which is an increase of $45,854,886 from the $248,255,672 depreciation reserve approved in 2021. See July 2021 CWC Rate Case Decision, Appx. A.

Depreciation, in this context, refers to the loss in value "in connection with the consumption or prospective retirement of utility plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance." Dunkel Prefiled Test., Dec. 14, 2023, p. 4 (quoting the Uniform System of Accounts prescribed for Water Utilities Class A). Depreciation accounts for "wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and requirements of public authorities." Id. Accumulated depreciation (or depreciation reserve) reflects the amount of depreciation expense that has been allowed in rates and accumulated to date, less any retirements and net salvage received as an offset to rate base. See July 2021 CWC Rate Case Decision, p. 70. As such, the depreciation reserve reflects the asset deterioration of in-service plant and is maintained in anticipation of future asset replacement or retirement needs. Id. The accumulated depreciation should be based on the depreciation rates and useful service lives that fall within the National Association of Regulatory Utility Commissioners (NARUC) guidelines and have been allowed or approved by the Authority. Id. Ideally, assets are depreciated consistently, i.e., proportionally, with the rate of the actual deterioration of assets until they are retired or replaced. Id.

A depreciation rate study proposes annual depreciation rates to be applied to plant-in-service balances. The product of the depreciation rate and plant-in-service balance is the annual depreciation expense, which is recorded as an operating expense of the Company, to reflect the annual recovery or amortization of previously expended capital investment. The depreciation expense impacts the calculation of accumulated depreciation as any depreciation expense allowed for in rates, past or current, should be accounted for in some way in the calculation of accumulated depreciation.

Section VI.B, Depreciation Expenses, details the Authority's analysis of the allowed annual depreciation expense of $22,878,821, which is $2,837,303 less than CWC's

proposed depreciation expense. The Authority may exercise its discretion to calculate the depreciation reserve to include all depreciation that occurs through the beginning of the Rate Year (i.e., July 1, 2024), because the Company's rate base does not cease depreciating at the close of the evidentiary record. See Aquarion Water Company of Connecticut v. Public Utilities Regulatory Authority, 2024 WL 1403433, at *9 (holding a utility's "rate base does not somehow cease depreciating after [a date following which the utility] failed to present sufficient evidence demonstrating that capital investments made by [the utility] after that date were reasonable and prudent. Depreciation continues to occur regardless, even if [the utility] fails to meet its evidentiary burden as necessary to enter investments into rate base."). Accordingly, to ensure appropriate accounting of the 2024 depreciation accrual, the Authority could add $9,532,842 to the Company's depreciation reserve, which represents the depreciation for January 1, 2024, through June 30, 2024. This adjustment would accurately reflect the accumulated depreciation as of the beginning of the Rate Year.

Nonetheless, after examining the specific facts of the instant proceeding, the Authority exercises its discretion regarding the accumulated depreciation accrual date in recognition of the statutory obligation to set just and reasonable rates while "faced with varied and complex accounting procedures when considering rate increase applications." See Aquarion Water Company of Connecticut v. Public Utilities Regulatory Authority, 2024 WL 1403433, at *9 (quoting Woodbury Water Co. v. Public Utilities Commission, 174 Conn. 258, 266 (1978)). The Authority "must remain flexible in order to meet its overall obligation of setting just and reasonable rates that balance the interests of the consumer as well as that of the company." Woodbury Water Co. v. Public Utilities Commission, 174 Conn. 267. Accordingly, the Authority does not include the accumulated depreciation for February 10, 2024, through June 30, 2024, in accumulated depreciation for purposes of calculating rate base in this proceeding. This decision does not preclude the Authority from including the depreciation for that period in the Company's accumulated depreciation in its next rate case.

CWC's requested depreciation expense includes accumulated depreciation associated with capital projects for which the Authority did not allow inclusion into rate base,[13] including $36,195 of accumulated depreciation that was incurred before or during the Test Year. The $36,195 of accumulated depreciation related to these projects is not included in the approved depreciation reserve balance.

Table 10: Depreciation Associated with Disallowed Plant-in-Service

Description	Project Number	Depreciation 2021 ($)	Depreciation 2022 ($)	Depreciation through 12/31/2022 ($)
Egypt Road Treatment Facility	BU012373 & BU012043	8,466	(1,523)	6,943

[13] See Section IV.B, Plant-in-Service for the discussion of the $31,968,570 of proposed plant-in-service excluded from rate base. The depreciation expense corresponds to $1,783,982 of project costs proposed by the Company for 2021 and 2022.

Description	Project Number	Depreciation 2021 ($)	Depreciation 2022 ($)	Depreciation through 12/31/2022 ($)
PFAS Study & Avon Well #3 PFAS	BU012522	506	-	506
Anvil Tank and Booster Design/Permit	BU012538 & BU012263	1,794	1,226	3,020
Gallup Well #1 Design	BU012381	-	4,755	4,755
Heritage Village WTP	BU012555	-	5,364	5,364
Guilford Well Treatment Bld. & Lagoon	BU012364	-	3,686	3,686
Developer Preliminary Investigation	BU012015	227	20	247
Future WICA Proj. Design/Mapping	BU012484	147	290	438
Northern Office Evaluation	BU012713	-	3,470	3,470
Hydraulic Modeling	BU01805	3,035	4,732	7,767
Total		**14,175**	**22,020**	**36,195**

The table below summarizes the depreciation reserve, as approved in this Decision.

Table 11: Depreciation Reserve

Previously Approved Depreciation Reserve (20-12-30)	$248,255,672
Test Year Depreciation Reserve	$274,275,787
2023 Depreciation Accrual	$17,964,398
Adjustment for Disallowed Plant	$(36,195)
Jan. 1, 2024 – Feb. 9, 2024 Depreciation Accrual	$1,906,568
Depreciation Reserve as of July 1, 2024	$294,110,558

Late Filed Ex. 1, Ex. 1, Sch. C-3.21WP W, Sch. C-3.21WP S.

D. Working Capital

1. Approved Working Capital

The Company proposes a working capital balance of $7,569,536, consisting of $6,260,737 for cash working capital and $1,308,799 for materials and supplies (M&S). Late Filed Ex. 1, Ex. 1, Sch. B-4-0. The Authority approves a working capital balance of $7,078,573. Working capital is included in rate base and is comprised of two components: an allowance for cash working capital and an allowance for M&S. Table 12, below, summarizes the Authority approved working capital allowance.

Table 12: Total Approved Working Capital

	Proposed ($)	Approved ($)
Cash Working Capital	6,260,737	5,769,774
Material and Supplies	1,308,799	1,308,799
Total Approved Working Capital	**7,569,536**	**7,078,573**

2. Cash Working Capital

The Company requests cash working capital based on 12.5% of its annual Operations and Maintenance (O&M) expenses. Dixon Prefiled Test., Oct. 3, 2023, p. 7. This approach to determining cash working capital has been previously implemented for water utilities and smaller utilities in Connecticut and is intended to reflect an allowance for 45 days of expenses (45/365 days in a year is approximately 12.5%). See July 2021 CWC Rate Case Decision, pp. 72-73. Accordingly, the Authority uses the 12.5% of O&M methodology for the current Rate Year to establish the Company's cash working capital allowance.

Nonetheless, the reliance on this methodology should not be construed as an endorsement of this approach over a lead-lag study. Rather, the Authority accepts the 12.5% approach due, in part, to the Company's current quarterly billing cycle. Should the Company transition to a monthly billing cycle before its next rate case, PURA will assume that the Company's cash working capital requirements have changed, and the Authority will require a comprehensive lead-lag study from the Company to support its cash working capital request.

Because the Company's cash working capital is 12.5% of the Company's O&M expenses, there is a flow-through impact from the Authority's adjustments to the Company's O&M expenses. In Table 31, O&M Expenses, the Authority approves $46,158,195 of the Company's proposed $50,085,893 O&M expenses, which results in $5,769,774 in approved cash working capital, as summarized below.

Table 13: Cash Working Capital Balance

	Proposed	Approved
Total O&M Expense	$50,085,894	$46,158,195
45-Day Expense Ratio	12.5%	12.5%
Cash Working Capital	$6,260,737	$5,769,774

3. Materials and Supplies

The Authority accepts the Company's proposed $1,308,799 for M&S in its working capital calculation. Late Filed Ex. 1, Ex. 1, Sch. B-4-0; Interrog. Resp. RRU-185; Ex. 1. Ex. 2.

E. Excess Accumulated Deferred Income Taxes (EADIT)

During the hearing, the Company acknowledged that a small portion of EADIT, related to "Cost of Removal," should be categorized as non-protected. Tr., 453:11-25.

The Company states that a determination of the Cost of Removal balance depends upon certain issues to be determined in this Decision. Interrog. Resp. RRU-510.

The Authority recognizes the potential complexities involved in quantifying specific EADIT categories. Nevertheless, accurate categorization and quantification of EADIT are critical in ensuring that ratepayers do not bear the burden of taxes that the utility is not obligated to pay. Accordingly, the Authority directs the Company to obtain the information necessary to accurately quantify the EADIT balance for cost of removal and provide this quantification in the Company's next rate case filing.

F. Deferred Expenses

1. Summary

The Authority will exclude $6,274,568 of the Company’s deferred expenses from rate base. Instead, the Company will be permitted to recover deferred expenses as an amortized O&M expense.

Table 14: Deferred Expenses Excluded from Rate Base

Components	Proposed ($)	Adjustments ($)	Allowed in Rate Base ($)
Tank Painting and Well Redevelopment	2,576,177	(2,576,177)	-
Carbon Filters	374,029	(374,029)	-
Deferred Revenue	841,268	(841,268)	-
Rate Case Costs	1,096,356	(1,096,356)	-
Storm Costs	356,757	(356,757)	-
Sales and Use Tax	810,404	(810,404)	-
DPH Fee	(327,746)	327,746	-
Pension/VEBA	547,323	(547,323)	-
Total	**6,274,568**	**(6,274,568)**	-

2. Deferred Tank Painting & Well Maintenance

In Section VI.A.7.b, Tank Painting & Well Maintenance, Amortization of Deferred Costs, the Authority approves the amortization of deferred costs for tank painting and well redevelopment as an O&M expense. Given this method of cost recovery, the Authority does not allow associated costs to be included in rate base. Beginning July 1, 2024, CWC shall no longer defer maintenance costs for tank painting and well redevelopment or maintenance; rather, the Company is permitted to recover such costs as O&M expenses, which will employ a balancing account subject to a prudency review in the Company's next rate case.

The Company affirmed that tank painting expenses are maintenance expenses because "the painting of the tank does not extend the life or increase the functionality of the tank . . . The Company . . . performs the painting maintenance for each tank approximately every 10 years . . . ." Late Filed Ex. 19. CWC was previously granted the approval to defer and amortize the related costs. Id. Notwithstanding this prior treatment, the Authority finds that tank painting and well redevelopment costs are maintenance expenses, and, as such, these costs should be treated as recoverable O&M expenses, to be funded by a balancing account, with a prudency review in the Company's next rate case.

3. Deferred Carbon Filter Expenses

In Section VI.A.10.f, Deferred Carbon Filter Expense, the Authority approves the amortization of deferred costs for carbon filters. The Authority finds that carbon filter expenses are annual O&M expenses and should no longer be capitalized into rate base. Beginning July 1, 2024, CWC shall no longer defer maintenance costs for carbon filters; rather, the Company will be permitted to recover such costs as O&M expenses. Given this method of cost recovery, the Authority does not allow associated costs to be included in rate base.

The Company testified that carbon filter costs, like tank painting and well redevelopment, are O&M expenses that it has treated as a regulatory or deferred asset, despite not being included in plant-in-service for accounting purposes. See Tr., 1503:21-

1504:11. Notwithstanding this prior treatment, the Authority finds that carbon filter costs are maintenance expenses and, as such, should be treated as recoverable O&M expenses. Accordingly, the costs associated with carbon filters should no longer be deferred during the interim periods between rate cases. In Section VI.A.6.c, Carbon Filter Expenses, the Authority allows the Company recover O&M expenses for the Rate Year.

4. Deferred Revenue

The Company proposes to include a deferred revenue balance of $841,268, and the related deferred taxes, as of December 31, 2024, in rate base. Late Filed Ex. 1; Sch. B-6.0, p. 1. The balance relates to $318,580 of monthly revenue that was deferred from January 2007 through March 2008, as part of a settlement agreement.[14] To reduce the effect of reflecting the same annual carrying cost on an annually declining deferred balance, however, the Authority does not approve the Company's proposed inclusion of $841,268, and the related deferred taxes, in the Company's proposed average rate base. Instead, in Section VI.A.12, Deferred Revenue Amortization, the Authority approves the Company's recovery of the deferred revenue by amortizing $895,925, the balance as of July 1, 2024, and carrying costs outside of the rate base.

On March 28, 2008, the Authority approved the amortized recovery of a deferred revenue balance of $4,778,700, with a return on the unamortized balance. The table below shows the historical balance, with initial accruals and subsequent amortization. The Authority finds that the deferred revenue balance, as of July 1, 2024, is $895,925, accounting for the $119,470 ($238,940 / 2) amortization recovery for the first six months of 2024.

Table 15: Deferred Revenue Balance (Dec. 31, 2023)

	Deferred Revenue ($)	Amortization ($)	Balance ($)
Dec. 31, 2007	3,822,960	-	3,822,960
March 31, 2008	955,740	-	4,778,700
Dec. 31, 2008	-	(179,205)	4,599,495
Annual amortization (2009-2023)	-	(238,940)	-
# of Years	-	15	-
Subtotal (2009 - 2023)	-	(3,584,1000)	1,015,395
Total (as of July 1, 2024)		**($119,470)**	**$895,925**

Late Filed Ex. 1, Ex. 1, Sch. B-6.0, p. 1; Interrog. Resp. RRU-147, Ex. 1; Interrog. Resp. RRU-490, Ex. 1.

[14] On January 17, 2007, PURA approved a settlement agreement that included deferred revenue of $10,940,821, which would be recovered in two phases. Decision, Mar. 28, 2008, Docket No. 06-07-08PH02, Application of The Connecticut Water Company to Amend Rate Schedules – Adjustment to Annual Revenues, p. 2. On March 28, 2008, PURA approved CWC's requested recovery of "$3,823,049 deferred to Phase II, plus the amortization of the regulatory asset created by the deferral and a return on the unamortized balance of the regulatory asset." Id., pp. 10-12.

Accordingly, the deferred revenue balance of $895,925 shall be recovered outside of rate base, with carrying costs, over a three-year amortization.

5. Rate Case Expenses

The Company includes a projected balance of $443,297, and the related deferred taxes, as of December 31, 2024, in its proposed rate base for rate case expenses associated with its prior rate proceeding, Docket No. 20-12-30.[15] The Company includes $653,333, and related deferred taxes, in its proposed rate base for costs associated with this proceeding. In Section VI.A.11, Rate Case Expenses, the Authority approves the amortization of (1) deferred costs for prior rate case expenses and (2) costs associated with this proceeding. Given this method of cost recovery, the Authority does not allow associated costs to be included in rate base.

6. Storm Costs

The Company includes a projected balance of $356,757, and the related deferred taxes, as of December 31, 2024, in its proposed rate base for deferred storm costs. In Section VI.A.10.c, Storm Costs Amortization, the Authority approves the amortization of storm costs and carrying costs outside of rate base. Given this method of cost recovery, the Authority does not allow associated costs to be included in rate base.

7. Sales and Use Tax

The Company proposed a six-year amortization of certain sales tax related deferrals by incorporating $810,403 (deferred sales tax, $961,188 + sales tax regulatory liability, $(632,258) + sales tax regulatory asset, $481,474) into its rate base. The Authority does not allow inclusion of $810,403 (the balance as of December 31, 2024) for net sales tax related deferrals in the proposed average rate base. In Section VI.A.10.d, Sales and Use Tax Amortization, the Authority instead allows the amortization of $884,078 (the balance as of July 1, 2024) and carrying costs outside of rate base. Given this method of cost recovery, the Authority does not allow associated costs to be included in rate base.

8. Department of Public Health Safe Drinking Water Fee

In Section VI.A.10.e, Department of Public Health Safe Drinking Water Fee Amortization, the Authority allows the amortized return of $357,541 (the balance as of July 1, 2024) and interest outside of rate base. CWC reported a regulatory liability of $357,541 as the net Department of Public Health Safe Drinking Water fee (DPH Fee) refundable to ratepayers. Interrog. Resp. RRU-145, p. 2; Late Filed Ex. 1, Ex. 1, Sch. B-6.0, p. 1, Sch. C-3.16, p. 2. The Company proposed a six-year amortization period to refund the regulatory liability and reported $327,746 ($357,541 – [$357,541 / 6] / 2) as the unrefunded balance as of December 31, 2024, the midpoint of the proposed Rate Year. Id.

From 2018 to 2022, the Company collected $959,869 in fees charged to customers on individual bills. Interrog. Resp. RRU-145, p. 2. During the same period, the Company

[15]The Company reduced the deferred balance by $40,274 for July through December 2024, instead of using half of the authorized annual amortization amount, $78,373 ($156,745/2).

paid fees totaling $602,328, resulting in a balance of $357,541. Id. The Company was not authorized to collect fees from customers after June 30, 2021. General Statutes § 19a-37f(d)(1); Interrog. Resp. RRU-145, Ex. 8, p. 36.

The Authority does not approve the Company's request to include $327,746 as a regulatory liability in rate base. Instead, consistent with the Authority's approach for similar expenses and liabilities, the Authority allows $357,541 and associated interest to be returned to customers outside of rate base, amortized over a three-year period.

9. Pension/VEBA Regulatory Asset

CWC requested to amortize the Pension/VEBA regulatory asset of $597,080 over a six-year period. Late Filed Ex. 1, Ex. 1, Sch. B-6.0, p. 1, Sch. C-3.16, p. 2. Based on the proposed six-year amortization, the Company reported a deferred balance of $547,323 as of December 31, 2024, the midpoint of the proposed Rate Year. Id. The Authority does not allow the Company's proposed pension and Voluntary Employees Beneficiary Association (Pension/VEBA) regulatory asset of $597,080, and as such, denies inclusion of the $547,323 deferred balance in rate base.

For 2018 through 2022, the Company reported Pension/VEBA service costs of $10,400,510 and non-service income of $2,503,394. Interrog. Resp. RRU-268, Ex. 12. Accordingly, the Company reported a total cost (net expense) of the Pension/VEBA from 2018 through 2022 as $7,897,116. Id. Of that, $2,624,320 was eligible to be capitalized, and $5,272,796 was eligible to be treated as expenses. The Company testified that it was requesting approval in this proceeding to defer non-service costs that may not be capitalized under current accounting standards.[16] Tr., 299:10-22. CWC implemented the Accounting Standards Update (ASU) 2017-07 on January 1, 2018, and the Company acknowledged that it has not received permission from the Authority to treat the non-service Pension/VEBA expenses as regulatory assets since that date. Interrog. Resp. RRU-491.

During discovery, the Company acknowledged that the amount it was proposing to reclassify as a regulatory asset was a negative number, $(597,080). Interrog. Resp. RRU-268, Ex. 12. This requested amount represents a net *regulatory liability* that should have reduced O&M expenses for the reported five-year period. Without any explanation, the Company subsequently requested that amount as a proposed *regulatory asset* of $597,080. See Late Filed Ex. 1, Ex. 1, Sch. B-6.0, p. 1.

There is no evidence to support the treatment of income as a regulatory asset. Thus, the Authority does not allow the inclusion of the requested deferred balance of $547,323 in the average rate base proposed for the Rate Year. Instead, $597,080 should be treated as reducing the total service costs being treated as expenses during the five years, 2018 - 2022. Therefore, no allowance is appropriate in the instant proceeding.

[16]The Company adopted the current accounting standards, ASU-2017-07, effective January 1, 2018. Tr., 299:23-300:4.

10. Accumulated Deferred Income Taxes (ADIT)

The Authority reduces the net ADIT used to offset the proposed rate base by $2,116,981, as discussed below.

i. Adjustments to Depreciation Expense

As discussed in Section VI.C.4, Deferred Income Taxes, the Authority increases deferred income taxes by $780,755 for the income tax impact of the disallowed depreciation expense of $2,837,303. As a result, the Authority decreases the total ADIT to offset rate base by $390,377 ($2,837,303 x 27.5175% x 50%).[17]

ii. Disallowed Other Rate Base Additions

As summarized in

[17]The total ADIT is multiplied by 50% to reflect the half-year convention or the averaging of beginning and ending balances, and 27.5175%, which represents the composite income tax rate for SIT and FIT (8.25% + 19.268% = 27.518%, rounded). See Sch. A.2.0.

Table 14, Deferred Expenses Excluded from Rate Base, the Authority removes $6,274,567 from the Company's proposed average rate base. Thus, the Authority reduces ADIT by $1,726,604 ($6,274,568 x 27.5175%) for the related deferred taxes.[18]

Consequently, the Authority reduces the total ADIT to offset the proposed rate base by $2,116,981 ($1,726,604 + $390,377).

G. Five Year Capital Plan

The Company provided a Five-Year Capital Plan, which is summarized in the following table:

[18]This adjustment reflects the average rate base effect multiplied by 27.5175%, i.e., the composite income tax rate for SIT and FIT (8.25% + 19.268% =27.518%, rounded). See Sch. A.2.0.

Table 16: Five-Year Capital Plan Summary

Description	2023 ($)	2024 ($)	2025 ($)	2026 ($)	2027 ($)
Well and Reservoir Improvements	1,415,810	3,370,103	5,640,000	4,490,000	1,715,000
Pumping Improvements	1,755,400	5,100,000	3,530,000	2,780,000	5,530,000
Water Treatment	19,998,000	11,269,700	47,015,000	40,165,000	27,515,000
Transmission and Distribution	48,116,609	53,295,380	71,825,000	72,165,000	70,790,000
General Plant	7,022,775	7,861,000	8,795,000	7,815,000	13,430,000
Management Information System	8,323,885	11,720,356	9,693,362	7,284,562	7,210,740
Mapping	45,000	85,000	70,000	45,000	45,000
Land and Land Rights	15,000	30,000	30,000	15,000	15,000
Total Water	**86,692,479**	**92,731,539**	**146,598,362**	**134,759,562**	**126,250,740**
Sewer	659,000	713,000	1,529,000	329,000	1,527,500
Total Capital Expenditures	**87,351,479**	**93,444,539**	**148,127,362**	**135,088,562**	**127,778,240**

Application, Sch. F-7.0, pp. 1-5.

The Company included investment of between $87.4 million and $148.1 million per year and claims that this investment is necessary to continue to address anticipated infrastructure needs and regulatory requirements. Application, Ex. A.5, p. 10.

The Authority will require annual reporting by the Company, beginning on March 31, 2025, and annually thereafter, showing a comparison between actual capital spending and the Company's Five-Year Capital Plan for the prior year and plan-to-date.

V. COST OF CAPITAL

A. Summary

The Authority approves a weighted average cost of capital as depicted in the table below:

Table 17: Weighted Average Cost of Capital

Capital Source	Allocation	Cost	Weighted Cost
Long-term Debt	47.000%	3.851%	1.810%
Common Equity	53.000%	9.300%	4.929%
Total	**100.000%**		**6.739%**

The determination as to the allocation and cost of each source of capital is provided below.

B. Proxy Group

The Authority identified a group of 11 comparable companies (Authority Proxy Group) that can be analyzed to ascertain the market-based range of the cost of equity (COE) for the Company. The Authority applies certain criteria (Authority Screening Criteria) to identify companies that have a similar risk and investment profile as the Company. Specifically, the Authority considers whether a potential proxy company: (1) is predominantly in the same utility industry as the subject utility, determined by the percentage of regulated revenues in that industry with the Company's total revenue (70% for electric and water, 50% for gas), as reported by Value Line; (2) is publicly traded and reported by Value Line; (3) has paid consistent dividends for eight quarters and is expected to continue; (4) cannot be in financial distress; (5) is not the target of an acquisition or merger activity; (6) has credit ratings that are at least investment grade, as determined by Standard & Poor's (BBB- and above) and/or Moody's (Baa3 and above); and (7) is not projected to have negative earnings growth as reported by Value Line. Decision, Mar. 15, 2023, Docket No. 22-07-01, Application of Aquarion Water Company of Connecticut to Amend its Rate Schedules, p. 31 (2023 Aquarion Rate Case Decision). Applying the Authority Screening Criteria produces a proxy group that has similar revenues to the company being analyzed, a similar credit profile to the company being analyzed, and robust data to use in the COE methodologies (i.e., achieved by the limits of no negative growth, financial distress, and merger activity).

The Authority considered the proxy groups proposed by the Company, OCC, and EOE. All parties recommended proxy group companies consisting of publicly traded water companies followed by Value Line. EOE only considered the Value Line water companies, while the Company and OCC expanded their respective proxy groups to include publicly traded gas companies followed by Value Line. Rothschild Prefiled Test., Dec. 14, 2023, p. 48; Woolridge Prefiled Test., Dec. 14, 2023, p. 23; Bulkley Prefiled Test., Oct. 3, 2023, p. 39. The Company's review was further expanded to include electric utilities followed by Value Line with the parameter that the electric company had revenues derived from water utility operations. Bulkley PFT, p. 39.

To develop its proposed proxy group, the Company began with a group of 18 companies followed by Value Line classified as water utilities and natural gas distribution companies. The Company then applied the following screening criteria to identify companies that: (1) pay consistent quarterly cash dividends; (2) have an investment grade, long-term issuer credit rating from S&P and/or Moody's; (3) are covered by at least two utility industry analysts; (4) have positive long-term earnings growth forecasts from at least two utility equity analysts; (5) derive more than 70% of their total operating income from regulated operations; and (6) were not parties to a merger or transformative transaction during the period covered. Bulkley PFT, pp. 37-38. The Company increased its field of potential proxy group companies by expanding its review to 36 companies that Value Line classifies as electric utilities and applied the same six criteria used to screen the water and natural gas companies while adding two additional screening criteria to include electric companies with risk comparable to CWC. Bulkley PFT, p. 38. The additional electric screening criteria were that the companies: (1) have owned generation comprising less than 10% of the company's MWh sales; and (2) own water operations. Id. The Company also excluded SJWG, CWC's parent corporation, from its proposed proxy group as a matter of analyst general practice. Id., p. 39. The Company's screening

criteria resulted in the inclusion of 11 companies (CWC Proxy Group). These companies are: American States Water Works Company, Inc.; American Water Works Company; California Water Service Group; Essential Utilities, Inc.; Middlesex Water Company; Atmos Energy Corp.; NiSource, Inc.; Northwest Natural Gas Company; ONE Gas, Inc.; Spire, Inc.; and Eversource Energy. Bulkley PFT, pp. 37-39, Ex. AEB-1, Sch. AEB-3; Bulkley Rebuttal Test., Jan. 4, 2024, Ex. AEB-2, Sch. AEB-3.

OCC proposed a proxy group (OCC Proxy Group) of 14 companies that consisted of the six water companies followed by Value Line and the eight gas distribution companies followed by Value Line. Woolridge PFT, p. 23, Ex. JRW-3. To meet OCC's screening criteria, the company must be followed by Value Line as a water or gas distribution company. Interrog. Resp. RRU-549. OCC did not exclude CWC's parent company, SJWG, because it is a significant US water company. Interrog. Resp. RRU-549. The OCC Proxy Group consists of American States Water, American Water Works Company, California Water Service Group, Essential Utilities, Inc., Middlesex Water Company, SJW Corp., Atmos Energy, Chesapeake Utilities, New Jersey Resources, NiSource Inc., Northwest Natural Gas Co., ONE Gas, Inc., Southwest Gas, and Spire. Woolridge PFT, p. 23, Ex. JRW-3. The difference between the Company and OCC proxy groups is the Company's exclusion of SJWG, Chesapeake Utilities, New Jersey Resources, and Southwest Gas, and the Company's inclusion of Eversource. OCC suggested that the difference in the proxy groups is not a significant issue that impacts the analysis, because 10 of the 11 companies in the CWC Proxy Group are in the OCC Proxy Group. Woolridge PFT, p. 23, Ex. JRW-3.

EOE's proxy group (EOE Proxy Group) consisted of the six publicly traded water companies followed by Value Line. Rothschild PFT, p. 48. EOE chose only water utilities for its proxy group because the selected companies were comparable in risk to CWC, had publicly traded stocks, and were fully covered by Value Line. Interrog. Resp. RRU-578. EOE noted that it may be reasonable to include natural gas companies because regulated water and gas distribution companies have similar risk characteristics and that adding the natural gas companies provides additional data; however, EOE noted that the data may reflect factors that impact the natural gas distributors and not water utilities. Id.[19]

After considering the parties' respective positions regarding appropriate proxy group formations, the Authority finds that three companies that OCC included in its proxy group (Chesapeake Utilities, New Jersey Resources, and Southwest Gas) should be excluded because they do not meet the Authority Screening Criteria insofar as the companies' regulated water utility revenues exceed 70% of the companies' total revenue. Indeed, Chesapeake Utilities, New Jersey Resources, and Southwest Gas only derive 53%, 34%, and 43% of their respective revenues from any regulated operations.

[19]The Company asserted that it "is unreasonable to use the EOE analyses to support the analyses that the Proposed Final Decision relies upon because the proxy groups are not comparable . . . ." CWC Exceptions, p. 10. Although the Authority used a broader proxy group, there is no evidence that EOE's proxy group is not representative of the water utilities. In fact, EOE's proxy group, being limited to water utilities, may better represent the risk for water utilities. Further, there is no indication that the financial data for EOE's proxy companies improperly skewed the results of the analysis. Consequently, the Company's objection to EOE's analysis is not supported by the record.

Woolridge PFT, Ex. JRW-3. As such, the financial data for these companies is not necessarily reflective of a regulated utility such as CWC.

As to the Value Line Natural Gas companies, the Authority finds it reasonable to include these companies as recommended by the Company and OCC as both natural gas and water utilities have similar risk characteristics and are pipe throughput industries (i.e., delivery of the service through underground pipes); the inclusion of the natural gas companies is also consistent with the Authority's past precedent in the Company's last rate case decision, see July 2021 CWC Rate Case Decision, p. 34, which also included Value Line natural gas companies.

Further, the Authority concludes that CWC's parent company, SJWG, should be included in the proxy group because it meets the Authority Screening Criteria and, as such, is a reasonable surrogate. The Company excluded SJW from its proxy group out of its "general practice" of excluding the subject company or its parents from the proxy group. Bulkley PFT, p. 39. Absent a substantive reason to exclude SJWG, the Authority finds no reason to exclude SJWG from the proxy group.

Finally, the Authority concludes that Eversource should be excluded from the proxy group because it does not meet the Authority Screening Criteria. Specifically, Eversource is primarily an electric utility deriving 83.13% of regulated to total revenue from electric operations, 14.80% from natural gas distribution, and merely 2.12% from water operations, far short of the Authority Screening Criteria. Interrog. Resp. RRU-360, Att. 2. As such, Eversource is not a reasonable proxy for the Company.

Consequently, the Authority finds that the following 11 companies are closely aligned with CWC's business and financial characteristics and have met the specifications of the Authority Screening Criteria. As such, these companies comprise a reasonable proxy group for analyzing the Company's COE. Further, the expansion of the proxy group to include natural gas companies provides a more holistic profile of the returns expected by equity investors for regulated water utilities.

Table 18: Proxy Group Summary

No.	Utility Companies	Company	OCC	EOE	Approved
1	American States Water Co.	Y	Y	Y	**Y**
2	American Water Works Co.	Y	Y	Y	**Y**
3	Atmos Energy	Y	Y	N	**Y**
4	California Water Service Group	Y	Y	Y	**Y**
5	Essential Utilities, Inc.	Y	Y	Y	**Y**
6	Middlesex Water Co.	Y	Y	Y	**Y**
7	NiSource, Inc.	Y	Y	N	**Y**
8	Northwest Natural Gas Co.	Y	Y	N	**Y**
9	ONE Gas, Inc.	Y	Y	N	**Y**
10	Spire, Inc.	Y	Y	N	**Y**
11	SJWG	N	Y	Y	**Y**
	Eversource Energy	Y	N	N	**N**
	Chesapeake Utilities	N	Y	N	**N**
	New Jersey Resources Corp.	N	Y	N	**N**
	Southwest Gas	N	Y	Y	**N**

C. Capital Structure

1. Summary

The Authority finds that a capital structure consisting of 53% common equity and 47% long-term debt is reasonable. The table below summarizes the authorized allocation.

Table 19: Approved Capital Structure

Capital Component	Allocation
Long-term Debt	47.00%
Common Equity	53.00%
Total	100.00%

2. Position of the Parties

The Company proposed a capital structure consisting of 53.13% common equity and 46.87% long-term debt. Bulkley PFT, p. 80. Notably, the Company stated that its proposal is based on a comparison of the capital structure of the utility operating subsidiaries of the companies in the proxy group, rather than the proxy companies. Id. As a result, the Company's analysis indicated that the three-year average common equity ratio of the operating subsidies ranged from 49.41% to 59.88%. Id. The Company did not propose incorporating short-term debt into its ratemaking capitalization mix.

OCC proposed a capital structure that includes 6.40% short-term debt, 41.63% long-term debt, and 51.97% common equity. OCC's analysis indicated that its proposal mirrored CWC's average capitalization ratios over the last three years. Woolridge PFT, p. 33, Ex. JRW-4. Moreover, OCC disagreed with CWC's use of common equity ratios of the subsidiaries in the CWC Proxy Group because subsidiaries are not publicly traded

companies, and their stocks cannot be used to compute the Company's COE capital. Woolridge PFT, p. 27. Rather, OCC used the common equity ratios of the utility holding companies. Id. As such, OCC stated that the average capitalization ratios for the parent holding companies in the OCC Proxy Group are 44.90% equity and 55.10% debt. Id., p. 26.

Additionally, OCC proposed that the Company's capital structure include short-term debt because the Company has consistently used short-term debt as a source of financing over the past three years and because CWC's proposed capital structure has a higher common equity ratio with less financial risk than the OCC Proxy Group, those approved for other water utilities, and its parent company, SJWG. Id., p. 27.

EOE proposed a capital structure of 50.53% common equity and 49.47% long-term debt, which represents the average common equity ratio of the companies in the EOE Proxy Group. Rothschild PFT, p. 9.

3. Capital Structure Analysis

The Authority establishes the ratemaking capital structure by carefully weighing several factors, including: the actual capital structure of the utility and its parent company; the range of capital structures of the proxy group; and the credit rating agency metrics. The Authority is obligated to balance both investor and consumer interests in reaching a determination on the appropriate capital structure. Woodbury Water Co., 174 Conn. at 264. Generally, the utility will advocate for a more "equity rich" capital structure because earnings on equity provide a better return for investors; whereas parties such as OCC will advocate for a less "equity rich" capital structure because debt is less expensive for ratepayers than equity.

However, investor and consumer interests in capital structure are not entirely divergent. Specifically, a capital structure with too little equity would maximize the benefits of lower cost debt but would ultimately increase the Company's risk profile and, hence, the cost of capital; whereas a capital structure with too much equity would unnecessarily burden ratepayers with a more expensive capital structure, which would require a commensurate reduction in the cost of capital to account for the lower risk profile. Consequently, the Authority must account for a variety of factors to find an optimal capitalization mix for the Company's cost of capital.

a. Actual Capital Structure

In the Company's most recent rate case, the Authority approved an equity capitalization of 52.73% for ratemaking purposes. July 2021 CWC Rate Case Decision, p. 31. Subsequently, the Company maintained an A- rating from S&P indicating this capital structure was credit supportive. Id. In addition, the Company maintained an actual equity capitalization of 53.3% and 51.6%, as of December 31, 2022, and as of September 30, 2023, respectively, which is consistent with the Company's approved equity capitalization of 52.73%. Consequently, this factor indicates that an equity capitalization in the 51% to 53% range would be reasonable.

b. Proxy Group Capital Structure

The second factor to consider when determining a reasonable capital structure for ratemaking purposes is the capital structures of the proxy group of companies used in the COE models. The parties utilized different methodologies to calculate their respective proxy group's capital structure. The Company used the consolidated financial information from the CWC Proxy Group to ascertain the capital structures of the non-publicly traded subsidiary operating companies. The Company's methodology used Securities and Exchange Commission (SEC) Form 10-K to calculate the percentage of regulated operating income for each of the underlying operating companies of the publicly traded holding companies. Thus, the Company determined the capital structure of each regulated subsidiary capital structure and developed a composite holding company capital structure. Applying this methodology, the Company calculated a CWC Proxy Group three-year average capitalization mix of 55.87% (ranging from 49.41% to 59.88%) for the operating subsidiaries. Bulkley PFT, pp. 80-81, Ex. AEB-1, Sch. AEB-12.

Conversely, OCC and EOE determined the capitalization mix for their respective proxy groups by using financial information from the proxy companies, which are publicly traded. By using reported financial information of the proxy companies rather than the subsidiaries, OCC and EOE were able to utilize the proxy companies' actual capital structure from the SEC Form 10-K filings, supplemented with data from S&P-IQ and Value Line. Woolridge PFT, p. 27. Applying this methodology, OCC determined that the OCC Proxy Group's average capitalization mix for the traded holding companies was 44.9% common equity to 55.1% long-term debt. Woolridge PFT, p. 26, Ex. JRW-3. For similar reasons as OCC, EOE also advocated that the publicly traded holding companies, not the operating companies, should serve as the basis for the allowed ratemaking capitalization mix and suggested a ratemaking capitalization mix of 50.53% common equity to 49.47% debt derived from the EOE Proxy Group average capitalization mix. Rothschild PFT, p. 76.

The below table summarizes the capitalization data provided by the parties.

Table 20: Proxy Group Equity Capitalization

	Company	OCC	EOE
Low	49.41%	33.30%	41.30%
High	59.88%	54.00%	62.10%
Average	55.87%	44.90%	50.50%

Bulkley PFT, Ex. A.8, Sch. AEB-12; Woolridge PFT, Ex. JRW-3; Rothschild PFT, Ex. ALR-5, p. 5.[20]

[20]The Company also analyzed the proxy companies' "market value common equity ratio", finding the mean ratio was 65.05%. Bulkley Rebuttal Testimony, pp. 134-135, Ex. AEB-2, Sch. AEB-12, p. 3. The Company argued that it was improper to "rely[] on a cost of equity estimate based on market values but a capital structure based on book values, ..." Id., p. 135. The Company further contends that neither witness rebutted this analysis; however, the Company's analysis related to Dr. Woolridge's cost of equity analysis, not capital structure. Consequently, the market value common equity ratio, as presented by the Company, is not persuasive evidence as to the capital structure.

Importantly, the companies with the highest (59.88% for ONE Gas and 62.00% for SJWG) and lowest (49.41% for Northwest Natural and 34.70% for NiSource) equity capitalization differ depending on the methodology used. This difference indicates that the capitalization mix chosen by the operating company's management does not necessarily reflect the holding company's actual capitalization mix. In short, the capitalization mix of the operating subsidiary is the result of management decisions, and in some cases, the allocation of parent company debt to the subsidiaries as equity.

Notably, holding companies are often incentivized to boost the equity component of their operating subsidiaries through double leveraging. Double leveraging is a financing technique whereby public utility holding companies use low-cost debt financing at the parent company level to increase their return on capital. Woolridge PFT, pp. 29-30. Essentially, the parent company raises low-cost debt at the parent level and then infuses the debt proceeds into its operating companies as equity, thereby allowing the subsidiary to earn a return using a more equity-rich capital structure. Woolridge PFT, p. 31. Consequently, this incentive can artificially skew the capital structure of operating subsidies towards equity. As such, using the capital structure of operating subsidiaries does not necessarily represent the optimal capital structure for ratemaking.

In addition, the operating companies do not have publicly traded stocks; therefore, their financial reports are subject to less market scrutiny by investors. Consequently, the use of operating subsidiary financial data for determining equity capitalization is less direct than using holding company financial data and, as such, subject to influences not directly visible to the market.

For these reasons and consistent with Authority precedent, PURA finds that the equity capitalization calculated using subsidiary company data reflects a capital structure that is equity-biased and not necessarily reflective of an optimal capital structure. See 2023 UI Rate Case Decision, p. 66; Decision, Dec. 14, 2016, Docket No. 16-06-04, Application of The United Illuminating Company to Increase its Rates and Charges (2016 UI Rate Case Decision), p. 62 (finding that "the holding company level matters since the cost of capital methods are relying on market data and not decisions made by individual management."). Seeming to recognize the equity-bias of its own methodology, the Company proposed an equity capitalization of 53.13%, which is at the lower end of the 49.41% to 59.88% range for the operating subsidiaries and 274 basis points lower than the 55.87% average. Bulkley PFT, pp. 80-81, Ex. AEB-1, Sch. AEB-12.

The analysis of proxy group capitalization produces a wide range of possible capitalizations regardless of which methodology is employed, with even the averages spread between 45% and 56%. As such, this factor indicates an equity capitalization in relative proximity to 50% (i.e., 48% to 52%).

c. Credit Rating Effect

Another factor the Authority considers is how the capital structure may affect the credit rating of the Company. The Authority reviewed the effect that the different capital structures and ROEs would have on the Company's core metrics used by rating agencies to assess the Company's creditworthiness. For example, Moody's ranges for debt-to-capital are 40% – 55% for A ratings and 55% – 70% for Baa ratings. Interrog. Resp. RRU-

6; Confidential Interrogs. Resp. RRU-519, RRU-521a, and RRU-522a. Based on the review of credit rating metrics using equity capitalizations of the proxy group of companies, the Authority concludes an equity capitalization in the range of 45% to 55% would be supportive of the Company's credit rating. Interrog. Resp. RRU-6; Confidential Interrogs. Resp. RRU-519, RRU-521a, and RRU-522a.

d. Short-Term Debt

The Company argues to exclude short-term debt for ratemaking purposes as the ratemaking capital structure is intended to reflect the way the utility finances permanent plant, property, and equipment. Bulkley PFT, p. 80; Interrog. Resp. RRU-22; Interrog. Resp. RRU-45. Therefore, the Company asserts that the capital structure should consist of only long-term debt and common equity with the benchmark of reasonableness to be the range of capital structures employed by the utility operating subsidiaries of the proxy companies. Bulkley PFT, p. 80.

In contrast, OCC recommended incorporating short-term debt into the ratemaking capitalization mix because CWC has consistently used short-term debt as a source of capital over the past three years. Woolridge PFT, p. 29, Interrog. Resp. OCC-270, Att. A.

A review of the Company's capital structure shows that from December 31, 2020, to December 31, 2022, the Company consistently used short-term debt as a financing tool. Notably, from 2021 through 2023, CWC's average use of short-term debt was 6.40%, with a low of 3.10% (2022 Q4) to a high of 11.06% (2021 Q2). Woolridge PFT, Ex. JRW-4; Interrog. Resp. OCC-270. More recently, for the three quarters in 2023, short-term debt is also used consistently on average 5.25% (average of 4.4%, 5.12%, and 6.22%). Interrog. Resp. RRU-20, Ex. 1. The Company's narrative did not address its reliance on short-term debt, but CWC did provide a Schedule D-2 indicating that approximately $22.085 million in short-term debt outstanding incurred in 2022 would be paid off with the proceeds of the 2023 Long-Term Debt Issuance, albeit at an unspecified later date. Late Filed Ex. 1, Ex. 1, Sch. D-1.0 (Update), Sch. D-2.0, Sch. D-3.0. This forthcoming paydown of short-term debt with long-term debt is further evidence that the Company uses at least a portion of its short-term debt as a source of capital.

However, under the current macroeconomic conditions, the cost of short-term debt will likely continue to exceed or, at least, be equal to the cost of long-term debt during the Rate Year. As such, an optimal capitalization would minimize reliance on short-term debt in favor of long-term debt. Given that the Company proposed to exclude the more expensive short-term debt from its capital structure and that the capital structure should be designed to incentivize efficient use of debt, the Authority will not include short-term debt in the Company's capitalization for ratemaking purposes. Under different economic circumstances, an optimal capitalization might include short-term debt, but that issue is not present today.

e. Conclusion

With regard to the overall capital structure, the Authority has considered (1) the actual capital structure of the utility, (2) the capital structures of the proxy group, (3) the credit rating agency metrics, and (4) the use of short-term debt. These various factors

indicate an equity capitalization in the range of 50% – 53%. In weighing these various factors, the Authority finds a capital structure consisting of 53% common equity and 47% long-term debt will permit a reasonably optimal cost of capital. By adopting a capitalization mix on the more equity-rich end of this range, the Authority seeks to lower the Company's risk profile and, therefore, allow the opportunity to lower the Company's cost of equity and debt components of the overall cost of capital.

D. Cost of Debt

1. Long-Term Debt

The Authority approves a cost of 3.851% for the Company's projected $338 million in long-term debt, which is determined by calculating a weighted average of the Company's existing and known long-term debt issuances. The below table summarizes the Company's long-term debt costs.

Table 21: Cost of Long-Term Debt (June 30, 2024)

Debt Issue	Coupon Rate	% of Debt	Effective Rate
CoBank NP, Due 2032	4.72%	4.37%	4.34%
CoBank NP, Due 2028	4.29%	5.03%	3.98%
2004 Series A, Due 2028	1.35%	1.48%	3.83%
2004 Series B, Due 2028	1.35%	1.34%	3.68%
2004 Series Var. Rate, Due 2029	2.16%	3.69%	4.59%
CoBank NP, Due 2033	4.75%	4.30%	4.22%
CoBank NP, Due May 2036	4.36%	8.87%	3.57%
CoBank NP, Due July 2036	4.04%	5.89%	3.48%
NYL Senior Note, Due Sept. 2037	3.53%	10.34%	3.55%
NYL Senior Note, Due Mar. 2050	3.51%	10.34%	3.52%
2021A Series A, Senior Note, Due 2051	3.07%	14.78%	3.11%
2021B Series A, Senior Note Due 2051	3.10%	14.78%	3.14%
NYL Senior Note, Due 2052	4.71%	7.39%	4.74%
2023 Senior Note, Due 2053	6.46%	7.39%	6.50%
Average Effective Rate			**3.851%**

Late Filed Ex. 1, Ex. 1, Sch. D-3.0.

2. Short-Term Debt

It is not necessary to determine the appropriate cost of short-term debt because short-term debt is not included in the Company's ratemaking capitalization.

E. Return on Equity

1. Summary

The Authority finds an ROE of 9.30% to be reasonable. In reaching this determination, the Authority considered a variety of factors, including widely accepted financial models for calculating commensurate ROEs, comparable approved ROEs,

current economic and market conditions, and the impact on the Company's creditworthiness.

2. Discounted Cash Flow (DCF) Financial Model

a. DCF Model Description

The DCF model is a market-based financial model that attempts to replicate the valuation process used by investors. The DCF model assumes that investors evaluate stocks in a classical economic framework and buy and sell securities rationally at prices that reflect the assets' value. Under the DCF model, the value of a financial asset is determined by its ability to generate future cash flows. Specifically, the present value of a financial asset equals the discounted value of its expected future cash flows. Investors discount these expected cash flows at their required rate of return (i.e., the cost of common equity or ROE). Therefore, by using proxy company data, the DCF model provides evidence of commensurate ROEs for utilities with corresponding risk profiles.

The traditional constant growth DCF Model requires the following assumptions: a constant growth rate for earnings and dividends; a stable dividend payout ratio; a constant price to-earnings ratio; and a discount rate greater than the expected growth rate.

The DCF model is represented by the formula of K = D1 / Po + G, where:

K = the market-required ROE;

D1 = the forecasted dividend paid one period into the future;

Po = an estimate to the current market price of the stock; and

G = investors' long-run growth expectations.

In short, the ROE (K) can be determined by summing the expected dividend yield (D1/Po) and the expected growth rate (G).

b. Expected Growth Rate

The Authority first considers the expected growth rate for the proxy companies because the expected growth rate is also a factor in calculating the expected dividend yield. The constant growth form of the DCF Model assumes a single growth estimate in perpetuity. To reduce the expected growth rate to a single measure, the constant payout ratio, earnings per share (EPS), dividends per share (DPS), and book value per share (BVPS) are assumed to all grow at the same constant rate. The distinction between the parties' approaches to the expected growth rate is (1) the specific growth measures considered and (2) the weighting of the measures.

For its expected growth rate, the Company uses the EPS growth estimates from Zacks Investment Research, Thompson First Call (provided by Yahoo!Finance), and Value Line. Bulkley PFT, pp. 46-47. Given that the Authority includes retention growth (also referred to as the sustainable growth rate) in its valuation methodology, the Company also reviewed retention growth. However, the Company excluded retention

growth based on its belief that retention growth only considers internally generated funds. Bulkley PFT, p. 48. Furthermore, DPS and BVPS growth rates were excluded by the Company. Id., p. 49. The Company limited its analysis to EPS growth estimates based on its assumption that dividend growth can only be sustained by earnings. Interrog. Resp. RRU-372; Interrog. Resp. RRU-373. Based on the Company's approach, CWC calculated a mean and median growth rate for the CWC Proxy Group of 6.18% and 6.10%, respectively. Bulkley Rebuttal, Ex. AEB-2, Sch. AEB-2, pp. 1-3.

OCC proposed a growth rate methodology that considers growth measures other than just EPS. OCC asserts that relying exclusively on stock market analysts' and Value Line's EPS growth rates overstates DCF results "by using overly-optimistic and upwardly-biased [EPS] growth-rate forecasts. . . ." Woolridge PFT, p. 7. Furthermore, financial studies have found projected stock returns to be overly optimistic and of no predictive value. Id., pp. 50-54. OCC indicated one way to use these upwardly biased analyst EPS estimates would be to downwardly adjust the DCF EPS growth rates. Id., p. 54. Specifically, OCC analyzed a number of company growth measures, including historical and projected growth rate measures for EPS, DPS, and BVPS. OCC also utilized Wall Street analysts' EPS forecasts from Yahoo, Zacks, and S&P Capital IQ (S&P-IQ). Id., pp. 47-48.[21] In addition, OCC assessed prospective growth as measured by the internal growth rate (i.e., sustainable growth rate) and earned returns on common equity. OCC indicated the sustainable growth rate is a significant factor in determining long-run earnings and was included because investors recognize the importance of internally generated funds and are willing to pay a premium for stocks with high returns on internal investments. Id., p. 49. In weighing the various growth measures, OCC gives "primary weight to the projected EPS growth rate of Wall Street analysts but recognize[s] the upward bias nature of these forecasts." Id., p. 56.

Applying this methodology to the OCC Proxy Group, OCC identified a range of 5.50% to 6.30% and proposed to use 6.00% in its DCF calculation. The 6.00% is near the mid-point of the OCC growth range yet falls in the upper quadrant of the range of historic and projected growth rates. Woolridge PFT, p. 56, Ex. JRW-5.

EOE approaches the growth rate calculation differently, asserting that the growth rate must be representative of constant sustainable growth. Rothschild PFT, pp. 50-57. According to EOE, the COE demanded by investors is the sum of two factors: dividend yield and growth. Id., p. 51. According to EOE, "[t]o obtain an accurate constant growth DCF result, the mathematical relationship between earnings, dividends, book value, and stock price must be respected." Id. EOE further states that the difference between analysts' EPS growth rates and the constant form DCF using the sustainable growth rate approach incorporating "bxr" (i.e., the earnings retention ratio multiplied by the rate of return on common equity) is that bxr eliminates the mathematical error of inconsistency between expectations of EPS growth and DPS growth, thus producing a superior calculation. Id. EOE also asserts that growth rates such as five-year projected EPS

[21] In prior rate cases, the Authority considered but excluded the Value Line historical EPS, DPS, and BVPS rates from its analytical models. See, e.g., 2023 UI Rate Case Decision, pp. 71-72; 2023 Aquarion Rate Case Decision, p. 46; July 2021 CWC Rate Case Decision, p. 36; 2013 UI Rate Case Decision, pp. 127-129; 2016 UI Rate Case Decision, p. 83. For the same reasons previously articulated in those rate case decisions, the Authority will not include historical EPS, DPS, and BVPS growth rates in its analysis.

growth are not indicative of long-term sustainable growth rates in cash flow. Id., p. 52. Rather than using Value Line or analysts' EPS estimates of five-year growth, EOE calculated the growth rate as the internal rate of return growth rate (IRR Growth Rate). The IRR Growth Rate uses estimates of internal sustainable growth rate defined as: growth rate (g) equals the earnings retention rate (b) multiplied by the return on common equity investment (r), plus the rate of continuous new stock financing (s) multiplied by the fraction of funds raised by the sale of new stock (v). Mathematically written as Cost of Equity, or K, equals D/P +(br+sv). Id., p. 52. Overall, EOE indicates the retention growth approach as developed (i.e., its Estimate of Investor Anticipated Growth) eliminates the mathematical error between expected EPS and DPS growth and the tendency that analyst EPS growth rates are higher than investor expectations. Interrog. Resp. RRU-579. Further, EOE found that financial publications do not recommend using EPS growth rates to calculate COE in a DCF model. Id.

Using this approach, EOE proposed a growth rate of 6.03% based on one-year average stock prices and 6.00% based on current prices for the CWC Proxy Group. Rothschild PFT, p. 54, Ex. ALR-3, p. 1. In addition, EOE proposed using a Non-Constant Growth Form of the DCF. This non-constant DCF model is an iterative process using the Internal Rate of Return (IRR) function of the excel spreadsheet. This methodology proposed a growth rate of 4.33% based on average prices and 3.65% based on current prices. Rothschild PFT, p. 57, Ex. ALR-3, p. 2.

Table 22: DCF Expected Growth Estimates (%)

	Range	Mean
Company - CWC Proxy Group	3.85% to 8.65%	6.18%
OCC - OCC Proxy Group	5.50% to 6.30%	6.00%
EOE - Constant Growth	4.33% to 6.03%	6.03%
EOE - Non-Constant Growth	4.00% to 8.83%	4.33%

Bulkley PFT, Ex. A.8, Sch. AEB-5; Woolridge PFT, p. 56, Ex. JRW-5; Rothschild PFT, Ex. ALR-3, pp. 1-2.

The Authority typically uses an expansive approach to determining expected growth rates, which is consistent with OCC's methodology of considering a number of growth measures in addition to EPS growth. Here again, the Authority finds credible OCC's testimony that exclusive reliance on EPS growth results in an improper upward bias. Woolridge PFT, pp. 7, 50-54. Similarly, the Authority credits EOE's testimony that EPS growth rates are not indicative of future long-term sustainable growth rates and are not directly usable in their raw form in the simplified DCF. Rothschild PFT, pp. 106-107. The Authority also credits EOE's testimony that EPS growth is not directly correlated to cash dividend growth expectations and is thus a poor indicator of stock price growth. Rothschild PFT, pp. 108-109. Therefore, although EPS growth is a key contributing factor in estimating future growth, the Authority finds that other measures, including DPS, BVPS, and retention growth, must be considered. Notably, the Authority has consistently included Value Line DPS, BVPS, and sustainable/retention growth rates in its analysis based on the reasonable expectation that investors will consider all of the available

projected growth rate data, rather than considering only a subset of the data. See, e.g., 2023 UI Rate Case Decision, pp. 71-72; 2023 Aquarion Rate Case Decision, p. 46; 2016 UI Rate Case Decision, p. 83.

Accordingly, the Authority determined the expected growth rate for the Authority Proxy Group by considering seven growth measures: (1) Yahoo! Finance 5-year EPS growth; (2) Zacks 5-year EPS growth; (3) S&P CAP-IQ; (4) Value Line 5-year EPS growth; (5) Value Line's projected DPS growth; (6) Value Line's projected BVPS growth; and (7) retention growth rates using Value Line projected EPS, DPS, or BVPS data into its analysis.[22] Specifically, the Authority weighs the averages of the four EPS growth rates for each company equally with the average of the other three growth measures for a composite growth estimate. The result is a mean and median expected growth of 5.76% and 5.72%, respectively. The table below summarizes the growth rate data and analysis.[23]

[22]The Authority calculated the retention growth rates using the simple sustainable earnings/retention growth formula and respective data from Value Line's projections for 2026-2028 column. The Authority concurs with OCC's assessment that the Value Line projections for the BVPS growth rate include Value Line's algorithm for s x v component of the retention growth rate. Interrog. Resp. RRU-554.

[23]Value Line source data: Value Line Issue 9, Water Utility dated Jan. 5, 2024, and Value Line, Issue 3, Natural Gas Utility, dated Nov. 24, 2023, in Interrog. Resp. RRU-231 Supp., Att. 2 (dated Jan 12, 2024). Yahoo!, Zacks, and S&P CAP IQ Growth Rates source data: Yahoo Growth, Interrog. Resp. RRU-567, Ex. JRW-5, p. 5 and Att. RRU-56; Interrog. Resp. RRU-235 Supp., Att. 1; and Interrog. Resp. RRU-233 Supp., Att. 2.

Table 23: DCF Expected Growth Estimates

	EPS Growth (50% weighting)				Other Growth Measures (50% weighting)			
Proxy Company	**Value Line EPS**	**Yahoo! Finance EPS**	**Zacks EPS**	**S&P CAP - IQ EPS**	**Value Line DVPS**	**Value Line BVPS**	**Value Line Retention**	**Weighted Expected Growth**
Atmos Energy.	7.00%	7.50%	7.26%	7.25%	7.50%	5.00%	4.97%	**6.54%**
American States	6.50%	4.40%	6.30%	14%	9.50%	5.50%	4.48%	**7.15%**
American Water	3.00%	7.78%	7.76%	7.76%	8.50%	6.50%	4.02%	**6.46%**
California Water	6.50%	10.80%	8.43%	8.00%	6.50%	5.50%	4.75%	**7.01%**
Essential Utilities	7.50%	5.20%	5.60%	5.80%	8.00%	4.50%	2.70%	**5.55%**
Middlesex Water	5.00%	2.70%	3.85%	--	6.50%	2.00%	5.91%	**4.33%**
NiSource	9.50%	8.30%	7.15%	7.32%	4.50%	5.00%	4.69%	**6.40%**
North West Nat.	6.50%	2.80%	3.70%	5.05%	0.50%	4.00%	2.86%	**3.48%**
One Gas	6.50%	5.00%	5.00%	3.00%	5.50%	6.50%	3.80%	**5.07%**
SPIRE	8.00%	6.57%	5.60%	6.10%	5.0%	6.50%	3.06%	**5.71%**
SJWG	8.00%	6.10%	7.03%	7.00%	5.0%	4.50%	3.74%	**5.72%**
Mean	**6.73%**	**6.10%**	**6.15%**	**7.13%**	**6.09%**	**5.05%**	**4.09%**	**5.76%**
Median	**6.50%**	**6.10%**	**6.30%**	**7.13%**	**6.50%**	**5.00%**	**4.02%**	**5.72%**
	Avg. EPS Growth			**6.53%**	**Avg. Other Growth**		**5.08%**	

The Authority's weighted growth estimates are lower than the Company's for two reasons. First, as discussed above, the Authority takes into consideration a broader range of growth measures. Specifically, the table above shows that the average of the non-EPS growth rates (5.08%) is 145 basis point lower than the average EPS growth rate (6.53%); therefore, the equal weighting of these growth measures results in a lower growth estimate than one based exclusively on EPS growth. Second, the Authority Proxy Group is of a different composition than the CWC Proxy Group, OCC Proxy Group, or the EOE Proxy Group. Generally, the Authority Proxy Group is comprised of less risk than the Company's Proxy Group but has more risk than the EOE Proxy Group, which only contains regulated water utilities. The net result is that the Authority's DCF analysis incorporates a lower overall expected growth rate than the Company.

In summary, based on their specific proxy group and weighting of growth measures, the parties' estimates indicate that an expected growth rate generally falls within a range of 6.0% to 6.2%. The Authority's equal weighting approach to non-EPS growth measures results in an expected growth rate in the range of 5.7% to 5.8%. Consequently, an expected growth rate in the range of 5.7% to 6.2% is supported by the evidence.

c. Expected Dividend Yield

The second input into the DCF model is the Expected Dividend Yield. For purposes of the DCF model, the Expected Dividend Yield is estimated by taking a company's current annual dividend yield and escalating the yield to account for anticipated growth and the timing of dividends.

A company's current dividend yield is not subject to much dispute since a company's dividend and stock price are both published market data. To avoid transient stock price anomalies, an average daily stock price is typically used, with the time period ranging from 30 to 180 trading days. Here, similar to its findings in other recent rate cases, the Authority finds a 30-trading day average stock price to be appropriate because it represents the most current pricing data over a reasonable duration of time and does not reflect any significant market disruptions that might unreasonably impact the average stock price. See 2023 UI Rate Case Decision, p. 73; 2023 Aquarion Rate Case Decision, p. 43; July 2021 CWC Rate Case Decision, p. 35.

The Company calculated a mean and median Expected Dividend Yield for the CWC Proxy Group of 3.48% and 3.59%, respectively (average 3.55%). Bulkley Rebuttal, Ex. AEB-2, Sch. AEB-2.

The Company provided dividend yields for the CWC Proxy Group using 30-, 90-, and 180-trading days and updated its analysis as of January 4, 2024. Bulkley PFT, p. 45; Bulkley Rebuttal, Sch. AEB-2. The Company escalated the dividend yields of each proxy company by each company's one-half of the expected growth rate, known as the "1+.5g approach," using the EPS growth rate described above (i.e., 6.18% approx. average). Id.

OCC determined the Expected Dividend Yield using the "1+.5g approach." Woolridge PFT, p. 45, Ex. JRW-5. OCC analyzed the dividend yield based on the 30-day, 90-day, and 180-day average stock prices and determined a mean and median of 3.00% and 3.30%, respectively, for the OCC Proxy Group. OCC indicated a dividend yield of 3.20% was used for the OCC Proxy Group. Woolridge PFT, p. 45. Based on OCC's analysis, its proposed Expected Dividend Yield is approximately 3.30% (i.e., 3.2% x 1.03). Id., p. 57.

For the constant growth DCF model, EOE calculated dividend yields of 2.35% and 2.11% based on the one-day stock prices and one-year average stock prices, respectively, as of November 30, 2023. EOE then escalated the yield using an expected growth rate, resulting in an Expected Dividend Yield of 2.42% (2.35% + 0.07%) and 2.17% (2.11% + 0.06%), respectively, for the weighted average calculation and spot market calculation. Rothschild PFT, pp. 52-53, Ex. ALR-3, pp. 1-2.[24]

As shown in the table below, the parties' estimates span a fairly wide range, skewing towards an Expected Dividend Yield in the low- to mid-3.0% range.

[24]EOE also performed a non-constant growth form of the DCF model (Non-Constant DCF). This approach is an iterative method using the IRR function built into the excel spreadsheet based on November 30, 2023 data. Rothschild PFT, pp. 56-57, Ex. ALR-3, pp. 3-4.

Table 24: Mean Expected Dividend Yield

Party Proxy Group	Mean	Median
Company	3.48%	3.59%
OCC	3.09%	3.40%
EOE	2.42%	2.17%

The Authority has previously expressed a preference to use Value Line Column (f) data for projected dividends because Value Line is a well-known and disseminated source and because the Value Line algorithm incorporates years of data such that Value Line projects the timing and amount of dividend payments for the next twelve months. The Authority finds that this data is equally reliable as compared to the growth assumptions supporting the 1+.5g factor. See 2023 Aquarion Rate Case Decision, p. 43; 2016 UI Rate Case Decision, p. 82; Decision, Aug. 14, 2013, Docket No. 13-01-19, Application of The United Illuminating Company to Increase Rates and Charges (2013 UI Rate Case Decision), p. 127. Therefore, the Authority examined the projected dividend yields for the next 12 months that are calculated and made commercially available by Value Line. The projected dividend is available at Value Line: Summary & Index's column (f), Estimated Dividend Yield Next 12 Months (Value Line Column (f)).[25] Value Line determines the projected dividends in Column (f) based upon Value Line's proprietary algorithm that projects the specific timing and amount of dividend payments for each company. By contrast, the 1+.5g approach is a generalized, rule-of-thumb approach for projecting future dividends. Consequently, the Column (f) data provides a more nuanced financial analysis from a trusted source.

Neither OCC nor EOE objected to the use of Column (f) data, both finding that the difference in the data compared to the 1+.5g approach was nominal. OCC Interrog. Resp. RRU-551 and RRU-552; EOE Interrog. Resp. RRU-580.

Here, calculating the Expected Dividend Yield using the Value Line Column (f) projections provides results that are consistent with those from the 1+.5g approach. Specifically, as shown in the table below, using the Value Line Column (f) data from the Authority Proxy Group provides an average Expected Dividend Yield of 3.19%.[26]

[25]Source: Value Line Est'd, Div'd Next 12 Mo. (Col f) VL Summary & Index, dated Jan. 12, 2024. See Interrog. Resp. RRU-233 Supp., Att.1.

[26]The Authority's valuation date was the end of the rolling discovery period, January 12, 2024. The Expected Dividend Yield is the function of Price (Po)/forecasted Dividend (D1). The Authority used the last 30 business days adjusted close price (i.e., November 30, 2023, to January 12, 2024) for the price (Po) component of the Expected Dividend Yield. Interrog. Resp. RRU-229 Supp., Att. 1 and Interrog. Resp. RRU-567, Att. RRU-567. The forecasted Dividend (D1) was obtained from Value Line, Summary & Index, Jan. 12, 2024 edition. Interrog. Resp. RRU-233 Supp., Att. 1.

Table 25: DCF Expected Dividend Yield: Value Line Column (f)

Proxy Company	30-day Avg. Stock Price (Jan. 12, 2024)	VL Est. Next 12-Month Div'd	Auth. Proxy Exp. Div. Yield (VL)
Atmos Energy	$115.51	$3.29	2.85%
American States Water	$80.85	$1.80	2.23%
American Water Works	$132.33	$3.00	2.27%
California Water Service	$51.70	$1.04	2.01%
Essential Utilities	$36.99	$1.27	3.43%
Middlesex Water	$66.40	$1.30	1.96%
NiSource	$26.54	$1.03	3.88%
Northwest Natural	$38.73	$1.95	5.03%
One Gas	$62.79	$2.72	4.33%
SPIRE	$62.64	$3.00	4.79%
SJWG	$66.14	$1.52	2.30%
Average	**$67.33**	**$1.99**	**3.19%**

Interrog. Resp. RRU-233 Supp., Att. 1; Interrog. Resp. RRU-229 Supp., Att. 1; Interrog. Resp. RRU-567.

As noted above, the parties' estimates for Expected Dividend Growth span a fairly wide range, with the evidence indicating that a reasonable Expected Dividend Yield for the various proxy groups is in the low- to mid-3% range. The Authority's analysis using the Authority Proxy Group and commercially available dividend projections results in a similar finding, with an average of 3.19%. Consequently, the Authority finds that an Expected Dividend Yield in the 3.1%-3.4% range is reasonable.

d. DCF Results

Once the Expected Growth Rate and Expected Dividend Yield are determined, calculating an ROE is simply a matter of summation.

As discussed in Section V.E.2.bV.E.2.d, Expected Growth Rate, above, the Authority determines an expected growth rate for the Authority Proxy Group is in the range of 5.70% to 6.20%. Further, in Section V.E.2.c, Expected Dividend Yield, the Authority finds that a reasonable Expected Dividend Yield for the Authority Proxy Group is in the range of 3.10% to 3.40%. Applying the DCF formula (i.e., D1/Po + G) results in a calculated ROE range of 8.80% to 9.60%, as summarized in the table below.

Table 26: DCF Results

	Low	High	Average
Expected Growth Rate (G)	5.70%	6.20%	5.95%
Expected Dividend Yield (D1/Po)	3.10%	3.40%	3.25%
Total ROE	**8.80%**	**9.60%**	**9.20%**

3. Capital Asset Pricing Model (CAPM)

a. CAPM Model Description

The CAPM evaluates the relationship between the expected return and risk of investing in a security and can be used to calculate the expected return of an asset. Therefore, similar to the DCF model, by incorporating proxy company data, the CAPM provides evidence of commensurate ROEs for utilities with corresponding risk profiles. To determine the COE, the CAPM first determines the appropriate risk-free rate and then adds a beta, or the degree of co-movement of the security's rate of return with the market's rate of return, multiplied by the expected equity risk premium (ERP), which is the amount by which investors expect the future return on equities, in general, to exceed that on the risk-free asset.

The CAPM model is represented by the formula Ke = Rf + β (Rm-Rf), where:

Ke= the required market ROE;

β = Beta coefficient of an individual security;

Rf = the risk-free rate of return; and

Rm = the required return on the market; the term (Rm - Rf) represents the ERP.

Consequently, once the Beta (β) and ERP (Rm - Rf) are determined, an ROE can be calculated.

b. Beta Coefficient

The measure of Beta in the CAPM analysis represents the volatility of a proxy group of companies as compared to the aggregate market.

In its CAPM model, the Company used the median betas of the CWC Proxy Group as reported by Bloomberg and Value Line. The Bloomberg betas are calculated using 10 years of weekly returns relative to the S&P 500 Index. The Value Line betas are based on Value Line's calculation of five years of weekly returns for the New York Stock Exchange Composite Index. Bulkley PFT, p. 58, Ex. AEB-1, Sch. AEB-6. The Company also did a historical beta analysis using long-term average betas as sourced from Value Line over the period 2013 through 2023. Id., p. 58. Using Bloomberg and Value Line data for its proxy group, the Company identified average betas of 0.77 and 0.85, respectively, and the long-term 30-year, historical Value Line beta at 0.73. Bulkley Rebuttal, Ex. AEB-3, Sch. AEB-3.

OCC also used beta data from Value Line for its proxy group, which indicated an average beta of 0.85. In addition, OCC provided betas from S&P-IQ. S&P-IQ computes betas over a five-year period using monthly returns from the S&P 500. To make the S&P-IQ comparable to the Value Line betas, OCC included the Blume adjustment to S&P-IQ betas as S&P-IQ does not use the Blume adjustment.[27] The adjusted S&P-IQ betas

[27]The Blume Adjustment uses historical regression to estimate future market beta.

indicated an average beta of 0.72. Combining the data together results in a mean and median beta of 0.78 and 0.79, respectively. Woolridge PFT, p. 63, Ex. JRW-6, p. 3. Consequently, OCC proposed a beta of 0.79. Id., p. 1.

EOE used an alternative means to calculate beta wherein EOE incorporates investors' return expectations by calculating option implied betas. The selection of option implied betas is based on EOE's observation that option implied betas provide information regarding future perceived risks and expectations. Rothschild PFT, p. 63. EOE calculated its betas under two scenarios: (1) Historical Blend consisting of 50% Historical Beta (6 months) plus 30% Historical Beta (2 years) plus 20% Historical Beta (5 years); and (2) Forward Beta consisting of 100% Options-Implied Beta. Rothschild PFT, p. 64, Ex. ALR-4, p. 3.

According to EOE, the calculation of the Option-Implied beta requires: (1) obtaining stock option data for the company and market index; (2) filtering the stock option data; (3) calculating the option-implied volatility for the company and the index; (4) calculating the option-implied skewness for the company and the index; and (5) calculating the option implied betas for the company based on implied volatility and skewness for the company and index. Rothschild PFT, p. 67. EOE relied upon the Chicago Board of Options Exchange's VIX and SKEW Index to filter stock option data and to calculate the option-implied volatility and skewness. Id., pp. 68-70.

EOE Hybrid Beta and Forward Beta analysis resulted in Historical Blended Beta and Forward Beta of 0.84 and 0.82, respectively, for its Weighted approach, and 0.88 and 0.81, respectively, for its Spot approach. Id., Ex. ALR-4, pp. 1, 5.

The Authority generally considers both Value Line and Bloomberg Betas to be reliable and has typically averaged the two sources to develop a composite Beta for each proxy company. See 2023 UI Rate Case Decision, pp. 79-80; 2023 Aquarion Rate Case Decision, p. 50; July 2021 CWC Rate Case Decision, pp. 38-39. The table below summarizes the beta data for the Authority Proxy Group.[28]

[28]Bloomberg beta source: Bulkley Rebuttal, Ex. AEB-2, Sch. AEB-3, pp. 4-6. Value Line beta source: Value Line, Issue 9, Water Utility, dated Jan. 5, 2024, and Value Line, Issue 3, Natural Gas Utility, dated Nov. 24, 2023. Updated Value Line beta source: Interrog. Resp. RRU-231 Supp., Att. 1, Jan. 12, 2024; Interrog. Resp. RRU-543 (see RJW Workpapers). SP-IQ beta source: Interrog. Resp. RRU-567, Updated CAPM.

Table 27: Beta Summary

Proxy Company	Value Line (VL) Beta	Bloomberg (BLM) Beta	Average VL+ BLM Beta
Atmos Energy	0.85	0.75	0.80
American States Water	0.70	0.65	0.68
American Water Works	0.95	0.87	0.91
California Water Service	0.75	0.69	0.72
Essential Utilities	1.00	0.85	0.93
Middlesex Water	0.75	0.77	0.76
NiSource	0.90	0.81	0.86
Northwest Natural	0.85	0.71	0.78
One Gas	0.85	0.78	0.82
SPIRE	0.85	0.77	0.81
SJWG	0.85	0.80	0.82
Average	**0.85**	**0.77**	**0.81**
Minimum	**0.70**	**0.65**	**0.68**
Maximum	**1.00**	**0.87**	**0.93**

This time-tested approach indicates a beta in the range of 0.77 to 0.85. This is consistent with OCC's proposed beta of 0.81, as well as the Company's average betas of 0.77 and 0.85. EOE's proposed betas also generally fall within this range.

c. Risk-Free Rate (Rf)

The Company identified three possible risk-free rates: (1) the current 30-day average yield on 30-year US Treasury Bonds (UST 30) (i.e., 4.21%); (2) the projected UST 30-year yield for next year (Q4 2023 through Q4 2024) (i.e., 4.04%); and (3) the projected UST 30-year yield for the next four years (2025 through 2029) (i.e., 3.80%). Bulkley PFT, p. 57, Ex. AEB-1, Sch. AEB-6. In its rebuttal testimony, the Company updated the yields to: (1) the current 30-day average yield on UST 30 (i.e., 4.77%); (2) the projected UST 30-year yield for next year (Q4 2023 through Q4 2024) (i.e., 4.48%); and (3) the projected UST 30-year yield for the next four years (2025 through 2029) (i.e., 4.10%), respectively, as of November 30, 2023. Bulkley Rebuttal, p. 7, Ex. AEB-2, Sch. AEB-3. Consequently, the Company's proposed risk-free rate ranged from approximately 4.10% to 4.77%, reflecting a 27-basis point increase (from 4.21% to 4.48%) to UST 30 in the near term and a significant increase to projected UST 30 over 2025 to 2029 of 97 basis points (from 3.80% to 4.77%).

OCC's risk-free estimate was based on a review of the yield of UST 30 over the 2010 to 2023 time period, which ranged from 1.30% to 5.00%. The current yield is at the top end of that range. Woolridge PFT, p. 59. According to OCC, Kroll, a division of the investment firm Duff & Phelps, recommends using a normalized risk-free rate of 3.5%, or if the spot yield on US Treasury 20 year (UST 20) is above 3.5%, to use the UST 20 yield. Woolridge PFT, p. 59. Currently the US yield curve is inverted (i.e., long-term yields are lower than shorter-term durations) with the UST 10, UST 20, and UST 30 in the 4.18%,

4.48%, and 4.30% range. Id. Therefore, OCC recommended using 4.40% as the proxy for the risk-free rate of interest in the CAPM. Id., pp. 59-60.

EOE disagrees with using long-term US Treasury yields as the proxy for the risk-free rate in the CAPM as these bonds do not have a zero beta and may overstate the COE. Rothschild PFT, p. 60, App. D. Further, EOE indicates that it is not appropriate to use a risk-free rate based on interest rate forecasts because it does not represent investor expectations. A CAPM analysis that relies only on long-term estimates of the risk-free rate may overestimate the COE. Id., p. 61.

Instead, EOE's short-term risk-free rate is based on the yield of three-month U.S. Treasury bills, while the long-term risk-free rate is based on the yield of UST 30. Rothschild PFT, p. 60. EOE's spot and weighted average short-term risk-free rates are 5.45% and 5.52%, respectively, and the spot and weighted average long-term risk-free rates are 4.54% and 4.75%, respectively. Id., Ex. ALR-4, p. 2. As this data shows, given the inverted yield curve, the rates for long-term and short-term debt are presently very similar.

The range of risk-free rates presented by the parties is summarized below.

Table 28: Range of Risk-Free Rates

Party	Risk Free Rates
Company, Aug. 31, 2023	3.80% – 4.21%
Company, Nov. 30, 2023	4.10% – 4.77%
OCC	4.18% – 4.48%
EOE	4.54% – 5.52%

The Authority agrees with EOE on the point that the risk-free rates should not be based on forecasted data because of the inherent uncertainty of reliance on analyst forecasts. Notably, the Authority has traditionally relied on UST 30 as the proxy for the risk-free rate over many rate proceedings. See, e.g., 2023 UI Rate Case Decision, p. 81; 2023 Aquarion Rate Case Decision, p. 51; 2016 UI Rate Case Decision, pp. 84-85; July 2021 CWC Rate Case Decision, pp. 38-39. As such, the Authority gives greater weight to methodologies using the UST 30 rate. Based upon the trend in interest rate yields, and in an effort to smooth out interest rate volatility, the Authority finds that an appropriate Rf is in the range of 4.10% to 4.50%.

d. Equity Risk Premium

The ERP is equal to the expected return on the S&P 500 (Rm) minus the risk-free rate of interest (Rf). In short, ERP = Rm-Rf. The ERP is difficult to measure because it requires an estimate of the expected return on the market (Rm).

In its Application, the Company calculated an expected return on the market of 12.83% by applying the Constant Growth DCF Model to the S&P 500 Index based upon an expected dividend yield of 1.61% and long-term growth rate of 11.13% on the S&P 500 Index. Bulkley PFT, p. 59, Ex. AEB-1, Sch. AEB-7. The Company then determined an ERP (Rm-Rf) by using various estimates of the risk-free rate, resulting in an ERP

ranging from 8.62% to 9.03%. Bulkley PFT, p. 59, Ex. AEB-1, Sch. AEB-7. On rebuttal, the Company updated its expected return on the market to 12.56% by applying the Constant Growth DCF Model to the S&P 500 Index based upon an expected dividend yield of 1.69% and long-term growth rate of 10.78% on the S&P 500 Index. Bulkley Rebuttal, Ex. AEB-2, Sch. AEB-4. The Company proposed an updated ERP with a range of 7.78% to 8.46% and an average of 8.11%. Bulkley Rebuttal, Ex. AEB-2, Sch. AEB-3.

OCC examined four different approaches to determining the ERP: (1) studies of historical risk premium (i.e., ex post returns); (2) ex ante market risk premium studies; (3) financial surveys (i.e., CFOs, analysts, financial forecasters); and (4) the building blocks approach. Woolridge PFT, p. 66, Ex. JRW-6, p. 5. The building blocks approach is a hybrid approach employing elements of both historical and ex-ante models. Woolridge PFT, p. 63. Citing to several sources in each category, OCC calculated average ERPs for the Historical Risk Premium approach (4.40% to 6.64%), Ex-Ante Models (3.32% to 6.00%), Financial Surveys (3.15% to 5.70%), and the Building Blocks approach (3.00% to 5.21%), with an overall average of 4.76% (median of 4.83%). Woolridge PFT, pp. 67-68, Ex. JRW-6, p. 5.

OCC stated that the "more timely and relevant studies" were the Pablo Fernandez survey (average 5.70%), the Aswath Damordan study (average 4.39%), the Kroll (formerly Duff & Phelps) recommendation (5.50%), and the KPMG recommendation (5.00%). Woolridge PFT, pp. 68-71. Giving "most weight to the market risk-premium estimates of Kroll, KPMG, JP Morgan, the Fernandez survey, Duke-CFO surveys and Damodaran," OCC asserted that the "appropriate market risk premium in the U.S. is in the 5.00% to 5.50% range." Id., p. 72. OCC used "an expected market risk premium of 5.25%, which is the mid-point of the relevant range." Id. Finally, OCC argued that the Company's proposed ERP based upon the Constant DCF Model's application to the S&P 500 Index was "excessive" because it assumes 20% higher returns in the future than in the past. Woolridge PFT, pp. 85-86; Interrog. Resp. RRU-556.

EOE calculated its ERP using option-implied return expectations. Rothschild PFT, p. 72. Under EOE's approach, once the option-implied growth rate of the S&P 500 has been estimated, the dividend yield is added, and the risk-free rate is subtracted, to arrive at the market risk premium. Id., p. 73. For the Weighted Average CAPM analysis with short- and long-term risk-free rates, EOE used ERPs of 3.38% and 4.15%, respectively. For the Spot CAPM analysis based on short- and long-term risk-free rates, the ERP was 3.24% and 4.15%, respectively. Id., p. 73, Ex. ALR-4, pp. 4-6.

The Authority has previously accepted OCC's methodology in arriving at the ERP. See 2023 UI Rate Case Decision, p. 89; 2023 Aquarion Rate Case Decision, p. 52; 2013 UI Rate Case Decision, p. 133. Additionally, in past analyses, the Authority incorporated OCC's survey of methodologies (OCC ERP Survey). Woolridge PFT, Ex. JRW-6. While the Authority considered the Company's approach of using a DCF analysis on dividend paying companies in the S&P 500 to derive the ERP, the Authority declined to adopt such an approach. See 2023 UI Rate Case Decision, p. 89; 2023 Aquarion Rate Case Decision, p. 52; 2013 UI Rate Case Decision, p. 133. Here, the Authority credits OCC's assessment that, while the Company's approach can be described as an Ex-Ante approach and is a valid methodology to estimate ERP, the Company's assumptions rely

on unreasonable estimates of long-term EPS growth, expected market returns, and market risk premium. Interrog. Resp. RRU-557. Consequently, the Authority gives more weight to OCC's proposed ERP.

The table below summarizes the data relied upon by the Authority in determining the appropriate ERP.

Table 29: ERP Data

Historical Risk Premium Studies	4.40% to 6.64%
Financial Surveys	3.15% to 5.70%
Kroll (formerly Duff & Phelps)	5.50%
KPMG	5.00%
Fernandez	5.70%
Damodaran	4.39%
Ex Ante Models	3.32% to 6.00%
Building Blocks Approach	3.00% to 5.21%
Company Proposed ERP	7.78% to 8.46%, avg.8.11%
OCC Proposed ERP	5.25%
EOE Avg. Proposed ERP	4.15%

Ultimately, the Authority finds the methodology employed by OCC to be the most credible. Specifically, the Authority places more weight on the data available from recognized studies, surveys, and publications. Notably, the Company's recommended ERP is substantially higher than any of the recognized sources. Given the above, the Authority finds that an ERP in the range of 5.00% to 6.00% reflects the best available information and the current market conditions.

e. CAPM Results

Using the components as determined above, the Authority's CAPM results for the Authority Proxy Group are summarized as follows:

Table 30: CAPM Results

Range	Rf	Beta	ERP	ROE
Low	4.10%	0.77	5.00%	7.95%
High	4.50%	0.85	6.00%	9.60%
Average	4.30%	0.81	5.50%	8.76%

Recognizing that deviations in the data will accumulate when applying the CAPM equation (i.e., very low probability of a company having all three components at the lower or upper limit of the range), the Authority will discount the outer bands of the 7.95% to 9.60% range. As such, the Authority's CAPM analysis indicates a reasonable ROE based on the Authority Proxy Group in the range of 8.40% to 9.30%.

4. Empirical Capital Asset Pricing Model (ECAPM)

The Company also included the results of an ECAPM or the Zero Beta CAPM. The ECAPM calculates the product of an adjusted beta coefficient and market risk premium by applying a weight of 0.25 to the market risk premium and 0.75 to the beta. Bulkley PFT, pp. 60-62. The Company's ECAPM formula is represented by: Ke = Rf + 0.75 β(Rm – Rf) + 0.25(Rm – Rf); where: Ke is the required market ROE; β is the Adjusted Beta coefficient of an individual security; Rf is the risk-free rate of return; and Rm is the required return on the market as a whole. Id., p. 61.

The Company's ECAPM analysis inflates its basic CAPM results by approximately 40 basis points on average. Id., p. 62. OCC indicated that the ECAPM has not been theoretically or empirically validated in journals. Beyond the lack of validation, ECAPM has two main flaws: (1) there are no known tests of the CAPM that use adjusted betas as posed by the Company; and (2) using adjusted betas addresses the empirical issues with CAPM. Woolridge PFT, p. 84.

The Authority has previously reviewed the ECAPM approach and excluded this method. See 2023 UI Rate Case Decision, pp. 84-85; July 2021 CWC Rate Case Decision, pp. 40-41. Here, the Authority reviewed the proposed ECAPM and sees no difference from past submissions. The most recent rationale for rejection of the ECAPM holds true today: the Authority finds that the 0.75/0.25 factor is out-of-date (based on 30 plus year old data) and incorporates another level of conjecture that is unnecessary given that the simple CAPM formula is widely accepted in COE literature. Second, given that ECAPM is only discussed within the regulatory cost of capital sphere, ECAPM has not been theoretically or empirically validated in financial journals. Third, the purpose of adjusted betas, such as those from Value Line and Bloomberg, address the empirical issues with the CAPM; hence, there is no need for an additional adjustment factor to adjust for what is being addressed by using Value Line and Bloomberg betas. Interrog. Resp. RRU-396, RRU-397, RRU-398. The Authority reaffirms its rejection of ECAPM and will not give evidentiary weight to the data.

5. Small Water Company Size Premium

The Company proposed that the Authority consider the small size of CWC's distribution operations when determining where within the overall range of the Authority's analytical results CWC's ROE falls. According to the Company, its allowed ROE should be set above the mean analytical results because of the risk associated with its small size. Bulkley PFT, p. 72. The Company's rationale is based on its contention that companies with smaller sizes have greater risk and thus are due a higher reward (i.e., ROE). The Company's analytical review focused on Kroll's (formerly Duff & Phelps) Size Premium Market Capitalization Deciles data. Bulkley PFT, Ex. AEB-1, Sch. AEB-9. CWC's market capitalization, approximately $4.25 billion of the Company Proxy, falls within the fourth decile of Duff & Phelps market capitalization data, which corresponds to a size premium of 0.58%. Bulkley PFT, pp. 65-66. On the other hand, CWC's implied market capitalization data of $689.81 million falls within the eighth decile of Kroll's market capitalization, which corresponds to a 1.18% size premium. Bulkley PFT, p. 66. According to the Company, the implied size premium for CWC is 60 basis points (1.18 less 0.58=0.60). Bulkley PFT, p. 66.

OCC disagreed with the Company's proposal to consider a small size premium in determining CWC's overall COE. OCC provided several reasons to support its argument that a small size premium is inappropriate for regulated public utilities. See Woolridge PFT, pp. 102-106. First, the Company's proposed size adjustment is based on Kroll's historical market return studies, which have numerous errors in computing risk premiums such as survivorship bias (i.e., only successful companies survive) and unattainable return bias, which results in inflated historical risk premiums; hence, the size premiums calculated from this data are poor measures of risk adjustment. Woolridge PFT, p. 103. Second, an analytical study conducted by Dr. A. Wong concluded that utility stocks do not exhibit a significant size premium. Id., pp. 103-104. This study's findings indicated that because utilities are closely regulated by state and federal agencies, their financial performance is monitored on an ongoing basis, and, therefore, utility earnings are predetermined through regulation and the ratemaking process, not competitive forces that influence industrial corporations' financial performance. Id., p. 104. Overall, the Wong study suggested that regulation, government oversight, standardized accounting, and information disclosure indicated that utilities are much different than companies in other competitive industries; therefore, these reasons account for the lack of size premium. Woolridge PFT, p. 104. Lastly, OCC cites further academic studies indicating the "small size" premium is no longer relevant in the current financial environment. Id., p. 105.

EOE also did not agree with including a small size premium, indicating that the observation of a small size premium was the result of older studies and pointed to a flaw in these studies wherein the studies did not include companies that were delisted (referenced as delisted bias), which caused the returns of smaller companies to look higher. Rothschild PFT, p. 94.

The Authority has historically rejected size premiums for water companies going as far back as 2006.[29] The Authority also rejected the size premium argument in the Company's two most recent rate cases. July 2021 CWC Rate Case Decision, p. 42; Decision, July 14, 2010, Docket No. 09-12-11, Application of The Connecticut Water Company for Amended Rates (2010 CWC Rate Case Decision), p. 108.

Given the conflicting evidence discussed above, the Company has not sufficiently demonstrated that a small size premium is warranted.

6. Flotation Cost Adjustment

The Company proposed a 14-basis point upward adjustment to its indicated ROE to account for flotation costs. Bulkley PFT, p. 55. Flotation costs are out of pocket expenditures for the preparation, filing, underwriting, and other issuance costs associated with the issuance of the sale of new issues of common stock. Bulkley PFT, p. 51. The

[29] See, e.g., Decision, Nov. 28, 2006, Docket No. 06-05-10, Application of Birmingham Utilities, Inc. to Increase Rates, p. 74; Decision, Oct. 26, 2004, Docket No. 04-02-14, Application for an Increase in Rates for the Aquarion Water Company of Connecticut, p. 97; Decision, Mar. 30, 2007, Docket No. 06-10-07, Application of Valley Water Systems, Inc. for Amendment of Rate Schedule, p. 50.

Company is aware of the Authority's position to incorporate flotation costs on a case-by-case basis. Bulkley PFT, p. 54.

OCC objects to the inclusion of flotation costs for ratemaking. OCC indicated the Company has not justified the need for flotation costs in the coming years by CWC or SJWG, nor does the record indicate that CWC has paid flotation costs. Woolridge PFT, p. 80. OCC further indicated that the consideration of flotation costs born at the parent company level should actually put downward pressure on the DCF equity cost rates since flotation costs are essentially transactional fees. Id. If transactional fees are accounted for in the DCF analysis, then the effective stock price paid would be higher and lead to lower dividend yields and equity cost rates. Woolridge PFT, p. 82.

The Authority evaluates the acceptance of flotation costs on a case-by-case basis, weighing heavily whether the equity issuances are executed at the parent company level and proceeds of these issuances being infused to the operating company. July 2021 CWC Rate Case Decision, p. 43. Equity infusions executed at the parent company level often result in the parent, not the subsidiary, incurring costs related to equity issuances, including flotation costs.

CWC's parent company, SJWG, issues equity on behalf of all subsidiary companies. Interrog. Resp. RRU-29, Ex. 1. After the acquisition of CWC by SJWG, in 2021, SJWG issued stock in March with net proceeds of $66.775 million. Id. In November of 2021, SJWG entered into an Equity Distribution Agreement with J.P. Morgan Securities LLC, Janney Montgomery Scott LLC, RBC Capital Markets, LLC, and Wells Fargo Securities, LLC, to issue equity from time to time. Interrog. Resp. RRU-29, Ex. 1. Net proceeds from the Equity Distribution Agreement were $24.16 million in 2021, $39.179 million in 2022, and $80.659 million in 2023. Interrog. Resp. RRU-29, Ex. 1; Interrog. Resp. RRU-380; Late Filed Ex. 61. The equity infusions by SJWG into CWC were $2 million in 2020, $1 million in 2021, $20.50 million in 2022, and $25 million in 2023. Interrog. Resp. RRU-380; Late Filed Ex. 61.

Since 2021, SJWG has issued more than $210 million in equity. Interrog. Resp. RRU-29, RRU-380; Late Filed Ex. 61. After the 2021 SJWG equity offerings, CWC received infusions of $48.50 million ($2.0 million + $1.0 million + $20.5 million + $25.0 million), or approximately 23% of the total equity offering. Id. For the 2024 to 2026 period, the timing and exact amounts of equity infusions are unknown and depend on factors such as internally generated funds and both offerings of debt and equity to meet capital funding needs in excess of internally generated funds. Interrog. Resp. RRU-379.

The Authority finds that flotation costs are borne exclusively by the parent corporation to fund the activities of all the parent companies' financial obligations, one of which is internally generated funds shortfalls at the operating company level. In this case, approximately 23% of the equity raised by SJWG is infused into CWC. Late Filed Ex. 61. Accordingly, even under the presumption that CWC was due some increase to its ROE due to the infusion of parent company equity capital, then under this hypothetical, it would be logical that it should only receive 23% of the flotation adjustment 3 basis points (i.e., 0.23 x 14 basis points) – far short of the Company's request.

The Authority concurs with OCC in that CWC does not pay flotation costs for underwriting offerings as the parent corporation bears that expense. The Company has also stated that the amount of equity offerings over the coming rate period is unknown. Interrog. Resp. RRU-379. Given the small percentage of total equity offering proceeds that were actually infused into CWC by SJWG, the corresponding proportion of basis points that relate to the funds infused into CWC (i.e., 3 basis points), and the Company's uncertainty as to the timing of equity offerings, if any, over the rate period, the Authority declines to allow flotation costs in the instant proceeding.

7. Comparable Allowed ROEs

Although the Authority will not consider financial models based on other public utility commission allowed ROEs, the Authority will examine the ROEs approved in other jurisdictions as a point of reference. To that end, the Authority reviewed data on authorized ROEs nationwide compiled by Regulatory Research Associates (RRA). Overall, because allowed ROEs from other jurisdictions are historical and do not necessarily reflect current market conditions, the Authority finds that such allowed ROEs are limited to serving only as a point of reference.

RRA provides electric utility ROE data disaggregated by, among other things, case type (e.g., all cases, general rate cases, limited issue riders, etc.), by utility type (e.g., vertically integrated, distribution only), and by resolution (e.g., settled or fully litigated cases). In 2023, the median ROE authorized in all electric utility rate cases was 9.50%, equal to that observed in 2022; for gas utilities, the metric was 9.64% in 2023, and 9.53% in 2022. See RRA Regulatory focus: Major Energy Rate Case Decisions in the US-January-December 2023; OCC Interrog. Resp. RRU-245b, p. 5. Interest rates, as measured by the 30-year US Treasury bond yield, fell almost steadily between 1990 and 2020, placing downward pressure on authorized ROEs. Id. Between 1990 and 2020, Treasury yields fell more than 700 basis points, to 1.56% from 8.61%, while average authorized ROEs for electric and gas utilities combined fell less than 325 basis points, to 9.45% from 12.69%. The average authorized ROEs did not fall below 10% until 2011 for gas utilities and until 2014 for electric utilities. The calendar-year averages fell below 9.50% for the first time in 2020. Id. Average authorized returns in 2023 edged modestly higher than the annual levels observed in 2022, as higher interest rates began to impact authorized ROEs.

ROEs for water utility companies were 9.63% in 2019, 9.04% in 2020, 9.46% in 2021, 9.61% in 2022, and 9.45% in 2023. Woolridge PFT, pp. 16-17. Although authorized ROEs reached record low levels in 2020 and 2021, due to record low interest rates and capital costs, authorized utility ROEs never declined to the same extent that interest rates declined in those two years. Id., pp. 17-18. RRA suggests this is attributable to regulators not fully reflecting the decrease in interest rates in authorized ROEs under the reasoning that the decrease in interest rates was unusual. OCC Interrog. Resp. RRU-245b, p. 7.

OCC provided an explanation for RRA's observation with a citation to a recent journal article that studied the relationship between authorized ROEs and prevailing interest rates. Woolridge PFT, p. 22. One of the focused aspects of the empirical study was the extent to which utilities are allowed to earn excess returns on equity by regulators. OCC summarized the study by indicating that the real inflation adjusted return that

regulators have granted has allowed utilities to earn steady returns over the last 40 years, while many different measures of cost of capital have declined. Id., p. 21. An assessment of the return gap between approved ROEs and benchmarks for market returns suggests the ROE gap ranges between 0.50% to 5.50% above the COE estimate. Id. Overall, OCC asserts that, over the last four decades, authorized ROEs have not declined in line with capital costs and, therefore, past authorized ROEs overstated the actual COE. Consequently, OCC argues that the Authority should not be concerned if an authorized ROE is below those from other jurisdictions. Id.

EOE takes a similar position to OCC and recommends that the COE be based on current market conditions rather than on past ROEs from other jurisdictions. Rothschild PFT, p. 18.

Ultimately, the Authority credits the testimony of both OCC and EOE, and therefore, will not place evidentiary weight on ROEs from other jurisdictions.

8. Current Economic Conditions

The Authority reviewed changes to certain financial indicators comparing current yields to those present at the July 2021 CWC Rate Case Decision. The purpose of this static analysis is to provide a barometer to establish the direction in ROE as compared to the prior authorized ROE. For example, if economic indicators such as interest rates increase, then that would suggest an increase to the allowed ROE, all else equal. In addition to trends in economic conditions, the Authority also relies on its COE models to establish the ultimate allowed ROE.

To assess current economic conditions, the Authority reviewed several indicators. For example, since the Company's last rate case through the last quarter of 2023, US Gross Domestic Product (GDP) increased 7.05% (i.e., 7.78/110.22) and the Consumer Price Index (CPI) increased 11.87% (31.07/262), while national unemployment decreased by from 6.30% to 3.90% over that period. Interrog. Resp. RRU-225, Att. 1.

Interest rates also were on the rise since the July 2021 CWC Rate Case Decision, but the increase in interest rates was greater at the short end of the yield curve (i.e., 90- and 180-day US Treasury Bills) as compared to the long end (i.e., 20- and 30-year US Treasury Bonds). For example, 90-day and 180-day US Treasury Bills were 0.06% and 0.07%, respectively, and as of the end of 2023, stood at 5.60% and 5.57%, respectively. US Treasury Bonds of 10-year, 20-year, and 30-year maturities were at 1.18%, 1.77%, and 1.95%, respectively, at the time of the last rate case. Id. As of the end of 2023, US Treasury Bonds of 10-year, 20-year, and 30-year maturities were at 4.80%, 5.13%, and 4.95%, respectively. Id. Investor inflation expectations as measured by inflation-projected Treasuries known as TIPS have fallen off since mid-2022 and are now at an expected inflation rate of 2.17% over the next five years. The expected inflation rates over the next ten and thirty years are 2.31% and 2.34%. Woolridge PFT, p. 13. OCC's witness surmised that the expected long-term inflation rate is around 2.25%. Id. The Authority's inferences derived from this inter-rate case macro financial data is that although US GDP and inflation (CPI) have increased relatively in lock step, these increased costs have been offset by a significant decrease to unemployment not observed in the US economy for some time.

Throughout this proceeding, the parties presented the state of capital market conditions for the utility space. The data indicated the COE for regulated utilities is presently affected by the following factors: (1) changes in monetary policy; (2) relatively high inflation; and (3) increased interest rates that are expected to remain relatively high over the next few years. Bulkley PFT, p. 19.

The Company indicated that the combination of persistent inflation above the Federal Reserve's target level and the Federal Reserve's changes in monetary policy contribute to an expectation of increased market risk and an increase in the cost of the investor-required return. Bulkley PFT, p. 19. The Company further states that inflation has recently been at some of the highest levels seen in approximately 40 years, and while inflation has declined from these recent peaks, it remains relatively high. Id. The Company also asserts that interest rates, which have increased significantly, are expected to continue to remain relatively high in direct response to the Federal Reserve's use of monetary policy to combat inflation. Id. Moreover, the Company opines that, since the yields on long-term government bonds currently exceed the dividend yields of utilities, and historically long-term government bond yields have been lower than the dividend yields of utilities, it is reasonable to expect that utility investors' COE is increasing. Id., p. 20. The Company notes that core inflation increased steadily beginning in early 2021, rising from 1.41% in January 2021 to a high of 6.64% in September 2022, which was the largest 12-month increase since 1982. Id., p. 22. The Company further asserts that the Federal Reserve has indicated that it expects inflation will remain elevated above its target level over at least the next year and that monetary policy will remain restrictive in order to reduce inflation. Additionally, the Company states that an increase in inflation has prompted the Federal Reserve to pursue aggressive normalization of monetary policy and removing the accommodative policy programs used to mitigate the economics effects of COVID-19. Bulkley PFT, pp. 22-24.

The Company also states that inflation and the Federal Reserve policy are expected to result in long-term interest rates remaining relatively high over the next year. Id. The Company cites the most recent *Blue Chip Financial Forecasts* report, which states that the consensus estimate of the average yield on the 10-year Treasury bond is approximately 3.70% through the fourth quarter of 2024. Id., p. 27. The Company contends that the yield spread (i.e., the spread that measures the difference between the S&P Utilities Index and the 10-year Treasury Bond yield) is currently negative and well below the long-term average yield spread since 2010 of 1.27%. Id. As such, the Company concludes that interest rates will remain relatively high through at least the current year; therefore, the Company asserts that it is reasonable to conclude that the utility sector will most likely underperform in the near term. Id., pp. 30-31.

OCC contends that despite the rise in interest rates and inflation, the COE for utilities has not risen significantly. Woolridge PFT, pp. 5-6. OCC supports this contention by citing: (1) that despite the increase in year-over-year inflation over the past two years, long-term inflation expectations are about 2.25%; (2) the yield curve is currently inverted, suggesting that investors expect yields to decline and that a recession in the next year is very likely, putting downward pressure on interest rates; and (3) while authorized ROEs for utilities hit all-time lows in 2020 and 2021, these ROEs did not decline nearly as much as interest rates during those years. Id., p. 6. Hence, now that interest rates have

increased, authorized ROEs have not increased at the same magnitude. Id., pp. 5-6, 10-22.

OCC's overall assessment of the current economic conditions focuses on the current inverted yield curve, which occurs when yields on short-term duration debt exceeds yields on longer-term securities and implies that investors do not expect interest rates to remain at current levels and are expected to decline. Id., pp. 14-15. According to OCC, every time the yield curve has been inverted over the last 50 years, a recession followed, resulting in decreased interest rates. Id. Furthermore, OCC disagrees with the Company's position that the current economic environment would result in future utility stock price declines. Woolridge PFT, pp. 82-83. OCC rejects the claim that utility stocks are overvalued and that the prices of their stock will decline in the future (and therefore their dividend yield will increase), noting that the Company's forecast for the utilities sector should project negative returns, which it does not. Id.

EOE's overall assessment of the current and near future economic conditions points to the Federal Reserve Bank of Atlanta's estimates as of October 2, 2023, which support the assertion that investors will expect the three-month average Fed Funds rate to likely decrease from its current range of 5.25%-5.50% to under 4% by around June 2025. Rothschild PFT, p. 26. EOE also notes that Inflation expectations as measured by the breakeven inflation rate (which is the difference between nominal Treasuries and TIPS of comparable securities) suggest that as of November 30, 2023, investors expect the inflation rate to decline from the current 3.7% to 2.40% over the next five years and about 2.5% over the 30-year horizon. Id., p. 28.

EOE also endorsed OCC's assessment of the inverted yield curve and prospect for lower interest rates, asserting that the COE for the broader market, including utility companies, should remain stable and, therefore, allow utility companies to raise the requisite capital to fund assets with long useful lives at a reasonably low COE. Rothschild PFT, p. 23. EOE also notes that long-term interest rates have increased since the July 2021 CWC Rate Case Decision. Rothschild PFT, pp. 21, 31. Despite a spike in late September and early October 2023, market volatility expectations remain significantly lower than the highs of October 2022. Id., p. 21.

After weighing the various parties' testimony summarized above, the Authority finds that, notwithstanding the market and interest rate volatility, the allowed COE should not increase in lock step with increases in interest rates. As discussed above, jurisdictional allowed ROEs declined much slower than yields on US Treasuries have declined in the past. The Authority finds persuasive the reasoning presented by the OCC and EOE witnesses, particularly, that the correlation between interest rates and ROEs appears to be historically one-sided. Consequently, the Authority places less credibility on the Company's suggestion that ROEs should increase in tandem with the increases in US Treasuries.

9. Other Factors

a. Company's Financial Risk

The Authority considers the financial risk of the Company as it compares to the Authority Proxy Group to determine if there are unique financial risks or risk mitigations to consider when establishing an ROE.

The cost of capital models such as DCF and CAPM only provide a range of estimates for the Company's ROE. Bulkley PFT, p. 63. The Company cites additional factors to consider in relation to the Company's overall risk profile including, but not limited to: (a) small size premium (see Section V.E.5, Small Water Company Size Premium discussed above); (b) regulatory environment; (c) capital expenditures; and (d) risks associated with environmental and water quality regulation. Id., pp. 72-79. OCC notes, however, that these risk factors are already considered by rating agencies when assessing the risk of the entity. Woolridge PFT, p. 103. Furthermore, CWC's S&P issuer credit rating of A- is equal to the average of the OCC Proxy Group. Woolridge PFT, p. 103.

The Authority finds that the risk profile of CWC is well within those of the Authority Proxy Group. The companies in the Authority Proxy Group have on average an A to an A- rating, similar to the credit rating of the Company's Proxy Group. As such, the Company is not a riskier investment when compared to the companies in the Authority Proxy Group.

Moreover, the regulatory framework in Connecticut, by design, also provides certain risk mitigation mechanisms that should be accounted for in setting a reasonable ROE. Specifically, the Company benefits from two statutory provisions — the revenue adjustment mechanism (RAM) and the WICA program. RAM provides a more stable revenue stream by substantially reducing the risk of actual revenues diverging from the Company's allowed revenue. Indeed, the RAM mechanism "reconciles in rates the difference between the actual revenues of a water company and allowed revenues." General Statutes § 16-262y(a). Additionally, the WICA program permits the Company to increase revenues to contemporaneously recover capital investments between rate proceedings. This rate case resets the Company's WICA to zero, allowing the Company to again increase its annual revenues by up to 5% per year and up to 10% between rate case filings. General Statutes § 16-262w(i). By providing CWC the opportunity to increase revenues between rate cases, the WICA program, similar to RAM, reduces the Company's risk. As such, the Authority will consider this reduction in risk when determining the ROE.

Importantly, the Authority is approving a 53% equity capitalization for the Company, which is the upper limit of the range for equity capitalization supported by the evidence. Although this more equity-rich capitalization has the potential to increase the weighted average cost of capital, it also has the effect of lowering the Company's financial risk. This lower risk generally supports a lower ROE.

b. General Statutes § 16-19kk Factors

In establishing a Company's authorized return, the Authority must consider:

> Quality, reliability and cost of service provided by the Company, the reduced or shifted demand for electricity, gas or water resulting from the Company's conservation and load management programs approved by the authority, the Company's successful implementation of programs supporting economic development of the state and the Company's success in decreasing or constraining dependence on the use of petroleum or any other criteria consistent with the state energy or other policy.

General Statutes § 16-19kk. The Authority considered these statutory factors and finds that the record does not support an adjustment to the Company's ROE based on these considerations.

10. Approved ROE

In determining a reasonable ROE, the Authority considers the analytical models for commensurate water utility returns, allowed ROEs in other jurisdictions, the prevailing market conditions, and the Company's risk profile. The Authority considers the two analytical models (DCF and CAPM) to provide a target range for commensurate ROEs. The Authority generally weighs the DCF model results more heavily than the CAPM results because the DCF model relies on directly observable proxy company market data and provides a better measure of the COE for similarly situated utilities. Conversely, the CAPM relies primarily on risk-premium studies, which are more subjective in nature.

Here, the DCF model as applied to the Authority Proxy Group indicates an ROE range of 8.80% to 9.60%, with an average of 9.20%. The CAPM model produced an ROE range of 7.95% to 9.60%, with an average of 8.76%. Thus, the data indicates that an ROE between 7.95% and 9.60% would be sufficient to provide a reasonable, market-based return.

Given this range, the Authority must determine an ROE such that the Company has an opportunity to "cover . . . [its] capital costs, to attract needed capital and to maintain [its] financial integrity." General Statutes § 16-19e(a)(4). This statutory standard reflects the long-standing principle that "the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks and should also be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital." Connecticut Light & Power Co. v. Dept. of Public Utility Control, 216 Conn. at 634-35. In determining an ROE, the Authority "is not bound to the use of any single formula or combination of formulae" but again must balance "investor and consumer interests" and make "pragmatic adjustments." Woodbury Water Co., 174 Conn. at 264.

Cognizant of this legal framework, the Authority has analyzed a wide array of considerations in reaching a determination, including, without limitation, the Company's capital structure, its financial condition, ROEs from other jurisdictions, analytical models of commensurate returns, prevailing and anticipated market conditions, risk factors, and the regulatory environment.

The Company is financially stable, and continues to maintain an A-/negative Rating from S&P. In addition, the Company operates in a regulatory environment that reduces

risk through the RAM and WICA mechanisms. Considering these and other factors, the Authority adopts a 9.30% ROE.

VI. ALLOWABLE EXPENSES

A. Operations & Maintenance Expenses

1. Summary

Allowable operating expenses must "reflect prudent and efficient management of the franchise operation." General Statutes § 16-19e(a)(5). Therefore, those expenses that are reasonable and necessary to provide service to the public may be included as an allowable expense. The Company has the burden of proving that expenses under consideration for inclusion in rates are just and reasonable. See General Statutes § 16-22. In addition to being reasonable and prudent, pro forma adjustments must be "known and measurable" and supported by a preponderance of evidence, with the burden resting on the utility to make such a showing. See Connecticut Natural Gas Corp. v. Dept. of Public Utility Control, 51 Conn. Supp. 307, 322 (2009) (affirming agency's decision that, in part, applied the "known and measurable" standard to pro forma adjustments); see also Aquarion Water Company of Connecticut v. Public Utilities Regulatory Authority, No. HHB-CV-23-6078177-S, 2024 WL 1403433, at *9 (Conn. Super. Ct. Mar. 25, 2024) (application of known and measurable standard for depreciation within PURA's regulatory discretion). Consequently, the Authority will consider reasonable historical test year expenses, as adjusted for known and measurable changes, to determine a utility's allowable expenses.

The Company has proposed allowable O&M expenses of $50,085,894 to be included in its revenue requirement. Late Filed Ex. 1, Ex. 1, Sch. C-3.0. Based on its review of the record, the Authority makes modifications, as described below, and approves O&M expenses of $46,158,195.

The table below summarizes the modifications and approved O&M expenses.

Table 31: O&M Expenses

Section	O&M Expenses	Company Proposed ($)	Authority Modification ($)	Approved ($)
VI.A.2	Employee Compensation	20,801,779	(1,473,020)	19,328,759
VI.A.3.a	Medical and Dental	2,315,872	(331,104)	1,984,768
VI.A.3.b	Pension Expense	(1,449,340)	0	(1,449,340)
VI.A.3.c	Post Retirement Medical	(927,453)	0	(927,453)
VI.A.3.d	401(k) Expense	1,160,282	(112,010)	1,048,272
VI.A.4	Purchased Power	4,157,566	0	4,157,566
VI.A.5	Purchased Water	2,198,438	(27,244)	2,171,194
VI.A.6	Chemicals & Carbon Filters	2,170,420	(73,417)	2,097,003
VI.A.7	Tank Painting & Well Maint.	756,119	273,237	1,029,356
VI.A.8	Bad Debt Expense	598,292	(148,640)	449,652
	Insurance Expense	1,941,028	0	1,941,028

Section	O&M Expenses	Company Proposed ($)	Authority Modification ($)	Approved ($)
VI.A.9	Audit Expense	1,029,945	(710,723)	319,222
	PURA Statutory Fees	432,079	0	432,079
	Credit Card Fees	346,410	0	346,410
VI.A.10	Other Deferred Expenses	58,214	200,725	258,939
VI.A.11	Rate Case Expenses	487,766	(81,927)	405,839
	Lobbying Expense	(29,123)	0	(29,123)
VI.A.12	Deferred Revenue Amortization	238,940	87,659	326,599
VI.A.13	Residual Unadjusted Expenses	12,998,939	(1,372,418)	11,626,521
VI.A.14	Inflation	799,435	(299,171)	500,264
VI.A.15	Non-Revenue Water	0	(84,477)	(84,477)
	Interest on Customer Deposits	285	0	285
	Lead-Copper Expenditure[30]	0	224,832	224,832
	Total	**50,085,893**	**(3,927,698)**	**46,158,195**

Late Filed Ex. 1, Ex. 1, Sch. C-3.0; Interrog. Resp. RRU-462, Ex. 1.

2. Employee Compensation

a. Summary

The Company proposes $20,801,779 in total compensation expenses, a $3,385,899 increase from the Test Year. Late Filed Ex. 1, Ex. 1, Sch. C-3.2, p. 2 (LF). The Company's total compensation expenses encompass full-time equivalent (FTE) base compensation, SJWG executive compensation allocated to CWC, CWC executive compensation, CWC employee incentive compensation, and customer satisfaction compensation. Id.; Late Filed Ex. 55, Ex. 1. Supp. The Authority allows $19,328,759 in total compensation expenses for the Rate Year.

The table below summarizes O&M adjustments to the total compensation expenses proposed by the Company in Late Filed Ex. 1, Ex. 1, Sch. C-3.2.

Table 32: Total Compensation Expense Adjustments

Components	Amount ($)
FTE Compensation	(41,546)
SJWG Executive Compensation	(937,115)
CWC Executive Compensation	(178,688)
CWC Employee Incentives	(315,671)
Total Compensation Adjustment	**(1,473,020)**

[30] See Section IV.B.4, Pro Forma Plant Additions.

b. FTE Compensation

The Company requests employee compensation based on 244.3 FTE employee positions. Late Filed Ex. 1, Ex. 1, Sch. C-3.2, p. 2. The Authority determines that 243.3 FTEs are sufficient for the Company to provide safe and reliable service to its customers without burdening ratepayers with excessive wage expenses.

The Company requested 237.3 FTE positions that were filled and 17 positions that were open at the time the Company filed the Application.[31] Id. As of the close of the evidentiary record, the Company had filled all but one of the 17 open positions. Tr., 1566:14-18. Five of the 17 positions are newly created positions, while the other 12 were previously filled. Late Filed Ex. 1, Ex. 1, Sch. C-3.2, p. 2.

The Company did not provide sufficient evidence that the costs associated with one newly created position, the Director of Corporate Sustainability & ESG, are known and measurable, given that (1) the position is newly created, (2) the job functions associated with the position have historically been completed by other CWC employees, and (3) the position was unfilled at the time of the close of the evidentiary record. Interrog. Resp. RRU-341. Accordingly, the Authority reduces the FTEs requested by one position, the Director of Corporate Sustainability & ESG.

Accordingly, the Authority does not allow the $234,480 salary expense for the open position to be included in the Company's expenses. See Late Filed Ex. 55, Detail Schedule. This position would have allocated 25.98% of hours worked to CWC related tasks. Interrog. Resp. RRU-163. The Company utilizes a 68.2% expense factor for payroll costs. Application, Ex. C-3.2, p. 2. Therefore, CWC's requested payroll expense is reduced by $41,546 ($234,480 x 25.98% x 68.2%).

Additionally, the Authority agrees with the Company that a vacancy rate of 10 is reasonable because it is consistent with the 9.5 average number of vacancies from 2018-2023. Interrog. Resp. RRU-340. Accordingly, the Authority allows expenses for 243.3 FTEs.

The table below summarizes the findings discussed in this section:

Table 33: FTE Positions

	Proposed	Approved
FTE positions	243	243
Existing open positions	12	12
New open positions	5	4
Less: FTE to affiliates	(13)	(13)
Add: FTE from affiliates	7.3	7.3
Less: Vacancy factor	(10)	(10)
Total	**244.3**	**243.3**

[31]The 237.3 FTEs is determined by taking the Company's 243 filled position, subtracting 13 positions funded by CWC affiliates, and adding 7.3 positions for personnel employed by affiliates that perform work for CWC. Late Filed Ex. 1, Ex. 1, Sch. C-3.2, p. 2.

c. Executive Compensation

i. Summary

CWC proposed total executive compensation of $5,368,304 for the Rate Year. Late Filed Ex. 55, Ex. 1 (Detail Tab). Total executive compensation includes $2,748,138 for SJWG's executives and $2,620,066 for CWC's officers. Id. The total target compensation (TTC) for each executive includes base salary, variable or short-term incentives (STI), and equity/stock awards or long-term incentives (LTI). Interrog. Resp. RRU-203. Applying an expense factor of 68.2%, the total amount of executive compensation expense is $3,661,115.

The Authority allows $2,545,311 for total executive compensation in the O&M expense for the Rate Year as summarized below, with the remainder subject to recovery through the annual RAM proceeding.

Table 34: Summary of Executive Compensation Expense Recovery

	SJWG	CWC	Total
Compensation Expense	$1,874,230	$1,786,885	$3,661,115
Portion subject to Perf. Targets	100%	10%	
% Allowed in Rates	50%	90%	
Allowed in Rates	$937,115	$1,608,196	$2,545,311
Recoverable via RAM	$937,115	$178,688	$1,115,803

ii. Performance Metrics

The Authority is required in a rate case to "consider the implementation of financial performance-based incentives and penalties and performance-based metrics." General Statutes § 16-19a(b).

If the Authority approves such performance-based incentives and penalties for a particular company, PURA is required to include in the framework for periodic monitoring and review of the Company's performance pursuant to metrics developed by the Authority. General Statutes § 16-19a(b). Based on the record of this proceeding, the Authority finds it appropriate and necessary to tie a portion of executive compensation to performance metrics to provide the executives of CWC and its parent companies with greater accountability to customers. Specifically, as discussed in the following sections, the Authority will tie the Company's recovery of a portion of executive compensation to the achievement of affordability metrics, with the goal of aligning the incentives of the executives with ratepayers' interests. The metrics will be: (1) Payment Regularity Ratio Metric; (2) Payment Coverage Ratio Metric; (3) Nonpayment Disconnection Ratio Metric; and (4) Average Monthly Arrears Metric. See Late Filed Ex. 70.

CWC will be deemed to have met or exceeded the performance metrics if the data reported for the relevant calendar year (Current Year) shows an improvement of at least 10% from the data reported for the Historical Period, based on the average of the results

of all four metrics.[32] The Historical Period shall be the average of the data from 2018 through 2023. If the Company meets or exceeds the performance metrics, it may recover 100% of the executive compensation tied to performance metrics.

The following table shows the recovery permitted at differing levels of performance.

Table 35: Compensation Recovery at Different Levels of Performance

Current Year ÷ Historical Period	Allowable Performance Metrics Compensation
≥110%	100%
109 – 109.99%	90%
108 – 108.99%	80%
107 – 107.99%	70%
106 – 106.99%	60%
105 – 105.99%	50%
104 – 104.99%	40%
103 – 104.99%	30%
102 – 102.99%	20%
101 – 101.99%	10%
100 – 100.99%	0%

[32]The first two metrics, payment regularity and payment coverage, divide the Current Year by the Historic Period, and the other two metrics, nonpayment disconnection and average monthly arrears, divide the Historic Period by the Current Year. Accordingly, each metric results in a percentage increase if the Company improves its performance.

The performance metrics will be calculated as follows:

1. Payment Regularity Metric: CWC shall calculate the payment regularity percentage for its residential customers by dividing the number of payments by the number of bills. The payment regularity metric will be expressed as the payment regularity percentage for the Current Year divided by the payment regularity percentage for the Historical Period.

2. Payment Coverage Metric: CWC shall calculate the payment coverage percentage for its residential customers by dividing the dollars of payments received by dollars charged for residential bills. The payment coverage metric will determine how much payment the Company received for every dollar charged in residential monthly bills rendered. The payment coverage metric will be expressed as the payment coverage percentage for the Current Year divided by the payment coverage percentage for the Historical Period.

3. Nonpayment Disconnection Metric: CWC shall calculate the percentage of nonpayment disconnections (number of nonpayment disconnections per 100 customers) for its residential customers. The nonpayment disconnection metric will be expressed as the nonpayment disconnections percentage for the Historical Period divided by the nonpayment disconnections percentage for the Current Year.

4. Average Monthly Arears Metric: CWC shall calculate the average percentage of accounts in arrears monthly. The average percentage of accounts in arrears monthly in the Historical Period will be divided by the average percentage of accounts in arrears monthly in the Current Year.

The Authority directs the Company to file, as a motion for review and approval, the data for each year from 2018 through 2023 required to calculate the baseline for each of the performance metrics. If the Authority finds the data submitted for 2018 through 2023 is unreliable due to missing or incomplete data, the data from the Test Year may be substituted to calculate any of the various performance metrics for the Rate Year. Beginning on February 28, 2025, and annually thereafter, the Company shall file a motion for review and approval of the executive compensation that should be included in the Company's allowed revenue and recovered through the RAM. The Company shall provide detailed information regarding CWC's performance regarding the metrics during the preceding calendar year, including an unlocked working Excel spreadsheet containing the data on which the Company relied in making its determination.

If the Company requires a technical meeting with Authority staff and docket participants regarding the performance metric reporting requirements, the Company may submit such a request by September 1, 2024, in which it outlines items for which it seeks further guidance.

iii. SJWG Executive Compensation

CWC requests the recovery of $2,748,138 in executive compensation for 10 corporate officers — seven from SJWG and three from CWC — who allocate their time across entities besides CWC. Late Filed Ex. 55, Ex. 1 (Detail Tab). For these officers,

the Company used the Massachusetts Formula factor of 25.98% to allocate a portion of the compensation to the Company. Id.; Interrog. Resp. RRU-493, Ex. 1. The table below summarizes the requested compensation.

Table 36: Proposed SJWG Executive Compensation

Employee	Salary ($)	STI ($)	LTI ($)	Total Compensation ($)
71	369,366	110,810	116,720	596,895
102	534,982	187,244	274,981	997,206
230	540,441	270,220	371,283	1,181,944
269	309,377	86,626	66,825	462,827
270	322,081	90,183	86,962	499,226
271	354,835	106,451	106,451	567,736
272	382,130	114,639	114,639	611,408
273	545,900	245,655	334,091	1,125,646
274	443,271	155,145	275,134	873,549
275	954,233	858,810	1,848,417	3,661,460
Subtotal	**4,756,615**	**2,225,781**	**3,595,501**	**10,577,897**
Mass. Formula	25.98%	25.98%	25.98%	25.98%
Allocated Total	**1,235,769**	**578,258**	**934,111**	**2,748,138**
Exp. Factor	68.2%	68.2%	68.2%	68.2%
Total O&M	**842,794**	**394,371.92**	**637,063.82**	**1,874,230**

Late Filed Ex. 55, Ex. 1 (Detail Tab); Late Filed Ex. 1, Ex. 1, Sch. C-3.2, p. 2.

As currently constructed, compensation for the 10 corporate officers is primarily tied to attaining certain goals that pertain to the interests of the Company's shareholders. Indeed, under SJWG's pay versus performance (PvP) approach, executive compensation is tied to performance and strategic goals that are derived mainly from the achievement of financial metrics. In an executive compensation presentation to the SJWG's Board of Directors, the Executive Compensation Committee discussed "(i) the financial targets, including 2022 EPS and the potential impact thereon of the pending cost of capital rate case, (ii) 2022 capital additions target, (iii) three-year average ROE performance-based restricted stock unit (PSU) goal performance, and (iv) the Corporation's three-year average total shareholder return ranking." Interrog. Resp. RRU-203, Ex. 1, p. 2.

The Authority finds that incentive goals for SJWG executives are mainly based on metrics that focus on financial goals or operational achievements not applicable to Connecticut ratepayers. For example, SJWG's Board of Directors approved 2023 performance goals tied to California's strategic water supply and forest health. Interrog. Resp. RRU-203, Ex. 1, p. 2. Moreover, half of the total 80% of the 2022 performance goals were financial based; specifically, goals for SJWG's diluted EPS and for the total dollar spent on capital expenditures by operating subsidiaries. Interrog. Resp. RRU-203, Ex. 1, p. 2, Ex. 1a, pp. 1-3. The remaining 20% corresponded to plans without any connection to CWC's operations in Connecticut. Interrog. Resp. RRU-203, Ex. 1, p. 2, Ex. 1a, pp. 1-3.

Consequently, in accordance with General Statutes § 16-19a(b), the Authority will make 100% of the SJWG executive compensation recoverable in rates dependent upon the achievement of performance targets. However, the Authority will permit CWC to recover through base rates 50% of the proposed O&M expense of $1,874,230, or $937,115, subject to reconciliation based on achievement of the specified performance targets.

The Authority will allow the Company to recover the remaining $937,115 via the RAM if the Company meets the metrics discussed in Section VI.A.2.c.ii, Performance Metrics. The total executive compensation that CWC may ultimately recover from Connecticut ratepayers depends on the Company's performance on the metrics. For example, if the Company meets 75% of the metrics, it may recover 50% of the $937,115 not included in base rates. If the Company meets only 50% of the metrics, then the 50% of the allocated executive compensation included in base rates would be used to pay the allocated executive compensation, while the Company would forgo seeking recovery of the other 50% from ratepayers through the RAM. If, however, the Company fails to meet less than half of its metrics, then the Company is directed to return the proportional share of the allocated executive compensation included in base rates ($937,115) to ratepayers through the RAM as a credit, and CWC will forego recovery of the other 50% through the RAM.

The Authority directs the Company to make a compliance filing, no later than February 28, 2025, and annually thereafter, that quantifies the amount of the allocated executive compensation that ratepayers are paying through base distribution rates and through the RAM, or conversely how much is being returned to ratepayers through the RAM.

iv. CWC Executive Compensation

CWC proposes total executive compensation of $2,620,066 for the Rate Year, for the Company's officers who are not SJWG executives. CWC has six officers whose total compensation is not subject to the 25.98% Massachusetts Formula allocation. Late Filed Ex. 55, Ex. 1 (Detail Tab). The total compensation for these six Company executives is $2,620,066, including $1,638,966 for total salary, $492,693 for STI, and $488,406 for LTI. Id. Based on the payroll expense ratio of 68.2%, the amount included in O&M expenses is $1,786,885 ($2,620,066 x 68.2%). Late Filed Ex. 1, Ex. 1, Sch. C-3.2, p. 2. The table below summarizes the requested compensation.

Table 37: Proposed CWC Executive Compensation

Employee	Salary ($)	STI ($)	LTI ($)	Total Compensation ($)
47	313,456	94,037	83,379	490,872
58	256,643	71,860	51,329	379,831
74	220,718	61,801	44,144	326,663
154	393,048	137,567	218,535	749,149
157	232,200	65,016	46,440	343,656
236	222,902	62,413	44,580	329,895
Subtotal	**1,638,966**	**492,693**	**488,406**	**2,620,066**
Exp. Factor	68.2%	68.2%	68.2%	68.2%
Total O&M	**1,117,775**	**336,017**	**333,093**	**1,786,885**

Similar to the SJWG compensation and in accordance with General Statutes § 16-19a(b), the Authority will make 10% of the CWC executive compensation dependent upon the achievement of performance targets. Consequently, the Authority will permit the Company to recover in base rates 90% of the proposed O&M expense of $1,786,885, or $1,608,196. The final 10%, or $178,688, will be recoverable via the RAM proceeding based on the Company meeting the metrics as discussed in Section VI.A.2.c.ii, Performance Metrics.

The Authority directs the Company to make a compliance filing, no later than February 28, 2025, and annually thereafter, that quantifies the amount of the CWC officer compensation ratepayers are paying in base rates and through the RAM.

d. Non-Executive Employee Incentives

i. CWC Non-Executive Employee STIs

The Company includes a Rate Year expense of $631,342 for 47 non-executive employees. Late Filed, Ex. 1, Sch. C-3.2, p. 2; Late Filed Ex. 55, Ex. 1 Supp. The Authority allows the Company to recover 50%, or $315,671. The Authority finds that the Company has not shown that the remaining amount is reasonable and necessary, because the proposed incentive awards are excessive compared to market metrics and are primarily based on goals with minimal benefits to Connecticut ratepayers, thus not reflective of a level of rates that reflects prudent and efficient management of the franchise operation. General Statutes § 16-19e(a).

CWC proposes total STI costs of $2,229,893 for the Rate Year. Late Filed Ex. 55, Ex. 1 Supp (Detail Tab). This amount consists of $2,056,675 for 42 current employees, including CWC officers, and $173,218 for five new employees. Late Filed Ex. 55, Ex. 1 Supp. (Detail Tab); Late Filed Ex. 41, Ex. 1. Additionally, the Company allocated $24,597 in STI for non-CWC employees in shared service allocations. Late Filed Ex. 55, Ex. 1 Supp. (Detail Tab).

As discussed in Section VI.A.2.b, FTE Compensation, the Authority did not include the TTC for employee number 246, Director of Corporate Sustainability & ESG, in the

total compensation recoverable in the Rate Year. CWC requested an STI of $39,140 for this employee. Late Filed Ex. 55, Ex. 1 (Detail Tab). This proposed new employee was to be a shared services employee whose compensation is allocated 25.98% to CWC. Id. Therefore, the Authority determined that $10,169 ($39,140 x 25.98%) represents the STI allocated to CWC for employee number 246 that should be removed to avoid double counting the adjustment.

The following table summarizes the total Non-Executive STI expenses allowed for the Rate Year.

Table 38: Rate Year Calculation of Non-Executive STIs

Description	Amount ($)
Total CWC Reported STI Costs	2,229,892
Less STI for CWC Executive Employees	(1,060,967)
Less STI for CWC Employees in Shared Service	(348,058)
Add Allocated STI for CWC Employees in Shared Service	90,426
Add Allocated STI for Non-CWC Employees in Shared Service	24,597
Less STI for Director of Corporate Sustainability & ESG	(10,169)
Subtotal	**925,721**
Expense Factor	68.2%
Expense Total	**631,342**

Late Filed Ex. 55, Ex. 1 Supp (Detail Tab).

Here, the evidence indicates that the Company's total incentive compensation exceeds comparable market compensation. Notably, the Wilson Group studies provided by the Company indicate that a significant portion of CWC's job titles receive variable pay or bonuses in excess of the market in addition to competitive base salaries. Interrog. Resp. OCC-211, Ex. 2, p. 23, Ex. 3, Ex. 4, Ex. 5. For example, the Wilson Group studies indicated that the Company's total cash payment for an accounting manager is $148,500, including 16.7% incentives, while the comparable market total payment is $120,100, including 5% incentives. Interrog. Resp. OCC-211, Ex. 2, p. 23. Similarly, the Company's total cash payment for a director of engineering is $181,800, including 21.2% incentives, while the comparable market total payment is $156,800, including 5.9% incentives. Id. Based on its review of the compensation studies, the Authority finds that CWC's incentives for eligible non-executive employees exceed the general market for incentive compensation. Further, the Company did not offer any evidence to justify or explain why the excess incentive compensation was reasonable or necessary. As such, the Authority will disallow 50% ($315,671) of the proposed non-executive incentive compensation.

ii. Customer Service Satisfaction Compensation

The Company proposes to recover $170,400 for "customer satisfaction" payments made to its employees in its revenue requirement, which is included in its cash incentive compensation request. Tr., 795:25-796:9; see Interrog. Resp. OCC-212, Ex. 1.

The Company offers a customer service satisfaction incentive compensation for employees who are not eligible to participate in the Company's STI compensation

package.[33] Johnson Prefiled Test., Oct. 3, 2023, p. 9. For employees not eligible for the STI compensation package, the Company stated that it awards an annual payment of $800, "upon achievement of world-class levels of customer satisfaction." Id. The Company states that the $800 awards are made when "customer satisfaction scores, as tabulated by an independent third party, are 85% or above." Id. The Company's proposal would include recovery for the $800 payments made to 213 employees.

OCC's expert witness, John Defever, argued that the Company should not recover its customer satisfaction payments in rates because incentive programs should provide incentive for employees to exert more effort. Defever PFT, p. 10. Mr. Defever also stated that nearly every eligible CWC employee receives customer satisfaction payments, and that rewarding every employee has less impact than rewarding high performing employees. Id. In addition, he stated that such universal rewards may even discourage high performing employees who are aware that underperforming employees are also being rewarded. Id., pp. 10-11. Finally, Mr. Defever states, "[i]t is fair to assume that not every employee is overperforming," and, thus, universal rewards mean that "ratepayers are required to pay extra for poor performance." Id., p. 11.

The Company argued that OCC's assessment focuses solely on individual performance towards customer satisfaction and ignores that all CWC employees have different roles and responsibilities in supporting customers, making it impossible to measure each employee's contribution to customer satisfaction. CWC Exceptions, p. 20. Instead, the Company urges the Authority to view customer service satisfaction as a collective effort that is rewarded as such when certain metrics are achieved. Id. While the Authority has closely examined the OCC's testimony and likewise has similar reservations regarding the nexus between customer service satisfaction payments and incentivizing superior employee performance, the Authority nonetheless recognizes that the Company has achieved high customer satisfaction metrics and that a group incentive may influence the Company's culture in a manner that promotes such an outcome. See Ex. A.6, App. 2, Slide 8 (displaying customer satisfaction index from 2021-2023). The Authority may further explore incentive compensation plans in a broader forum to explore methodologies to further encourage exemplary customer service performance.

Therefore, the Authority allows the Company to recover the $116,213 expense ($170,400 x 68.2% capitalization factor) related to customer satisfaction incentive compensation.

3. Employee Benefits

a. Medical and Dental

The Company proposes including combined medical and dental costs of $3,395,707 in its Rate Year revenue requirement. Based on the evidence presented, the Authority finds sufficient evidence of $2,910,217 in Rate Year medical and dental costs

[33]The STI compensation package is intended for "[l]eaders and certain other individual contributors in the organization." Johnson PFT, p. 9.

and allows the Company to recover $1,984,768 ($2,910,217 x 68.2% capitalization factor) as expenses in its revenue requirement.

The Company seeks a significant increase for its medical and dental costs, proposing Rate Year combined medical and dental costs of $3,395,707, consisting of "2023 levels" of $3,554,682, plus $508,320 to reflect a 14.3% escalation, less $1,018,658 in employee contributions. In addition, the Company included projected "Opt Outs" and employee health savings accounts (HSA) contribution expenses of $169,000 and $182,363, respectively.[34] Id. Application, Ex. C-3.3, p. 2. Notably, the Company did not follow governing ratemaking principles in proposing an expense for Rate Year medical and dental costs. Specifically, the Company is required to start with its Test Year medical and dental expenses and then make pro forma adjustments for known and measurable changes.

Notwithstanding this deviation, the Authority finds sufficient evidence to support Rate Year medical and dental costs of $2,910,217 and, therefore, allows the Company to recover $1,984,768 ($2,910,217 x 68.2% capitalization factor) as expenses in its revenue requirement. While the Authority finds an increase over Test Year expenses is warranted, the Authority will use the actual medical and dental cost data for 2023 (i.e., $3,445,548), subject to a 3.83% escalation rate for the Rate Year. See Interrog. Resp. RRU-499, Ex. 1. The table below summarizes the adjustments.

Table 39: Medical & Dental Expenses

	2023	Pro Forma Proposed	Adjustments	Approved
M&D Expense	$3,445,548	$3,554,682	$(109,134)	$3,445,548
Cost Escalation %		14.30%		3.83%
Cost Escalation Increase	-	$508,320	$(376,355)	$131,964
M&D Expense Subtotal	**$3,445,548**	**$4,063,002**	**$(485,489)**	**$3,577,512**
Employee Contributions	$(981,129)	$(1,018,658)	-	$(1,018,658)
Opt-Out Costs	$161,000	$169,000	-	$169,000
HSA contributions	$185,879	$182,363	-	$182,363
Total Company Costs	**$2,811,299**	**$3,395,707**	**$(485,489)**	**$2,910,217**
Capitalization Factor (68.2%)	68.2%	68.2%	68.2%	68.2%
Total Company Expenses	**$1,917,306**	**$2,315,872**	**$(331,104)**	**$1,984,768**

Interrog. Resp. RRU-499, Ex. 1; Application, Ex. C-3.3, p. 2; Late Filed Ex. 1, Ex. 1, Sch. C-3.20, p. 2.

The Company's exhibits indicate that it incurred Test Year medical and dental expenses of $2,079,557, but the exhibits do not explain how this number was calculated. Late Filed Ex. 1, Ex. 1, Sch. C-3.3, p. 1, Sch. C-3.20, p. 2. Instead, the Test Year expense is used solely to calculate the pro forma adjustment. Late Filed Ex. 1, Ex. 1, Sch. C-3.3, p. 1. Further, the Company did not initially explain how the "2023 levels" expense of

[34]The Company offers employees the opportunity to receive $100 bi-weekly to not participate in (i.e., opt out of) the Company's health and dental plans if they have other coverage. Interrog. Resp. OCC-50.

$3,554,682 was determined and only provided the supporting evidence for this number in response to an interrogatory. See Interrog. Resp. RRU-499, Ex. 1. Absent reliable Test Year data for medical and dental expenses, the Authority must deviate from normal ratemaking methodology and instead use the actual 2023 costs of $3,445,548 as the baseline, which is a reduction of $109,134 from the Company's "2023 levels" expense.

The Company did not propose specific known and measurable changes to the Test Year (or 2023) expenses. Rather, the Company is requesting an escalation at the rate of 14.3%, as developed by its consultant, Willis Towers Watson (WTW). Application, Ex. C-3.3, p. 2; Tr., 489:15-490:16. The Company testified that "[t]here are assumptions that go into the process for [WTW's] inputs, and they do provide us with backup for those assumptions." Tr., 490:19-21. The Company further testified that the Company conducts an annual review and "benchmark[s] against fully insured plans as well as other self-insured plans." Tr., 491:8-16. The Company indicated that "dramatically" increased drug prices and increased costs associated with mental health were "primary drivers behind" increased medical costs over the past three years. Tr., 491:22-493:9.

Notably though, the Company did not provide any of the "assumptions," "benchmark[s]," or "backup" used by WTW or the Company to arrive at an escalation factor. Nor did the Company provide the escalation rates for prior years. Tr., 491:22-492:2 ("I don't have the figures right here, but I would say it is within the band."). In addition, the Company did not provide any data as to how the escalation rate compared with national or regional averages. Tr., 493:1-6 ("I do not have those figures right now, but our plan is not very different. It does not perform very differently then, you know, other similarly constructed plans. So I would state here, subject to check, that it is very consistent across the nation."). Moreover, the Company's 14.3% escalation factor is inconsistent with the Company's use of an inflation factor of 6.15% for various other requested O&M expenses. Late Filed Ex. 1, Ex. 1, Sch. C-3.20, p. 2.

Consequently, there is little or no evidence in the record to support a finding that the Company's proposed 14.3% escalation factor is a known and measurable change. Notably, the record indicates that relevant information was available, but that the Company did not provide it. Tr., 490:19-21. However, given that medical and dental costs are reasonably likely to increase to some degree, the Authority permits an escalation rate of 3.83%. This is the same amount by which the Company escalated its employee contributions for medical and dental expenses [($1,018,658-$981,129)/$981,129]. Absent other evidence in the record regarding the escalation of these costs, the Authority applies the 3.83% escalation for medical and dental expenses. This results in a cost escalation of $131,964, which is a reduction of $376,355 from the Company's proposed 14.3% increase.

Combining the two adjustments above results in an overall reduction of $485,489 in costs and a $331,104 reduction in Rate Year expense (to account for the 68.2% expense factor).

b. Pension

The Authority allows the Company's proposed pension expense that results in a credit of $1,449,340. The Company asserts that its pension costs have declined since

the last rate case and will reduce the total cost of service in this rate proceeding. Johnson PFT, p. 21. The Company further states that it took steps to manage pension benefit costs by closing the defined benefit pension plan for any new or rehired employees hired after January 1, 2009. Id., p. 22. The Company states that the "change resulted in long-term savings for [its] pension liabilities and avoids the risks associated with the uncertainty related to future costs." Id.

The Company's pro forma pension estimate was provided by the Company's actuary, Hooker and Holcombe. Dixon PFT, p. 11; Johnson PFT, p. 22. There are two components to the pro forma pension cost provided by the Company. Dixon PFT, p. 11. The first is the service cost, which is allocated 68.2% to O&M, and the second is the non-service costs, which are allocated 100% to O&M. Id. The Company provided an updated discount rate for the pension plan of 5%. Late Filed Ex. 1, Ex. 1, Sch. C-3.4, p. 4.

The Authority approves the total pro forma pension expense as provided in the table below:

Table 40: Pension O&M Expense

	O&M Expense ($)
Service Cost (at 68.2% expense)	857,443
Non-Service Cost (at 100% expense)	(2,306,783)
Total Pension Expense	**(1,449,340)**

Late Filed Ex. 1, Ex. 1, Sch. C-3.4, p. 2.

c. Post-Retirement Medical

The Authority allows the Company's proposed post-retirement medical expense that results in a credit of $927,453. Post-retirement medical benefits costs declined since the last rate case. Johnson PFT, p. 22. The discount rate was increased from 2.76% to 5.21%. Id., p. 21. Estimates for 2024 post-retirement medical benefits for the Company were provided in this proceeding by the Company's actuary, Hooker & Holcombe. Id. The estimated 2024 expenses, as of December 31, 2023, were updated in Late Filed Ex. 1, Ex. 1, Sch. C-3.4, pp. 3-4, Sch. C-3.5, p. 2.

The Authority approves the total pro forma post-retirement medical expense as provided in the table below:

Table 41: Post-Retirement Medical Expense

	O&M Expense ($)
Service Cost (at 68.2% expense)	96,144
Non-Service Cost (at 100% expense)	(1,023,597)
Total Post-Retirement Medical Expense	**(927,453)**

Late Filed Ex. 1, Ex. 1, Sch. C-3.5, p. 2.

d. Company 401(k) Contribution

The Company proposes a 401(k) expense of $1,160,282. Late Filed Ex. 1, Ex. 1, Sch. C-3.6, p. 1. The Authority reduces the expense by $11,211 to account for removal of expenses for the unfilled Director of Corporate Sustainability & ESG position. The Authority further reduces the expense by $100,799, to reflect an adjustment for an over-allocation of the 401(k) expense associated with 12 shared employees. As a result, the Authority approves a 401(k) expense totaling $1,048,272.

The Company made significant changes to its 401(k) defined contribution plan to enhance its benefits and to maintain compliance with the Employment Retirement Income Securities Act of 1974, as of January 1, 2023. Johnson PFT, pp. 12-13, 23. In 2022, the Company hired WTW to perform a comprehensive review of CWC's 401(k) program and recommended redesign of the plan benefit. Interrog. Resp. RRU-421, p. 2. The primary changes to the defined contribution plan include: a safe harbor Company match totaling 4% of eligible compensation; a discretionary nonelective Company contribution of 3%; and a change in the definition of eligible compensation to include total pay, as reflected in box 1 wages of an employee's W-2 form. Johnson PFT, pp. 23-24.

The safe harbor match applies to up to 4% of eligible compensation for all Company 401(k) participants. Johnson PFT, p. 23. First, the Company matches 100% of the first 3% of each employee's eligible compensation. Id. Second, the Company matches 50% of the following 2% of each employee's eligible compensation (up to an additional 1%). Id. Thus, to receive the maximum 4% Company matching contribution, an employee must defer 5% of their eligible compensation to the plan. Interrog. Resp. RRU-421.

For non-pension eligible employees, the Company matches an additional 3% of 401(k) contributions, for a maximum of 7% match. Id.

The Authority finds that the Company's 401(k) contribution expense is reasonable, except for a necessary adjustment to the expense to account for the unfilled Director of Corporate Sustainability & ESG position, which was removed from the Company's FTE count. The Company's expenses and the Authority's adjustment are summarized below.

Table 42: Allowed 401(k) Expense

	Non-Pension Eligible Employees	Pension Eligible Employees	Adjustment	Total Allowed
Eligible Wages	$21,028,279	$8,890,761	$(234,840)	$29,684,200
4% Company Match	$841,131	$355,630	$(9,394)	$1,187,368
3% Company Match	$630,848	-	$(7,045)	$623,803
Less Cap ($22,500/FTE)	$(51,878)	$(6,389)	-	$(58,267)
Subtotal	**$1,420,102**	**$349,241**	**($16,439)**	**$1,752,904**
Less Vacancy Factor	$(34,025)	($34,025)	-	$(68,050)
Total Cost	**$1,386,077**	**$315,216**	**($16,439)**	**$1,684,854**
Expense Factor	68.2%	68.2%	68.2%	68.2%
Total Expense	**$945,304**	**$214,978**	**($11,211)**	**$1,149,071**

Late Filed Ex. 1, Ex. 1, Sch. C-3.6, pp. 1-2; Late Filed Ex. 55, Ex. 1 Supp.

Notably, the Company appears to have included 100% of the 401(k) expense for 12 shared CWC employees whose compensation is otherwise allocated to the Company at a factor of 25.98%. Late Filed Ex. 55, Ex. 1, Supp. As shown in the table below, this full allocation of 401(k) expenses to CWC, rather than a pro rata allocation, results in an additional $100,799 of 401(k) contribution expenses for the 12 shared employees. The Company did not indicate or otherwise justify why the 401(k) expenses for these shared employees was allocated fully to the Company rather than at the 25.98% shared service allocation; thus, the allocation delta will be removed from the allowed 401(k) expense.

Table 43: Shared CWC Employees

	Non-Pension Eligible Employees	Pension Eligible Employees	Total
Eligible Wages	$2,930,599	$1,157,018	$4,087,617
4% Company Match	$117,224	$46,281	$163,505
3% Company Match	$87,918		$87,918
Less Cap ($22,500/FTE)	$(45,359)	$(6,389)	$(51,748)
Subtotal	**$159,783**	**$39,892**	**$199,675**
Expense Factor	68.2%	68.2%	68.2%
100% Allocation to CWC	**$108,972**	**$27,206**	**$136,178**
25.98% Allocation to CWC	**$28,311**	**$7,068**	**$35,379**
Allocation Delta			**$100,799**

Late Filed Ex. 55, Ex. 1 Supp.

4. Purchased Power

The Company requested a purchased power expense of $4,157,566 for the Rate Year. Late Filed Ex. 1, Ex. 1, Sch. C-3.7, p. 1. This amount represents a 48% increase from the Company's actual purchased power expense of approximately $2,800,000. Interrog. Resp. RRU-170, Ex. 1.

The Company indicated that its purchased power expenses for August 1, 2022, through July 31, 2023, totaled $3,093,171. Late Filed Ex. 1, Ex. 1, Sch. C-3.7, p. 2. In support of this amount, the Company provided a spreadsheet with invoices covering June 22, 2022, through July 21, 2023. Interrog. Resp. RRU-170, Ex. 1. Based on its review of the Company's spreadsheet and invoices, the Authority finds that $3,093,171 represents a reasonable proxy for a Test Year value.

The Company next proposes $1,064,395 of pro forma adjustments to its actual purchased power expense. Late Filed Ex. 1, Ex. 1, Sch. C-3.7, p. 2. The Company attributes this increase primarily to escalating supply costs ($571,468) and delivery costs ($357,619). See id.; Tr., 502:14-505:6. The supply increase is due to an increase in the negotiated supply rate from Constellation Energy from $0.0762 to $0.1155 as of January

1, 2024. See Tr., 504:19-505:22; Late Filed Ex. 1, Ex. 1, Sch. C-3.7, p. 2; Late Filed Ex. 37, p. 2.

With regard to the Company's pro forma adjustment of $357,619 for delivery charges, the Authority finds that the Company's methodology was imprecise; nonetheless, the record supports some increase in delivery costs. CWC states that it estimated a 23% increase in its delivery expense based on the average distribution rate increases effective July 1, 2023, for three tariffs CWC receives electric distribution service under, Rates 27, 30, and 35. Late Filed Ex. 36. CWC's methodology does not weigh the Company's actual delivery expenses under the tariffs; rather, it appears to be a straight averaging of the percentage increases irrespective of the usage subject to each tariff (Rate 27, 22.37%; Rate 30, 20.06%; Rate 35, 25.93%). Interrog. Resp. RRU-170. However, given the fairly narrow range of rate increases between the tariffs, the Authority will accept the 23% as a general proxy.

As such, the Authority approves a purchased power expense of $4,157,566.

5. Purchased Water

The Company proposes $2,198,438 for purchased water expenses in its revenue requirement. Late Filed Ex. 1, Ex. 1, Sch. C-3.8, p. 2. The Authority allows $2,171,194 in purchased water costs, a difference of $27,244, to reflect the reduction in the total water volume for the Rate Year.

CWC requested $2,198,438 for costs of purchased water for the proposed Rate Year. Late Filed Ex. 1, Ex. 1, Sch. C-3.8, p. 2. The Company states that the total volume of 777,627 gallons proposed for the Rate Year is based on a five-year average (2019-2023).[35] Late Filed Ex. 39. CWC stated that rainfall was more than 50% higher than average in 2023, thereby affecting seasonal outdoor use. Id. The following table sets forth the Company's annual purchased water volume, in thousand-gallon (kgal) increments, since 2018, as well as the Company's proposed Rate Year amounts.

Table 44: Purchased Water Volume (kgal)

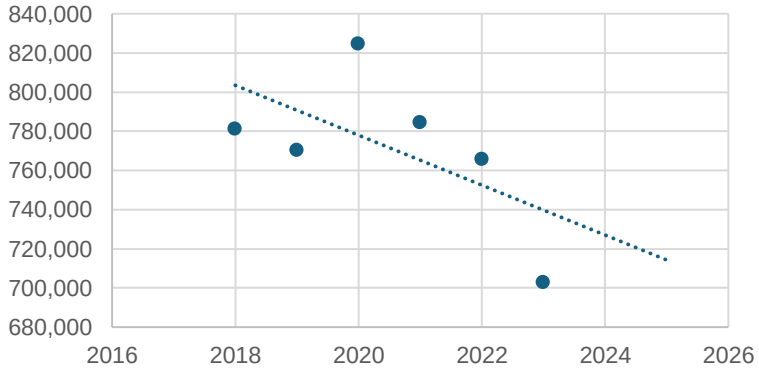
System	2018	2019	2020	2021	2022	2023	CWC Proposed Proforma
Avon Fisher Meadows	284,304	285,402	320,299	300,566	250,040	242,081	272,939
Regional Water Authority	17,639	11,487	38,859	24,897	63,303	15,033	46,911
Aquarion - Mason's Island	11,329	19,303	18,220	12,730	12,920	13,340	15,178
MDC	465,528	450,826	443,117	441,957	435,688	430,915	438,968
Waterbury - Hillcrest	985	1,857	2,486	2,587	1,330	0	1,849
Manchester	1,595	1,501	1,625	1,693	2,424	1,669	1,782
Total	781,380	770,376	824,606	784,430	765,705	703,038	777,627

Late Filed Ex. 39.

[35]Using this volume of 777,627 kgal, the average $/kgal for the proposed pro forma amount of $2,198,438 is $2.83.

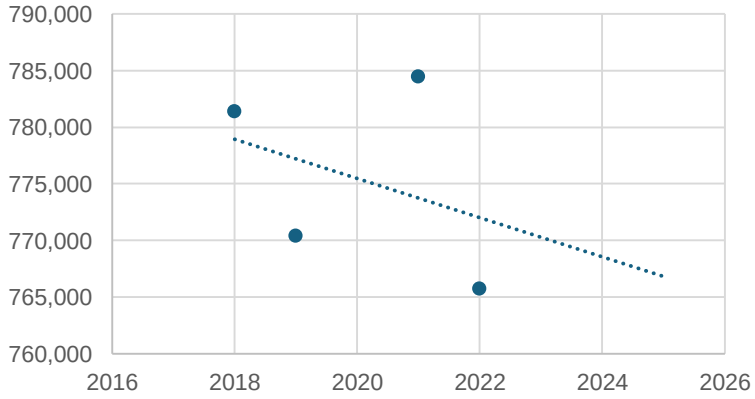
The Authority finds that the best estimate for Rate Year purchased water is 768,000 kgal based on projections that exclude 2020 and 2023 data. The figure below demonstrates that calendar years 2020 and 2023 represent aberrations in the data. As the Company points out, the state experienced above average rainfall in 2023, resulting in lower demand. Likewise, the Authority notes that, in 2020, the state experienced a drought, likely increasing demand for irrigation purposes. A 2024 projection (see trendline in Figure 1) that includes this data is approximately 730,000 kgal.

Figure 1: Purchased Water Volume - All Data (kgal)



As the trend line indicates, the full data set exaggerates the general trend of declining water purchases. Excluding the calendar year 2020 and 2023 data results in a trend line more consistent with the historical downward trend in water purchases. The figure below indicates that the projection using this data set results in an approximate volume of 768,000 kgal.

Figure 2: Purchased Water Volume – Excluding 2020 & 2023 (kgal)



Consequently, the Authority finds that the trendline using data that excludes calendar years 2020 and 2023 represents a reasonable estimate for 2024 purchased water. The table below summarizes the allowed expense for 2024 purchased water.

Table 45: Purchased Water Expense

	kgal	$/kgal	Total ($)
CWC Proposed Pro forma	777,627	2.83	2,198,438
Authority Allowed	768,000	2.83	2,171,194
Adjustment	(9,627)	2.83	(27,244)

6. Chemical and Carbon Filter Expenses

a. Summary

The Company proposes an O&M Rate Year "Chemical Expense" of $2,170,420, which consists of $1,908,339 for chemical expenses and $262,081 for carbon filter expenses. Late Filed Ex. 1, Ex. 1, Sch. C-3.0. The Authority allows the Company to recover Rate Year expenses of $2,097,003, which includes $1,908,339 for chemical expenses and $188,664 for carbon filter expenses. The table below summarizes the approved chemical expense.

Table 46: Chemical and Carbon Filter Expenses

	Pro Forma ($)	Adjustment ($)	Approved ($)
Chemical Expenses	1,908,339		1,908,339
Carbon Filter Expenses	262,081	(73,417)	188,664
Total	**2,170,420**	**(73,417)**	**2,097,003**

b. Chemical Expenses

CWC proposes $1,908,339 as the total chemical expenses for the Rate Year, which is the Company's $1,377,051 reported Test Year amount plus a $1,908,339 pro forma adjustment. Late Filed Ex. 1, Ex. 1, Sch. C-3.9, p. 2.

The Company asserts that its proposed Rate Year chemical expenses are based off of a response to its December 5, 2023 solicitation for pricing between April 1, 2023, and March 31, 2024, and are the prices it actually paid. CWC Exceptions, p. 22; Interrog. Resp. OCC-360; Interrog. Resp. OCC-155, Ex. 1. The Authority finds that the results from the Company's December 5, 2023 solicitation provide a reasonable estimate upon which the Company may base its pro forma adjustment. As such, the Authority permits the Company to recover $1,908,339 for chemical expenses in its revenue requirement.

c. Carbon Filter Expenses

The Company proposed $262,081 in expenses for carbon filters based on a $34,647 increase from a purported Test Year expense of $227,434. Late Filed Ex. 1, Ex. 1, Sch. C-3.9, p. 2. The Authority allows the Company to recover $188,664 for carbon filters based on more recent information indicating that the Company had carbon filter costs of $188,664 in 2023. See Late Filed Ex. 1, Ex. 1, Sch. B-6.0, p. 1.

The Company's initial request of $262,081 in the Application, Sch. C-3.9, pp. 1-2, was not updated in Late Filed Ex. 1, Ex. 1, Sch. C-3.9, pp. 1-2.[36] However, the Company subsequently indicated that the Company made purchases totaling $188,664 in 2023 and projected purchases of $195,170 for 2024. Late Filed Ex. 1, Ex. 1, Sch. B-6.0, p. 1. No evidence was provided to support the Company's projected 2024 purchases. Given the sparse evidence in the record, and considering the Company's burden of proof, the Authority finds that the Company's reported 2023 expenses are the best evidence upon which the Authority can rely in determining the Company's known and measurable expenses for the Rate Year. See Connecticut Natural Gas Corp. v. Dept. of Public Utility Control, 51 Conn. Supp. 307, 322 (2009) (affirming agency's decision that, in part, applied the "known and measurable" standard to pro forma adjustments).

Therefore, the Authority allows $188,664 for carbon filters as an O&M expense for the Rate Year, or $73,417 less than the Company's proposed pro forma expense of $262,081.

7. Tank Painting & Well Maintenance

a. Summary

The Company proposes pro forma Test Year tank painting and well maintenance expenses of $756,119. Late Filed Ex. 1, Ex. 1, Sch. C-3.0, Sch. C-3.10, p. 2. In addition, the Company proposed $2,576,177 of additions to rate base to amortize certain deferred tank painting and well maintenance expenses.

The Authority allows an O&M expense for the Rate Year of $532,473, to be applied to a balancing account, as discussed in Section VI.A.7.c, Rate Year Expenses, below. In addition, the Authority allows the Company to recover for three years an annual amortization expense of $496,883 for costs deferred by the Company as of July 1, 2024. Consequently, the Authority allows a total of $1,029,356 ($532,473 + $496,883) as an O&M expense for tank painting and well redevelopment costs in the Rate Year.

b. Amortization of Deferred Costs

The Company testified that the Authority approved deferred tank painting and well redevelopment expenses of $3,299,098 through December 31, 2021, for amortization in the July 2021 CWC Rate Case Decision. Tr., 283:9-18; Interrog. Resp. RRU-490, Ex. 1.[37] Although US GAAP accounting standards treat tank painting, well carbon filters, and other well maintenance as expenses, the Company has been recording them "for regulatory purposes" as "deferred assets or regulatory assets." Tr., 1504:19-1505:4. The Company also testified that the balance it records is a rolling account for deferred tank painting and well redevelopment, with expenses deferred and amortized over a 10-year period. Tr.,

[36] "From a process perspective, the Company began with the original "A B C D Schedules" excel file submitted in the application. If a schedule was not in need of an update or correction, the tab was colored in red and the tab was moved to the end of the workbook." Late Filed Ex. 1. The tabs for Late Filed Ex. 1, Ex. 1, Sch. C-3 are both colored red.

[37] The line item, "Deferred Tank Painting and Other Costs" in Interrog. Resp. RRU-490, Ex. 1, contains CWC's combined expenses for "Total Tank Painting" and "Total Well Redevelopments," which are itemized in Interrog. Resp. RRU-490, Ex. 2.

283:19-284:3; Interrog. Resp. RRU-147, Ex. 1. Accordingly, the balance of $2,397,291 that the Company reported as of December 31, 2022, would have reflected additional costs incurred and reductions due to amortization. Tr., 283:19-284:12; Interrog. Resp. RRU-147, Ex. 1. The Company does not "wait for a case to start amortizing those tanks. So the amortization will grow over time. As more tanks are added, some fall off." Tr., 284:12-15. However, this treatment does not comport with the July 2021 CWC Rate Case Decision approvals.

In the July 2021 CWC Rate Case Decision, an amortization of $735,671 was approved for tank painting and well redevelopment expenses. Tr., 284:24-285:11. Additionally, the Company testified that the $3,299,098 balance approved by the Authority included projected costs through the end of 2021, and that the actual deferred balance, as of December 31, 2021, was $2,794,926. Tr., 288:5-9; Interrog. Resp. RRU-147, Ex. 1, Ex. 2.

The following table shows the Authority's previously approved balance and amortization amounts through June 30, 2024, along with the Company's reported actual expenses, partially amended by its most recent reports of expenses.[38]

Table 47: Tank Painting and Well Redevelopment Costs

Tank Painting and Well Redevelopment	July 2021 CWC Rate Case Decision ($)	CWC Reported ($)
Balance through 12/31/2021	3,299,098	2,794,926
2022 Expenses		167,672
2022 Amortization	(735,671)	(569,897)
Balance through 12/31/2022		2,397,291
2023 Expenses		777,327
2023 Amortization	(735,671)	(593,368)
Balance through 12/31/2023		2,581,249
Jan.-June 2024 Expenses		
Jan.-June 2024 Amortization	(367,836)	(302,536)

Interrog. Resp. RRU-147, Ex. 1, Ex. 2; Late Filed Ex. 1, Ex. 1, Sch. B-6.0, pp. 1-2.

Accordingly, the $2,794,926 actual balance, as of December 31, 2021, should have been reduced by $1,839,178 (2.5 years of amortization at the rate of $735,671 per year). In addition, the Company has presented evidence of expenses in 2022 and 2023 that must be added to that balance. The Company claimed completed tank painting and well redevelopment expenses of $167,672 in 2022 and $777,327 in 2023. Late Filed Ex. 1, Ex. 1, Sch. B-6.0, pp. 1-2. Of those claimed amounts, the Company presented

[38]The Company had previously reported different expenses, projected expenses, and amortization amounts. See Interrog. Resp. RRU-147, Ex. 1, Ex. 2.

persuasive evidence of $167,672 in 2022 and $239,629 in 2023.[39] The Company did not present evidence of completed tank painting and well redevelopment expenses in the first half of 2024.[40]

Accordingly, the balance of deferred tank painting and well redevelopment expenses, as of June 30, 2024, is $1,363,049, as shown in the table below.

[39]The Company proposed $380,867 in expenses for "Western Tank Pressure Washing" and $156,831 for "Sachem Tank Overcoat" for the first time in a late filed exhibit, Late Filed Ex. 1, Ex. 1, Sch. B-6.0 p. 2, without providing any evidence (1) documenting those expenses, (2) related to the need for those expenses, or (3) of the prudence of those expenses. Accordingly, the Company has not met its burden with respect to recovery of those expenses.

[40]The Company included $600,000 for "Proposed Snipsic Street Tank" in a late filed exhibit, Late Filed Ex. 1, Ex. 1, Sch. B-6.0 p. 2, but there is no evidence that the expense has been incurred.

Table 48: Tank Painting and Well Redevelopment Adjustments

Tank Painting and Well Redevelopment	Approved ($)
Balance through 12/31/2021	2,794,926
2022 Expenses	167,672
2022 Amortization	(735,671)
Balance through 12/31/2022	2,226,927
2023 Expenses	239,629
2023 Amortization	(735,671)
Balance through 12/31/2023	1,730,885
Jan-June 2024 Expenses	0
Jan-June 2024 Amortization	(367,836)
Balance through 6/30/2024	**1,363,049**

As discussed in Section IV.F.2, Deferred Tank Painting & Well Maintenance, the Authority allows amortized recovery of deferred expenses through June 30, 2024. The Company may recover $1,363,049, as the total deferred tank painting and well redevelopment expenses, subject to pre-tax WACC, outside of rate base. Based on the allowed pre-tax WACC of 8.61023%, the Authority calculates $127,600 in carrying costs. Accordingly, the Company may recover $1,490,649 ($1,363,049 + $127,600) as the total approved deferred tank painting and well redevelopment balance to be amortized over three years.

Table 49: Total Deferred Tank Painting and Well Redevelopment Recovery

Description	Amount ($)
Balance, as of 6/30/2024	1,363,049
Pre-tax WACC of 8.61023%	127,600
Total Amortization Costs	1,490,649
Rate Year Amortization Cost (1/3)	496,883

Accordingly, the allowed annual amortization for the allowed tank painting and well redevelopment deferral is $496,883. The Authority permits recovery of that expense outside of rate base for a period of three years, as discussed in Section VI.A.7.b, Amortization of Deferred Costs.

c. Rate Year Expenses

The Authority finds that tank maintenance and well redevelopment expenses should be recovered by the Company as part of its annual operating and maintenance expenses, using a balancing account to reduce risk of under recovery to the Company and the risk of over recovery to ratepayers. Based on the data provided by the Company related to these expenses, the Authority allows $532,473 as an O&M expense for the Rate Year.

Table 50, below, indicates that tank maintenance costs can vary substantially from year to year. Late Filed Ex. 1, Ex. 1, Sch. B-6.0, p. 2. However, the average annual

expenditure of $395,377 is directionally consistent with the Company's projected cost for 2024 of $600,000. Given this data, the Authority will permit the Company to include $395,377 of tank maintenance cost as a Rate Year expense.

With respect to well redevelopment, the annual expenses are fairly consistent. Based on the data provided by the Company, the Authority will permit the Company to include $137,096 of well redevelopment costs as a Rate Year expense. Together, the permitted expenses equal $532,473.

Table 50: Allowed Annual O&M Expense

	Annual Cost ($)
Tank Painting:	
2019	806,429
2020	-
2021	584,965
2022	-
2023	380,867
2024 (proposed)	600,000
Average	**395,377**
Well Redevelopment:	
2021	90,229
2022	167,672
2023[41]	122,483
2024 (proposed)	168,000
Average	**137,096**

Late Filed Ex. 1, Ex. 1, Sch. B-6.0, p. 2.

To mitigate the fluctuations in tank painting and well redevelopment costs from year to year, the Company is permitted to use a balancing account. In the balancing account, the Company shall record the $532,473 expense allowed in its revenue requirement as well as its tank painting and well redevelopment expenses. In the Company's next rate case, the expenses charged to the balancing account will undergo a prudency review. No carrying charges shall be permitted on the balancing account.

No later than February 1, 2025, and annually thereafter until the Company's next rate case application is filed, CWC shall file Excel worksheets listing: (1) all tanks in each of its service regions/divisions and the dates when each tank was last painted and power washed; (2) an Excel worksheet listing all wells in each of its service regions/divisions and the dates when each well's last redevelopment project was completed; and (3) all expenses charged to the balancing account in the prior calendar year.

[41]Due to a high priority need, well redevelopments planned for 2024 were accelerated to 2023. Interrog. Resp. RRU 488, Ex. 1. For projecting Rate Year expenses, the Authority will use the original data provided in Late Filed Ex. 1, Ex. 1, Sch. B-6.0, p. 2.

8. Bad Debt and Customer Hardship Assistance

The Company proposes a total bad debt and customer hardship assistance expense of $598,282 for the Rate Year. Late Filed Ex. 1, Ex. 1, Sch. C-3.0. The Authority allows the Company to recover a bad debt expense of $376,795 in its revenue requirement, based on a five-year average of net bad debt expenses. The Authority also allows the Company to recover its proposed $72,857 expense for customer hardship assistance. Accordingly, the Authority includes $449,652 in the Company's Rate Year revenue requirement, which is $148,640 less than the Company's proposal. The table below summarizes the proposed and approved expenses.

Table 51: Bad Debt & Hardship Expenses

	Test Year ($)	Proposed ($)	Adjustment ($)	Approved ($)
Bad Debt Less Recoveries	445,284	525,435	(148,640)	376,795
Customer Hardship Assistance	72,857	72,857	-	72,857
Total Expense	**518,141**	**598,292**	(148,640)	**449,652**

The Company reported "Test Year Bad Debt Write-Offs (Less Recoveries)" of $445,284.[42] Late Filed Ex. 1, Ex. 1, Sch. C-3.11, p. 2. The Company also provided its write-offs and recoveries for 2018 through 2022, with the amounts shown below.

Table 52: Bad Debt Expense, 2018-2022

	2018 ($)	2019 ($)	2020 ($)	2021 ($)	2022 ($)	Average ($)
Actual Write Offs	427,597	431,194	451,322	350,366	511,383	434,372
Actual Recoveries	(82,127)	(56,392)	(43,063)	(40,205)	(66,099)	(57,577)
Total Bad Debt	**345,470**	**374,802**	**408,259**	**310,161**	**445,284**	**376,795**

Interrog. Resp. OCC 129, Ex. 1.

The Company proposed a pro forma adjustment to the Test Year expense of $80,151, which is an 18% increase from $445,284. Late Filed Ex. 1, Ex. 1, Sch. C-3.11, p. 2. The Company did not propose a pro forma adjustment to the $72,857 Test Year Expense for customer hardship assistance.

The 18% pro forma adjustment is an effort by the Company to match its overall proposed rate increase (approximately 18%). Interrog. Resp. OCC-129. The Company testified that the 18% increase to the non-hardship bad debt expense is for "maintaining the same ratio." Tr., 570:20-21. CWC did not provide any evidence to demonstrate that

[42] In the same schedule, the Company uses a "Bad Debt Expense" of $482,231 to calculate a total Test Year expense. The Authority finds, however, that the Company's bad debt should be calculated after recoveries are included, $445,284. See Late Filed Ex. 1, Ex. 1, Sch. C-3.11, p. 2; Interrog. Resp. OCC-129, Ex. 1 (showing 2022 write-offs of $511,383 and recoveries of $66,099, which total $445,284). It appears that the Company used $445,284 as the basis upon which to calculate its Rate Year expense, but reported its Test Year expense using $482,231, which resulted in the Company reporting an artificially low pro forma adjustment of $43,204. See Late Filed Ex. 1, Ex. 1, Sch. C-3.11, pp. 1-2.

there is a correlation between the Company's proposed revenue increase and the non-hardship bad debt expense. In fact, when asked about the Company's certainty that it had proposed the correct amount, the Company testified, "there's no certainty. I think that's -- that's why, you know, a typical approach dealing with what an appropriate bad debt level is has always been, you know, writeoffs and recoveries, looking at histories and trends and whatnot. So we do our best to -- to gather what that appropriate level is." Tr., 571:13-25. Consequently, the Company's pro forma increase is not supported by any credible evidence.

Notably, the historical data provided by the Company indicates that the 2022 bad debt expense was substantially higher than prior years. The Company did not provide any evidence to demonstrate that this increase was attributable to factors that would continue into the future. As such, the Authority will adjust the Test Year amount to reflect the five-year average of the Company's bad debt expense ($376,795). This $68,489 reduction is a reasonably known and measurable adjustment to the Test Year expense of $445,284. Interrog. Resp. OCC 129, Ex. 1.

As a result, the Authority allows the Company to recover $376,795 of bad debt expense and $72,857 of customer hardship assistance expense, for a total of $449,652.

9. Audit Expenses

a. Summary

The Company proposes $1,029,945 in audit expenses for the Rate Year, based on expenses shown in the table below. The Authority permits the Company to recover $319,222 in audit expenses for the Rate Year. The Company failed to demonstrate that the remaining expenses, $710,723, reflect prudent and efficient management. First, the Authority concludes that $391,500 in internal audit expenses were excessive and not reasonable or prudent expenses necessary to provide efficient and adequate service to customers. Second, the Authority allows recovery of half of the Company's external audit costs, after considering and balancing the ratepayer and shareholder interests in performing such audits.

Table 53: Rate Year Audit Expenses

	Test Year ($)	Proposed ($)	Adjustment ($)	Approved ($)
Internal Audit				
Accell Global	370,719	391,500	(391,500)	-
External Audits				
Deloitte & Touche LLP	407,494	510,000	(255,000)	255,000
Cohn Reznick: Pension	50,505	50,505	(25,253)	25,252
Consolidated Audit	82,147	77,940	(38,970)	38,970
External Subtotal	**540,146**	**683,445**	**(319,223)**	**319,222**
Total	**910,865**	**1,029,945**	**(710,723)**	**319,222**

Late Filed Ex. 1, Ex. 1, Sch. C-3.13, p. 2.

b. Internal Audit Expenses

The Company proposed $391,500 in Rate Year expenses related to an "internal audit" to be performed by Accell Global Risk Solutions (Accell). Late Filed Ex. 1, Ex. 1, Sch. C-3.13, p. 2; Interrog. Resp. OCC-128. "Accell has provided internal audit services to CWC since the effective date of the merger between CTWS and CWC's parent and SJWG in Q4 2019." Interrog. Resp. OCC-66. In 2022, the Company paid Accell $370,719 to provide internal audit services, which primarily consists of compliance with the Sarbanes Oxley Act (SOX); Accell has been providing the Company with "internal audit" services since the fourth quarter of 2019, when the Company's merger with SJWG became effective. Interrog. Resp. OCC-66; Tr., 612:6-11. There was no formal deliverable produced as a result of the internal audit and thus no explicit work product to review in furtherance of the Company's burden in proving such costs were prudently incurred; although, the Company contends that its internal audit work supported its overall external audits and resulted in "detailed control narratives" that the Company has adopted for various internal processes. Interrog. Resp. RRU-183, Ex. 1-8.

Notably, the Company's internal audit expenses nearly doubled from 2019 to 2022, with reported costs of $192,677 in 2019, $359,704 in 2021, and $370,719 in 2022.[43] Interrog. Resp. OCC-128. The Company attributes the increase in internal auditor expenses to annual "inflationary type adjustments," a change in the scope of work to support external auditor's work, and increased auditing standards. Tr., 615:23-25–616:1-10; Late Filed Ex. 50. Notably, however, the Company's external audit expenses increased from $548,602 in 2019, to $577,043 in 2021, followed by a modest decrease to $489,641 in 2022.[44] Interrog. Resp. OCC-128. Consequently, the Company reported

[43]The Company describes 2020 as a "transition year" in which the Company transitioned to new auditors and was required to conduct separate audits for The Avon Water Company and The Heritage Village Water Company because they were not consolidated into CWC until September 30, 2020. Interrog. Resp. OCC-128. As such, the Authority did not factor in the 2020 anomalous fluctuations in audit expenses in its analysis.

[44]The Authority's calculation combines the reported external audit expenses, with the Company's reported consolidated audit expenses, which consist of audit fees related to the SJWG that are allocated to CWC and, therefore, are external audit expenses. Interrog. Resp. OCC-67.

total audit costs of $778,590 in 2019, $973,657 in 2021, and $910,865 in 2022. Interrog. Resp. OCC-128. Concerningly, the dramatic increases in the Company's internal audit expenses have not caused external audit expenses to be reduced by a similar magnitude.

Additionally, the Company did not provide any basis to justify an inflationary adjustment of nearly $21,000 in audit expenses for the Rate Year. The Company testified that it reviews its audit expenses with Accell on a yearly basis when it works to reengage them. Tr., 598:22-599:8. Moreover, SJW's shareholders vote for the Company's external auditor on a yearly basis when auditing expenses are likely to be known. Interrog. Resp. OCC-66. Accordingly, the Company could have made a known and measurable adjustment to its audit expenses based on its annual discussions about the scope and pricing for auditing services.

The Company also did not engage in a competitive solicitation prior to engaging Accell because Accell was SJWG's existing vendor at the time of the merger.[45] Interrog. Resp. EOE-201. Similarly, the Company did not engage in a competitive solicitation in selecting its other auditors. Interrog. Resp. OCC-66. "The Company uses the same external and internal audit firms as its parent and affiliated companies within SJWG. Deloitte & Touche LLP (Deloitte) serves as the external auditors and the Company outsources its internal audit functions to Accell)." Id.

The Company argued that there are "both strong qualitative and quantitative considerations" in selecting an auditor, that it is not practical to switch auditors on a regular basis, and that the Company's management reviews and discusses internal and external auditor fees on a yearly basis to determine if they are reasonable and in line with market rates for similarly sized companies in the same industry. Interrog. Resp. OCC-66. However, the record is devoid of any evidence to substantiate the Company's testimony. There is no evidence in the record of the market rate for internal or external auditors for similarly sized companies in the same industry, nor any description of the "strong qualitative and quantitative" considerations the Company weighs when selecting auditing firms, nor any demonstration of what the cost of switching auditing firms would be. Moreover, it is unclear what changes to the Company's control narratives were implemented as a result of the external audits or what increased auditing standards were implemented that led to increased auditing expenses, which would be critical to demonstrating prudency given that the Company was unable to produce any materials to substantiate the internal audit activities.

As a result, the Authority concludes that the Company has not demonstrated that its sharply increasing internal audit expenses reflect prudent and efficient management. Therefore, the Authority does not allow recovery of $391,500 in internal audit expenses.

c. External Audit Expenses

The Company proposed total external audit expenses of $638,445. The Authority considers the interests of the Company's shareholders and ratepayers to determine the appropriate level and structure of rates that will allow the Company to cover its necessary

[45]The Company was asked to indicate whether SJWG pursued a competitive proposal for its internal auditor, but it did not do so. Tr., 618:3-10; Late Filed Ex. 50.

operating costs while ensuring just and reasonable rates. See General Statutes §§ 16-19(a), 16-19e(a). Accordingly, the Authority allows the Company to recover half of its proposed external audit expenses, or $319,222.

Although some auditing expenses may identify inefficiencies and implement financial best practices within a company and, therefore, may unlock efficiencies or money saving measures that benefit ratepayers, other expenses are directly a result of the Company's obligations to its shareholders, such as ensuring that the Company is compliant with SOX or other investor-related statutes and SEC regulations. Finally, shareholders are able to vote on SJWG's auditor on a yearly basis and, therefore, have some control over auditor expenses. Interrog. Resp. OCC-66. Accordingly, to balance the relevant ratepayer and stakeholder interests, the Authority concludes that it is just and reasonable to include 50% of the Company's proposed external audit expenses in rates, while the shareholders bear the expense of the remaining 50%.

Accordingly, the Authority allows the Company to recover $319,222 for external audit expenses in its revenue requirement.

10. Other Deferred Expenses

a. Summary

The Authority includes the amortized recovery of certain deferred costs, with carrying costs, as expenses in the Company's revenue requirement. This method of recovery outside of rate base will allow the Company to recover its operating expenses while allowing rates to be "no more than sufficient" to cover declining annual balances. Accordingly, the Company is allowed to recover: (1) deferred tank painting and well maintenance expenses through June 30, 2024, as noted above in Section VI.A.7, Tank Painting & Well Maintenance; (2) the deferred expenses itemized in

Table ***54***, below; (3) rate case expenses, discussed in Section VI.A.11, Rate Case Expenses; and (4) deferred revenue, discussed in Section VI.A.12, Deferred Revenue Amortization.

For these expenses, the Authority allows amortized recovery over a three-year period, July 1, 2024, through June 30, 2027. If the Company has not filed an application to amend its existing rate schedules by July 1, 2027, the Company is directed to submit, as part of its February 28, 2028 RAM filing, an accounting of any overcollection as a result of the expiration of the three-year amortization period, as well as amended distribution rates to reflect the expired amortization expenses. In that proceeding, the Authority will make any necessary adjustments with respect to the expired amortization expenses.

Table 54: Amortization of Deferred Expenses

Deferred Expense	Proposed Amortization ($)	Adjustment ($)	Approved Amortization ($)
Pension/VEBA	99,513	(99,513)	0
Storm Costs	64,865	83,081	147,946
Sales and Use Tax	147,346	174,934	322,280
DPH Fee	(59,590)	(70,747)	(130,337)
Carbon Filters	0	112,970	112,970
Avon/Heritage Deferred TCJA	(193,920)	0	(193,920)
Total	**58,214**	**200,725**	**258,939**

b. Pension/VEBA Requested Amortization

The Company proposed an annual amortization of $99,513 ($597,080 / 6), based on the requested six-year amortization period for CWC's proposed Pension/VEBA regulatory asset of $597,080. Late Filed Ex. 1, Ex. 1, Sch. B-6.0, p. 1, Sch. C-3.16, p. 2. The Authority does not allow the proposed amortization expense of $99,513 because the Authority does not approve the Company's proposed Pension/VEBA regulatory asset of $597,080.

As discussed in Section IV.F.9, Pension/VEBA Regulatory Asset, the Authority disallowed the Company's request for deferred accounting treatment for the $597,080 regulatory liability. Therefore, the Authority disallows $99,513, i.e., the proposed amortization expense for the previously capitalized non-service income.

c. Storm Costs Amortization

CWC reported $389,189 as the deferred storm cost balance as of July 1, 2024. Late Filed Ex. 1, Ex. 1, Sch. B-6.0, p. 1, Sch. C-3.16, p. 2. The Company proposed a six-year amortization period with an annual amortization expense of $64,865. Late Filed Ex. 1, Ex. 1, Sch. B-6.0, p. 1, Sch. C-3.16, p. 2. As discussed in Section IV.F.6, Storm CostsStorm Costs, the Authority allows deferred storm costs of $389,189 to be recovered outside of the rate base, over a three-year amortization period, with carrying costs. This method of recovery allows the Company to recover its costs while ensuring that rate base is not improperly inflated by the inclusion of a deferred cost with a rapidly declining annual balance.

The Authority calculates total carrying costs of $54,650 over three years, using a pre-tax WACC of 8.61023%, and determines that the total to be recovered during the three-year amortization period is $443,839 ($389,189 + $54,650). As a result, the Authority allows CWC to recover annually $147,946 ($443,839 / 3) as an expense for the deferred storm costs. Consequently, the Authority increases the Company's proposed storm expense by $83,081 ($147,946 - $64,865).

d. Sales and Use Tax Amortization

As discussed in Section IV.F.7, Sales and Use Tax, the Company proposed recovery of sales tax related deferrals by incorporating $810,403 into its rate base. CWC

requested an annual amortization of $147,346 ($884,078 / 6) based on the proposed six-year amortization period. Late Filed Ex. 1, Ex. 1, Sch. C-3.16, p. 2. The Authority allows $884,078, plus carrying costs, to be amortized outside of rate base over a three-year period, as shown in the table below. This method of recovery allows the Company to recover its costs while ensuring that rate base is not improperly inflated by the inclusion of a deferred cost with a rapidly declining annual balance.

Table 55: Net Sales Tax Regulatory Asset

Components	Proposed Regulatory Asset in Rate Base (Dec. 31, 2024) ($)	Allowed Recovery (July 1, 2024) ($)
Deferred Sales Tax	961,188	1,048,570
Sales Tax Regulatory Liability	(632,258)	(689,736)
Sales Tax Regulatory Asset[46]	481,474	525,244
Total	**810,403**	**884,078**

Late Filed Ex. 1, Ex. 1, Sch. B-6.0, p. 1, Sch. C-3.16, p. 2; Interrog. Resp. RRU-268, Ex. 6.

The Authority allows an annual amortization of $322,280 for a three-year amortization period. The Authority calculates $82,762 as the total carrying costs, using a pre-tax WACC of 8.61023%; thus, $966,840 ($884,078 + $82,762) is the total allowed to be recovered during a three-year amortization period. As a result, the Authority allows CWC to recover annually $322,280 ($966,840 / 3) as an O&M expense for the net sales tax regulatory asset. Consequently, the total allowed sales tax amortization in O&M expense is $174,934 more than that requested by CWC ($322,280 - $147,346).

e. Department of Public Health Safe Drinking Water Fee Amortization

As discussed in Section IV.F.8, Department of Public Health Safe Drinking Water Fee, the Authority allows the overcollection of the DPH Fee to Customers totaling $357,541 to be amortized outside of rate base over a three-year period. The Company requested to amortize the $357,541 as a regulatory liability over a six-year period and reported an annual amortization credit of $59,590 ($357,541 / 6). Late Filed Ex. 1, Ex. 1, Sch. B-6.0, p. 1, Sch. C-3.16, p. 2.

To account for carrying charges, the Authority calculates total refundable interest of $33,471, using a pre-tax WACC of 8.61023%. Accordingly, the total to be refunded during the three-year amortization period is $391,012 ($357,541 + $33,471). The Authority directs CWC to refund annually $130,337 ($391,012 / 3) as an O&M expense credit. This method of recovery allows ratepayers to be credited for the overcollection while ensuring that rate base is not improperly reduced by a rapidly declining annual balance related to the overcollection.

[46]The Authority allows $525,244, which is associated with a sales and use tax (SUT) audit completed in September 2023 by the Department of Revenue Services. Interrog. Resp. RRU-145, p. 2, Ex. 7.

f. Deferred Carbon Filter Expense

The Authority allows the Company to recover $309,900, plus carrying costs of $29,011, amortized as $112,970 per year, over a three-year period, for costs deferred by the Company as of July 1, 2024. This method of recovery allows the Company to recover its costs while ensuring that rate base is not improperly inflated by the inclusion of a deferred cost with a rapidly declining annual balance.

The table below summarizes the deferred carbon filter expense balance.

Table 56: Deferred Carbon Filter Expenses

Description	Amount ($)
Balance, December 31, 2022	**507,132**
2023 Amortization	(254,856)
2023 Additions	188,664
Balance, December 31, 2023	**440,940**
January-July 2024 Amortization	(131,041)
Balance as of July 1, 2024	**309,900**

Late Filed Ex. 1, Ex. 1, Sch. B-6.0, p. 1; Interrog. Resp. RRU-187, Ex. 1; Interrog. Resp. RRU-268, Ex. 9.

As with other deferred expenses, the Authority does not include the balance in rate base and, instead, allows the Company to recover the $309,900 balance as of July 1, 2024, on an amortized basis outside of rate base.[47] The Authority calculated total carrying costs of $29,011 over three years, using a pre-tax WACC of 8.61023%. The Authority determines that the total to be recovered during the three-year amortization period is $338,911 ($309,900 + $29,011) and allows CWC to recover an annual amortization of $112,970 ($338,911 / 3) for the deferred carbon filters costs.

11. Rate Case Expenses

a. Deferred Rate Case Expenses (Docket No. 20-12-30)

The Authority permits the Company to recover $483,298 in deferred rate case expenses, amortized over a three-year period. In the Company's prior rate case, Docket No. 20-12-30, the Authority allowed the Company to amortize certain rate case expenses over a fixed period. Late Filed Ex. 1, Ex. 1, Sch. B-6.0, p. 1. The remaining balance is summarized in the table below.

[47] Like the deferred tank painting and well redevelopment costs, CWC was not properly applying the approved annual amortization expense during the interim periods. Tr., 284:9-17. In the Company's last rate case decision, the Authority allowed $253,630 as the annual amortization expense for the carbon filter costs. See July 2021 CWC Rate Case Decision; Late Filed Ex. 12, Sch. C-3.2 010. However, CWC reported a five-year average of $217,304 as the allowed annual amortization. Interrog. Resp. RRU-490, Ex. 1. The Authority determines that the actual five-year average amortization used by the Company for 2019 through 2023 was $209,588. See Interrog. Resp. RRU-268, Ex. 9, p. 1; Supp. Ex. 9.1, p. 1.

Table 57: Prior Rate Case Costs

Description	Amount ($)
Deferred balance, Dec. 31, 2023	561,670
Half of allowed annual amortization (Jan.-June 2024)	(78,373)
Deferred balance, July 1, 2024 (start of Rate Year)	483,298
Half of allowed annual amortization (July-Dec. 2024)	(78,373)
Deferred balance, Dec. 31, 2024 (mid-point of Rate Year)	404,925

Late Filed Ex. 1, Ex. 1, Sch. B-6.0, p. 1; Interrog. Resp. RRU-147, Ex. 1; Interrog. Resp. RRU-490, Ex. 1; Tr., 282:9-12.

The Company included a projected balance of $443,297, as of the mid-point of the Rate Year (December 31, 2024), in its proposed rate base.[48] To reduce the effect of reflecting the same annual carrying cost on an annually declining deferred balance, however, the Authority does not approve the Company's proposed inclusion of $443,023, and the related deferred taxes, in the Company's proposed average rate base. Instead, the Authority permits the Company to recover the deferred expenses by amortizing $483,298, i.e., the balance as of July 1, 2024, and carrying costs outside of the rate base, as set forth in Section VI.A.11.c, Rate Case Expenses, Carrying Costs and Amortized Recovery.

b. Current Rate Case Expenses (Docket No. 23-08-32)

The Company proposes recovering $980,000 in rate case expenses for the current proceeding by amortizing the amount over a three-year period. Late Filed Ex. 1, Ex. 1, Sch, B-6.0, p. 1, Sch. C-3.17, p. 2. The Authority instead permits the Company to recover $630,000 in rate case expenses in connection with this proceeding, amortized over a three-year period.

To determine whether a utility's proposed costs are recoverable, the Authority conducts a two-step analysis. First, the Authority must determine whether the costs are reflective of prudent and efficient management by the Company. General Statutes § 16-19e(a)(5). To make this determination, the Authority examines the record evidence before it, including whether the Company engaged in a competitive solicitation process and subsequently compared interested law firms' and consultant's hourly rates and the projected number of hours to be spent on the rate case proceeding. The Authority further considers whether the requested expenses are consistent with past rate case cost requests brought before the Authority and compares the rate case costs to those in other jurisdictions or industry averages. Second, once the Authority has determined which costs are reflective of prudent and efficient management by the Company, the Authority must weigh the interests of ratepayers and the Company in determining whether the Company is entitled to recover its costs. To aid in its analysis, the Authority may consider its past practices or practices in other jurisdictions.

[48]It is not clear why the Company reduced the amortization to $40,274 for July through December 2024, instead of using half the authorized annual amount, i.e., $78,373 ($156,745 / 2).

The Company estimated its rate case expenses in this docket, as summarized in the below table.

Table 58: Requested Rate Case Expenses, Docket No. 23-08-32

Description	Amount ($)
Legal Fees	300,000
OCC Consultants	200,000
PURA Consultants	80,000
Depreciation Consultant	65,000
Rate Design/Cost of Service/Rates Consultant	120,000
Cost of Capital Consultant	130,000
Postage, Printing (customer notices)	85,000
Total	**980,000**

Late Filed Ex. 1, Ex. 1, Sch. C-3.17, p. 2.

The requested $280,000 in OCC and PURA consultant fees are reasonable and proper expenses that the respective state agencies have incurred in connection with this proceeding and thus are recoverable expenses. See General Statutes § 16-18a(a).

The Company did not provide any evidence with respect to whether the remaining $700,000 of the Company's estimated rate case expenses are reflective of prudent and efficient management. Indeed, there is no evidence in the record indicating the basis for the Company's estimates, much less its rationale for retaining its outside legal counsel or various consultants, including whether it sought competitive bids or performed any cost analysis to ensure that the costs for such services were reasonable. In addition, there is no evidence as to whether the rate case costs are similar to those in other jurisdictions or industry averages.

The Company requested $1,038,995 in rate case expenses in Docket No. 20-12-30, approximately $59,000 more than the request in this proceeding. Interrog. Resp. OCC-228, Ex. 1, Supp. The Company's legal and consulting fees for comparable experts were similar in both proceedings.[49]

The below table provides a side-by-side comparison of the fees requested in Docket No. 20-12-30 and in this proceeding:

[49]The Company also retained various other experts in Docket No. 20-12-30, totaling approximately $307,000, that were not retained in this proceeding. Interrog. Resp. OCC-228, Ex. 1, Supp. Additionally, although there is no direct evidence explaining the variance in postage and printing expenses, the Company did state that postage rates increased by roughly 8 cents per customer bill between 2020 and 2023. Late Filed Ex. 42.

Table 59: CWC's Rate Cases Expenses: Docket No. 20-12-30 vs. 23-08-32

Description	20-12-30 Amount ($)	23-08-32 Amount ($)
OCC Consultants	116,110	200,000
PURA Consultants	N/A	80,000
Legal Fees	313,035	300,000
Rate Design/ Cost of Service/ Rates Consultant	230,708	120,000
Cost of Capital Consultant	119,925	130,000
Depreciation Consultant	N/A	65,000
Postage, Printing	51,822	85,000

Late Filed Ex. 1, Ex. 1, Sch. C-3.17, p. 2; Interrog., Resp. OCC-221, Ex. 1, Supp.

Additionally, the Authority compared the rate case expenses in this proceeding with those requested by the Company's peer, Aquarion Water Company of Connecticut (Aquarion), in its 2022 rate case in Docket No. 22-07-01, Application of Aquarion Water Company of Connecticut to Amend its Rate Schedules. Aquarion sought recovery for $1.050 million in rate case expenses. 2023 Aquarion Rate Case Decision, p. 83. Aquarion's legal expenses ($390,000), cost of capital consultant ($104,360), and depreciation consultant ($76,960) were each higher than CWC's rate case expense.

Although the Company's rate case expenses do not appear unreasonable when compared to other recent water rate cases brought before the Authority, that is not the standard for recovery in a rate case. The Company bears the burden of demonstrating its costs are just and reasonable, and that burden is met by providing direct evidence that the Company acted prudently and efficiently. Here, the record does not contain sufficient evidence to find that the Company met this burden.

Although it is unable to make a prudency determination based on the evidentiary record before it, the Authority nonetheless moves to the second prong of its analysis and weighs the interests of the Company's shareholders and ratepayers to determine whether the Company should recover any of its incurred rate case expenses through rates. Rate case expenses implicate both shareholder and ratepayer interests. Unlike conventional operating expenses, rate case expenses are connected to an adversarial process in which the Company's lawyers and experts advocate for a rate case outcome that best serves the Company's shareholders rather than ratepayers. For instance, in the current proceeding, the Company requested an ROE that was higher than what other parties advocated for and sought recovery for compensation expenses related to director and officer salaries and incentive compensation. As such, not all rate case expenses are necessary for supplying utility service to customers.

The Company also determines when to file a rate application, what issues to pursue in the proceeding, which consultants and attorneys to retain to advocate on its behalf, and whether to leverage internal resources or utilize outside counsel or consultants to advocate on its behalf. Additionally, allocating at least some rate case expense to shareholders incentivizes the Company to control its rate case expenses.

To balance the relevant ratepayer and stakeholder interests, the Authority concludes that it is just and reasonable for the Company to recover 50% ($350,000) of rate case expenses. This cost sharing excludes the $280,000 OCC and PURA consultant fees, which were incurred primarily for the benefit of ratepayers and are fully recoverable.[50] As such, the Company may recover $630,000 ($350,000 + $280,000), amortized over three years.

c. Carrying Costs and Amortized Recovery

The Authority allows the Company to recover the previously deferred rate case expenses by amortizing $483,298, the balance as of July 1, 2024, and carrying costs outside of the rate base, over a three-year period. The Authority also allows $630,000 of the Company's proposed rate case expenses in this proceeding to be recovered by amortization over the period of three years. However, the previously deferred rate case expenses have already been partially recovered by amortization over a three-year period. Accordingly, the total rate case costs to be amortized are shown in the table below. This method of recovery allows the Company to recover its costs while ensuring that rate base is not improperly inflated by the inclusion of a deferred cost with a rapidly declining annual balance.

Table 60: Allowed Rate Case Amortization Expenses

	Docket No. 20-12-30	Docket No. 23-08-32
Balance as of July 1, 2024	$483,298	$630,000
WACC	8.61023%	8.61023%
Period of Amortization	3 years	3 years
Carrying Costs	$45,243	$58,977
Total Deferred	**$528,541**	**$688,977**
3-Year Amortization	**$176,180**	**$229,659**

Accordingly, the Company may recover $405,839 ($176,180 + $229,659) over a three-year period, beginning July 1, 2024.

12. Deferred Revenue Amortization

As noted in Section IV.F.4, Deferred Revenue, the Authority allows a $326,599 annual amortization for deferred revenues. The deferred revenue balance, as of July 1, 2024, is $895,925 (after applying six months of amortization, or $238,940 / 2). To reduce the effect of reflecting the same annual carrying cost on an annually declining deferred balance, however, the Authority does not approve the Company's proposed inclusion of $776,455, and the related deferred taxes, in the Company's proposed average rate base. Instead, the Authority permits the Company to recover the deferred expenses by

[50] Notably, other jurisdictions have similarly divided rate case expenses in this manner. See, e.g., Docket No. ER-2019-0374, In the Matter of The Empire District Electric Company's Request for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in its Missouri Service Area, Mo. P.S.C. (2020), p. 5; Docket No. WR05121022, In re Aqua, New Jersey, Inc., N.J.B.P.U., (Jan. 17, 2007).

amortizing $895,925, i.e., the balance as of July 1, 2024, and carrying costs outside of the rate base.

The Authority calculates total carrying costs of $83,871 over three years, using a pre-tax WACC of 8.61023%. The Authority determines that the total to be recovered during the three-year amortization period is $979,796 ($895,925 + $83,871) and allows CWC to recover an annual amortization expense of $326,599 ($979,796 / 3) for the deferred revenues.

13. Residual Unadjusted Expenses

a. Summary of Adjustments

The Authority will adjust some expenses itemized by the Company as unadjusted Test Year expenses, as summarized below.

Table 61: Summary of Disallowed Residual O&M Expenses

Components	Adjustment ($)	Inflation Adjustment ($)	Total Adjustment ($)
Dues and Subscriptions	(155,927)	(9,098)	(165,025)
BOD & Officers Expenses	(125,325)	(7,707)	(133,032)
Investor Relations Expense	(331,868)	(20,410)	(352,278)
Board of Directors Expense	(341,673)	(21,013)	(362,686)
D&O Liability Insurance	(181,897)	(11,187)	(193,084)
Employee Recognition Awards	(45,215)	(2,781)	(47,996)
Employee Training	(41,901)	(2,577)	(44,478)
Health Club Dues	(19,121)	(1,176)	(20,297)
Employee Stock Purchase Plan	(31,622)	(1,945)	(33,567)
Willis Towers Watson	(97,869)	(6,019)	(103,888)
IT Expenses	-	(215,258)	(215,258)
Total	**1,372,418**	**299,171**	**1,671,589**

Interrog. Resp. EOE-191, Ex. 1.

Expenses related to employee benefits are discussed above in Section VI.A.13.h, Employee Training; Section VI.A.13.i, Health Club Dues; and Section VI.A.13.j, Employee Stock Purchase Plan.

b. Dues and Subscriptions

i. Summary

The Company proposes $303,867 in dues and subscriptions expenses for the Rate Year. Late Filed Ex. 58, Ex. 1; Late Filed Ex. 1, Ex. 1, Sch. C-3.20, p. 1. The Authority allows the Company to recover $138,841 in dues and subscription expenses for the Rate Year. The Authority concludes that $155,927 in membership dues are barred from recovery in rates under General Statutes § 16-243gg(a) and (b). The Authority further concludes that $9,098 in inflation adjustments to the Company's subscription expenses

are not recoverable because the Company could have applied a known and measurable adjustment to its Rate Year based on actual subscription costs rather than applying an unsubstantiated generic inflation adjustment. The Authority's adjustments for dues and subscription expenses are summarized in the below table.

Table 62: Subscription and Dues Expenses

Description	**Amount ($)**
Proposed Expenses	303,867
Adjustment	(155,927)
Remaining Expenses	147,940
Inflation Adjustment	(9,098)
Total Allowed Subscription and Dues	138,842

The Company's Account 930, labeled as "Dues and Subscription" showed unadjusted Test Year expenses totaling $286,262, which encompasses dues to various entities and annual software subscriptions, including financial analytics software.[51] Interrog. Resp. EOE 191, Ex. 1; Late Filed Ex. 58, Ex. 1.

[51]The Company appears to acknowledge that that the $286,262 included in the Application is barred from recovery under General Statutes § 16-243gg. Late Filed Exhibit No. 32.

Table 63: Account 930 Expenses

Description	Amount ($)
National Association of Water Companies (NAWC) Dues	84,998
S&P	46,250
Perillon	22,919
Water Research Foundation	22,151
Security Risk Management	15,391
CWC Info-Tech Research	14,106
Connecticut Water Works Association (CWWA)	12,737
American Waterworks (Dallas)	11,346
CBIA	8,500
Energage LLC Insights Survey Fee	6,924
Resolver Inc.	6,647
CDL Program Charges	4,334
Alliance For Water Efficiency	2,040
Survey Monkey	1,519
Adobe	1,169
American Water Works Association (AWWA)	1,168
JJ Keller & Assoc	1,027
Digital Subscriptions	4,769
Other Pcard subscriptions[52]	18,269
Total	**286,262**

Late Filed Ex. 58, Ex. 1. The Company subsequently applied a 6.15% inflation factor to the $286,262 total, resulting in a request to include $303,867 in the Rate Year. See Late Filed Ex. 1, Ex. 1, Sch. C-3.20, p. 1.

ii. Dues

General Statutes § 16-243gg(a) prevents utility companies from recovering through rates:

> any direct or indirect cost associated with membership, dues, sponsorships or contributions to a business or industry trade association, group or related entity incorporated under Section 501 of the Internal Revenue Code of 1986, or any subsequent corresponding internal revenue code of the United States, as amended from time to time.

Additionally, General Statutes § 16-243gg(a) bars recovery "through rates [of] any direct or indirect cost associated with lobbying or legislative action, as such terms are defined in section 1-91."

The Authority concludes that the Company is unable to recover its dues paid in connection with its membership with the NAWC, CWWA, WRF, AWWA, American

[52]The Company stated that this expense included "data storage, chamber of commerce, lifelock, license renewals, other online subscriptions." Late Filed Ex. 58, Ex. 1.

Waterworks (Dallas), the Alliance for Water Efficiency, the Connecticut Business and Industry Association (CBIA), Connecticut Council for Small Towns (COST), and local chambers of commerce, because such costs are barred from recovery through rates according to Public Act 23-102 § 3 (a) and (b) as costs associated with business or industry trade associations and/or as direct or indirect costs associated with lobbying or legislative action.

The Company stated that it paid membership dues to CWWA, WRF, National NAWC, AWWA, the Alliance for Water Efficiency, CBIA, and local and regional chambers of commerce, which it classified as either business or industry associations. Interrog. Resp. OCC-617; Tr., 1537:14-23, 1538:19-24. Additionally, many of these organizations engage in lobbying activities in Connecticut and the Company was unable to demonstrate that its contributions to the organizations were delineated or earmarked for activities apart from these organization's lobbying activities.

The Company identified that the CWWA and National and New England chapters of the NAWC[53] engage in lobbying activities and, accordingly, removed 11% of its membership dues from each organization from the Test Year. Interrog. Resp. OCC-167; Late Filed Ex. 1, Ex. 1, Sch. C-3.18. However, the Company testified that it applied the 11% reduction for lobbying expenses uniformly based on one or two NAWC invoices that purportedly indicated the percentage of lobbying activities the organization engaged in. Tr., 1544:21-25 - 1545:2-8. The invoices from NAWC and the CWWA do not provide further detail about their lobbying activities. Tr., 1545:13-16. Therefore, the Authority concludes that the 11% reduction the Company made to its lobbying expenses for NAWC and CWWA are speculative and unsupported by record evidence. Merely extrapolating a figure produced by an NAWC invoice, without any further supporting documentation to support that figure, across multiple lobbying organizations does not provide the Authority with the record evidence to determine that an 11% reduction accurately captures lobbying expenses from NAWC and CWWA and, therefore, is an allowable known and measurable adjustment.

Specific to CWWA, the Company stated that three of its employees serve on the CWWA board, who oversee the organization's sole employee, Elizabeth Gara, who is a registered lobbyist in Connecticut. Tr., 1545:17-25 - 1546:1-25. Moreover, although the Company purports that CWWA provides education and training, the Company was unsure of how many trainings the organization provided and identified only the CWWA's joint annual meeting with AWWA as a training opportunity for employees. Tr., 1547:7-25-1548:1-20.

Additionally, the Company stated that it could not discern what portion of its dues paid to the Alliance for Water Efficiency were directly or indirectly associated with lobbying or legislative action. Tr., 1550:14-20. Moreover, although not specifically broken down in the Company's "other Pcard subscriptions" in Account 930, the Company testified that dues for various chambers of commerce and COST were included in the line item, which

[53]The Company did not separate the expenses between the NAWC chapters in its summary of Account 930 expenses.

totaled $3,772 in the Test Year.[54] Tr., 1548:22-25, 1549:1-14; Interrog. Resp. OCC-170. The Company testified that the Executive Director for COST was Elizabeth Gara, who is also the sole employee for CWWA and a registered lobbyist in Connecticut. Tr., 1549:15-18. The Company further stated that its contributions to COST were not separately earmarked from the organization's lobbying activities. Tr., 1550:9-13.

The Company's testimony demonstrates that its contributions to the above-referenced organizations are comingled with lobbying efforts in Connecticut and that any estimates provided for the amount of lobbying activity that takes place on behalf of the Company are likely understated. As such, the Authority finds that the dues paid to NAWC, CWWA, WRF, NAWC, AWWA, American Waterworks (Dallas), Alliance for Water Efficiency, CBIA, Connecticut COST, and local chambers of commerce are a "direct or indirect cost associated with lobbying or legislative action" and, therefore, not recoverable from ratepayers under Public Act 23-102 § 3(a) and (b). Accordingly, the Authority disallows $155,927 in membership dues for the Rate Year. This adjustment reflects the $146,711 in dues paid during the Test Year, adjusted by the Company's requested 6.15% inflation factor ($146,711 * 1.0615).

iii. Subscriptions

The Authority concludes that the 6.15% inflation factor applied to the dues and subscriptions in Account 930 is inappropriate because the Company could have applied a known and measurable adjustment to its Rate Year based on actual subscription costs rather than applying a generic inflation adjustment. The Company testified that it had standard fee schedules for a majority of its subscriptions for 2023. Tr., 1540:5-14. Additionally, the Company stated that for 2024 it had paid an invoice or was expecting an invoice for the subscriptions. Tr., 1541:20-23. Accordingly, the Company had or could have obtained the actual costs for such subscriptions for 2023 and 2024. With that information, the Company could have made a known and measurable adjustment based on actual costs rather than applying a uniform inflation escalation factor. As such, the Authority disallows a $9,098 inflation adjustment to the Company's subscription expenses. Moreover, there is no evidence in the record, such as invoices, that supports a known and measurable pro forma adjustment to the Company's subscription expenses in the Rate Year.

c. Board of Directors and Officers Travel, Lodging, and Other Expenses

The Authority disallows $133,032 of Board of Directors (BOD) and Officers Travel, Lodging, and other expenses included in the Company's filing, in compliance with General Statutes § 16-243gg, which prohibits the recovery "through rates [of] any direct or indirect cost associated with (1) travel, lodging or food and beverage expenses for such company's board of directors and officers or the board of directors and officers of such company's parent company. . ." The Company provided evidence of $158,075 in travel expenses associated with CWC in 2022. Interrog. Resp. RRU-473. The Company states that the "travel and lodging expense originate from either: 1) P-Card charges, which amounted to $132,281 (83.7%) of the $158,075 grand total, or 2) employee

[54] During the Test Year, the Company paid $795 in dues to the Connecticut Council of Small Towns and $2,927 to various chambers of commerce. Interrog. Resp. OCC-170.

reimbursements, typically reflecting smaller expenses such as mileage, which amounted to $25,794 (16.3%) of the $158,075 total." Id.

The Company categorizes $99,686 in expenses primarily as executive level travel and lodging that are barred from recovery under General Statutes § 16-243gg. Late Filed Ex. 32; Interrog. Resp. RRU-473. In addition to the $99,686 identified by the Company as associated with BOD or executive travel, the Authority identified additional expense items that either have not been substantiated by sufficient information in the record for the Authority to determine the validity of the travel expense, or expenses that should not be categorized as travel expenses. For example, multiple entries are categorized with only "Travel And Lodging" associated with a date but with no additional identifying information that allows the Authority to determine whether the charges are ones that should be included or excluded. Id. In addition, the exhibits include charges for car or truck wash and emissions testing. Id. Vehicle washing and emissions testing should not be categorized as travel expenses and are therefore excluded. These expenses total $26,638. Because the Company has failed to provide evidence that the unidentified travel expenses are of the type that are appropriately recoverable from ratepayers, rather than associated with executive or officer travel, the Authority disallows the unidentified travel expenses. Id. Prior to inflation, the total of disallowed, unproven expenses totals $125,325. After applying the inflation factor used by the Company of 6.15%, the total amount of this disallowance is $133,032 ($125,325 x 1.0615).

d. Investor Relations

The Authority disallows $352,278 of Investor Relations expense. The Company proposed to recover $331,868 of Test Year expenses described as "stock transfer agent, stock exchange, strategic planning, financial filing, and other public Company costs for the test year." Interrog. Resp. OCC-126, Ex. 1 Supp.

The Company argues that investor relations "helps the Company attract capital efficiently in equity markets to fund the infrastructure needed to maintain or improve service reliability, water quality, and resiliency of its systems, which ultimately benefits customers." Interrog. Resp. RRU-477. However, General Statutes § 16-243gg(b) prohibits the recovery "through rates [of] any direct or indirect cost associated with . . . investor relations." The requested expenses are examples of investor relations and thus are disallowed pursuant to statute. After applying the inflation factor used by the Company of 6.15%, the total amount of this disallowance is $352,278 ($331,868 x 1.0615).

e. Board of Directors Expense

After balancing the ratepayer and shareholder interests that the Company's BOD serves, the Authority concludes that $362,686, or 75% of CWC's requested BOD costs, are not recoverable from ratepayers because the BOD has a fiduciary duty to and primarily serves the interests of shareholders, rather than ratepayers.

The Company requests $483,581 in BOD expenses for the Rate Year, which reflects $455,564 as the Test Year expense plus a 6.15% inflation factor. Interrog. Resp. OCC-126, Ex. 1. The Company argues that the BOD benefits customers by playing "a

significant role in promoting financial stability, regulatory compliance, and customer centric service that benefit customers through reliable service, fair rates, and a public utility company committed to delivering high-quality water and world class customer satisfaction." Interrog. Resp. RRU-476. OCC recommends a disallowance of 75% of the BOD costs, consistent with prior PURA decisions. OCC Brief, p. 77 (citing 2013 UI Rate Case Decision, p. 72).

The Company's shareholders are the primary beneficiaries of the BOD's actions and decisions. Conversely, ratepayers likely only incidentally benefit from the BOD's activities; ratepayer interests are not the BOD's main focus. Indeed, BOD oversight activities largely focus on protecting and enhancing shareholder value rather than directly improving service quality or reliability for ratepayers.

The Authority finds that BOD activities are primarily focused on the interests of the Company's investors. In recognition of the tangential benefits provided to ratepayers by the activities of the BOD, the Authority adopts OCC's proposal to allow only 25% of the BOD costs in rates. Allowing 25% of BOD expenses in rates is also consistent with past precedent. 2023 UI Rate Case Decision, pp. 147-48.

Balancing the benefits shareholders receive from a BOD with the tangential benefits ratepayers receive from the same, the Authority disallows 75%, or $362,686, of the Company's requested $483,581 BOD expenses in the Rate Year as shown in the table below. The Authority notes that these costs should be substantiated and detailed by the Company going forward in future rate cases.

Table 64: Board of Directors Expense Adjustment

Description	Amount ($)
Board of Directors Costs – Test Year	455,564
Applying Inflation Factor of 6.15%	483,581
Authority Allowed (25%)	120,895
Authority Disallowance	(362,686)

f. Directors and Officers Liability Insurance

For the same reasons articulated in the preceding section, the Authority disallows $193,084, or 75% of CWC's requested Directors and Officers Liability Insurance Expense. The Company provided the Directors and Officers Liability Insurance Rate Year expense as $257,445. Interrog. Resp. OCC-166, Ex. 1. Like the Board of Directors Expense, this expense primarily benefits the shareholders and, therefore, will be apportioned in a 75/25 division between shareholders and ratepayers. Accordingly, the Rate Year expenses are reduced by $193,084 (75% x $257,445).

g. Employee Recognition Awards

The Authority does not allow the Company to recover $47,996 for employee recognition awards because the Company failed to prove that these awards are reasonable or necessary to provide service to customers or to maintain appropriate staffing levels. See General Statutes § 16-19e(a).

The table below shows the details provided by the Company for the various types of employee recognition awards included in the Test Year.

Table 65: Employee Recognition Awards

Award	Test Year Amount ($)	Company Description
Spot Awards	3,809	Gift card for special effort or achievement.
Service Awards	15,949	Gift cards for reaching a milestone anniversary.
Retirement Awards	6,544	Given for recognition of service.
Service Event	2,081	Breakfast for reaching a milestone anniversary.
Service Event Gifts/Giveaways	7,312	Gifts for milestone anniversary and service during the pandemic.
CT Annual Social Event	9,520	Annual social event for employees.
Total	**45,215**	

Interrog. Resp. OCC-173 Supp.

The Company stated that these events and awards are critical to developing a rewarding culture that results in an engaged and productive workforce. Interrog. Resp. OCC-173. However, the Company has not demonstrated that these expenses reflect prudent and efficient management, nor that they benefit the efficient operation of the Company and maintenance of appropriate staffing levels. Furthermore, disallowing cost recovery associated with employee awards is consistent with prior decisions. See, e.g., July 2021 CWC Rate Case Decision, pp. 8-9. The Authority, therefore, does not allow the Company to include the employee recognition awards expense of $47,996 ($45,215 + 6.15% inflation factor) in its revenue requirement.

h. Employee Training

The Company proposes $209,121 for non-discretionary training, including OSHA-mandated training.[55] The Company also proposes $44,478 for "training expenses, primarily leadership development training as well as employee certification training."[56] Late Filed Ex. 57; Late Filed Ex. 1, Ex. 1, Sch. C-3.20, p. 4. The Authority includes $209,121 for non-discretionary training expenses but does not include the incremental requested $44,478 for discretionary training expenses in the Company's revenue requirement, because the Company failed to show that the discretionary training expenses are reasonable or necessary to provide service to customers.

[55]The Company reported Test Year expenses of $197,005, which were "charged to a non-labor pool overhead account, along with other similar overhead-type expenses, which are then allocated to O&M and capital." Late Filed Ex. 57. The Company applied a 6.15% inflation rate to that account to arrive at the Rate Year expense in Late Filed Ex. 1, Ex. 1, Sch. C-3.20, p. 4.

[56]The Company reported Test Year expenses of $41,901, which were included in Account 926, with other employee benefits. Late Filed Ex. 57. The Company then applied a 6.15% inflation rate to that account in Late Filed Ex. 1, Ex. 1, Sch. C-3.20, p. 4.

The Company provided sufficient evidence that its non-discretionary safety training expenses are reasonable and necessary. The non-discretionary Test Year training expenses of $197,005 consist of OSHA-mandated training or training "required under the General Duty Clause, which compels companies to maintain a safe working environment." Late Filed Ex. 57; Interrog. Resp. RRU-442. As such, the Company demonstrated that its non-discretionary training expenses are appropriately included in the Company's revenue requirement.

The Company stated that its discretionary training expenses primarily consist of leadership development training, as well as online employee certification training. Interrog. Resp. OCC-242. The Company claimed a Test Year expense of $41,901 for "Cornerstone OnDemand, an online software, [which] provides employee learning, training & certifications." Id. The Company has not provided evidence that these discretionary training expenses were prudently incurred, nor has it shown that these expenses promote the efficient management of the Company or are otherwise necessary and reasonable. The Authority, therefore, does not include the proposed discretionary training expense of $44,478 ($41,901 + 6.15% inflation factor) in the Company's revenue requirement.

i. Health Club Dues

The Company proposes to include $20,297 in its revenue requirement for health club dues reimbursement expense. The Authority does not allow the Company to recover $20,297 for health club dues reimbursements paid to employees. The Company provides eligible employees an "annual wellness reimbursement" of up to $250 per year for expenses including gym memberships, online fitness subscriptions, and home fitness equipment. Interrog. Resp. OCC-178. In support of this expense, the Company merely states that it "supports its employees on a journey toward a healthier lifestyle." Id. The Authority could speculate that such reimbursements help attract and retain employees, reduce expenses due to absences, or reduce the Company's healthcare costs. The Company has failed to provide any evidence, however, by which the Authority can find that such expense reflects prudent and efficient management by substantiating the aforementioned speculation. The Company may choose to continue to offer this reimbursement to its employees, but the Authority has no basis by which to determine that ratepayers should fund this expense.

j. Employee Stock Purchase Plan

The Company requested recovery of $33,567 for employee stock purchase plan expenses in its revenue requirement.[57] See Tr., 720-21. The Authority does not include $33,567 for an employee stock purchase plan expense in the Company's revenue requirement. While the Authority could speculate regarding the impact that such reimbursements may have on the attraction or retention of employees, the Company has failed to provide any evidence by which the Authority can find that such expense reflects prudent and efficient management. The Company may choose to continue to offer this

[57]The Company testified that the Test Year expense was $31,622, which would equal a Rate Year expense of $33,567 after 6.15% inflation. See Tr., 720-21. The Company combined this request on a line item showing other employee benefit requests such as Employee Training, Tuition Reimbursement, and Service Awards. See id.; Interrog. Resp. EOE-191.

plan to its employees, but the Authority has no basis on which to determine that ratepayers should fund this expense.

k. Willis Towers Watson

The Authority disallows the Company's request for recovery of $103,888[58] for retirement consulting services because the Company selected the highest bid for these services without explanation and in violation of its own procurement policy, and because the expense is non-recurring and should not be included in Rate Year expenses.

The purpose of the consulting services was for the review of the Company Defined Contribution Plan to maintain compliance with regulations. Interrog. Resp. OCC-157, Ex. 1. The Company submitted a copy of the executed contract for this service. Interrog. Resp. EOE-81, Ex. 1. The Company's RFP results show that six bids were received; however, WTW was awarded the contract even though its bid was three times higher than other submitted bids. Interrog. Resp. EOE-236, Ex. 2, p. 12. The Authority notes that the Company violated its procurement policy, which does not consider vendor bids more than 25% higher than the lowest bidder. Interrog. Resp. EOE-50, Ex. 1, p. 12. Additionally, the evidence demonstrates that this expense is non-recurring. Interrog. Resp. EOE-81 (the contract states that WTW anticipates "that this engagement will be completed within approximately four months following acceptance of this Statement of Work and our receipt of the necessary data."); Interrog. Resp. OCC-132; OCC Brief, p. 79. Therefore, the costs for retirement consulting services should not be reflected in the Rate Year because they will not occur at that time.

The Authority denies recovery for retirement consulting services because the Company selected the highest bid for these services without explanation and in violation of its own procurement policy, and because the expense is not a reoccurring expense that should be reflected in the Rate Year.

l. Information Technology (IT)

The Company's Application includes total O&M IT expenses of $3,715,392 for the Rate Year, which is the Company's reported 2022 expense of $3,500,134 escalated by a 6.15% inflation factor. Interrog. Resp. RRU-289, Ex. 1; Late Filed Ex. 1, Ex. 1, Sch. C-3.20, pp. 2-3. The Company stated that cybersecurity and billing system costs are not tracked separately but are included in the total IT expenses it records. Interrog. Resp. RRU-289, Ex. 1.

The Company's IT costs rose nearly 42% in one year, from $2,456,283 in 2020 to $3,487,392 in 2021. See Interrog. Resp. RRU-289, Ex. 1; Late Filed Ex. 53, Ex. 1. After an increase of less than 1% from $3,487,392 in 2021 to $3,500,134 in 2022, the Company proposed a 6.15% increase for 2023, based on inflation. See Interrog. Resp. RRU-289, Ex. 1; Late Filed Ex. 53, Ex. 1. In response to the Authority's request to "provide a narrative explanation for year-over-year changes," the Company stated only that "the primary drivers of the increases are salaries and maintenance expenses." Late Filed Ex. 53.

[58]The Company's request consists of $97,869 plus inflation. Tr., 798:15-21; Interrog. Resp. OCC-132.

The Company did not provide evidence as to how or why the two "drivers" increased so dramatically over a span of one year. For instance, there is no record evidence indicating that the Company had to increase its IT headcount or data showing that the Company had to raise IT employee salaries commensurate with the labor market.[59] Further, there is no evidence indicating what the drivers for increased IT maintenance expenses were, such as whether the Company had to procure a new or additional vendor to provide maintenance services. The Authority can draw conclusions, based on its experience, technical competence, and specialized knowledge, as to the reasons for significant IT and cybersecurity expenses over the past three years, but the Company bears the burden of proving that expenses under consideration for inclusion in rates are just and reasonable. See General Statutes §§ 16-22 and 4-178(8). Accordingly, the Authority allows the Company to include the residual O&M IT expenses based on Test Year amounts. In the future, however, the Authority expects the Company to provide more evidence to demonstrate that its IT expenses are reasonable and prudent.

The Company did not provide a sufficient basis on which to justify a pro forma adjustment of $215,258 for inflation. See Interrog. Resp. RRU-289, Ex. 1; Late Filed Ex. 1, Ex. 1, Sch. C-3.20, pp. 2-3. Almost half of the 2022 IT expenses ($1,780,255) are associated with salaries. Late Filed Ex. 53, Ex. 1. This line item can be adjusted for known and measurable changes given that the Company can reasonably predict headcounts and salaries in the Rate Year. Likewise, the majority of the remaining expense ($1,861,055) is "Computer Maintenance," which could also have been reasonably adjusted for known and measurable changes. As such, there is insufficient evidence to find that an inflation adjustment is reasonable.

In addition, the Company provided conflicting evidence with respect to the inflation adjustment. Interrogatory RRU-289 asked the Company to "[q]uantify the impact of information technology costs on the Company's revenue requirement for 2020 through the test year (i.e., 2022), as well as the impact on the proposed revenue requirement related to information technology costs for the rate year." In its response to that interrogatory, the Company applied an inflation factor to the entire expense, including the portion attributable to salaries. See Interrog. Resp. RRU-289, Ex. 1 (applying an inflation adjustment to the entire $3,500,134 O&M IT expense). Although the Company indicated at oral argument that inflation had not been applied to its IT salary expenses in its Application, the Authority is concerned that the Company has provided conflicting evidence with respect to the inflation adjustment made to its IT expenses in its requested revenue requirement. Based on the totality of the evidence in the record, the Authority excludes the Company's requested IT pro forma inflation adjustment.

Accordingly, the Authority allows the Company's requested IT expense of $3,500,134 for the Rate Year, which includes $1,780,255 associated with salaries, and disallows the $215,258 pro forma inflation adjustment.

[59]The Authority's determinations with respect to employee compensation are discussed above, in Section VI.A.2.b, FTE Compensation.

14. Inflation Adjustment

The Authority permits the Company to escalate certain Test Year expenses using an inflation adjustment; however, the amount is reduced by $299,171 to account for reductions in certain expense categories discussed in Section VI.A.13, Residual Unadjusted Expenses.

Table 66: Inflation Adjustment for Residual Expenses

Components	Inflation Adjustment ($)
Dues and Subscriptions	(9,098)
BOD & Officers Expenses	(7,707)
Investor Relations Expense	(20,410)
Board of Directors Expense	(21,013)
D&O Liability Insurance	(11,187)
Employee Recognition Awards	(2,781)
Employee Training	(2,577)
Health Club Dues	(1,176)
Employee Stock Purchase Plan	(1,945)
Willis Towers Watson	(6,019)
IT Expenses	(215,258)
Total	**299,171**

The Company proposes to escalate $12,998,939 of Test Year expenses using an inflation index adjustment of 6.15%, resulting in a pro forma expense of $670,379. Late Filed Ex. 1, Ex. 1, Sch. C-3.20; Interrog. Resp. RRU-324, Ex. 1. The Company calculated the proposed inflation factor from the midpoint of the Test Year to the midpoint of the Rate Year using the GDP Chained Price Index from the Blue Chip Economic Indicators publication. Application, Ex. A.7, p. 14.

The practice of using inflation indexes to escalate Test Year expenses is a minor, but not insignificant, departure from legal precedent requiring pro forma adjustments to be "known and measurable." Applying a broad index inflation factor to specific Test Year expenses is an imprecise methodology and not necessarily predictive of the Company's actual Rate Year costs. Further, as demonstrated by the Company's selective application of an inflation adjustment, this methodology allows a utility to cherry-pick which expenses are escalated by inflation and which are escalated by known and measurable changes. With a utility incentivized to project higher expenses, this methodology likely results in broad-based inflation serving as the floor for expense escalation, thereby creating further upward pressure on rates.

In addition, although an inflation adjustment may be appropriate in certain circumstances, the application of broad index inflation to a significant portion of Test Year expenses raises concern. Specifically, inflation escalation permits the utility to, in a way, circumvent its burden to demonstrate rates are just and reasonable. Evaluating and determining known and measurable changes to Test Year expenses can be a tedious

process, but that process is a fundamental component of ratemaking and a key, if not perfect, proxy for free market competition in a monopolized sector. Consequently, utilities should apply inflation adjustments judiciously and, importantly, demonstrate why inflation is the appropriate adjustment for a particular expense.

Here, the Company seeks to apply an inflation escalation to about 30% of its total O&M expenses. This significant proportion of inflation-based escalation is likely at or even beyond that which is appropriate for a rate case. It is notable that there are approximately 40 separate accounts subject to an inflationary adjustment with limited or no explanation as to why inflation is the appropriate pro forma adjustment. Late Filed Ex. 1, Ex. 1, Sch. C-3.20, p. 4. The Company is cautioned against relying on this methodology for such a substantial portion of its pro forma changes.

15. Non-Revenue Water

As discussed in detail in Section IX.B.6.a, Non-Revenue Water, the Authority reduces the Company's Rate Year operating expenses by $84,477 to account for excess non-revenue water.

B. Depreciation Expenses

1. Summary

A depreciation rate study proposes annual depreciation rates to be applied to plant-in-service balances. The product of the rate and plant balance is the annual depreciation expense, which is a charge to a company's operating expense to reflect the annual recovery or amortization of previously expended capital investment. The table below summarizes the Authority's adjustments to the Company's proposed depreciation expense. The justification for the adjustments is provided in the following subsections.

Table 67: Rate Year Depreciation Expense

Asset	Proposed ($)	Adjustment ($)	Approved ($)
Water	26,665,933	(2,816,742)	23,849,191
Sewer	217,872	(20,561)	197,311
Overhead Allocations	(1,167,681)	-	(1,167,681)
Total	**25,716,124**	**(2,837,303)**	**22,878,821**

2. CWC Depreciation Study and the Company's Position

CWC filed a depreciation study related to the utility plant-in-service as of December 31, 2022 (Depreciation Study). The Company's Depreciation Study was performed by John Spanos of Gannett Fleming. Spanos Prefiled Test., Oct. 3, 2023, p. 3. For water assets, CWC proposes an annual depreciation accrual of $23,727,565 and a composite rate of 2.45%; for wastewater assets, CWC proposes an annual depreciation accrual of $159,285 and a composite rate of 1.32%. Spanos PFT, Ex. A.10-JJS-1, pp. 6, 47-51. The Company's proposals are based on CWC's proposed plant-in-service balances as of December 31, 2022, $969,943,269 and $12,024,839, for water and sewer, respectively. Id.; Spanos PFT, pp. 48, 51. The Depreciation Study proposes depreciation rates that were calculated using "the straight-line remaining life method of depreciation, with the average service life procedure to develop recommended depreciation accrual rates." Spanos PFT, p. 5.

Regarding the net salvage component of depreciation rates, Mr. Spanos estimated the net salvage percentages "based on judgment that, for most accounts, incorporated analyses of the historical data for the period 2011 through 2022 for water assets and considered estimates for other water and wastewater companies." Id., p. 9. "In the historical analyses, the net salvage, cost of removal, and gross salvage amounts were expressed as percents of the original cost retired." Id.

3. OCC's Position

OCC's expert witness, William W. Dunkel, testified that CWC's proposed net salvage rates are excessive. Dunkel PFT, Dec. 14, 2023, pp. 6-12. For water assets, Mr. Dunkel proposes an annual depreciation accrual of $22,312,814 and a composite rate of 2.30%; for wastewater assets, Mr. Dunkel proposes an annual depreciation accrual of $151,309 and a composite rate of 1.26%. Id., pp. 33-34. Mr. Dunkel's proposals are also based on CWC's proposed plant-in-service balances as of December 31, 2022. Id.

Mr. Dunkel testified that calculating a net salvage expense using the traditional method of determining net salvage rates would create a large discrepancy between the amount recovered from ratepayers and the reasonable expected costs, based on the recent, actual net salvage costs incurred by the Company. Dunkel PFT, pp. 6-12. Mr. Dunkel testified that a better approach is to consider the recent, actual net salvage costs incurred by the Company when estimating the net salvage rate to be applied to each account. Id., pp. 12-14.

4. Authority Analysis

a. Net Salvage

The Company proposes rates that would allow it to accrue $1,428,846 annually for net salvage expenses.[60] Dunkel PFT, p. 13. The Company proposes net salvage rates based on the "traditional method." Under "the traditional method, the analysis of net salvage data is performed by comparing historical net salvage to historical retirements." Spanos Rebuttal Test., Jan. 4, 2024, p. 13. "Net salvage (and its components, cost of removal and gross salvage) are expressed as a percentage of retirements for each year and for longer term periods. The traditional method does not focus primarily on the dollar amount of net salvage recorded . . . ." Spanos Rebuttal, p. 13. Mr. Spanos states that "[n]et salvage accruals are the allocation of costs over the life of the asset, whereas net salvage expenditures are a function of the assets retired in a given year. The two values should not be expected to be the same or similar in a particular year." Spanos Rebuttal, p. 3. Mr. Spanos further states that "accruals are normally higher than recorded net salvage costs" because "net salvage is [the] cost incurred at the end of the life of an asset." Id.

In contrast to the traditional method, OCC proposes net salvage rates based on a method for determining net salvage that considers recent, annual net salvage costs actually incurred by the Company. Dunkel PFT, pp. 6-14. This method can be applied to accounts that have historical data that can be analyzed. Tr., 1253:20-1254:7. OCC argues that there is a large discrepancy between the dollar amount of net salvage incurred by the Company over the past five years when compared with the net salvage the Company proposes to recover through its annual depreciation accrual. See id. Using Account 343 as an example, Mr. Dunkel testified that the average annual net salvage actually incurred by CWC since 2018 is $5,288. Dunkel PFT, pp. 7-8. Accordingly, as Mr. Dunkel testifies, the Company proposes to recover over 70 times its average net salvage over the past five years, with the Company proposing $371,714 annual expense of net salvage for Account 343.[61] Id., pp. 8-9.

Mr. Dunkel's method, by contrast, involved analysis of the Company's historical data, "the cost of removal, the net salvage dollar amounts in the last five years. [Mr. Dunkel] also look[ed] at the last ten years just to be sure there's nothing strange about the last five years. . . . [W]e are looking at retirements or investments that are old enough that they are retiring." Tr., 1255:21-1256:5. Accordingly, for Account 343, discussed above, Mr. Dunkel proposed an annual net salvage of $46,464, which is based on actual historical net salvage as well as adjustments to grow the net salvage reserve over time and protect future ratepayers from rising rates. Dunkel PFT, p. 13; Tr., 1273:24-1277:21. Mr. Dunkel's method also prevents "front loading," which is recovering all the net salvage for plant-in-service before it is retired, unfairly recovering the cost "from the early ratepayers." Tr., 1261:15-1262:13. Although front loading benefits shareholders, it is not

[60] As Mr. Dunkel testified, the Authority approves a depreciation rate, not a fixed net salvage expense. "As is the existing practice, in the future CWC will calculate the depreciation expense by multiplying the depreciation rate approved in this case times the then-current Plant in Service amount on the CWC books for that account." Dunkel PFT, p. 23.

[61] Mr. Dunkel testified that Account 343, Transmission and Distribution Mains, contains nearly half of the total water depreciable plant-in-service. Dunkel PFT, p. 7.

fair and reasonable when considering the interests of ratepayers and shareholders. Tr., 1263:5-1264:11.

Net salvage rates must take into consideration the totality of the evidence and circumstances presented in each case, with a net salvage method employed to arrive at just and reasonable rates. The Authority will continue to evaluate the reasonableness of proposed net salvage methods on a case-by-case basis to ensure systematic and rational cost recovery for the utility and fairness to customers. Based on the evidence in the record, the Authority agrees that OCC's proposed net salvage rates are reasonable. See Dunkel PFT, p. 13. Those net salvage rates take into account the large discrepancy between the Company's recent actual incurred net salvage costs and the Company's proposed net salvage recovery in this case. In addition, those rates provide adequate funds to increase the reserve and insulate future ratepayers from unfair rate increases. See Tr., 1275:9-24. Accordingly, the Authority adopts the depreciation rates proposed by OCC.

b. Service Life

OCC and the Company used similar methods in estimating the service life of the Company's depreciable accounts. When calculating the service life of plant-in-service, Iowa survivor curves can be applied to historical retirement patterns in order to forecast average remaining life. See generally Spanos PFT, Ex. A.10-JJS-1, pp. 10-19. The parties disagree on three accounts included in the depreciation study: Account 312 (Collecting and Impounding); Account 314 (Wells and Springs); and Account 332 (Water Treatment Equipment). For each of these accounts, OCC proposes a longer service life curve, based on analysis of the statistical data. Dunkel PFT, pp. 23-31. The Authority adopts the OCC's proposed service lives. Because the Authority adopts OCC's net salvage and service life recommendations, the Authority also adopts the proposed depreciation rates for each account as stated in Exhibit OCC-WWD-10.

As noted by Mr. Spanos, the available historical data spans a relatively short period of time when compared to the overall life cycles of the assets and, ideally, there would be a longer period of data. Spanos Rebuttal, p. 26. Nevertheless, the approaches used by both Mr. Spanos and Mr. Dunkel are consistent with accepted practices in the industry. Many factors may be considered in developing service life estimates, and the Authority finds that OCC's approach, including consideration of the Company's historical data, results in reasonable service life estimates (including for those accounts for which service life was not disputed). The service life estimates presented by OCC allow the Authority to approve rates that are just and reasonable. Accordingly, based on the evidence in the record, the Authority finds that the service life estimates proposed by OCC for Account 312 (Collecting and Impounding), Account 314 (Wells and Springs), and Account 332 (Water Treatment Equipment) are reasonable.

C. Taxes

1. Summary

The Company proposes $12,446,355 as total Rate Year tax expenses. Late Filed Ex. 1, Ex. 1, Sch. C-1.0. The Authority includes $9,800,170 in the Company's revenue requirement for tax expenses, as set forth in the following table.

Table 68: Rate Year Tax Expenses

	Proposed ($)	Adjustment ($)	Approved ($)
Payroll Taxes	1,467,558	(14,478)	1,453,080
Property Taxes	11,807,136	-	11,807,136
Deferred Income Taxes	-	780,755	780,755
State Income Taxes	155,212	(1,023,088)	(867,876)
Federal Income Taxes	(983,551)	(2,389,374)	(3,372,925)
Total Tax Expenses	**12,446,355**	**(2,646,185)**	**9,800,170**

2. Payroll Taxes

The Company proposes $1,467,558 as a Rate Year payroll tax expense, related to Social Security (FICA), Medicare, federal unemployment taxes (FUTA), and state unemployment taxes (SUTA). Late Filed Ex. 1, Ex. 1, Sch. C-3.23, p. 2.

The Authority does not allow the Company to recover payroll taxes related to the Director of Corporate Sustainability & ESG position, for the same reasons the Authority does not allow the Company to recover the proposed salary for the unfilled position, as discussed in Section VI.A.2.b, FTE Compensation. The Company proposed payroll taxes associated with this position totaling $14,478. Late Filed Ex. 55, Ex. 1 Supp. (Detail Tab, Line 256).

Consequently, the Authority will adjust the Company's pro forma payroll tax expense by $14,478 and allow $1,453,080 in the Company's revenue requirement.

3. Property Taxes

The Company proposes a property tax expense of $11,807,136 for the Rate Year. Late Filed Ex. 1, Ex. 1, Sch. C-1.0, C-3.22. The Company's Test Year property tax expense is $10,481,080. Late Filed Ex. 1, Ex. 1, Sch. C-2.0. However, the Company relies primarily on its "most recent 2023" property tax bill of $10,977,447. Late Filed Ex. 1, Ex. 1, Sch. C-3.22, p. 2. Using its plant-in-service of $1,059,198,158 as of September 30, 2022, and the 2023 tax assessment, the Company calculated a composite assessment factor of 1.0364%. Id. Next, the Company applied the composite assessment factor to its plant-in-service of $1,139,253,667 as of September 30, 2023, resulting in a total pro forma property tax expense of $11,807,136. Id.

The table below summarizes the calculation.

Table 69: Pro Forma Property Tax

2023 Property Tax	$10,977,447
Plant-in-Service (Sept. 30, 2022)	$1,059,198,158
Composite Assessment Factor	1.0364%
Plant-in-Service (Sept. 30, 2023)	$1,139,253,667
Composite Assessment Factor	1.0364%
Pro Forma Property Tax	$11,807,136

The Authority made adjustments to the Company's pro forma 2023 plant additions in Section IV.B.3, Test Year Plant-in-Service; however, the adjustments would have a negligible effect on the overall property tax computation. Consequently, the Authority will include a property tax expense of $11,807,136.

4. Deferred Income Taxes

The Authority increases the provision for deferred income tax by $780,755 to reflect a $2,837,303 reduction to the proposed depreciation expense.

As discussed in Section VI.B, Depreciation Expenses, the Authority reduces the Company's proposed depreciation expense by $2,837,303. Using the composite income tax rate of 27.5175%, the Authority calculates the deferred tax effect of $780,755 ($2,837,303 x 27.5175%).

5. State Income Taxes

The Company proposed a net State Income Tax (SIT) expense of negative $1,639,644, i.e., income of $1,639,644, based on the operating income at current rates. Late Filed Ex. 1, Ex. 1, Sch. C-3.25, p. 2. Based on the additional revenue proposed for the Rate Year, the Company requested an incremental $1,794,856 as additional income tax expense for the Rate Year. Id. Thus, the total net SIT expense proposed for the Rate Year is $155,212 ($(1,639,644) + $1,794,856). Id. The Authority does not allow $1,023,088 of the Company's proposed SIT expense, to reflect adjustments to both the current and proposed revenues and expenses, as discussed in more detail in Section VI., Allowable Expenses, and Section VII., Approved Revenue Requirement.

The Authority makes tax-impacted adjustments to the Application in this Decision, which totaled $4,018,039.[62] This amount is multiplied by 8.25% to increase SIT expenses by $331,488, based on the adjusted current operating income. Moreover, the Authority does not allow $16,419,098 of the Company's proposed operating income increase. Consequently, the Authority reduces the total SIT expense by $1,354,576 ($16,419,098[63]

[62]Adjustment equals the total of O&M, payroll tax, and interest expense reductions, and less the LPC adjustment, i.e., $4,018,039 ($3,927,699 + $14,478 + $979,874 – $904,012), which correspondingly increases the taxable income, which is then multiplied by the state income tax rate.

[63]$16,419,098 represents the impact of reducing the Company's proposed operating income by $2,022,266, and $14,396,799, which is $10,435,185 grossed up by 1.37964 to reflect the rate base and O&M reductions; in other words, the difference between the Company's requested and allowed operating

x 8.25%) for the Rate Year. As a result, the Authority allows SIT expense of $(867,876) ($1,354,576 - $331,488 - $155,212) for the Rate Year. Therefore, the Authority does not allow SIT expenses of $1,023,088 ($1,354,576 - $331,488) for the Rate Year.

Table 70: Rate Year State Income Taxes

	Proposed ($)	Adjustments ($)	Approved ($)
SIT at Current Rates	(1,639,644)	331,488	(1,308,156)
Increase to SIT	1,794,856	(1,354,576)	440,280
Total Rate Year SIT	155,212	(1,023,088)	(867,876)

6. Federal Income Taxes

CWC proposed a net Federal Income Tax (FIT) expense of $(5,175,355) based on the operating income at current rates. Late Filed Ex. 1, Ex. 1, Sch. C-3.24, p. 2. Based on the proposed $21,755,828 additional revenue for the Rate Year, the Company requested an incremental $4,191,804 as additional income tax expense for the Rate Year. Id. Thus, the total net FIT expense proposed for the Rate Year is $(983,551) ($(5,175,355) + $4,191,804). Id. The Authority does not allow $2,389,374 of the Company's proposed FIT expenses, to reflect adjustments to both the current and proposed revenues and expenses as discussed in more detail in Section VI., Allowable Expenses, and Section VII., Approved Revenue Requirement.

The Authority makes tax-impacted adjustments in this Decision totaling $3,686,551 ($4,018,039 - $331,488) to the Application, which is multiplied by 21% (the federal tax rate) to increase the FIT expense based on the adjusted current operating income by $774,176 ($3,686,551 x 21%).[64] Moreover, the Authority reduces the Company's proposed additional federal taxable revenue by $15,064,522 ($16,419,098 - $1,354,576). Consequently, the Authority reduces the total FIT expense by $3,163,550 ($15,064,522 x 21%) for the Rate Year. As a result, the Authority allows FIT expense of negative $3,372,925 ($(983,551) + $774,176 - $3,163,550) for the Rate Year. Therefore, the Authority does not allow FIT expense of $2,389,374 ($3,163,550 - $774,176) for the Rate Year.

Table 71: Rate Year Federal Income Taxes

	Proposed ($)	Adjustments ($)	Approved ($)
FIT at Current Rates	(5,175,355)	774,176	(4,401,179)
Increase to FIT	4,191,804	(3,163,550)	1,028,254
Total Rate Year FIT	(983,551)	(2,389,374)	(3,372,925)

revenues, i.e., ($16,419,098 = $140,000,875 + $2,022,266 - $904,012- $124,700,031). Late Filed Ex. 1, Ex. 1, Sch. C-1.0; Sch. C-3.0.

[64] Adjustment equals the total of O&M, payroll tax, and interest expense reductions, less the LPC and SIT adjustments, i.e., $3,686,551 ($3,927,699 + $14,478 + $979,874 - $904,012 - $331,488), which correspondingly increases the taxable income, which is then multiplied by the federal income tax rate.

7. Interest Synchronization

The Authority makes a $979,874 interest synchronization adjustment in the calculation of the allowed state and federal income taxes to reflect the allowed rate base and weighted cost of long-term debt as discussed herein.

As discussed in Section V.C, Capital Structure, due to the adjustments to the Company's proposed capital structure, CWC's proposed weighted cost of debt of 1.9056% is reduced by 0.0956% to 1.8100%. Accordingly, based on the Company's proposed average rate base of $718,458,669, the interest expense is reduced by $686,846 ($718,458,669 x 0.0956%). Additionally, in Section IV., Rate Base, the Authority reduces the Company's proposed rate base by $16,189,362; thus, the allowed interest expense is reduced by $293,028 ($16,189,362 x 1.8100%). Consequently, the Company's proposed interest expense for calculating income tax expense is reduced by approximately $979,874 ($686,846 + $293,028).

VII. APPROVED REVENUE REQUIREMENT

The table below summarizes the various components of the Company's approved revenue requirement, as adjusted by the Authority, and provides the total approved revenue requirement for the Rate Year.

Table 72: Approved Revenue Requirement

Section	Revenue Component	Amount ($)
IV.A	Allowed Rate Base	702,269,307
V.A	Weighted Cost of Capital (ROR)	6.7390%
	Allowed Cost of Capital	47,325,929
	Allowed Expenses:	
VI.A.1	Operations & Maintenance	46,158,195
VI.B.1	Depreciation	22,878,821
VI.C.2	Payroll Taxes	1,453,080
VI.C.3	Property Taxes	11,807,136
VI.C.4	Deferred Income Taxes	780,755
VI.C.5	State Income Tax	(867,876)
VI.C.6	Federal Income Tax	(3,372,925)
	Int. on Developers' CIAC Gross Up[65]	2,705
	Income from Leases and Merch/Jobbing[66]	(1,465,789)
	Total Allowed Revenue Requirement	**124,700,031**

[65] See Late Filed Ex. 1, Ex. 1, Sch. C-1.0.

[66] The Company forecasts $2,022,266 of income from utility plant leased to others. Late Filed Ex. 1, Ex. 1, C-1.0. As discussed in Section VIII.F.4, Leases and Merchandising & Jobbing, the Authority directs the Company to include the revenues collected from leasing income in its annual RAM filing as a "surplus" for RAM purposes that will serve to offset potential revenue shortfalls. Accordingly, the requested, tax-adjusted amount of $1,465,789 ($2,022,266 / 1.37964) is removed from the revenue requirement.

VIII. RATE DESIGN

A. Legal Standard

CWC is a public service company within the meaning of General Statutes § 16-1 and the Authority is statutorily charged with regulating the rates of Connecticut's public service companies. General Statutes § 16-19. Consequently, CWC must "file any proposed amendment of its existing rates with the [A]uthority." General Statutes § 16-19(a). Once a proposed amendment has been filed, the Authority:

> shall make such investigation of such proposed amendment of rates as is necessary to determine whether such rates conform to the principles and guidelines set forth in section 16-19e, or are unreasonably discriminatory or more or less than just, reasonable and adequate, or that the service furnished by such Company is inadequate to or in excess of public necessity and convenience . . . .

General Statutes § 16-19(a).

Rate design objectives include: (1) the approval of cost-based, just, and reasonable rates that promote further equalization of rates across the Company's divisions; (2) revenue stability; (3) affordability of water service for low-income households at subsistence consumption levels; and (4) water conservation incentives. See General Statutes § 16-19e(a); 2023 Aquarion Rate Case Decision, p. 111.

In striking this balance and making pragmatic adjustments, the Authority is guided by General Statutes § 16-19e(a), which states, in relevant part, that the Authority shall examine proposed rates in accordance with the following principles:

> (4) that the level and structure of rates be sufficient, but no more than sufficient, to allow public service companies to cover their operating costs including, but not limited to, appropriate staffing levels, and capital costs, to attract needed capital and to maintain their financial integrity, and yet provide appropriate protection to the relevant public interests, both existing and foreseeable . . .
>
> (5) that the level and structure of rates charged customers shall reflect prudent and efficient management of the franchise operation.

In furtherance of this statutory framework, the Authority typically employs the rule of cost causation, which allocates costs to customers and cost categories based on the costs they cause a utility to incur. The Authority also generally attempts to equalize class rates of return, as such practice ensures that rates are not unreasonably discriminatory, while balancing the regulatory philosophy of gradualism to, among other reasons, avoid customer rate shock. See J. Lazar et al., Electricity Regulation in the US: A Guide (2d Ed. 2016), p. 67, available at https://www.raponline.org/knowledge-center/electricity-regulation-in-the-us-a-guide-2/ ("sudden large rate changes should be avoided where possible to avoid undue new burdens on some classes of customers"). Consistent with the philosophy of gradualism, the Authority typically requires rate class revenue

reductions or increases in water rate cases to be no more than 1.5 times the overall distribution revenue increase. See July 2021 CWC Rate Case Decision, p. 53. Finally, the Authority considers whether "existing or future rate structures place an undue burden upon those persons of [low-income] status," as contemplated by General Statutes § 16-19e(b). The Authority weighs the above principles and considerations in determining appropriate cost and revenue allocation approaches and rate designs.

B. Sales Forecasts and Revenue

The Company's Application seeks to increase revenues by $21,755,828, or 18.4% above the revenues currently authorized in PURA-approved base rates and surcharges. Late Filed Ex. 1, Ex. 1, Summary. The Company seeks recovery of its "annual expenses as well as the recovery of the cost of $135 million of investments in drinking water infrastructure and technology systems not currently recovered either through base rates or through the WICA program." Patla PFT, p. 15. The Company attributes its rate increase request to its commitment to maintain critical infrastructure and the impact of rising expenses. Id.

The Company compared its current rates and revenues to the proposed Rate Year revenues by rate class, division, and for the total Company. Application, Sch. E-5.1. Under current rates, with Test Year adjustments, total retail revenues are $118,245,230, and the total proposed retail revenues are $140,001,058, a difference of $21,755,828. Application, Sch. E-5.1; Late Filed Ex. 1, Ex. 1, Summary. CWC also identified miscellaneous Test Year revenues of $228,935, with no pro forma adjustments for the Rate Year. Application, Sch. E-5.2, Part 8.

To determine the sales and estimated revenues the Company would achieve during the Rate Year, CWC applied a five-year historical trend forecast methodology, using customer and usage data from 2018-2022, and developed a compound annual growth rate (CAGR) for each rate class. Application, Sch. E-5.4, Part 1; Therrien Prefiled Test., Oct. 3, 2023, Ex. A-9, p. 16. The Company considered no alternative forecasting methodologies. Interrog. Resp. RRU-58. The Company applied the CAGR to the 2022 Test Year bill counts and extrapolated three years to represent bill counts for the Rate Year. Therrien PFT, p. 16; Application, Sch. E-5.4, Part 1.

The Authority examined the Company's sales forecast, customer growth, and usage adjustments, and determines that CWC's five-year historical average is consistent with the methodology used in the Company's last rate case. Interrog. Resp. RRU-58. The Authority accepts the Company's calculations for customer growth and usage adjustments for the Rate Year.

C. Cost of Service Study

CWC proposes to use its allocated cost of service study (ACOSS) from its last rate case by using a simple ratio technique to CWC's pro forma revenue requirement to determine revenue allocations to the customer classes. Therrien PFT, pp. 5-7. OCC's witness, Mr. Larkin-Connolly, generally agrees that CWC's prior ACOSS can be used in this proceeding. Larkin-Connolly Prefiled Test., Dec. 14, 2023, pp. 27-28. However, OCC identified a cost allocation error whereby a non-weighted cost factor was applied to

residential meters instead of a weighted cost factor, resulting in overstated residential meter costs of approximately $265,000 and, in turn, additional residential revenue requirements. Id., pp. 30-31. The Company acknowledged that the weighted allocation factor should have been used and provided an updated table that reflects the correction and resulting revenue impact at an equalized rate of return. Therrien Rebuttal Test., Jan. 4, 2024, pp. 6-7. The table below shows the proposed revenue allocation change by rate class on an equalized rate of return:

Table 73: Revised ACOSS Allocation Meter Factor

Rate Class	As Filed ($)	Corrected ($)	Difference ($)	% Difference
Residential	78,526,471	78,262,053	(264,418)	(0.34)
Commercial	16,678,422	16,838,188	159,766	0.96
Industrial	3,954,233	3,989,697	35,464	0.90
Seasonal	923,418	912,803	(10,615)	(1.15)
Public Authority	4,201,585	4,275,189	73,604	1.75
UCONN	1,362,166	1,368,365	6,199	0.46
Private Fire	1,440,893	1,440,893	-	-
Public Fire	12,391,823	12,391,823	-	-
Sewer	2,268,978	2,268,978	-	-

Therrien Rebuttal, p. 6.

The Authority finds that CWC's ACOSS from Docket No. 20-12-30, with the above-stated corrections, may be used as guidance for the revenue allocations in this case. When asked at the hearing whether a new updated ACOSS should be completed for the next rate case, Mr. Therrien indicated that doing so would be prudent since such studies should be updated approximately every five years. Tr., 1340:9-10. The Company indicated that it would update its ACOSS for its next rate case if ordered to do so. Tr., 1341:11-18. Therefore, at the time of its next rate case, the Company shall prepare a new ACOSS to include in its rate application.

D. Cost Allocation

CWC provided its proposed class revenue allocation for its proposed revenue requirement. Therrien PFT, pp. 12-13, Tables 1 and 2. The Company also provided a revised table that reflects the revenue allocation variance from its original filing to the corrected filing at an indexed (equalized) rate of return in response to the cost allocation factor error identified by OCC. Therrien Rebuttal, p. 7.

Table 74: Indexed ROR Comparison

Rate Class	As Filed	Corrected	Difference
Residential	0.92	0.91	(0.01)
Commercial	0.65	0.68	0.03
Industrial	0.40	0.43	0.03
Seasonal	1.57	1.52	(0.05)
Public Authority	0.96	1.02	0.06
UCONN	(1.42)	(1.41)	0.01
Private Fire	6.72	6.72	-
Public Fire	1.56	1.56	-
Sewer	1.12	1.12	-

Id.

Other than the corrections stemming from OCC's review of the ACOSS, OCC did not contest CWC's proposed revenue allocation. Of particular interest, however, from a public interest perspective is CWC's Indexed Rate of Return Comparison, which shows private and public fire customers paying significantly above the cost of service. Therrien Rebuttal, p. 7; Tr., 1358:12-15. Mr. Therrien clearly stated that private and public fire customers are "contributing well above their cost of service indicated requirements. So that would indicate that their rates should go down, not up. . . . And then the five percent . . . was really in our workshop trying to come up with a reasonable yet very modest increase to this customer class." Tr., 1359:13-24.

The Authority finds that CWC's proposed revenue allocation methodology, as corrected in its rebuttal testimony, should be followed with the exception that Public and Private Fire rates shall not be increased but instead held at current levels (i.e., zero percent change), as the indexed rate ROR is well above the average for both fire classes. Therrien Rebuttal. p. 7. That is, the final revenue allocation should be in proportion with that presented by CWC, but at the Authority's approved revenue requirement and subject to no change in revenue allocated to Public and Private Fire.

E. Rate Design

1. Overview

The Company's proposed rate design is generally consistent with its current rate design. Proposed rates are mainly comprised of a fixed meter charge and a variable usage charge based on a per thousand gallons rate of consumption. Therrien PFT, pp. 18-19. CWC's proposed rate design includes further rate consolidation efforts from its last rate case. Id. CWC proposes consolidation of basic service charges for 5/8-inch metered customers from four to three basic service charges across its eleven major divisions and standardization of meter factors (based on size) across all its divisions. Id., pp. 20-21.

For metered residential water usage rates, the Company proposes to increase the current Tier 1 and Tier 2 usage block rates and introduce a Tier 3 block rate, priced at $6 per thousand gallons above the proposed Tier 2 block rate. Id. The Tier 3 rates would

take effect when residential water usage exceeds 30,000 gallons. Therrien PFT, p. 22. CWC's proposed Tier 3 consumption rate is proposed as a price signal conservation effort to discourage excessive discretionary residential water usage. Id., pp. 22-23.

CWC's proposed rate design limits the specific customer class rate increases to no more than one and one-half times (1.5x) the system wide average increase of 18.1%. Id., p. 11. Given the 18.1% overall proposed revenue increase, the Company did not propose reducing rates for any rate class. Id. At a division level, the Company applied a revenue allocation range for the major customer classes between 50% to 150% of the system average increase. Based on the system average increase, the proposed guidance range for percentage increases is between 9.05% and 27.20% across CWC's divisions, with the exception of the Mansfield & Mansfield Pilgrim Hills divisions that were allocated below the guidance target in an effort to achieve rate consolidation. Interrog. Resp. RRU-284, Ex. 1, p. 14.

The Company also proposes a five percent increase, on average, for public and private fire protection. Therrien PFT, p. 27.

2. Fixed Meter Charges

CWC proposes increases in the fixed meter charges in a fashion that moves rates closer to consolidated levels across water divisions. Specifically, the Company proposes to consolidate the fixed meter charges in the Ellington Acres, Mansfield/ Mansfield Pilgrim Hills, and Storrs-Mansfield divisions to equal those of its CWC division. Therrien PFT, pp. 1, 9. The Middlebury Water Commission and Heritage Village divisions would retain unique meter charges.[67] Id., p. 19.

OCC generally supports CWC's proposed approach, with the caveat that the fixed meter rate increase levels should be proportionately scaled to the Authority's approved revenue requirement percentage change. Larkin-Connolly PFT, pp. 41-42. OCC proposed that CWC continue its rate consolidation efforts in Ellington Acres, Mansfield, and Mansfield-Pilgrim Hills and set the fixed charges for these divisions at the CWC division fixed rate. Interrog. Resp. RRU-572. Finally, OCC recommends that the Company's proposed fixed charges for the Middlebury and Heritage Village divisions be adopted by the Authority to continue momentum towards rate consolidation. Id.

The Company shall scale its proposed fixed meter charges proportionately starting with the 5/8-inch meter increase at the overall revenue percentage increase approved by the Authority. This scaled approach is consistent with the principles and guidelines set forth in General Statutes § 16-19e because consolidation of fixed meter rates attempts to equalize class rates of return to make sure rates are not unreasonably discriminatory. Further, it balances the regulatory philosophy of gradualism to avoid customer rate shock.

3. Meter Ratio Standardization

CWC seeks to standardize the meter ratios for the Heritage Village, South Coventry, and Storrs-Mansfield divisions to the meter ratios of its other divisions. Therrien

[67] Bradley Field also has a unique rate structure that is a contractual rate based on a discounted percentage of CWC retail rates. Interrog. Resp. RRU-538.

PFT, p. 21. Meter ratios are used to factor the 5/8-inch meter rate upwards based on the size of the meter. Id., p. 20. The following table shows the current meter ratio differential between these divisions as compared to the Company overall.

Table 75: Meter Ratio Comparison by Division

Meter Size (inch)	CWC Ratio	Heritage Village Ratio	South Coventry Ratio	Storrs – Mansfield Ratio
5/8	1	1	1	1
3/4	1.5	1.5	1.5	1.5
1	2.5	1.5	2.5	2.5
1 ½	5.0	2.5	5.0	5.0
2	8.0	4.0	8.0	8.0
3	15.0	7.5	8.0	8.0
4	25.0	12.5	8.0	8.0
6	50.0	25.0	8.0	8.0
8	80.0	40.0	8.0	8.0
10	120.0	-	8.0	8.0

The Company indicated that the proposed standardization would impact 542 commercial, industrial, and public authority customers in Heritage Village, eight commercial customers in the Storrs-Mansfield division, and, currently, 0 customers in the South Coventry division. Interrog. Resp. RRU-536. The Company also provided industry information from AWWA regarding meter equivalent ratios based on meter capacities. Interrog. Resp. RRU-536, Att. 2.

The Company's proposed consolidation of meter ratios for the Heritage Village, South Coventry, and Storrs-Mansfield divisions is reasonable as CWC's proposed meter ratios are mainly consistent with AWWA guidance based on meter capacity. Id. Residential metered customers in the Heritage Village, South Coventry, and Storrs-Mansfield divisions will not be impacted by this change because residential meters typically are 5/8-inch or 3/4-inch in size and those meters are already consistent across CWC's divisions. Customers with 1-inch and larger meters in the Heritage Village division and 2-inch and larger meters in the South Coventry and Storrs-Mansfield divisions will be impacted by this change because the meter ratios and rates will increase as part of the meter ratio consolidation across CWC's divisions. The Authority determines that the proposed meter ratio alignment is consistent with general ratemaking principles and accepts the Company's proposed ratio alignment for the remaining divisions.

4. Tiered Volumetric Usage Rates

CWC presently has a two-tiered inclining block rate structure for water usage rates for its metered residential customers across all its divisions. Application, Sch. E 1.1. The initial Tier 1 block rate applies to water usage up to 18,000 gallons for quarterly-billed customers, and 6,000 gallons for monthly billed customers, per billing period. Therrien PFT, p. 22. Customers who exceed the Tier 1 usage threshold are billed at the Tier 2 rate, which is priced at $1.00 per thousand gallon above the Tier 1 rate. Application, Sch. E-1.1; Therrien PFT, p. 22.

Tier 1 residential usage rates vary across CWC's divisions. The Company proposes increasing Tier 1 usage rates across all its divisions. The proposed percentage increases range from 8.1% to 39.3%. Interrog. Resp. RRU-284, p. 11. Tier 1 rates are currently set at a $1.00 premium and CWC requests to increase the rate differential for Tier 2 rates from $1.00 to $2.00. Id. In addition, CWC seeks to establish a Tier 3 block rate for residential volumetric usage that exceeds 30,000 gallons for quarterly billed customers and 10,000 gallons for monthly billed customers. Therrien PFT, p. 22. The Company's proposed Tier 3 rates are priced $6 per thousand gallons above the proposed Tier 2 rates. CWC's rationale for its proposed Tier 2 and Tier 3 rates is to magnify price signals from the current rate design to encourage water conservation and promote restrained residential water irrigation. Id.

DEEP supports the Company's proposed three-tier metered residential usage block rate design and associated Tier 2 and Tier 3 pricing and agrees that the tiered usage thresholds will help enhance water price signaling associated with discretionary use, while minimizing undue burdens on non-discretionary usage. DEEP Brief, p. 1. OCC also supports the Company's proposed tier design. OCC Brief, p. 111.

CWC provided historical usage and customer data from calendar year 2019 (i.e., pre-two-tier usage rate design) to 2022 (i.e., post-two-tier usage rate design) to determine if the Tier 2 usage rate reduced discretionary water use by sending a conservation price signal to residential customers. Interrog. Resp. RRU-49; Late Filed Ex. 88, Att. 1. Both responses draw the same conclusion: that the current Tier 2 usage rates have not had a significant impact on reducing discretionary water usage and conserving water resources. Id. Therefore, based on its analysis of the 2019 and 2022 current two-tiered residential customer and usage data, the Authority determines that a stronger pricing signal is appropriate to discourage excessive discretionary residential water usage and to promote water conservation.

The Authority determines that CWC's proposed increase of the Tier 2 rate for quarterly water usage above 18,000 gallons (priced $2 above Tier 1 rates) and the introduction of a Tier 3 rate for quarterly water usage above 30,000 gallons (priced at $6 above the Tier 2 rate) aligns with cost causation principles and conservation goals. High usage customers will pay a premium charge for discretionary watering, such as excessive lawn irrigation. The Tier 2 and Tier 3 rates also help lower the proposed Tier 1 rates under CWC's proposed rate design as they generate revenue streams at the higher-priced rates. Tr., 1325:20-1326:7; Interrog. Resp. RRU-542.

The Authority finds that the proposed increase to Tier 2 usage rates and the introduction of Tier 3 usage rates will send a necessary price signal to residential customers to promote water conservation and to discourage excessive discretionary water usage.

5. Fire Protection

The Company proposes a 5% increase for public and private fire protection charges. Therrien PFT, pp. 12, 15. The Company proposes an increase for the fire protection customer classes because CWC concludes that all rate classes, as a matter

of fairness, should receive an increase given the proposed overall revenue request of 18.1%. Interrog. Resp. RRU-332.

The Company acknowledges, however, the pressures on municipal budgets and the challenges that any increase in fire charges places on municipalities. Patla PFT, p 16. CWC provided ACOSS ratio data at current rates that demonstrates both public and private fire protection contribute beyond their allocated costs. Interrog. Resp. RRU-284, p. 21. Specifically, a 1.0 ratio means the customer class is paying rates equal to its allocated costs. Under current rates, private fire protection has an index of 2.47 and Public Fire Protection has an index of 1.10. Id. Both classes are contributing above their cost allocations. As such, the Authority finds that an increase to the public and fire protection rate classes is not warranted at this time absent more compelling rationale in the record.

F. Rate/Revenue Adjustment Mechanisms

Currently, the Company benefits from several rate/revenue adjustment mechanisms: WICA, RAM, and an Earnings Sharing Mechanism (ESM), all of which are codified under the General Statutes. Below, the Authority details each mechanism.

1. Water Infrastructure and Conservation Adjustment

A WICA is an interim rate adjustment mechanism unique to Connecticut that allows water companies to recover the costs of replacing existing water system infrastructure in between general rate case proceedings, thereby enabling the acceleration of the rate of replacement and/or rehabilitation of existing water system infrastructure to mitigate the effect of decay of aging water systems and to promote conservation measures. General Statutes § 16-262w. The amount of a water company's WICA charged to customers may not exceed 10% (10% WICA Cap) of the water company's annual retail water revenues approved in its most recent rate case, nor may it exceed 5% of such revenues for any 12-month period between general rate case proceedings. General Statutes § 16-262w(i). Once a water company reaches the 10% WICA Cap, it cannot propose an incremental WICA surcharge unless the company appears before the Authority for a rate proceeding. See id. Upon Authority approval of new base rates, however, a water company's WICA shall be reset to zero. Id. At that time, the plant associated with the current WICA charge will become part of base rates, subject to a finding of usefulness and prudency.

No WICA projects are submitted for cost recovery in this Application. Interrog. Resp. RRU-93. The Company confirmed that aside from projects that are currently associated with a WICA surcharge, CWC has not included any WICA eligible projects in its pro forma plant request. Interrog. Resp. RRU-281.

2. Revenue Adjustment Mechanism

A water company is authorized to utilize an annual RAM. General Statutes § 16-262y. The RAM filing reconciles the Company's actual revenues to its allowed revenues (commonly referred to as decoupling) and the variance results in either a RAM surcharge (when allowed revenues exceed actual revenues) or a RAM surcredit (when actual revenues exceed allowed revenues), which is applied as a percentage adjustment to customer bills.

In its 2013 decision in Docket No. 09-12-11RE01, the Authority ordered CWC to file its annual RAM filing on or before February 1, 2014. Decision, August 30, 2013, Docket No. 09-12-11RE01, Application of the Connecticut Water Company for Amended Rates – Settlement Agreement, p. 9, Order No. 7. In CWC's most recent rate case, the Authority found it appropriate for the Company to implement a RAM for all of its operating divisions under General Statutes § 16-262y. July 2021 CWC Rate Case Decision, p. 48.

Since 2013, the Company has annually filed a RAM for Authority approval. The Authority last approved the Company's 2023 RAM filing surcredit of 2.11% to be returned to customers, effective April 1, 2024, through March 31, 2025. Motion No. 28 Ruling, Mar. 11, 2024, Docket No. 20-12-30, Application of the Connecticut Water Company to Amend its Rate Schedules. The RAM surcharge currently applies to water rates, sales for resale, and non-fixed contractual miscellaneous charges. Id., p. 2.

Beginning with the February 28, 2025 RAM filing, and annually thereafter, the Company is directed to submit the amount of SJWG and CWC officer compensation that customers are paying through the RAM, as well as how much is being returned to customers through the RAM. The Company is also directed to submit the revenue shortfall in a given calendar year resulting from the provision of the Water Rate Assistance Program (WRAP) that CWC believes to be prudently incurred as part of its annual RAM filing. The section below addresses the Company's treatment of revenues collected from late payment fees, leases, and merchandising and jobbing revenues in relation to the Company's annual RAM filing going forward.

3. Late Payment Charges

The Company submitted Test Year revenues of $904,012 for Late Payment Charges (LPCs) and proposed the same revenues for the Rate Year. Interrog. Resp. RRU-407, OCC-373. The Authority determines that the revenues obtained from LPCs are additional revenues that extend beyond the Company's allowed revenue requirement and should be removed from base rates. In terms of proposed operating revenues, the Authority directs CWC to remove the proposed revenues of $904,012 for LPCs. Furthermore, the Authority directs the Company to include the revenues collected from LPCs in its annual RAM filing as a "surplus" for RAM purposes that will serve to offset potential revenue shortfalls.

4. Leases and Merchandising & Jobbing

The Company submitted Test Year revenues of $1,471,838 for income on utility plant leased to others and proposed total income of $2,022,266 for the Rate Year, including "Contracted Amounts" and the "3 Year Average of Budget Extras." Late Filed Ex. 1, Ex. 1, Sch. C-3.26. The Authority determines that the revenues obtained from leasing utility plant to others are additional revenues that extend beyond the Company's allowed revenue requirement and should be removed from base rates. In terms of proposed operating revenues, the Authority directs CWC to remove the proposed revenues of $2,022,226 for leasing income. Instead, the Authority directs the Company to include the revenues collected from leasing income in its annual RAM filing as a "surplus" for RAM purposes that will serve to offset potential revenue shortfalls.

5. Earnings Sharing Mechanism

An ESM requires a water company to split any earnings above its allowed ROE in any calendar year equally between the water company's ratepayers and shareholders. General Statutes § 16-262y(f) ("[c]oncurrent with implementation of a revenue adjustment mechanism, the authority shall establish an ESM that provides for any earnings in excess of the allowed return on equity to be shared equally between ratepayers and shareholders.").

The Company shall continue its ESM with a 50/50 split from the first dollar of over-earnings above the allowed ROE. Additionally, the Authority directs the Company to calculate the ROE using the lesser of the: (a) authorized debt and equity capitalization; or (b) the actual carried equity position, and to apply ESM carrying costs as of January 1 of the subsequent year. The Company will be required to separately identify and exclude all disallowed costs, from its most recent rate case, from ESM reporting on a going forward basis and to provide an affirmation of the accuracy of its disallowed expenses. This guidance will allow for the Company to achieve its authorized ROE based on its authorized capital structure while ensuring that the Company shares excess earnings with ratepayers in accordance with the rate case decision. This approach will also ensure that customers are not negatively impacted in situations where the Company incurs expenses related to projects, programs, or other items not approved in directives or orders outlined in this Decision.

G. Rate-Related Proposals

1. Water Rate Assistance Program

a. WRAP Discount Structure

The Authority finds that the Company's WRAP discounts should be expanded to three tiers, as follows: 80% discount for customers with incomes at the federal poverty level (FPL); 40% discount for customers with incomes at 200% of the FPL; and 10% discount for customers with incomes at 60% of the state median income level. As discussed in Section VIII.G.1.c., Usage Cap, the discount is capped for each account at 72,000 gallons per year.

In its previous rate case proceeding, CWC requested to establish WRAP, offering income-eligible customers a flat 15% discount on their water bill. EOE Brief, p. 23. The Authority approved WRAP, noting the need to help disadvantaged customers in uncertain economic times. July 2021 CWC Rate Case Decision, p. 54. In 2022, 541 customers (less than 1% of the Company's 107,000 customers across 60 towns and 63 separate and distinct water systems) received discounts totaling $42,214 through WRAP. Interrog. Resp. EOE-1; Williams Prefiled Test., Oct. 3, 2023, p. 14. As of July 30, 2023, 684 customers had enrolled in WRAP, with discounts of $40,780 as of August 31, 2023. Interrog. Resp. EOE-1; Williams PFT, p. 14.

In the present proceeding, the Company proposes to expand WRAP to include two additional tiers to ensure customers at specific household income levels pay no more than 2% of their annual income for water bills. Williams PFT, p. 17. According to the Company, this three-tier proposal enhances the original WRAP and may inform future

improvements to the low-income discount rate for electric customers. Id. Currently, the Company offers a 15% discount off water rates to any customer with an annual income at or below 200% of the FPL. Id., p. 17. The Company proposes an additional two tiers to the program in recognition of customers in need of assistance who are currently excluded from the program due to the limited income constraints. Id., p. 18. Specifically, CWC proposes an additional tier with a 100% discount at the FPL and a third tier with a 60% discount for customers at the state median income. Williams PFT, Ex. A.6, p. 18. OCC proposes an alternate set of WRAP tiers, which CWC does not oppose: an 80% discount for customers with incomes at the FPL; a 40% discount for customers with incomes at 200% of the FPL; and a 10% discount for customers with incomes at 60% of the state median income level. Larkin-Connolly PFT, p. 42; CWC Brief, p. 54. The Authority agrees that OCC's proposal should be implemented.

The Authority directs the Company to promote WRAP to increase awareness and accessibility for eligible participants. The Company shall enhance its efforts to increase participation in WRAP using its current marketing and outreach strategies. To effectively gauge the Company's marketing and outreach efforts, CWC shall strive to increase the number of customers enrolled in the program year-over-year (i.e., greater than the 541 customers in the Test Year).

In its next rate case, the Company shall report the number of customers enrolled in WRAP and provide a report demonstrating CWC's actions taken to increase program participation. In addition, the Company shall, by February 1, 2025, and annually thereafter, submit a compliance filing that sets forth the total number of customers in WRAP, separated by tiers, and details the total discounts for each tier and total number of currently enrolled customers. The filing shall also specify the number of customers who were enrolled and subsequently left the program and the number of customers who switched between tiers during the calendar year.

b. Rate Design and RAM Recovery

CWC proposes to impute the expected foregone revenues associated with the WRAP discounts into the proposed base rates of residential customers. Therrien PFT, pp. 25-26. CWC estimated the foregone revenues from the WRAP discount to be $2,603,390, which the Company's witness later revised to $628,488 in rebuttal testimony, and the Company provided an estimate of $629,672 in a late filed exhibit. See Therrien PFT, p. 25, Table 8; Therrien Rebuttal, p. 4; Late Filed Ex. 77, Ex. 1. OCC instead proposes that $518,408 of foregone revenue should be imputed into the base rate design. Larkin-Connoly PFT, p. 25, Table 11. Additionally, OCC objects to the Company's proposal to impute the estimated foregone revenues into the residential rates and recommends that any shortfall in revenue due to WRAP discounts be managed within subsequent RAM proceedings. Id., pp. 4-5. Alternatively, if any estimated amount is imputed into rates, OCC proposes that any imputation should be across all customer classes. OCC Brief, p. 118. On cross-examination, Mr. Therrien conceded that imputation to all classes would better match the design of the RAM. Tr., 1370:9-23.

Additionally, EOE argues that a low-income assistance program benefits all customers by minimizing bill non-payment and societal responsibility. Therefore, EOE

requests that the Authority direct CWC to recover the costs of WRAP to be shared among all rate classes, avoiding disproportionate burdens on residential customers. Id.

The Authority finds that the expected foregone revenue due to the expanded WRAP discounts is largely unknown. While the Authority recognizes that the RAM proceeding works to make CWC whole for any foregone revenues, the scope and potential foregone revenue associated with WRAP discounts is of concern due to the degree of uncertainty associated with the magnitude of foregone revenue. The Authority determines that time and data from actual implementation will be the best way to determine the revenue impacts with greater certainty. For the purposes of retaining the imputation methodology such that the RAM does not become overburdened in the future, the Company shall impute $259,204, which is one-half of the amount estimated by Mr. Larkin-Connolly, into the rates across all customer classes; however, this amount shall be fully reconcilable through the RAM for any over- or under-collections of foregone revenues due to WRAP discounts. CWC shall reverse the $2,603,390 imputed into the residential rates in the compliance filing for this proceeding. The Company is free to propose an imputation amount in its next rate case based on improved data gained from experience under this expanded program.

c. Usage Cap

The Authority finds that the WRAP program should only apply to discount the cost of up to 120,000 gallons of water provided to a customer's account. EOE proposes that the Company implement a usage cap in the multi-tiered WRAP program to extend assistance to more customers while controlling costs for ratepayers and supporting water conservation goals. EOE Brief, p. 24. CWC opposes implementing a usage cap or tiered functionality for the WRAP program. Interrog. Resp. EOE-233; Interrog. Resp. EOE-234.

EOE proposes implementing a usage cap in the WRAP program, set at either 42,000 gallons, the annual average WRAP customer's consumption, or 51,000 gallons, the average non-WRAP customer's consumption. Id. EOE noted that 36.7% of WRAP customers exceed the WRAP average of 42,000 gallons and 27.1% surpass the non-WRAP customer average of 51,000 gallons. Id. EOE posits that this cap would benefit customers, promote conservation, and effectively control program costs. Id. Therefore, the projected costs could be reduced from $629,672 to either $391,401 or $218,915. EOE Brief, p. 24. EOE recommends that the Authority approve the three-tiered WRAP with a usage cap, initially set at 51,000 gallons, adjustable based on future data. Id.

The Company has suggested in written exceptions and at oral argument that its billing system is incapable of automatically implementing either an annual or quarterly usage cap for the WRAP discount. See CWC Exceptions, p. 39. The Company proposes either not implementing a usage cap or implementing an annual usage cap of 72,000 gallons that is enforced when participants re-verify their income. Id., p. 40. If a usage cap is implemented, "the Company proposes a review of customer usage at the time that the customer is required to reverify income (once every 24 months), and if annual usage exceeds 72,000 gallons, the customer will be removed from the program, and eligible to apply again in one year." Id.

The Authority directs the Company to implement the expansion of WRAP into three tiers, with an annual usage eligibility criterion set at 120,000 gallons. In effectuating this direction, the Company shall adopt its proposal to review a customer's usage at the time of income re-verification, and to remove the customer from the program for one year if the annual usage exceeds 120,000 gallons. The Authority agrees with EOE that some consideration for a customer's annual usage will allow the greatest number of WRAP participants to receive assistance while promoting conservation and limiting the impact on other ratepayers. In arriving at an annual criterion of 120,000 gallons regarding the WRAP discount eligibility, the Authority considered that some WRAP customers consume more water because of household size, with families requiring more water for drinking, hygiene, and basic household activities than single-occupant households. Accordingly, a usage parameter that results in complete exclusion from the program for one year based on any consumption in excess of 72,000 gallons annually may be overly restrictive but increasing the amount to 120,000 gallons annually may strike an appropriate balance. The Authority is concerned that some WRAP customers consumed three or more times the non-WRAP average, with the highest ten customers in 2022 using 137,000 - 362,000 gallons, and the highest ten customers in 2023 using 120,428 - 186,000 gallons. See Interrog. Resp. EOE-174, Ex. 1. Accordingly, the Authority is convinced that some consideration of a customer's annual usage is a necessary component for the WRAP.

The Authority also considered the three-tier metered residential usage block rate design, discussed in Section VIII.E.4, Tiered Volumetric Usage Rates, above, in setting the usage eligibility criterion of 120,000 gallons. No assistance program should undermine the goal of water conservation because it is crucial to preserve this limited resource for future generations and ensure its sustainability. Furthermore, implementing a usage parameter contributes to further reducing program costs, providing an additional benefit for all customers. In the Company's next rate case, the Authority will assess WRAP customers' usage, including a comparison to non-WRAP customers' usage, and may adjust the usage eligibility criterion accordingly (or impose a formal usage cap) to promote the maintenance of water conservation practices while balancing affordability objectives.

2. Lead Service Line Replacement Programs

a. Overview

Service lines consist of two parts: (1) from the main to the curb box; and (2) from the curb box to the customer's house. Part one is maintained by the Company, while part two is maintained by the customer. It is a common practice that when the Company replaces a main, it also replaces the service line from the main to the curb box. Maintenance of the service line from the curb box to the customer's premise is at the customer's expense, not the water utility. Conn. Agencies Regs. § 16-11-62(4). Due to this ownership structure, the Company can replace the Company-owned side of the lead service line, but it cannot replace the customer-owned side of the water service line, as it is owned by the customer, absent an agreement with the customer.

In 1991, the United States Environmental Protection Agency (EPA) promulgated the Lead and Copper Rule to limit the amount of lead and copper in drinking water and subsequently amended the rule several times over the years. Corrosion of service lines,

plumbing, and fixtures is the greatest source of lead and copper in drinking water. Lead service line replacement is a continuing issue in the water industry. The Company has begun engaging in lead service line replacement to address lead contamination issues.

b. Merger Commitment – Pilot Program Parameters

Since its last rate case, the Company conducted a lead service line replacement pilot program (Pilot Program) in accordance with Merger Commitment No. 11 contained within CTWS's and the SJWG's application for approval of change of control filed in Docket No. 19-04-02, Application of SJW Group and Connecticut Water Service Inc. for Approval of Change of Control (Merger Docket). Specifically, Commitment No. 11 stated:

> **Customer Lead Service Line Replacement Pilot -** Within 90 days of completion of the transaction, Connecticut Water Company shall submit a pilot plan for a customer side lead service line replacement program for its customers for approval by the Authority that would (1) provide details of a pilot program for 30 customer accounts, and (2) based on the results from such a pilot program propose a program for the Connecticut Water Company to address the needs identified in its system, including proposed rate recovery for review and consideration by the Authority in the company's next general rate case.

Under the settlement agreement and final decision that resolved the Merger Docket, the Company agreed to forego recovery of the costs of the Pilot Program in customer rates. Decision, Sept. 4, 2019, Docket No. 19-04-02, Application of SJW Group and Connecticut Water Service Inc. for Approval of Change of Control (Merger Docket Decision), p. 21. Subsequently, on February 19, 2020, as a result of questions raised by the Company's compliance filing, the Authority held a technical meeting where details of the Pilot Program and the merger commitment were discussed. Tech. Mt'g Tr., Feb. 19, 2020, Docket No. 19-04-02, Application of SJW Group and Connecticut Water Service Inc. for Approval of Change of Control (Merger Docket Tr.), 715:5-22.[68]

The Company explained that its interpretation of the commitment had not been that the Company would pay 100% of the replacement cost, but rather that the Company would not seek recovery of the funds it extended for replacement from customers in customer rates (as opposed to from customers directly in individual transactions). Tr., 720:10-22. The Company also testified that it envisioned the program to be at least partially customer paid with the goal of gaining data to better determine likely participation rates for any long-term lead line replacement plan. Tr., 715:5-22. At the time of the technical meeting, the Company had identified approximately 382 lead service lines. Tr., 272:10-12.

Contrary to the Company's assertions, the commitment as intended was that the Company would be responsible for the replacement of lead service lines for 30 customers as part of the Pilot Program and that the Company would not seek to recover the cost in customer rates **or** from customers individually. As part of the discussion involving whether the Company was meeting its merger commitment, to mitigate the concern stemming

[68] A transcript of the technical meeting is available on PURA's website and linked here.

from CWC's decision to pay for only half of the 30 replacements, the Company proposed cost sharing for 60 customers. Merger Docket Tr., 727:13-728:4. At the time, OCC expressed concern that the number of identified lines was low as compared to another water company but generally considered the proposal to be in line with the negotiations and merger commitment language and a fair and reasonable program. Id., 729:1-5; 730:21-731:1. At the conclusion of the technical meeting, the Authority directed the Company to pilot 60 replacements where the Company paid 50% of the costs, with no cap, and, for any low-income customers in the Pilot Program, that the Company waive the customer share. Id., 733:11-734:4.

c. Merger Commitment – Pilot Program as Implemented

In conducting the Pilot Program, CWC selected 81 customer homes based on historical records that indicated the presence of lead service lines. Gavrilovic Prefiled Test., Oct. 3, 2023, pp. 12-13. CWC communicated the goals and benefits of the program to customers at these locations through two mailings and a minimum of two personalized outreach phone calls from a CWC employee to inform the identified customers about the program. Id. When a customer expressed interest in participating, CWC conducted field visits to confirm the presence of lead. Gavrilovic PFT, p. 13. CWC also provided a cost estimate to replace the service line at approximately half the actual cost of replacement and explained to customers that the customer portion could be paid with no interest charged for 12 months. Id.

The results of the Pilot Program are summarized as follows:

Table 76: LSLR Pilot Program Results

Description	Number
Customers solicited	81
Customers successfully contacted	49
Scheduled field visits	30
Confirmed lead service lines	12
Reported non-lead service lines	16
Customers in financial assistance programs (before or during the pilot)	3
Financial assistance customers ruled out due to lack of lead service line	1
Financial assistance customers ruled out due to lack of customer response	1
Completed lead service line replacements	1

Id.; Tr., 1475:20-1476:12.

In implementing the Pilot Program, the Company prioritized those customers who were involved with financial assistance. Tr., 1478:24-1479:3. The Company was only able to identify three lines that were eligible for replacement despite what the Company characterizes as "significant efforts made during the program to make contact with customers and explain the Company's cost-share." Gavrilovic PFT, p. 13. The Company asserts that the "communications were intended not only to solicit interest for the program but also to educate customers regarding the potential health effects of lead, verify service line materials at the selected locations, and evaluate lead service line distribution throughout CWC's service areas." Id. The Company memorialized its understanding of the Pilot Program in a compliance filing in the Merger Docket.[69] In its compliance filing, the Company acknowledged that it would identify 30 customers who definitively have lead service lines on either the customer side or both the CWC and customer side; however, the Company has only confirmed 12 lead service lines as part of the Pilot Program to date. Additionally, at the hearings, the testimony initially seemed to confirm that six lines had been replaced. Tr., 78:1-17. However, later testimony indicated that only one service line was replaced under the Pilot Program. Tr., 1475:14-17. Nonetheless, the Company categorizes the Pilot Program as "completed." Tr., 76:24-77:6.

When questioned regarding implementation of the Pilot Program, the Company indicated that it believes the spirit of the Pilot Program was "to help inform how we collectively wanted to think about funding of these customer side services should the customer participate in it and as the owner of that should the company pay, meaning the bulk, of all the customers" and to "to garnish the information that we would need to make a better informed decision for the totality of the replacements." Tr., 78:10-17. The Authority is concerned that the Company has not complied with Merger Commitment No. 11 either in letter or in spirit. The Company failed to operate the Pilot Program in such a way as to actually replace either 30 customer lines at 100% or 60 customer lines at 50%, and, as such, the Pilot Program has produced limited to no useful information. Essentially,

[69]The February 5, 2020 compliance filing is available on PURA's website and here.

the Pilot Program has demonstrated that in a field of 81 customers, approximately 15% might have lead service lines (12 confirmed lines were identified in the Pilot Program), and of that amount, 25% *might* be engaged in financial assistance programs. It has also demonstrated that not all customers are responsive, which is not unexpected. What the Pilot Program has made clear is that soliciting only 81 customers will not allow the Company to even identify 30 lead service lines that need to be replaced, let alone the 60 needed to satisfy the revised proposal.

At the time of the technical meeting in 2020, the Company appears to have believed, based on its experience, that lead service lines were limited. A word recognition program had recognized only 383 known circumstances with lead service lines on one side or the other. Merger Docket Tr., 719:8-14. The Company also testified that, between 2016 and the technical meeting, the Company had only encountered approximately 15 lead service lines through its WICA program. Id., 718:15-17. However, since this time, the Company has engaged in an examination of its service lines pursuant to EPA guidelines, as discussed in Section VIII.G.2.d, EPA Lead Service Line Replacement Program Proposal. To date, the Company has identified over 60,000 potential lead company-owned and customer-owned service lines, as shown in the following table.

Table 77: Service Lines Designated "Unknown - May contain Lead and/or Galvanized (constructed prior to 1986)"

	Number of Lines	Percentage of Lines Owned
Company-Owned Lines	30,210	28.81%
Customer-Owned Lines	29,903	28.52%
Total Lines	60,113	-

Late Filed Ex. 5; Tr., 1445:10-15. This is a significantly higher number of potential lead service lines than had been identified at the time of the technical meeting; further, the Company's inventory is ongoing. The Company now has ample information to effectively comply with the letter and spirit of the merger commitment and to complete the Pilot Program as initially envisioned.

The Authority directs the Company to continue the Pilot Program until such time as the Company has completed its merger commitment by replacing 30 service lines in total with (1) no cost to customers or 60 service lines, (2) a 50% split with the customers, or (3) an equivalent combination of fully and partially paid replacements. For any customer in a financial assistance program who agrees to replacement, the Company shall waive the 50% split. The cost of the Pilot Program shall not be recovered in customer rates now or in a future rate proceeding, consistent with the Merger Docket Decision.

d. EPA Lead Service Line Replacement Program Proposal

i. Summary

As discussed above, the EPA promulgated the Lead and Copper Rule (LCR) to limit the amount of lead and copper in drinking water and has subsequently amended the

rule several times. The Company submits the lead service line replacement (LSLR) Program proposal in anticipation of revisions to the LCR. Gavrilovic PFT, p. 14. In December 2021, EPA announced the finalization of the LCR Revisions (LCRR). 86 Fed. Reg. 71574. Water utilities must comply with the LCRR by October 16, 2024, including the requirement to prepare an LSLR Program for each water system. Through the lead and copper rule improvements (LCRI), the Company has a ten-year timeframe in which to have its complete service line inventory known and replaced. Tr., 1447:24-25, 1448:1-2. The ten-year period will begin in 2027 per the LCRI. The Company's proposed LSLR Program is in direct response to the Lead and Copper Rule from the EPA, which requires water companies to provide an initial inventory of their lead service lines by October 16, 2024. Tr., 68:9-13.

In its Application, the Company has not specifically sought funding for LSLR but has requested a deferral mechanism to account for unfunded, unreimbursed costs associated with replacing customer-side service lines. Gavrilovic PFT, pp. 14-15. The Company plans to request recovery of prudently incurred deferred costs at the time of its next rate proceeding. Id., p. 15. Initial estimates project the costs of the LSLR to be approximately $45 million. Id. This estimate includes both the utility- and customer-side service replacements.

As part of the LSLR Program, the Company has been developing an inventory of the material of service lines, on both the Company-owned and customer-owned portion of service lines. Services with unknown materials that may be lead will be classified as "lead status unknown" service lines and will count towards the total number of lead service lines in the system, which will impact any lead service line replacement requirements; conversely, unknown materials that are unknown but known not to be lead can be classified as "non-lead" service lines. CWC provided its accounting for 100% of Company and customer service lines based on material or unknown status. Tr., 1443:25-1444:4. In total, approximately 44,000, or 42%, of the Company's service lines are of unknown material, and approximately 71,000, or 61%, of customer service lines are of unknown material. Late Filed Ex. 5. Of the unknown material lines, the Company categorizes just over 30,000 of the Company lines as potentially containing lead or entirely unknown (28.82% of all Company lines), and approximately 64,000 customer owned lines (60.98% of all customer lines) as potentially containing lead or entirely unknown. Id. The remaining unknown lines should not contain lead given their construction date after 1986. Tr., 1445:10-14.

The Company will continue to update its inventory of unknowns through October 16, 2024, the initial inventory submission date in accordance with the LCRR. The Company must also submit a plan to identify unknown service line materials and to replace lead service lines at that time. The proposed LCRI would require that all water systems continue to regularly update their inventories and to also create publicly available plans for replacement of lines. The Company is working with its consultant, Hazen and Sawyer Engineering, and is on track to meet this deadline. Gavrilovic PFT, p. 14. Following the inventory, the next phase of work includes the identification and replacement of lead service lines within a 10-year compliance timeframe, which begins three years following the promulgation of the final rule. Additionally, the draft LCRI, issued late December 2023, proposed an additional three-year compliance period for lead

service line removal. Late Filed Ex. 6. With the additional three-year compliance period, the Company plans for completion of the LCRR requirements by 2037. Tr., 1448:16-17. The proposed LCRI also requires states to set shorter deadlines for individual water systems where a state determines that it is feasible.[70]

The Company will submit its service line material inventory submittal in October 2024 to the EPA and then begin the formal lead service line identification and replacement program in 2025. Late Filed Ex. 6. The Company assumes that 50% of the unknown service lines will need to be excavated on the customer side and 30% on the utility side. Id. To assist in the identification effort, the Company will also use other means of identification such as a customer survey, meter change outs, and WICA projects. Id. The Company estimates the replacement required for all galvanized and lead service lines to be approximately 2% of all unknowns, based on the Company's current percentage of known lead service lines. For purposes of the LSLR program, the Company's LSLR assumes that approximately 4,700 excavations will be completed per year to identify service line material, an estimated 300+ lead service lines will be replaced annually, and the program will extend over a 10-year timeframe. Id.

The Company states that it will utilize 2024 to identify as many unknowns as it possibly can through non-invasive means, which include meter replacement and self-reporting where the Company looks to roll out customer surveys, which would allow customers to identify service line materials themselves. Tr., 1448:17-1449:16. Non-invasive means would also include information gathered through the Company's WICA program, as well as its cross-connection program and one-off customer communications. Tr., 1449:3-11. The Company's goal is to minimize the number of holes it must dig or excavations it must conduct in order to minimize costs. Tr., 1449:22-1450:11.

CWC requests that the Authority issue an order in this proceeding requiring the Company to work with other stakeholders to fashion potential solutions to ameliorate the effect on customer rates. CWC Brief, p. 4.

ii. Costs of the LSLR Program

The Company has evaluated multiple scenarios related to estimated costs as the lead line replacement and the LSLR program are in their early stages. The Company estimates the costs to be approximately $45 million for both the utility- and customer-side service replacements. Gavrilovic PFT, p. 14. CWC submitted an application to the DWSRF to assist with the cost burden to its customers. Id. CWC will further revise cost estimates as it develops the inventory and as the requirements associated with the LCRR are further defined. Id. The Company requests a deferral mechanism to account for unfunded, unreimbursed costs associated with replacing customer-side service lines and anticipates that it will request recovery of prudently incurred deferred costs at the time of the next rate proceeding. Id., pp. 14-15.

[70] EPA's National Primary Drinking Water Regulations for Lead and Copper: Improvements (LCRI), Dec. 6, 2023, Federal Register Vol. 88, No. 233, p. 84915; EPAs Proposal to Improve the Lead and Copper Rule - Technical Fact Sheet for States and Public Water Systems, Nov. 2023.

The Company estimates costs of approximately $5 million per year associated with both Company-side and customer-side services. Although the Company is not responsible for the customer-side service line, it states that it is conservatively anticipating the possibility of the utilities having some level of responsibility for replacing customer-side services. Late Filed Ex. 6. The Company's anticipated responsibility for customer service lines is based on dialogue in the industry and through organizations that it is involved with as well as complications with forcing customers to address their side of the service line. Tr., 1452:5-18.

The costs that the Company will be looking to defer would be the cost of investigations and the actual lead service line replacement. Tr., 75:1-7. Company-side service lines that are funded by the Company (i.e., not funded by grants or otherwise not funded by the Company) will be placed in Company capital accounts, just like any other Company investment in plant. Tr., 73:24-74:11.

iii. Funding of the LSLR Program

To help offset the costs of the LSLR Program, the Company applied to the Department of Public Health (DPH) for grant and loan funding through the DWSRF Program. Tr., 73:24-74:1. The Company confirmed that the project is eligible for funding. Id., 75:25-76:6. The LSLR Program is included in the category called emerging contaminants and there is a higher subsidy associated with these types of projects. Id., 76:7-17. Funding under the DWSRF would be used to offset the cost of the Company-side service lines, which the Company states ultimately benefits ratepayers. Id., 77:16-24.

There are several unknowns associated with the LSLR Program, most notably the level of funding that the Company will receive from the DWSRF, as well as any responsibility that the Company may need to assume for customer service lines in the future.

iv. Customer Contract

There are several unknowns as to the Company's responsibility for customer service lines. This will most likely require action on the state or federal level should a change to current responsibility be enacted. The Company has had experience through its lead service line Pilot Program whereby it developed an agreement with customers that allowed the Company to enter the property to replace the service line. The Company states that it will be reviewing the agreement, taking any lessons learned into account, and adding the language it will need as it moves into the next phase. The Company also plans on working with its consultant to make sure that there is a strong agreement in place that lays out the conditions for both the customers and the utility should it be required to replace customer service lines. Tr., 1453:18-23.

e. Authority Analysis

The Authority approves the LSLR Program, including deferred accounting for up to $5.8 million in program costs from the date of this Decision until the Company files its next rate case; however, any accruals will not be subject to carrying costs.

The Authority recognizes the need to begin a replacement program in light of the LCRR. The Company's initial estimates project the costs to be approximately $45 million for both the utility- and customer-side service replacements. On a yearly basis, the Company estimates approximately $5 million annually, which is associated with both Company-side and customer-side services. The Authority will allow deferred accounting of up to $5.8 million over a five-year period commencing with the final decision date in this proceeding. This amount is consistent with the deferral allowed for the Aquarion in its most recent rate case. 2023 Aquarion Rate Case Decision, p. 138. This amount reflects the fact that the $5 million annual estimate includes Company-side costs as well as customer-side costs and considers the uncertain nature of funding that the Company will receive for these replacements as well as the uncertainty as to the Company's responsibility for customer-side costs.

The Company is directed to file its customer agreement and related materials associated with the LSLR Program prior to beginning its LSLR Program. After beginning the LSLR Program, the Company is directed to submit annually, on or before February 1, a compliance filing regarding the LSLR Program. This submission is to include, at a minimum: the number of Company-owned lines replaced by CWC in the previous calendar year; the number of customer-side lines replaced in the previous calendar year; and information regarding the cost of such replacements and the associated funding source (such as the amount of DWSRF funds applied).

IX. CUSTOMER SERVICE & WATER SUPPLY

A. Customer Service Review

1. Standard Bill Form

The Company provided a sample bill for the Authority's review. See Application, Sch. H-2.1.01, Sch. H-2.1.02. In addition, CWC provided a sample reminder and termination notice. Application, Sch. H-2.2. The Company confirmed that a customer's service is not terminated for failure to pay unregulated charges, e.g., Linebacker and Cross Connection Testing. Interrog. Resp. EOE-7. The documents provided by the Company comply with the requirements of Conn. Agencies Regs. § 16-11-69 and other applicable regulations.

2. Termination Notices and Customer Rights

In accordance with Conn. Agencies Regs. § 16-3-100(c)(1)(B), the Company must provide a notice explaining the rights regarding termination of service: (1) to each new customer, upon initiation of service; and (2) to existing customers, annually. CWC provided a Customer Rights Notice for the Authority's review, and the Authority finds that it complies with the regulation. See Application, Sch. H-2.1.02.

3. Estimated Bills

In instances where a meter reader is unable to obtain a reading, the Company estimates the customer's bill using predefined criteria. Application, Sch. H-2.3.01, p. 1. Customer account representatives are authorized to create an estimate according to the following guidelines:

(1) If the customer has three or four years of consumption history during the same period as the missed reading, the customer's average consumption over that period is used.
(2) For new customers, estimates are based on average consumption for a single-family home and pro-rated for the portion of the quarter that the customer has been at the property.

Id.

The Company sends notices to customers based on the number of times a bill is estimated. After two consecutive estimated bills, the Company sends a letter to the customer in accordance with Conn. Agencies Regs. § 16-3-102. Application, Sch. H-2.3.01, pp. 1-2. If a third consecutive estimated bill is required, the Company sends the same letter, marked "IMPORTANT NOTICE – Second Request." Id., pp. 1, 3. If a fourth consecutive estimated bill is necessary, CWC sends a termination letter, informing customers they have "15 days from mailing to provide a reading or access to get a reading or the water service will be terminated." Id., pp. 1, 4.

EOE raises concerns over CWC's inability to identify the number of customer meters that have not been read for specific amounts of time. EOE Brief, p. 19. The Company attributes this limitation to constraints within its current customer information system (CIS), which does not aggregate such information on a customer-wide basis. Id. CWC testified that it would have to manually review individual customer records to determine the number of estimated bills issued. Tr., 1041:16-22; 1044:10-11, 16-18. To address this limitation, "EOE encourages the Company to consider incorporating this feature into any future redesign of its CIS." EOE Brief, p. 19. By implementing a system that can generate reports detailing meter reading activity across various time frames, CWC can improve its ability to track and manage customer accounts effectively. This enhancement could provide valuable insights into meter reading patterns and facilitate more proactive management of billing processes.

The Authority reviewed the policy and procedures associated with the Company's estimated billing and finds that CWC's policy and procedures comply with applicable regulations. The Authority, however, supports EOE's recommendation in principle that CWC incorporate a feature into its CIS that allows the Company to track the number of customers whose meters have not been read for specific periods to improve operational efficiency. Therefore, the Authority expects the Company to consider the advisability of including this feature in its next regularly scheduled CIS update. If such update does not occur in advance of the Company's next rate case filing, CWC is directed to include an implementation timeline and cost estimate for making such updates in conjunction with any application to amend its distribution rates.

4. Rules and Regulations

i. Summary

The Authority approves the Company's proposal to revise its Rules and Regulations, see Application, Sch. H-2.6.02, Sch. H-2.6.03, with modifications to certain areas, as discussed below.

ii. Security Deposit Policies

The Company states that it does not assess security deposits and that, as of June 7, 2022, it has returned any customer security deposits associated with the acquisition of other water companies. Interrog. Resp. CAE-9; Tr., 921:13-25. Consequently, the Company proposes to remove the language from its Rules and Regulations. Application, Sch. H-2.6.03, p. 20, Sch. H-2.6.02, p. 20.

The security deposit section of the Company's Rules and Regulations may be removed because the Company has ceased collecting security deposits from any of its customers. Accordingly, the Authority directs the Company to remove the references to security deposits from its Rules and Regulations.

iii. One-Time Leaks

The Company proposed language related to large leaks in its proposed Rules and Regulations. Application, Sch. H-2.6.03, p. 21. Specifically, CWC's proposed language states that customers are responsible for water billing and costs resulting from household leaks. Id. A customer may request a leak adjustment if their bill is three times the average for the same period. Id. However, adjustments are not available for pool filling or irrigation system leaks. Id. Customers may seek a bill review for leaks, with credit provided at 40% of the excess, but only one leak adjustment is permitted per account lifetime. Application, Sch. H-2.6.03, p. 21.

The Company states that household leaks are "unfortunately fairly common." Interrog. Resp. CAE-10. While the Company has occasionally provided customers with additional adjustments for extenuating circumstances, CWC asserts that its once-in-a-lifetime policy encourages prompt leak repairs and serves as a safety net for significant leaks. Id. Below is a table of the total number of leak adjustments by CWC from 2018 through 2022. Id.

Table 78: Total Number of Leak Adjustments

Year	Number of Adjustments
2018	142
2019	183
2020	169
2021	115
2022	157

Interrog. Resp. CAE-10. EOE does not object to this proposed policy, but suggests the Company adopt language that would allow it to address unique situations in the future. EOE Brief, p. 20.

The Authority approves the Company's proposal to include guidelines for large leaks, subject to limited changes. Specifically, the Company is directed to update the proposed language to address situations or extenuating circumstances that may necessitate exceptions. Although such language may not be able to cover every possibility, it should include guidance based on the Company's past experiences with one-time leaks and focus on categories of one-time leaks that are most likely to occur. The Authority directs CWC to incorporate the changes discussed herein in its proposed large leak Rules and Regulations updates.

5. Late Payment Charges

The Company collects an LPC or interest fee of 1.5% per month for residential and non-residential customer bills not fully paid within 30 days, and for quarterly bills not fully paid within 60 days. Application, Sch. H-2.6.01. The Company proposes to maintain the current LPC or interest fee of 1.5%. Application, Sch. H-2.6.02. The Authority directs the Company to remove LPCs from the Company's allowed revenue requirement and from its rate base. Instead, the Company shall include the revenues collected from LPCs in the Company's annual RAM filing as a "surplus" for RAM purposes that will serve to offset potential distribution revenue shortfalls, as discussed above in Section VIII.F.3, Late Payment .

The Company did not suspend LPCs during the COVID-19 pandemic for all customer classes. Late Filed Ex. 67. As such, the Company collected approximately $3,863,229 in late payment fees from 2018 through 2023. Late Filed Ex. 67; Interrog. Resp. OCC-373. The Company states that customers who incurred LPCs prior to the pandemic, and subsequently enrolled in a payment plan between March 2020 and June 2023, had those LPCs waived. Interrog. Resp. CAE-15. Below is a table of the LPCs the Company collected during calendar years 2018 through 2023.

Table 79: Total Collected Late Payment Fees (2018-2023)

Year	Total Collected
2018	$583,973
2019	$559,603
2020	$668,545
2021	$752,480
2022	$736,489
2023	$562,139
Total	**$3,863,229**

Interrog. Resp. OCC-373; Late Filed Ex. 67.

For LPCs collected between 2018 and 2022, the Company also provided data on each year's maximum, minimum, and average late fees, as imposed on each customer class. Interrog. Resp. CAE-16, Ex. 1. During these years, the maximum fee incurred by each class varied widely, with a general upward trend for commercial, industrial, private fire, and residential accounts, as shown in the table below. Id.

Table 80: Maximum Late Payment Fees, 2018-2022

	2018	2019	2020	2021	2022	% Change
Commercial	$885	$596	$859	$1,623	$1,231	+39%
Industrial	$785	$358	$1,528	$328	$899	+15%
Public Fire	$1,136	$569	$1,147	$402	$432	-62%
Private Fire	$849	$1,090	$1,128	$1,189	$2,100	+147%
Public Authority	$723	$400	$500	$285	$411	-43%
Residential	$333	$431	$570	$774	$1,287	+286%
Sale for Re-sale	$8	$11	$20	$12	$11	+45%
Non-Metered Seasonal	-	-	$8	-	$8	-
Seasonal	$68	$99	$28	$37	$31	-55%

Interrog. Resp. OCC-373; Late Filed Ex. 67.

The average LPCs for each class were significantly lower, ranging from $2 for seasonal customers to $33 for public fire customers. Id.

Table 81: Average Late Payment Fees, 2018-2022

Commercial	$8
Industrial	$12
Public Fire	$33
Private Fire	$23
Public Authority	$9
Residential	$4
Sale for Re-sale	$11
Non-Metered Seasonal[71]	$8
Seasonal	$2

Interrog. Resp. CAE-16, Ex. 1.

The Company contends that the imposition of late payment fees is an incentive for customers to avoid late payments. Tr., 935:3-13. Furthermore, the Company contends that timely payments result in lower costs, thereby benefiting all customers. Id. The Company provided no data, however, to support the impact of late fees on timely payments or any attendant benefit for CWC customers.

Customers currently enrolled in an assistance program are subject to late fees. Tr., 958:13-19. The Company opines that the assessment of the late fees encourages customers to enroll in a payment plan and adhere to the terms of the plan. Tr., 959:7-16. Customers can avoid incurring future late payment fees if they do not default on the payment plan. If a customer defaults on the payment plan by violating the terms agreed upon with a customer service representative, the customer can re-enroll in another plan up to twice in a year. Tr., 959:19-25. Nevertheless, if a customer enrolled in an assistance program defaults on a payment plan twice in a year, the Company may impose late payment fees. Id.

Although the Company argues that the imposition of late fees benefits customers, the Company did not provide evidence to support that contention. The Company's collection of LPCs is well documented, but there is no evidence as to whether assessing LPCs is effective with respect to the intended purpose. Moreover, assessing LPCs for customers enrolled in an assistance program could undermine the intended goal of reducing past due amounts. Consequently, additional information is necessary to evaluate the practice of utilizing LPCs and its impact on uncollectible expenses.

Accordingly, the Authority approves the Company's proposal to maintain its current LPC of 1.5% but directs the Company to discontinue the practice of imposing LPCs on customers who are participating in an assistance program. If a customer defaults on a payment plan while in an assistance program and is subsequently re-enrolled, CWC shall waive any LPCs incurred during the customer's default period.

[71]Only 2020 and 2022 data were provided for non-metered seasonal accounts. Interrog. Resp. CAE-16, Ex. 1.

In addition, for the Company's next rate proceeding application, CWC is directed to provide data and analysis of: (1) available demographic information regarding the customers who incur LPCs, such as the customer class, whether the customer is enrolled in a financial assistance program, and whether it is a multifamily or single-family premise, if applicable; (2) the average, maximum, and minimum LPCs incurred by customers, by class, in each year for ten calendar years through the test year in that proceeding; (3) the total amount of LPCs incurred each year, by customer class; (4) a breakdown of the amount CWC spends per year to charge and collect LPCs; and (5) an assessment of the impact LPCs have on uncollectibles for each customer class.

6. High-Bill Complaints

a. Procedures Regarding High Bills

CWC indicated that it has no written procedures specific to customer complaints regarding high bills. Interrog. Resp. EOE-64. However, the Company stated that when it receives such a call, its customer service representatives (CSRs) follow the procedure outlined in the Company's Customer Service Procedures. Interrog. Resp. EOE-64; Application, Sch. H-2.7, p. 17. The Company further stated that in response to a call regarding a high bill, the Company will take the following steps:

(1) Identify the customer's address;
(2) Ask questions to obtain details about the issue;
(3) Ask the customer to check toilets for leaks, providing a "Leaks Cost Big Dollars info sheet to the customer," and mail out dye tabs to check for toilet leaks;
(4) Ask the customer to check the low flow dial on their water meter;
(5) Ask the customer to check for leaks in irrigation if they have a system; and
(6) Ask questions about watering, power washing, guests, or pool filling.

Interrog. Resp. EOE-108. If those initial steps fail to identify the problem, the Company will visit and investigate at the customer's location. Id.

Although these procedures are not formally documented in the Company's policies, the Company states that all CSRs are trained to follow them. Tr., 1048:8-1049:4. EOE listened to high-bill complaint calls provided by the Company and verified that the Company followed the outlined steps. EOE Brief, p. 21. EOE recommends integrating the procedures outlined in the interrogatory response directly into the Company's written policies for CSRs. Id.

The Authority agrees with EOE's recommendation because written policies help ensure adherence to procedures, particularly when new CSRs are hired and trained. Although EOE was able to verify recent CSR adherence to the unwritten policy, the Authority directs the Company to revise its written policies for CSRs to formally include the outlined procedures. Formalizing the responses to high bill complaints benefits the Company and the customers by ensuring proper training and accountability of its staff.

b. Fast Meter Billing Adjustments

EOE identified an issue related to the Company's billing adjustment for bills that are incorrect due to meter errors. EOE Brief, p. 21. The Company testified that it adjusts

bills for customers billed on fast meters by calculating the difference at 100% accuracy and providing a credit for total overage over the meter's installation period. Tr., 1049:7-1050:3, 1050:9-1051:13; Late Filed Ex. 78. The Company is required by regulation, however, to adjust a customer's bill for the excess amount from either (1) the time at which the error first developed, if that can be determined, or (2) the lesser of a period equal to half the time since the meter was last tested or the time during which the customer received service through the meter. Conn. Agencies Regs. § 16-11-71. Id. The Company committed to closely following the regulation going forward as it was unsure as to whether it was following the requirements of the regulation currently, stating that it had previously calculated the credit in response to customer feedback. Tr., 1050:25; Late Filed Ex. 78. The Authority directs CWC to submit a compliance filing that affirms its commitment to complying with Conn. Agencies Regs. § 16-11-71, as well as any updates (reflected in tracked changes) to its policies, procedures, or training documents that the Company deems necessary to affirm compliance with the applicable regulation.

7. Collection Practices

The Authority finds the steady rise of liens placed on residential customers since 2018 concerning and directs the Company to modify its guidelines for the placement of liens on residential accounts. Further, the Company is directed to create written procedures that provide guidance to its employees regarding any exercise of discretion in the placement of liens on customer properties.[72] To ensure that liens are used as part of a fair and effective debt collection practice, the Authority intends to assess lien effectiveness in the Company's next rate case.

Currently, when a customer's account is in arrears for more than $1,000 or 180 days, the Company sends written notification to the customer that CWC intends to place a lien on their property if the customer fails to make a payment or set up a payment arrangement. Application, Sch. H-2.6.02, p. 20. The costs to prepare, file, and release a lien are entirely borne by the customer, and the fees appear as a special charge on their account. Id. The "fees related to the lien placement [are] subject to the same remedies for collection as other charges on the customer's account." Id. The current lien placement fee is $260, and the fee is applied to the customer's account at the time the lien is placed. Application, Sch. H-3.0, Approved Rates and Tariffs – Reconsideration, p. 15; Tr., 914:9-22.

The Company emphasizes that it issues letters of intent to place a lien only subsequent to several attempts to recover outstanding debts from customers for past due bills. Late Filed Ex. 64. The liens are valid for 14 years and the amount is the past due for one year from the most recent bill. Late Filed Ex. 74, p. 1; see also General Statutes § 49-72. To begin the process of issuing a letter of intent, the Company generates a monthly list of accounts over 181 days overdue and reviews town records to determine if the customer is the property owner. Id. The Company states that it "makes several attempts via phone, mail, and email if available, to get in touch with customers with past

[72]The Company has an automatic, unperfected lien against real property owned by a customer for any unpaid water service to that property, per General Statutes § 49-72. However, the Authority uses the term lien to refer to a lien recorded in the land records, also referred to as a "certificate of continuation of the lien." Id.

due bills" prior to issuing a letter of intent to place a lien. Late Filed Ex. 64, p. 1. The Company states that because of the legal costs for both CWC and customers in placing a lien, the Company prioritizes "lien placements on accounts where other collection methods (such as termination) are not available." Late Filed Ex. 64, p. 2. The Company's use of liens nearly tripled between 2018 and 2023, as shown in the table below.

Table 82: Liens by Year, 2018-2023

Year	Number of Liens	Total Lien per Year	Average Lien	Minimum Lien	Maximum Lien
2018	96	$213,753	$2,227	$413	$11,500
2019	114	$285,558	$2,505	$423	$14,378
2020	89	$295,133	$3,316	$343	$13,110
2021[73]	77	$256,210	$3,327	$343	$13,110
2022	216	$990,898	$4,587	$791	$79,690
2023	283	$973,155	$3,451	$471	$30,328

Interrog. Resp. CAE-1, Ex. 1. Each year, the vast majority of the liens are against residential customers and, although commercial customers have high balances on average, each year the highest balances are attributable to residential customers. Id. For example, Table 83 shows the average, high, and total liens by class for 2023.

Table 83: Liens by Class, 2023

	Number	Average	High	Total
Residential	260	$2,874	$30,328	$747,329
Commercial	17	$10,632	$29,962	$180,740
Industrial	2	$11,229	$21,026	$22,458
Private Fire	2	$10,327	$14,944	$20,653
Seasonal	1	$1,975	$1,975	$1,975

Interrog. Resp. CAE-1, Ex. 1.

The Company testified that its analysis of the collection process is "ongoing at any time" to determine which methods are most effective for customers and the Company. Tr., 911:7-15. However, the Company has no formalized process for evaluating the effectiveness of liens on reducing uncollectibles. Id. Although the Company acknowledges that it exercises discretion when determining which accounts are selected for lien placement, the Company has no written protocols to guide the decision-making process in lien placement. Tr., 1574:2-25; 1575:1-5; Late Filed Ex. 74. The Company has not done a formal cost-benefit analysis on placing liens and using litigation for uncollectibles. Tr., 955:7-14. The Company relies on judgment, based on customer service employees' experience and consultations with colleagues or supervisors. Tr.,

[73]The data provided in Interrog. Resp. CAE-1, Ex. 1 for 2021 appears to contain duplicate data from 2020 and missing columns. The data provided by the Company is reproduced here, but the Authority notes the apparent inaccuracies.

1614:23-1615:2. The Company testified "if we think we are about to place a lien, it is largely a discussion, have we, you know, where we would ask ourselves [questions about lack of communication with the customer]. So either, while they are not written down in an SOP, that is exactly how the conversation goes." Tr., 1615: 3-19. However, that procedure is not necessarily followed in every case because there is no written checklist or procedure. Tr., 1617:14-21.

The Company's protocol for placing liens on delinquent accounts warrants further evaluation to ensure its effectiveness as a debt collection method. The Company asserts that liens are a measure of last resort. Tr., 1574:5-19, 1614:8-14. However, the Authority is concerned about the significant rise in lien placements from 2020 to 2023. As such, the Authority directs the Company to only pursue liens on residential accounts with outstanding balances of $3,000 or more. This threshold aims to strike a balance between debt recovery and customer protection.[74] Also, the Company shall create a written standard operating protocol that provides detailed guidance to its staff in identifying and selecting accounts for lien placement.

To ensure that placing liens is a fair and effective debt collection practice, the Authority intends to reassess the effectiveness of the revised threshold in the Company's next rate case. Upon reviewing data spanning from 2018 to 2023, the Authority notes that there are balances well below $1,000 for which the Company pursued a lien. Although the Company sometimes discussed placing liens for balances over 180 days overdue *and* over $1,000, it appears from other testimony and the evidence that the Company pursues liens for past due balances of less than $1,000. See Tr., 913:20-914:2 ("To be clear, the Company does not place liens on any balance over 180 days and $1,000. The Company's policies indicates that we can place liens in those cases."); Tr., 955:20-24. The Authority is concerned that liens, which will require customers to pay a $260 lien placement fee and $60 lien release fee, were placed on overdue balances as low as $343, which might represent as little as one to two months for a residential customer. Interrog. Resp. CAE-1, Ex. 1 (2020 Tab) (indicating lien for $343.46 placed on March 3, 2020, and numerous liens less than $1,000); Application, Sch. H-3.0, Approved Rates and Tariffs-Reconsideration, p. 15; Late Files Ex. 74, p. 1.

The Company should be prepared to fully address its lien protocols and the effectiveness of its lien placement in its next rate case. Therefore, the Authority directs the Company to evaluate the efficacy of liens at the revised threshold for residential customers in reducing its uncollectible expense. Such report shall be included in the Company's next rate case and, at a minimum, should include the following information:

(1) Number of liens placed for the test year and five preceding calendar years;

(2) For each lien placed,

a. The total cost of placing each lien;

b. The amount recovered and the associated number of accounts that were satisfied (state whether balances or partially or fully paid);

[74]The average amounts for residential liens were $2,746.19, $3,717.53, and $2,874.34, for 2021, 2022, and 2023, respectively. Interrog. Resp. CAE-1, Ex. 1.

c. The number of attempts to contact the customer, with a description of the methods attempted and any contact made; and

d. A description of the efforts made to recover funds prior to placing liens, such as enrolling the customer in an assistance program or payment agreement.

8. Equity Strategy

a. Summary

The Authority directs CWC to undertake specific actions to improve the Company's diversity, equity, and inclusion (DEI) initiatives and efforts to foster a more diverse and inclusive workforce. The Company states its mission and vision "both include equity at the heart." Interrog. Resp. CAE-27. The Company also states that "[E]quity within each of our stakeholder groups, and equity among them, with the pursuit of balance among shareholders [is] always at the top of our minds." Interrog. Resp. CAE-27. The Company further stated that its "pursuit of balance and equity among and within shareholder groups drives both our external and internal strategies," though "not formalized in one succinct document." Id.

Accordingly, the Authority directs the Company to provide evidence of its improvement in specific areas in its next rate case, to ensure transparency and accountability regarding its commitment to DEI principles. In the next rate case, the Authority directs the Company to submit its goals and targets for each DEI initiative. CWC should outline how success was measured, detail the strategies employed, and explain planned improvements. Furthermore, the Company shall provide its most recent demographics (including, at minimum, gender and racial identity) of its workforce, along with evidence demonstrating that its leadership composition reflects the communities it serves. In the next rate case, the Authority will assess whether a portion of executive compensation should be tied to the outcomes of the Company's DEI strategy to incentivize executives to achieve the Company's stated targets for internal and external DEI initiatives.

b. DEI Initiatives

i. Equity, Diversity, and Inclusion Training

CWC seeks to recover $8,847 in expenses it incurred in the Test Year related to its DEI training initiatives. Tr., 943:10-15; Late Filed Ex. 71. To better serve its customers, the Company must both commit to enhancing its DEI efforts and act to increase workplace diversity, equity, and inclusion. Accordingly, the Authority directs the Company to expand the required and available training for its employees.

The Company states that new CSRs receive "basic training" from "seasoned CSRs." Application, Sch. H-2.7, p. 8. That training includes instruction in "basic water utility services, customer information system navigation and handling calls," through shadowing and live call observation. Id. The Company also lists the following training courses for CSRs: "Six Cardinal Rules of Customer Service," "Questioning Techniques," "The Five Forbidden Phrases," "How to handle the Irate Customer," "Proactive Customer

Service," "Killer Words of Customer Service," and "Essential Telephone Skills." Id. Additionally, CSRs receive instruction on identifying a threat over the phone and reporting procedures for threats. Id. The Company states that the most recent training was held in February 2023. Application, Sch. H-2.7, p. 8. Lastly, the Company states that CSRs "participate in implicit bias training," which was recently made available enterprise-wide through BiasSync, with monthly training modules. Interrog. Resp. CAE-12. The Company states it intends to maintain this type of training in the future. Id. Although the Company's training is available to all employees, it is not required. Tr., 960:7-17. The Company testified that it was in the process of switching to a new training system and expects to make the training required once the new system is implemented. Id., 955:17-23.

During the hearing, the Company was in the contracting process of changing providers for bias training to enhance the data analytics and to upload additional training modules. Tr., 960:21-25. As of January 31, 2024, the Company finalized the contracting phase with its new provider, Emtrain, for DEI services. Late Filed Ex. 72. Emtrain offers "customizable training modules that can be directly integrated into the Company's learning management system." Id. The Company purchased trainings that concentrated on DEI, as well as respect and workplace harassment. Id. The contract with Emtrain enables the Company to integrate modules in its learning management system for tracking participation rates and engagement levels. Tr.,1583:1-19.

The Authority directs the Company to continue to expand its DEI training offerings beyond implicit bias training (e.g., stereotyping, cultural awareness and belonging, addressing microaggressions, and allyship training), and encourages the Company to make DEI training a requirement for CWC employees at all levels. Training in implicit bias should be the minimum required by the Company. A broader approach to training will further enhance diversity and inclusion within the Company, which allows for prudent and efficient management. In addition, more DEI training will benefit CWC's customers by allowing CSRs to better understand the customer, improve customer trust and interaction, and improve equitable treatment of ratepayers.

ii. Workforce Diversity and Inclusion

The Company testified that it has "no-cost" DEI initiatives. Tr., 943:13-944:4. The Company's "major" no-cost initiative is its Diversity, Equity, and Inclusion Council. Tr., 943:15-17. The DEI Council is a voluntary council of employees who meet monthly and suggest DEI efforts and initiatives for the Company. Tr., 943:17-21. "[T]he other no-cost DEI initiative that [CWC] engage[s] in as a Company, is [its] participation with the CEO pledge for equity and inclusion, which [the Company's] CEO has signed on to." Tr., 943:22-25. The Company testified that its pledge gains CWC access to resources such as "trainings, articles, white papers, [and] best practices." Tr., 943:22-944:4.

The Company claims that it has developed various programs aimed at creating an inclusive environment for its employees, suppliers, and vendors. Tr., 949:3-15. The Company's stated goal is to ensure that everyone feels valued, included, and empowered to succeed within CWC and its contracting processes, with opportunities for advancement and skill development readily available. Id. In the matter of the Company's approach to recruitment, promotions, and retention, CWC testified that it enhanced its human

resources team by adding a talent specialist two years ago. Tr., 949: 16-25. The Company testified that this addition significantly improved the consistency of its recruitment process, ensuring that all hiring, promotions, and related activities are overseen by a single person. Id. The talent specialist also provides basic bias training to interview panels to promote fair and unbiased selection of employees. Tr., 950:1-3.

In the matter of the leadership composition and its alignment with CWC customer base, the Company testified that it considers this a continuous journey rather than a reached destination. Tr., 950:24-25, 951:1-8. The Company testified that its goal is to expand the recruiting pool to access talent that better reflects the communities it serves. Id. Although the current leadership does not fully represent the communities the Company serves, CWC states that it is actively seeking new avenues for recruitment to improve diversity ratios moving forward. Id. The Company provided the total population of its workforce including the gender and racial background percentages. Late Filed Ex. 72. The table below illustrates the gender and racial background percentages of the Company's workforce as of December 2023.

Table 84: Employee Demographics, as of December 2023

Total CWC Employees	**248**
Male	66.13%
Female	33.87%
Hispanic or Latino (of any race)	5.24%
Not Hispanic or Latino	94.76%
White	87.90%
Black or African American	4.44%
American Indian and Alaska Native	-
Asian	2.02%
Native Hawaiian and Other Pacific	-
Some Other Race	-
Two or More Races	0.40%

Late Filed Ex. 72.

In addition to the DEI training discussed in Section IX.A.8.b.i, Equity, Diversity, and Inclusion Training, the Company uses analytical tools to assess effectiveness based on employee feedback, including a focus on the sense of belonging in its DEI efforts. Id. The Company conducts mid-year and year-end employee satisfaction surveys, with results shared and discussed by leadership and employees at all levels. Tr., 1583:23-25; 1584:1-6.

The Authority finds the Company's DEI strategy would benefit from further refinement. Although the Company claims to prioritize equity throughout its operations, tangible results are not apparent, particularly in the composition of its staff and leadership. While the Company acknowledges this disparity and that its current leadership does not mirror the communities it serves, it considers this an ongoing process. However, relying on a single talent specialist for hiring, promotion, and related activities may exacerbate the issue. Having one individual make all the decisions in these crucial areas risks perpetuating discriminatory effects on staff structure and composition. Introducing diverse perspectives in hiring and promotion processes fosters a more equitable and inclusive environment for both employees and the communities served. Prior to its next rate case, the Company should review its recruiting and retention processes to ensure that diverse viewpoints are being incorporated in its decision-making and hiring processes. This approach should result in an increasingly diverse workforce, reflective of the Company's commitment to DEI principles.

Furthermore, as discussed above, the Authority expects the Company to increase the frequency and number of training sessions across all staff and leadership through the Company's partnership with Emtrain. The Company should use feedback from its mid-year and year-end employee surveys to enhance workplace practices and foster an inclusive workplace.

iii. Environmental Justice Communities

In terms of the Company's equity objectives for the environmental justice communities (EJCs)[75] that it serves, CWC acknowledges the importance of addressing the needs of these communities and ensuring equitable service, investment, and affordability across all operating communities. Interrog. Resp. CAE-26. The Company's participation in projects through the DWSRF, focusing on providing loans to communities with the greatest need, are part of its commitment to equity. Id. In addition, the Company states that its proposed changes to WRAP are aimed at extending assistance to a greater percentage of its customers facing water affordability challenges. Id.

The Company should actively engage residents of EJCs to understand their specific needs and concerns regarding water service, affordability, and environmental impacts. The Authority directs the Company to consider incorporating the following initiatives to improve the Company's insight into EJC residents' perspective and priorities: (1) focus groups with members of these communities; and (2) surveys and questionnaires about water bill affordability, perceptions of water quality, and concerns about environmental hazards. The Company shall provide a report on any resulting findings and remedial actions undertaken as a result of such focus groups or surveys in its next rate case application.

iv. Supplier Diversity

The Company has a supplier diversity program led by the leadership team, which is executed by its procurement team. Tr., 953:8-11. The Company does not establish specific targets for the number of women and/or minority-owned suppliers participating in the program. Id. Instead, it maintains a goal for the percentage of addressable dollars spent with diverse suppliers, which includes those meeting any of the aforementioned categories. Id. In 2023, the supplier diversity goal was set as follows:

Table 85: 2023 Supplier Diversity Goal

Supplier Diversity Goal	% of Spend
Minimum	17%
Target	19%
Maximum	≥ 21%

Late Filed Ex. 73. However, the Company did not achieve its 2023 goals. Tr.,1592:16-18.

Although the Company does not have goals based on the number of suppliers, it does maintain records of vendor ownership in several categories. Table 86, below, shows the number of women-owned and minority-owned suppliers contracted with the Company in 2022 and 2023. In 2022, the Company contracted with 34 women-owned suppliers

[75]An EJC is defined by General Statutes § 22a-20a(a)(1) as (A) a United States census block group for which 30% or more of the population consists of low-income persons who are not institutionalized and have an income below 200% of the federal poverty level or (B) a distressed municipality, as defined in General Statutes § 32-9p(b).

and 1 minority-owned supplier. Late Filed Ex. 73. In 2023, the number of women-owned suppliers decreased to 29, and the number of minority-owned suppliers increased to three. Id.

Table 86: 2022-2023 Number of Diversity Suppliers

Category	2022 Suppliers	2023 Suppliers
LGBT Owned	2	2
Minority Owned	1	2
Minority Veteran	-	1
Small Business Women Owned	6	3
Veteran Owned	3	4
Women Owned	24	23
Women Minority Owned	2	1
Women Veteran Owned	2	2
Total	**40**	**38**

Late Filed Ex. 73.

Despite its efforts in implementing a supplier diversity program, the Company fell short of its goals in 2023. Tr.,1592:16-18. Because the Company failed to reach its 2023 supplier diversity goals, it established an in-house supplier diversity team. Tr., 1592:16-25. The leadership team in Connecticut is ultimately responsible for achieving supplier diversity goals. Tr., 952: 21-25, 953:8-11. Of concern, and notwithstanding this ultimate responsibility, and the presence of six of those on the leadership team at the hearing, those testifying were unable to provide complete answers related to the program at the hearing. See Tr., 953:8-16.

CWC states that it is actively taking steps to improve in 2024, such as joining the National Minority Supplier Development Council (NMSDC) and piloting a minimum supplier diversity requirement in its capital program. Tr., 1592:16-25 – 1593:1-24. To improve on its efforts for 2024, the Company is participating in the NMSDC, which provides CWC with a list of available suppliers that meet certain diversity criteria. Id. In addition, the Company testified that it is implementing a pilot program to include supplier diversity requirements in its capital programs, although specific targets are yet to be determined. Tr., 1593:1-25. The Company also testified that it is examining all specifications to ensure a minimum percentage of supplier diversity spend is identified during the bidding process. Id. Lastly, the Company is evaluating its materials suppliers to prioritize those recognized as diverse suppliers. Id. Although CWC expects these initiatives to propel the Company toward achieving its supplier diversity goals for 2024, the Company should not assume these programs alone will help the Company reach those goals. Instead, the Authority encourages the Company to continue an active push for diversity.

B. Water Quality

1. Summary

The Company states that the water quality of the Company's distribution systems meets all requirements of the Safe Drinking Water Act. Interrog. Resp. RRU-72. The Company's compliance record for water quality requirements is reported each year in the annual Water Quality Report. The DPH maintains primacy for the regulation and enforcement of drinking water quality, and has codified allowable water quality parameters, including sampling, testing, and reporting requirements, in the State Public Health Code. Compliance with water quality standards under the Public Health Code is noted by the DPH in its routine sanitary inspection reports. Copies of water system reports were submitted by the Company. Interrog. Resp. RRU-73. The Company also provided the Authority with the status of actions taken to achieve compliance with any of the reporting requirements and recommendations. Interrog. Resp. RRU-74.

CWC stated that the proposed regulations that pose the potential for greatest impact and cost are the revised Lead and Copper Rule (discussed above in Section VIII.G.2, Lead Service Line Replacement Programs) and any maximum contaminant level (MCL) limits for PFAS that could be implemented by either the DPH or the EPA. Interrog. Resp. RRU-72. PFAS are currently regulated in Connecticut at a health advisory level of 70 ppt (combination of 5 primary compounds of the PFAS family).

The DPH has requested that the Company conduct an inventory assessment of its sources of supply to determine potential risk of contamination. CWC conducted a risk assessment of their sources of supply and has completed testing on all sites, as well as all surface water supplies and reported results to the DPH. CWC stated that the extent and ultimate cost of any treatment will depend on what PFAS standards level or levels are established by state or federal agencies. Interrog. Resp. RRU-72.

2. PFAS

PFAS are a family of synthetic chemicals that have unique chemical and physical properties that make them highly stable and resistant to degradation in the environment. PFAS have entered water systems, and consumption of these chemicals can result in adverse health effects such as increased risks of cardiovascular disease and cancer. OCC Brief, p. 22. Most recently, on April 10, 2024, the federal EPA announced the new rule regulating PFAS.[76] The new rule, which is effective June 25, 2024, sets new legally enforceable levels of PFAS in drinking water as follows:

a. Perfluorooctanoic Acid (PFOA) MCL = 4.0 nanograms per liter or parts per trillion (ng/L or ppt)

b. Perfluorooctanesulfonic Acid (PFOS) MCL = 4.0 ng/L

[76] See EPA News Release, Biden-Harris Administration Finalizes First Ever National Drinking Water Standard to Protect 100M People from PFAS Pollution, (April 10, 2021), available at https://www.epa.gov/newsreleases/biden-harris-administration-finalizes-first-ever-national-drinking-water-standard.

c. Perfluorohexane Sulfonic Acid (PFHxS) MCL = 10 ng/L

d. Perfluorononanoic Acid (PFNA) MCL = 10 ng/L

e. Hexafluoropropylene Oxide Dimer Acid (HFPO-DA MCL) = 10 ng/L.

PFAS National Primary Drinking Water Regulation, 89 Fed. Reg. 32,532, 32,577, 32,581 (Apr. 26, 2024), available at https://www.govinfo.gov/content/pkg/FR-2024-04-26/pdf/2024-07773.pdf. The rule has been finalized and all public water systems are required to comply with its implementation as of the effective date. The Company proposed several new PFAS remediation projects to meet both the DPH action levels and recently released EPA PFAS rules.

The Company has proactively worked with the DPH to conduct sampling at all of its sources/entry points for emerging contaminants, specifically for PFAS. Gavrilovic PFT, pp. 16-17. CWC collected over 140 samples to understand PFAS presence, inform customers, and plan for future requirements. Id. In 2019, CWC conducted a PFAS risk assessment of land near water sources and developed a plan that prioritized sample collection from vulnerable water sources. Id., p. 17. The Company also began testing surface drinking water for PFAS; no PFAS compounds were detected. In 2020 and 2021, CWC conducted testing of groundwater sources (wells). Id. The tests revealed the presence of PFAS in Avon and Clinton wells, and the wells were taken out of service. Id. PFAS was also found in three wells in the Beechwood system in Killingworth, where each source exceeded the DPH action level of 70 parts per trillion (ppt). Id. The source of PFAS was identified at the Town of Killingworth Offices and Fire Department (Town), where the Town used PFAS-laden fire-fighting foam for drills. Gavrilovic PFT, p. 17. The Company works with the Town to resolve PFAS issues. Id. Also, CWC installed a treatment to address PFAS in the Beechwood system. Id. To date, the Company has identified 40 wells in 19 water systems exceeding EPA's proposed MCLs. Id., pp. 17-18. CWC also identified 15 additional wells with levels at 75% or more of the draft EPA levels that are in danger of exceeding MCLs in the future. Id.

CWC has begun to undertake projects designed to remediate PFAS. Gavrilovic PFT, pp. 17-19. Some of CWC's projects are still in the design phase; however, three projects identified in the Application have designated completion dates for late 2024. See Application, Sch. F-7.0. The Company requested that the projects in the following table be put in rate base.

Table 87: PFAS Projects with 2024 Completion Dates

Project Number	Project Name	Cost ($)	Estimated In-Service Date
BU6162788	Avon Well 3 Treatment	1,000,000	12/31/2024
BU6162955	PFAS Treatment at Legend Hill	50,000	9/1/2024
BU6162956	PFAS Treatment at Westchester East	100,000	9/1/2024

Late Filed Ex. 28.

OCC recommends that no plant enter rate base for the proposed Rate Year unless it is in service as of February 9, 2024; thus, OCC is requesting that any PFAS remediation projects, as outlined in Late Filed Exhibit 28, not be allowed in rate base until they are used and useful. This recommended exclusion is not intended to discourage needed investments to address PFAS; in fact, OCC recognizes that in addition to the three above-referenced PFAS remediation projects, the Company will likely have to make significant incremental capital investments in further PFAS remediation efforts over the next few years, based on the anticipated federal standards. OCC Brief, pp. 23-24.

The Authority will review and authorize recovery for completed projects for PFAS treatment when the Company demonstrates that such projects are used and useful and the associated costs are prudently incurred.

3. Water Quantity/Margins of Safety

It is critical to Connecticut's public health that water companies within the state have an adequate supply of drinking water. The ratio of water supply capacity to demand is used to determine a water system's ability to meet long-term demands on the system. Generally, a ratio of 1.15 or higher is considered adequate. This ratio is expressed as a margin of safety (MOS), which is defined as "the unitless ratio of available water to demand." Conn. Agencies Regs. § 25-32d-1a (22). CWC provided documentation of its MOS for each water system within four regions: Western, Northern, Eastern, and Shoreline. Currently, most of the systems have an MOS above 1.15 and existing supplies meet each water system maximum daily demand (MDD). However, three systems, Soundview (1.04), Jensen Beechwood (1.05), and Spice Hill (1.04), have an MOS below 1.15. Interrog. Resp. RRU-82, Ex. 1. In 2023, Soundview was interconnected with Miami Beach Water System (Miami Beach) and the Company expects the MOS to improve as the interconnection provides additional water supply. Interrog. Resp. RRU-82. The Company also estimates a projected water supply shortfall by 2040 for six systems: Avon (0.96); Heritage Village (0.95); Hebron Center (1.05); Lakewood (0.98); Soundview (1.1); and Spice Hill (1.0). Interrog. Resp. RRU-82, Ex. 1.

The Company produced an average of 8,092,208 gallons of water in 2021-2022. See Interrog. Resp. RRU-103. Between January and September of 2023, CWC produced over 6,028,255 gallons of water, putting the Company on pace for similar production in 2023. Id. CWC avers that each of its water systems have sufficient water storage within the distribution water system to meet average daily demand (ADD), and where fire protection is provided, sufficient storage to meet fire flow demands. Interrog. Resp. RRU-104. However, the Authority notes that ADD is not the same as MDD. The Company should review and provide its water storage plan for MDD in conjunction with its next rate case filing. Additionally, as part of the same filing, for each system with a current or predicted shortfall, the Company should address its plans to increase water supply or reduce demands for the above systems to make sure that the systems can provide sustainable sources of supply for customers.

4. Interconnections and Purchased Water

CWC has 12 interconnections with the following water companies: four interconnections with the Metropolitan District (MDC); and one interconnection with each

of the following – Aquarion, Town of Tolland, Regional Water Authority, Town of Manchester, City of Waterbury, Town of Putnam, Hazardville Water Company (Hazardville), and Town of Tolland. Interrog. Resp. RRU-77.

The Company purchased 784,430,000 gallons of water in 2021, 765,705,000 in 2022, and 703,038 gallons in 2023. Late File Ex. 39. As addressed in Section VI.A.5, Purchased Water, above, the Authority disallows $27,244 in purchased water costs to reflect the reduction in the total water volume for the Rate Year. The total allowed volume is based on the most recent three-year average to reflect the impact of both rainfall and conservation activities.

5. Water Conservation Plan

CWC provided a water conservation program (WCP) along with its rate case. The Company's WCP provides many options such as notifications to customers when there is an increase in their historic water usage, offers high bill investigations at a customer's premises, and makes conservation kits available for customers with high water bills and/or in areas with water supply problems. Application, Ex. A.4, p. 6; Sch. H-3.0. The Company introduced a leak detection program to locate leaks and a program for customer conservation, including water conservation kits, educational programs, and conservation rates. Patla PFT, p. 12. Additionally, CWC notifies customers when there is an increase in the historic water usage and developed signage in areas with impactful irrigation use. Application, Ex. A.4, pp. 5-6, Sch. H-3.0.

6. Leak Management

a. Non-Revenue Water

Non-revenue water (NRW) is the difference between the volume of water produced or purchased by a company's water system (System Delivery) and the volume of water delivered and billed to its customers (Demand). According to NARUC's widely adopted recommendation, NRW for each water system should not exceed 15%. NRW is detrimental for several reasons. First, NRW is primarily attributable to leaks and, therefore, constitutes an unnecessary loss of a limited resource. Second, it imposes additional costs on ratepayers because NRW consumes resources, including energy and treatment chemicals, that result in increased operating costs. Consequently, the Authority uses the NARUC recommendation as a proxy for efficient management of a water system. Consequently, NRW exceeding 15% will indicate inefficient and imprudent system operation, unless the Company can provide a reasonable justification for the excess NRW. Importantly, the Company committed to reducing NRW "to a goal of not more than 14% overall NRW in each system by year-end 2020." Merger Docket Decision, p. 32.

Here, the Company provided historical NRW for each of its water systems through the Test Year. Application, Sch. G-6.0; Interrog. Resp. RRU-84, Ex 1; Interrog. Resp. RRU-462, Ex 1. During the Test Year, 18 of the Company's water systems had NRW exceeding 15%. Interrog. Resp. RRU-462, Ex 1. The Company did not provide any explanation or justification for excess NRW in any of these systems but, instead, provided generalized descriptions of its leak detection efforts. Interrog. Resp. RRU-84. As shown

in the table below, based on a pro forma cost of $796 per million gallons, the Company determined that the cost of excess NRW was $84,477. Id.

Table 88: Cost of NRW above 15%

System	Cost of Excess NRW ($)
Stafford	7,700
Amston Lake	1,228
London Park	488
Marlborough Gardens	163
Reservoir Heights	468
Gallup	4,862
Thompson	1,114
Guilford	58,371
Chester	4,028
Beechwood	264
Chester Village West	56
Lake Hayward	1,387
Legend Hill	99
Rivercrest	156
Soundview	1,294
Stagecoach	158
Central	2,364
Hillcrest	273
Total	**84,477**

Interrog. Resp. RRU-462, Ex. 1.

The Company did not provide any estimates or projections for Rate Year NRW. Nonetheless, the Company claims that it has met this 14% commitment. Application, Ex. A.4, p. 15. Notably, CWC calculated NRW by aggregating all of its water systems. Id. ("Our combined NRW across all systems has remained at approximately 14%."). However, the Company did not cite any specific evidence to support this conclusion. Further, NRW should be calculated for each standalone system because active and efficient management of a water system requires NRW to be examined at a system level so that areas of loss can be identified and corrected. CWC's merger commitment was to reduce NRW to 14% in each system, not in the aggregate. Merger Docket Decision, p. 32.

As such, the Authority finds that $84,477 is a reasonable estimate of the cost of excess NRW that the Company will incur in the Rate Year. Absent a specific justification for excessive NRW in these 18 systems, the Authority concludes that the cost arises from inefficient operation of the systems and, consequently, will reduce the Company's Rate Year operating expenses by $84,477.

b. Acoustic Leak Detection Monitors

To aid in reducing NRW, the Company installed 1,600 acoustic leak detection monitors prior to 2021 and an additional 109 in 2023 in its Shoreline systems. Interrog. Resp. RRU-66. Of the 109, the first 100 monitors were provided at no charge due to an error by the vendor, and nine additional monitors were purchased by CWC for $21,418. Id. The Company also uses traditional leak detection techniques, such as leak detection equipment, to achieve 14% NRW. The Company continues to validate NRW through 12-month consumption calculations and monthly system delivery trends to discover early leaks. CWC also introduced a production meter testing program to improve meter accuracy. CWC calculated NRW as a combined NRW across all systems. Application, Ex. A.4, pp. 15-16.

The Authority reviewed the impact of installed loggers on NRW reduction and concludes that the loggers are generally a useful tool for leak detection in water deficient areas. Although Connecticut experiences drought conditions, they are not chronic and if a drought occurs during warmer months, Connecticut usually recovers from the drought conditions during cooler months. Moreover, loggers are just one of the tools used for water conservation and leak detection. CWC has other tools that can help to conserve water and reduce NRW, some of which are presented in the Company's WCP. Application, Sch. H-3.0. As such, the Authority recommends that the Company review all options before making expensive investments, including the investment in loggers, moving forward.

From 2021 to 2022, 1,600 monitors avoided a cost of $90,075 and identified 78 leaks. In 2023, with the addition of the new monitors, 1,709 monitors avoided a cost of $55,183 and identified 35 leaks. CWC has demonstrated that nine monitors can be purchased at a cost of $21,418, or $2,379.78 per monitor. Interrog. Resp. RRU-66. Had the Company purchased all 109 monitors (rather than receiving $237,977 in free monitors), it would have spent approximately $259,394.78 for 109 monitors. It is not clear from the evidence that an expense of $259,394.78 to avoid an expense of $55,183 is reasonable or prudent, particularly as that amount was avoided by all 1,709 meters and not simply the 109 newly acquired monitors.

As a prerequisite to cost recovery associated with prospective logger investments, the Authority will require the Company to conduct a cost/benefit analysis of the installation of loggers compared to other leak detection tools or mitigation measures, and to submit the results of such analysis coincident with any rate amendment application through which associated cost recovery is sought.

7. Periodic Meter Testing

To maintain meter effectiveness, a water company must periodically test its meters for accuracy. Meter tests are necessary to determine a meter's accuracy, in order to: (1) ensure that billings to customers are accurate; (2) assist a company in controlling its levels of NRW; and (3) assist customers in reducing their consumption. A water company is required to test all 5/8-inch, 3/4-inch, and 1-inch meters at intervals of eight years and all other size meters at more frequent intervals. Conn. Agencies Regs. § 16-11-88. If a water company meets certain requirements, the Authority may grant a company an

extension. Conn. Agencies Regs. § 16-11-88(1). A water company may also be required to conduct meter testing more frequently as a result of a customer request or by order of the Authority. Conn. Agencies Regs. § 16-11-89. The Company submits its periodic meter testing reports on an annual basis to the Authority. Conn. Agencies Regs. § 16-11-86.

On July 18, 2022, CWC filed with the Authority a request for a modified meter testing schedule for meter testing between 2020 and 2022. Interrog. Resp. RRU-79, Ex. 1 and 2. The Company proposed modifications to its Annual Meter Testing due to the COVID-19 pandemic that became a public health emergency. Id. CWC proposed the following for the Company's meter testing in 2020, 2021, 2022, and going forward to align with the requirements in subsequent years:

(1) Timely completion of testing in meters located outside in vaults or meter pits.

(2) Meter testing, with additional safety protocols in place in 2020, 2021, and the first quarter of 2022.

(3) Completion of all outstanding required tests performed in 2022 and in future years, provided customers allow CWC personnel access to their property.

(4) Testing for meters due in 2020, 2021, 2022, and subsequent years will be completed on a rolling basis consistent with resource availability that will prioritize 5/8-inch customer meters, in accordance with the plan.

(5) Annual meter testing data reports will restart and be filed with the Authority.

(6) The revised meter testing schedule allows the Company to make incremental adjustments in the next seven years to address the delays associated with COVID-19.

(7) The Company will be in full compliance with all required testing due by 2028 and will then resume the regular schedule in 2029 and thereafter.

Interrog. Resp. RRU-79, Ex. 1, Ex. 2.

Table 89: Revised Meter Schedule

Year	Prior Year Tests	Current Year Tests	Balance Carried Over
2022	All remaining 2020 meter tests	10% of meter tests required for 2021	Balance of 2021 meter tests rolls to 2023
2023	All remaining 2021 meter tests	25% of meter tests required for 2022	Balance of 2022 meter tests rolls to 2024
2024	All remaining 2022 meter tests	70% of meter tests required for 2023	Balance of 2023 meter tests rolls to 2025
2025	All remaining 2023 meter tests	80% of meter tests required for 2024	Balance of 2024 meter tests rolls to 2026
2026	All remaining 2024 meter tests	100% of meter tests required for 2025	Balance of 2026 meter tests rolls to 2027
2027	All remaining 2026 meter tests	85% of meter tests required for 2027	Balance of 2027 meter tests rolls to 2028
2028	All remaining 2027 meter tests	90% of meter tests required for 2028	Balance of 2028 meter tests rolls to 2029
2029 and thereafter: Resume normal schedule for 16-year testing cycle			

Interrog. Resp. RRU-79, Ex. 2, p. 4.

The Company stated that the modified schedule will allow CWC's team to work safely and efficiently. Id., p. 3. A more aggressive approach would require additional resources and increased costs. Id. The Authority approved the modified plan on November 28, 2022. Interrog. Resp. RRU-79, Ex. 1.

The Company is on a 16-year meter testing cycle. In 2023, the Company tested a total of 392 meters. Late Filed Ex. 4. CWC submitted reports of accuracy of tested meters in 2023; the percentage of meters tested that registered between 96-102% in accuracy was 91.6% through December 31, 2023. Id. The Company tested significantly more meters in prior years (e.g., 7,148 in 2021 and 2,024 in 2022). Interrog. Resp. RRU-460. It is unclear why the Company tested so few meters in 2023. Under the approved schedule, the Company was required to complete all remaining 2021 meter tests and 25% of the meter tests required for 2022 in the 2023 calendar year. Interrog. Resp. RRU-79, Ex. 2. From the information provided, it is not clear that the Company will be able to remain on track to resume its 16-year cycle in 2029 and thereafter given the steep decrease in the number of meters tested.

The Authority previously reviewed the modifications to the Company's plan and allowed the Company to modify the schedule for its Annual Meter Testing plan. However, such modifications were not intended to allow the Company to slip from its overall plan objective to resume the 16-year cycle in 2029 and thereafter. As such, the Authority will require any changes to the plan approved on November 28, 2022, to be submitted in conjunction with its Annual Meter Testing Report to the Authority in the year the periodic meter testing will be impacted. The Authority will strongly disfavor adjustments that would render the objective of resuming a 16-year cycle in 2029 unfeasible.

8. Streamflow Gauges

In this Decision, the Authority does not approve additional funding for streamflow gauges beyond the eight years previously approved in the Authority's July 2021 CWC Rate Case Decision. In 2021, CWC committed to funding the annual operating costs of four existing United States Geological Survey (USGS) streamflow gauges located in Mount Hope, Indian River, Naugatuck, and Broad Brook streams for a period of eight years beginning in July of 2020. July 2021 CWC Rate Case Decision, p. 58. The annual operating cost of each gauge is $16,000, for a total of $64,000 per year for four gauges. Id. The Merger Docket Decision stated that CWC funding of the streamflow gauges would end after the expiration of the eight-year commitment, i.e., 2028. Merger Docket Decision, p. 19; Tr., 1081:21-25. The Company testified that is not planning to extend funding for the four gauges beyond 2028. Tr., 1082:14-17.

DEEP proposed that CWC continue funding the streamflow gauges beyond the expiration of the eight years. DEEP Brief, p. 2. DEEP argued that the streamflow gauges benefit CWC's customers by ensuring that there is a sustainable and safe water supply. Id.

Based on the evidence in this record, the Authority does not approve CWC's use of ratepayer funding for the four gauges, as an operating expense or capital cost. However, as part of the Company's next rate case application, or as part of the Company's February 28, 2027 RAM filing, whichever is earlier, the Company is directed to solicit the input of the Connecticut Water Planning Council, DEEP, OCC, and other stakeholders regarding whether and how the streamflow gauges will be funded after the merger commitment expires in 2028. Such filing shall reflect the statutory obligation to consider "water conservation" and "the prudent management of the natural environment" in reaching a proposed funding mechanism recommendation, General Statutes § 16-19e(a)(3), and shall detail any areas of non-consensus from the consulted stakeholders.

9. Rules and Regulations

The Company proposes the following changes to its Rules and Regulations:

(1) Include sewer services due to Hazardville Water and Sewer Company merger and consolidation with CWC. Application, Sch. H-2.6.03, pp. 5-7.

(2) Add that the water pressure should be between 25-125 pounds per square inch (PSI), otherwise the Company will be responsible for the installation of equipment to add or reduce pressure if the pressure is below 25 PSI or above 125 PSI. Id., p. 9.

(3) Add that all service lines must be inspected by the Company prior to burying. For services 4-inch and greater in diameter, CWC will witness the pressure test conducted in accordance with AWWA Standard C600-17, Section 5 and test the water quality before activation. Id., pp. 12-13.

(4) Add that the meter should be located within 3-feet of the cellar wall or edge of slab at a point that will control the entire supply, exclusive of fire lines to the premises. Id., p. 16.

(5) Remove deposit to guarantee payment of bills from any Customer or prospective customer. Id., p. 20.

(6) Add that the customer is responsible for the billing and cost of water due to household leaks, and that the customer may apply for a leak adjustment, if the customer fulfills certain requirements. Id., p. 21.

The Authority approves CWC's proposed changes to its Rules and Regulations, subject to the modifications discussed in this section.

X. CONCLUSION AND ORDERS

A. Conclusion

The Authority approves an annual revenue requirement for the Company of $124,700,031 for the Rate Year, July 1, 2024 – June 30, 2025. The Company may recover an additional $1,115,803 in executive compensation provided the Company achieves certain performance targets. In addition, the Authority makes determinations on various issues including cost allocation, rate design, revenue adjustment mechanisms, and customer service matters.

B. Orders

For Orders requiring a filing, the Company shall file an electronic version through the Authority's website at www.ct.gov/pura. Submissions filed in compliance with the Authority's Orders must be identified by: Docket Number, Title, and Order Number. Compliance with orders shall commence and continue as indicated in each specific Order or until the Company requests and the Authority approves that the Company's compliance is no longer required after a certain date. Unless otherwise provided or determined by the Authority, filings submitted in compliance with an order shall constitute satisfaction of the Order. Filings requiring Authority approval must be filed as a motion.

1. No later than 10 days after issuance of the Decision, the Company shall submit as compliance a revised single year rate design plan consistent with the Authority's findings contained in the Decision, including revised tariffs and revenue proof.

2. No later than 10 days after the Decision, the Company shall submit as compliance a redlined and clean version of its amended Rules and Regulations that incorporates the changes discussed in this Decision, including language to address large leaks and the removal of all references to the collection of security deposits.

3. No later than 10 days after the Decision, the Company shall submit as compliance a redlined and clean version of its written policies for customer service representatives revised to formally include the outlined procedures for addressing high bill complaints, as discussed in Section IX.A.6, High-Bill Complaints.

4. No later than 10 days after the Decision, the Company shall submit as compliance a filing that affirms its commitment to complying with Conn. Agencies Regs. § 16-11-71, as well as a clean and redlined version of any policies, procedures, or training documents revised to demonstrate compliance with the applicable regulation.

5. No later than 10 days after the Decision, the Authority directs the Company to initiate a letter of intent for lien placement only on residential accounts with outstanding balances of $3,000 or more. The Company shall also submit as compliance a written standard operating protocol that provides guidelines to its staff to identify and select accounts for the placement of liens.

6. No later than 10 days after the Decision, the Company shall resume its Pilot Program for lead service line replacements, as discussed in Section VIII.G.2, Lead Service Line Replacement Programs, until such time as the Company has completed its merger commitment by replacing 30 service lines in total with no cost to customers or 60 service lines with a 50% split with the customers or an equivalent combination of fully and partially paid replacements. No later than February 1, 2025, and annually thereafter, the Company shall submit as compliance in this proceeding a progress report regarding the implementation of the Pilot Program.

7. No later than July 1, 2024, the Company shall cease the imposition of late payment charges on customers who are participating in an assistance program. In the event that the customer defaults on a payment plan while participating in an assistance program and is subsequently re-enrolled, CWC shall waive any LPCs incurred during the customer's default period.

8. No later than July 1, 2024, the Company shall expand its personnel training offerings beyond implicit bias training and provide offerings including, but not limited to, other diversity, equity, and inclusion training, such as allyship training.

9. No later than July 1, 2024, the Company shall implement a system to diligently track all instances where a contractor breaches a construction contract, with a particular focus on violations that would trigger the application of liquidated damages clauses. This tracking system shall, at a minimum, capture the following information:

    a. date of contract award;
    b. name of the contractor;
    c. description of the breached provision;
    d. specific details of the violation; and
    e. actions taken by the Company in response to the violation (including justifications for not enforcing liquidated damages)

    The Company shall provide a report demonstrating its compliance with the above tracking mechanism as an exhibit in the Company's next rate case application.

10. No later than August 30, 2024, Company shall submit for Authority review and approval the data for each year from 2018 through 2023 required to calculate the baseline for each of the performance metrics identified in Section VI.A.2.c.ii, Performance Metrics.

11. No later than February 1, 2025, and annually thereafter, until the Company's next rate case application, CWC shall file an Excel worksheet listing all tanks in each of its service regions/divisions and the dates when each tank was last painted, and power washed.

12. No later than February 1, 2025, annually thereafter, and until the Company's next rate case application, CWC shall file an Excel worksheet listing all wells in each of its service regions/divisions and the dates when each well's last redevelopment project was completed.

13. No later than February 28, 2025, and annually thereafter, the Company shall submit a compliance filing that sets forth the following information:

    a. the total number of customers enrolled in WRAP on December 31 of the prior year, separated by tiers;

    b. an unlocked an Excel worksheet listing the customers in each tier (without identifying information), in the following format:

Anonymized Customer ID #	Tier	Volumetric usage	Total Discount	Volumetric Discount	Number of Months Enrolled

    c. the number of customers who were enrolled at any point in the prior calendar year that subsequently left the program; and

    d. the number of customers who switched between tiers during the calendar year.

14. Beginning on February 28, 2025, and annually thereafter, the Company shall file a motion for review and approval of the executive compensation that should be included in the Company's allowed revenue and recovered through the RAM. The Company shall provide detailed information regarding CWC's performance on the metrics during the preceding calendar year, including an unlocked working Excel spreadsheet containing the data on which the Company relied in making its determination.

15. No later than February 28, 2025, and annually thereafter, the Company shall submit the following information as part of its annual RAM filing:

    a. the revenue shortfall in a given calendar year resulting from the provision of the WRAP that the Company believes to be prudently incurred as part of its annual RAM filing;

b. the amount of the allocated SJWG executive compensation that ratepayers are paying through base distribution rates and through the RAM, or conversely how much is being returned to ratepayers through the RAM;

c. the amount of the CWC officer compensation that ratepayers are paying through base distribution rates and through the RAM, or conversely how much is being returned to ratepayers through the RAM;

d. a reconciliation of late payment charges and income on utility plant leased to others; and

e. the amount of the allocated executive compensation that ratepayers are paying through base distribution rates and through the RAM, or conversely how much is being returned to ratepayers through the RAM, relating to the Company's performance during the preceding calendar year on metrics identified in Section VI.A.2.c.ii, Performance Metrics. The compliance filing shall include an unlocked workable Excel spreadsheet providing the data on which the Company relied in making its determination.

16. Beginning on March 31, 2025, and annually thereafter, through March 31, 2028, the Company shall provide an annual report, showing a comparison of actual capital spending to date and the projections within the Company's Five-Year Capital Plan filed in this proceeding.

17. In conjunction with its Annual Meter Testing Report, to be filed in this proceeding, the Company shall submit for Authority review and approval any proposed modifications to the Annual Meter Testing Plan as initially approved on November 28, 2022.

18. Prior to the installation of loggers, the Company shall (a) conduct a cost/benefit analysis of the installation of loggers compared to other leak detection tools or mitigation measures, and (b) file as compliance in this proceeding the results of such analysis as well as in any application through which associated cost recovery is sought.

19. At least thirty days prior to commencing its lead service line replacement program discussed in Section VIII.G.2.d, EPA Lead Service Line Replacement Program Proposal, the Company shall submit a compliance filing containing its customer agreement and related materials. After beginning the LSLR Program, the Company is directed to submit annually, on or before February 1, a compliance filing regarding the LSLR Program. This submission is to include, at a minimum: the number of Company-owned lines replaced by CWC in the previous calendar year; the number of customer-side lines replaced in the previous calendar year; and information regarding the cost of such replacements and the associated funding source (such as the amount of DWSRF funds applied). The Company is approved for deferred accounting for up to $5.8 million in program costs through the submission of its next application to amend distribution rates.

20. If the Company has not filed an application to amend its distribution rates by July 1, 2027, the Company is directed to submit, as part of its February 28, 2028 RAM filing, an accounting of any overcollection as a result of the expiration of the three-year amortization period for the expenses detailed in Table 54, Amortization of Deferred Expenses, as well as amended distribution rates to reflect the expired amortization expenses.

21. In the Company's next application to amend its distribution rates, or as part of the Company's February 28, 2027 RAM filing, whichever is earlier, the Company shall include a recommendation regarding a potential funding mechanism for the four streamflow gauges affected by the 2028 expiration of the Merger commitment, after soliciting and reflecting the input of the Connecticut Water Planning Council, DEEP, OCC, and other stakeholders.

22. In the Company's next application to amend its distribution rates, CWC shall include the following:

    a. A report detailing the following information from the date of the Decision through the subsequent application's test year: (1) all procurement decisions exceeding $50,000; (2) the total number of procurement decision exceeding $50,000; (3) the number and percentage of those decisions utilizing bid waivers; and (4) a detailed justification for each instance where a bid waiver was employed;

    b. All information necessary to accurately quantify the EADIT balance for cost of removal;

    c. A new ACOSS as prescribed herein;

    d. The number of customers enrolled in WRAP to-date and a report demonstrating CWC's actions taken to increase program participation each year since the Decision;

    e. Data and analysis of: (1) available demographic information regarding the customers who incur LPCs, such as the customer class, whether the customer is enrolled in a financial assistance program, and whether it is a multifamily or single-family premise, if applicable; (2) the average, maximum, and minimum LPCs incurred by customers, by class, in each year for ten calendar years through the test year in that proceeding; (3) the total amount of LPCs incurred each year, by customer class; (4) a breakdown of the amount CWC spends per year to charge and collect LPCs; and (5) an assessment of the impact LPCs have on uncollectibles for each customer class;

    f. Data and analysis that evaluates the efficacy of liens at the revised threshold for residential customers in reducing its uncollectibles, as addressed in Section IX.A.7, Collections Practices, including at a minimum: (1) the number of liens placed for the test year and five preceding calendar years; (2) for each lien placed, the total cost of placing each lien, the amount

recovered and the associated number of accounts that were satisfied, the number of attempts to contact the customer, with a description of the methods attempted and any contact made, and a description of the efforts made to recover funds prior to placing liens, such as enrolling the customer in an assistance program or payment agreement;

g. Data and analysis demonstrating the Company's goals and targets for each diversity, equity, and inclusion initiative, along with information regarding how the Company defines and measures success, detail regarding the strategies employed, planned improvements and demographic data of its workforce and leadership team, as discussed in Section IX.A.8.b, DEI Initiatives;

h. A report on any findings and remedial actions undertaken as a result of the Environmental Justice Community focus groups or surveys, as discussed in Section IX.A.8.b.iii, Environmental Justice Communities;

i. If the Company transitions to monthly billing prior to its application submission, a comprehensive lead-lag study to support its cash working capital calculations; and

j. If the Company has not incorporated a feature into its customer information system prior to its application submission that allows the Company to track the number of customers whose meters have not been read for specific periods, an implementation timeline and cost estimate for making such updates.

DOCKET NO. 23-08-32 **APPLICATION OF CONNECTICUT WATER COMPANY TO AMEND ITS RATE SCHEDULES**

This Decision is adopted by the following Commissioners:

Marissa P. Gillett

John W. Betkoski, III

Michael A. Caron

CERTIFICATE OF SERVICE

The foregoing is a true and correct copy of the Decision issued by the Public Utilities Regulatory Authority, State of Connecticut, and was forwarded by Certified Mail to all parties of record in this proceeding on the date indicated.

Jeffrey R. Gaudiosi, Esq.
Executive Secretary
Public Utilities Regulatory Authority

June 28, 2024
Date