Exhibit No.: _______________
Issue(s): Rate of Return (ROR)/Capital Structure
Witness/Type of Exhibit: Murray/Surrebuttal
Sponsoring Party: Public Counsel
Case No.: WR-2024-0104

SURREBUTTAL TESTIMONY

OF

DAVID MURRAY

Submitted on Behalf of the Office of the Public Counsel

LIBERTY UTILITIES (MISSOURI WATER) CORP.
D/B/A LIBERTY UTILITIES'

FILE NO. WR-2024-0104

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Denotes Highly Confidential Information that has been redacted.

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Denotes Confidential Information that has been redacted.

October 24, 2024

PUBLIC

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OF

DAVID MURRAY

LIBERTY UTILITIES (Missouri Water) LLC
d/b/a Liberty

FILE NO. WR-2024-0104

Q. Please state your name and business address.

A. My name is David Murray and my business address is P.O. Box 2230, Jefferson City, Missouri 65102.

Q. Are you the same David Murray who previously filed direct and rebuttal testimony in this case?

A. Yes.

Q. What is the purpose of your testimony?

A. This testimony will respond to the rebuttal testimony of Liberty Utilities (Missouri Water) LLC ("Liberty Water") witness, John Cochrane, as it relates to rate of return ("ROR"), which encompasses capital structure, return on common equity ("ROE") and cost of debt.

Q. How will you approach the presentation of your surrebuttal testimony?

A. First, I will address Mr. Cochrane's criticisms about my cost of long-term debt recommendation. Next, I will address his rebuttal testimony regarding my recommended capital structure. Finally, I'll respond to his critique of my estimated cost of common equity ("COE") and its relation to my recommended authorized ROE.

COST OF LONG-TERM DEBT

Q. Mr. Cochrane testified that he does not understand your statement that LUCo's embedded cost of long-term debt should be adopted "because it is based on all third-party debt issued by LUCo, indirectly by LUF and legacy operating subsidiary debt."[1] Can you explain what you meant by this statement?

A. Yes. My recommended embedded cost of long-term debt is based on terms and costs (e.g. interest rates and issuance expenses) required on third-party debt issuances, which were a function of arms-length transactions. I did not include any affiliate-financing agreements in my recommended embedded cost of long-term debt. In contrast, Mr. Cochrane's embedded cost of long-term debt recommendation is based entirely on inter-company Promissory Notes (*i.e.* affiliate-financing agreements).

Q. Mr. Cochrane testified that you did not cite any Missouri Public Service Commission ("Commission") Report & Orders to support your embedded cost of long-term debt recommendation.[2] Has the Commission adopted Liberty Utilities Co.'s ("LUCo") embedded cost of long-term debt and capital structure in past rate cases involving Liberty Midstates and its Missouri affiliates?

A. Yes. As I cited in my rebuttal testimony, the Commission adopted LUCo's embedded cost of long-term debt and capital structure in the following cases:

(1) Liberty Midstates, Case No. GR-2014-0152;

(2) Liberty Utilities (Missouri Water) Corp. ("Liberty Water"), Case No. WR-2018-0170; and

(3) The Empire District Electric Company, Case No. ER-2019-0374.[3]

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[1] Cochrane Rebuttal, p. 22, ln. 18 – p. 23, ln. 8..
[2] *Id.*
[3] Murray Rebuttal, p. 19, lns. 12-24.

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Q. Mr. Cochrane testified that the terms of Liberty Water's $13 million affiliate Promissory Note issued on April 1, 2024 "…reflected the current market costs of LUCo issuing new debt in the market on April 1, 2024."[4] Did LUCo issue debt on April 1, 2024, the day Liberty Water executed affiliate Promissory Notes with LUCo?

A. No.

Q. When did LUCo last issue debt to third party investors?

A. January 12, 2024.

Q. Did LUCo issue long-term debt to third-party investors when Liberty Water executed its $5.715 million promissory note on May 14, 2021, with LUCo?

A. No.

Q. How did LUCo determine the interest rate it charged Liberty Water for the $5.715 million promissory note?

A. LUCo charged the same rate to Liberty Water as LUCo's cost for its $600 million long-term bond issued on September 23, 2020 (*see* Schedule DM-S-1).

Q. How did LUCo determine the interest rate it charged Liberty Water for the $12 million promissory note executed on April 1, 2024?[5]

A. As I testified in my rebuttal testimony, J.P. Morgan provided APUC an "indicative pricing sheet" to estimate a possible price for a range of tenors if LUCo issued bonds as of that date.[6] LUCo did not issue bonds on the same date it executed the affiliate Promissory Notes with Liberty Water.

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[4] Cochrane Rebuttal, p. 24, lns. 15-16.
[5] Mr. Cochrane testifies that this promissory note was in the amount of $13 million, but the executed promissory note filed in Case No. WF-2024-0135 was for $12 million.
[6] Murray Rebuttal, p. 5, lns. 10-14.

Q. Does Mr. Cochrane's rebuttal testimony identify another promissory note?

A. Yes. Mr. Cochrane's Rebuttal Schedule JC-2 identifies an additional $3.5 million promissory note, which was apparently issued on July 1, 2024.

Q. Did Liberty Water file the final executed version of this note in File No. WF-2024-0135 as the Commission ordered it to do when conditionally approving Liberty Water's requested authority to issue the affiliate promissory notes?

A. No.

Q. Was this promissory note issued before the updated test year in this case?

A. No. The updated test year is April 30, 2024.

Q. What about the reclassification of $13 million of money pool advances to common equity?

A. According to Note 3 to Mr. Cochrane's Schedule JC-1, this reclassification did not occur until July 2024.

Q. Borrowing a page from Mr. Cochrane's accusations about your analysis being end-result oriented, what is obvious from Mr. Cochrane's post test-year adjustments to Liberty Water's capital balances?

A. APUC is adjusting its internal books to achieve the approximate 53% common equity ratio it consistently requests for purposes of setting an authorized ROR. These adjustments are consistent with APUC's internal accounting procedures which states the following about the management of its utility subsidiaries' capital structures:

> ** ____
> ____ **

According to APUC's internal procedure, if the Commission would set Liberty Water's allowed ROR based on a 47.5% common equity ratio, then in order to achieve this result, APUC would simply reclassify $5.976 million of money pool advances to an internal promissory note and $10.524 million of money pool balances to common equity.

Q. If the Commission were to require Liberty Water to adhere to its own requested update period of April 30, 2024, and adopt Liberty Water's proposal to use its internally assigned capital structure, what capital structure would be used to set its authorized ROR?

A. As shown in column (1) on Mr. Cochrane's Schedule JC-1, the Commission would set Liberty Water's authorized ROR based on a 23.93% common equity ratio.

Q. Do you recommend the Commission do so?

A. No. However, I would be remis not to highlight this technicality considering Liberty Water's and Liberty Midstate's counsel's adamant argument related to OPC's request to review APUC's Strategic Review Committee materials. In response to the OPC's Motion to Compel for access to this information, Liberty Midstates repeatedly emphasized that the Strategic Review Committee information would not reasonably lead to the discovery of relevant information because the matters considered by the Strategic Review Committee are likely to occur after the ordered updated test year of December 31, 2023, in that rate case. Although OPC did not file a Motion to Compel in this rate case, OPC had requested the same information in this case. Consequently, because the ordered update period for the Liberty Water rate case is April 30, 2024, which is before the anticipated closing of the sale of APUC's non-regulated operations, the same argument would apply.

The Commission's Order Denying [OPC's] Motion to Compel repeated Liberty Midstates' argument that "the information regarding the potential future sale of an unregulated affiliate cannot have any logical impact on an historical test year. Neither OPC's Motion nor its Reply addressed the test year." The Commission, as part of its decision to deny OPC's Motion to Compel, stated the following:

> The Commission is not persuaded by OPC's argument that APUC's Strategic Review Committee materials are relevant to Liberty Midstates' rate proceeding. The rationales offered by the Motion and the Reply do not address the test year, and do not address the fact that Liberty Midstates' proposed cost of capital and proposed rate of return are based on that test year.[7]

[7] Case No. GR-2024-0106, Order Denying Motion to Compel, August 23, 2024, p. 4.

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While the OPC stands by its position that the requested information would have likely lead to the discovery of relevant information related to APUC's view of the risk and return profile of its remaining regulated utility operations after the potential sale of its non-regulated operations, the fact that one of Liberty Midstates' main arguments about the irrelevance of this information was the fact that the transaction would not occur until after the updated test year, highlights the hypocrisy of Liberty Water's fairly liberal use of pro-forma adjustments after the ordered update period in this case.

Q. Mr. Cochrane criticizes your inclusion of utility operating company legacy third-party debt in your recommended embedded cost of long-term debt. Can you explain his issue with this inclusion?

A. I can. Mr. Cochrane states that, in some instances, the operating subsidiaries' legacy debt was issued before APUC acquired Liberty Water, preventing LUCo from using proceeds from these debt issuances to invest in Liberty Water.[8] Therefore, he believes that the cost of this legacy debt should not be included in the determination of an embedded cost of long-term debt for Liberty Water.

Q. If you excluded LUCo's operating subsidiaries' legacy debt issuances from your calculation of LUCo's embedded cost of long-term debt, what was LUCo's cost of long-term debt as of March 31, 2024?

A. 4.31%.

Q. What is LUCo's cost of long-term debt after you adjust the coupon rates charged on the LUCo debt issued in January 2024?

A. 4.07%.

Q. What cost of long-term debt is Liberty Water requesting from its ratepayers in this rate case?

A. 4.97%.

[8] Cochrane Rebuttal, p. 23, lns. 11-20.

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Q. If LUCo charges Liberty Water a cost of debt of 4.97% when its actual cost of debt is lower, is this a violation of affiliate transaction rules?

A. Yes. Regardless of whether I include or exclude LUCo's operating subsidiaries' legacy debt, LUCo's embedded cost of long-term debt is lower than the cost LUCo requests the Commission allow it to charge Liberty Water.

Q. When did APUC acquire its first water utility systems in Missouri?

A. On August 14, 2005, APUC acquired the following systems through Liberty Water (previously named Algonquin Water Resources of Missouri LLC): Timber Creek, Ozark Mountain and Holiday Hills.

Q. How did APUC finance the acquisition of these systems?

A. At the corporate level. However, I am not sure of the type of capital APUC or its affiliated entities issued to fund its contributions to Liberty Water.

Q. Has Liberty Water acquired other Missouri water and sewer systems since 2005?

A. Yes. Liberty Water acquired the following systems since 2005: Noel Water Company and KMB Water in 2011; Ozark International in 2018; Franklin County Water in 2019; Saver's Farm, Empire Water, Lakeland Heights Water, Oakbrier Water, Whispering Hills Water and R.D. Sewer in 2020; and Bolivar Water and Sewer in 2022.

Q. How were these acquisitions financed?

A. At the corporate level with intercompany capital advances made to Liberty Water through various types of accounting entries, such as affiliate accounts payable and capital contributions.

Q. How were capital expenditures in these systems financed after they were acquired?

A. Through retained earnings and advancement of capital from the corporate level.

Q. Did Liberty Water issue debt, whether affiliate promissory notes or third-party debt, for the period 2005 to 2021?

A. No.

Q. If Liberty Water had been assigned intercompany debt over this period, could its embedded cost of long-term debt potentially be more similar to LUCo's embedded cost of long-term debt?

A. Yes. At least as it relates to LUCo and LUF debt, if the debt had been assigned at proportional amounts as was issued by these entities, Liberty Water's cost of long-term debt would have included some of the actual market-executed debt issued at the corporate level.

CAPITAL STRUCTURE

Q. Mr. Cochrane complains that you did not perform a comparison of APUC's, LUCo's and Liberty Water's capital structures as you had "in all past rate cases for Liberty's Missouri utility companies."[9] Did he specify the cases in which you had performed this comparison?

A. No.

Q. In which of LUCo's Missouri rate cases had you performed a detailed comparison of the capital structures of APUC, LUCo and the petitioning operating company subsidiary?

A. The 2019 and 2021 Empire District Electric Company ("Empire") rate cases (ER-2019-0374 and ER-2021-0312).

Q. Why did you compare these capital structures in the Empire rate cases?

A. Because, Empire did not provide this analysis in its direct testimony as it was required to in the 2019 rate case, pursuant to the Commission's conditional approval of APUC's

[9] Cochrane Rebuttal, p. 14, lns, 15-16.

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acquisition of Empire. Financing Condition 5 in Case No. EM-2016-0213 specifically stated the following:

> 5. If Empire's per books capital structure is different from that of the entity or entities in which Empire relies for its financing needs, Empire shall be required to provide evidence in subsequent rate cases as to why Empire's per book capital structure is the most economical for purposes of determining a fair and reasonable allowed rate of return for purposes of determining Empire's revenue requirement.

Q. Did you perform the same comparison of APUC's, LUCo's and Liberty Water's capital structures in Liberty Water's 2018 rate case, Case No. WR-2018-0170?

A. No. I recommended the same capital structure be used to set Liberty Water's ROR as I had recommended be used to set Liberty Midstates' ROR in its 2018 rate case, Case No. GR-2018-0013.

Q. Why?

A. I testified as follows in in Case No. WR-2018-0170:

> Both Liberty Midstates and Liberty Water are financed under the same corporate structure, with its debt financing being supplied by Liberty Utilities Company through Liberty Utilities Finance GP1. Additionally, the gas and water utility industries have similar business risk profiles.[10]

Q. Why did you not compare Liberty Midstates' and Liberty Water's capital structures to LUCo's capital structures in the 2018 rate cases?

A. Because the Commission had already found, in Liberty Midstates' 2014 rate case, Case No. GR-2014-0152, that because the Company did not issue its own third-party capital, but rather relied on LUCo to supply it with capital through affiliate financing transactions—equity infusions, affiliate payables and promissory notes—Liberty Midstates' capital structure should not be used to set its allowed ROR. The Commission adopted LUCo's capital structure as appropriate for ratemaking because it issued its own debt (either directly or through its financing affiliate LUF), had a credit rating, and the cost of LUCo's third-party debt was a function of its capital structure and business risk.

[10] Case No. WR-2018-0170, Murray Rebuttal, p. 2, lns. 13-16.

Q. What capital structure did Liberty Water recommend be used to set its authorized ROR in the 2018 rate case?

A. Liberty Water's witness, Jill Schwarz, adopted the same capital structure and ROR that Liberty Midstates' ROR witness, Keith Magee recommended in its 2018 rate case.

Q. What was the basis for Mr. Magee's recommended capital structure in the 2018 Liberty Midstates' rate case?

A. Mr. Magee recommended a hypothetical capital structure based on his utility proxy group.

Q. Did you compare APUC's and LUCo's capital structures in Liberty Midstates' 2018 rate case?

A. Yes.

Q. Did you encounter any peculiarities in analyzing LUCo's capital structure in the 2018 rate case?

A. I did. LUCo's per books capital structure implied it had a common equity ratio of 50.37% as of September 30, 2017. However, after I examined LUCo's notes to financial statements, rating agency reports and Liberty Midstates' responses to data requests, I discovered LUF had executed intercompany promissory notes with intermediate holding companies between APUC and LUCo. These intermediate holding companies then infused this debt capital into LUCo as equity infusions, despite the fact that LUCo still guaranteed the third-party debt. Additionally, APUC transferred a LUCo credit facility to the intermediate holding company, Liberty Utilities (America) Holdco Inc. ("America Holdco") and infused these credit facility borrowings as equity contributions into LUCo.

Q. What was the effect of these internal capital transfers?

A. These internal capital transfers masked LUCo's true long-term debt ratio. Effectively, they made LUCo appear to have an approximate 50% long-term debt ratio rather than the approximate 60% long-term debt ratio its credit supported.

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Q. Why are these past capital structure manipulations relevant to this rate case?

A. Because the manipulations establish APUC's pattern of attempting to misguide regulators as to the economic realities related to LUCo's actual capital structure.

Q. Does Liberty Water's capital structure matter for purposes of raising third-party capital?

A. Yes and no. Because Liberty Water does not directly access third-party capital markets, its capital structure has no relevance to the required market cost of capital. However, if Liberty Water is authorized a higher-cost capital structure for purposes of setting its ROR, then doing so provides higher revenues to the entity(ies) that raise third-party capital.

Q. Why did you disregard consideration of APUC's capital structure for purposes of this case?

A. Because of its complexity and transitory nature. In fact, as APUC stated during its February 29, 2024, Board of Directors Meeting, ***________________________________ ____ ____ *** (*see* page 3 of Schedule DM-S-2).

Q. Have you reviewed information related to APUC's own view of its common equity ratio associated with its consolidated capital structure?

A. Yes. In reviewing select APUC board of directors ("BOD") and Audit Committee materials, I discovered a "Treasury Dashboard" document, which identified APUC's own determination of its common equity ratio.[11] According to this document, ***__________ ____ ____ *** (*see* Schedule DM-S-3).

[11] Case No. GR-2024-0106, Liberty Midstates' partial response to OPC Data Request No. 3009.

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Q. Mr. Cochrane claims that you did not perform a comparative analysis of APUC's, LUCo's and Liberty Water's capital structures because the data is not consistent with your past recommended common equity ratios.[12] What caused you to alter your approach in this case for purposes of recommending a fair and reasonable ratemaking capital structure?

A. APUC's financial difficulties, capital structure complexities, and state of transition. *** ______________________________ ______________________________ ______________ ***

Q. Are rating agencies and investors expecting APUC's capital structure to be capitalized with more debt due to the lower business-risk associated with APUC's regulated utility operations?

A. Yes. Because of APUC's non-regulated generation operations, rating agencies required APUC to achieve a higher funds-from-operations-to-debt ("FFO/debt") ratio (14%) to be assigned a 'BBB' credit rating. After APUC divests its non-regulated generation segment, rating agencies will have a less stringent FFO/debt threshold of 11% to maintain a 'BBB' credit rating.[13] APUC and its investors expect this more flexible FFO/debt threshold may allow APUC the potential ability to use some of its proceeds from the sale of its non-regulated operations to repurchase APUC stock.

Q. Have investors expressed frustration with assessing APUC's financial condition due to the complexities of its operations and capital structure?

A. Yes. The following are a couple of excerpts from equity analysts describing the difficulty in assessing APUC's operations and capital structure:

[12] Cochrane Rebuttal, p. 14, lns. 12-19.
[13] Nelson Ng and Trevor Bryan, "Algonquin Power & Utilities Corp.: Working toward mid-year Renewables Sale," RBC Capital Markets, March 11, 2024.

> This initiative [divesting the non-regulated segment] is motivated by several factors: simplifying AQN's operating and capital structures around its core regulated utilities…[14]

> Many of the typical low-risk utility investors have generally avoided AQN due to the company's complex structure, and we believe that a simplified business will attract a broader utility investor base.[15]

Q. Did you address APUC's complexities in The Empire District Electric Company's 2021 rate case, Case No. ER-2021-0374?

A. Yes. I testified as follows:

> While I am not implying APUC's capital structure is intentionally deceptive, it is very complex. APUC's Regulated Services Group is invested in Canada, United States, Chile, and Bermuda. APUC's Renewable Energy Group is mainly invested in projects in North America, but through its 44.2% ownership interest in Atlantica Yield LLC, it is also indirectly invested throughout Europe, South America and Africa. APUC has the following forms of capital on its balance sheet: common equity, 60-year subordinated debt, short-term debt, mandatory convertible equity units, related-party equity, project level debt, redeemable non-controlling interests (project level tax equity), and non-redeemable non-controlling interests (project level tax equity).[16]

Q. Mr. Cochrane claims that the current capital structures of APUC and LUCo support a more equity-rich capital structure to set Liberty Water's authorized ROR.[17] ***

[14] Sean Stuart and John Mould, "Algonquin Power & Utilities Corp.: Pushing Ahead with Renewables Sale; Tempered 2023 Guidance," TD Cowen a division of TD Securities, November 13, 2013.
[15] Nelson Ng and Trevor Bryan, "Algonquin Power & Utilities Corp.: Starting the Renewables Sale Process," RBC Capital Markets, August 10, 2023.
[16] Case No. ER-2021-0374, Murray Surrebuttal Testimony
[17] Cochrane Rebuttal, p. 14, ln. 20 – p. 15, ln. 17.

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[18] Shannon P. Pratt and Roger J. Grabowski, "Cost of Capital – Applications and Examples," Fifth Edition, John Wiley & Sons, 2014, pgs. 247-248.

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Q. What do you mean by "permitted to review?"

A. As part of discovery in this case and in the Liberty Midstates' rate case, OPC requested access to APUC's BOD materials. Liberty Midstates and Liberty Water objected to OPC's request. The BOD documents that Liberty Midstates provided in Case No. GR-2024-0106 did not discuss APUC's investing and financing strategies until the OPC pushed the issue.

I sought this information so that I could evaluate APUC's financing strategies, capital budgeting, and cost of capital views. Eventually, Liberty Midstates agreed to provide Finance and Treasury Updates from APUC's Audit Committee materials for the 2022 calendar year and the Finance and Treasury Updates from APUC's BOD materials for the 2023 calendar year. It is the analysis and information within these materials that I cited to and attached to my rebuttal and surrebuttal testimony in this case. Although these specific materials provided relevant and meaningful information as to APUC's managements' views on *** ______________________________ *** these company records are only a minor portion of APUC's BOD materials. For example, based on APUC's BOD agendas and Audit Committee agendas, APUC's BOD also receives "Investor Relations" reports, annual budgets, long-term investment/business outlooks, long-term strategy considerations, dividend policy considerations, etc. Attached to my testimony as Schedule DM-S-5 are the specific agenda topics OPC requested the ability to review. After each listed agenda topic, Liberty Midstates provided its response as to whether it would voluntarily make this information available for OPC's review. For many of these topics, Liberty Midstates claimed the documents were privileged. As is evident from my lengthy analysis and discussion of APUC's Finance and Treasury updates, these internal records are highly relevant and important to consider for purposes of evaluating the credibility of a utility company's requested ROR from its ratepayers. Material and substantive decisions are made at the parent company level, not the utility operating subsidiary level, especially as it relates to financing strategies for a company that centralizes and consolidates its financial management.

Q. Has Liberty Water or Liberty Midstates made any of the materials identified in Schedule DM-S-5 available for inspection since you initially requested this information on September 6, 2024?

A. Yes. Liberty Midstates made the following materials available: (1) Scenarios for Rating Agencies from the December 7, 2022, BOD meeting, (2) Q1 2023 Investor Relations Update from the May 10, 2023, BOD meeting, and (3) Q3 2023 Investor Relations Update from the November 9, 2023, BOD meeting.

Q. Had you pursued APUC's BOD information in past rate cases involving Liberty's Missouri utilities?

A. Not as assertively.

Q. Why not?

A. Because I was not as concerned about the potential impact APUC's financial performance was having on the cost of capital supplied to Missouri's utilities. Additionally, considering the amount of time and effort I had to expend on deciphering APUC's and LUCo's capital structure schemes in past Liberty Missouri rate cases, I believed reviewing APUC's internal records and decision-making processes and procedures would likely lead to discovery of relevant information. It is my opinion that utility regulators should not have to jump through hoops to be afforded the opportunity to review and understand how parent companies manage and finance their monopoly utility subsidiaries.

Q. Has OPC and Staff had the same difficulty in reviewing parent-company level information for other utilities operating in Missouri?

A. Not to this extent. While in its 2022 rate case, Missouri-American Water Company had hesitated to facilitate Staff and OPC requests to access American Water Works Company Inc's corporate documents, Ameren Missouri, Evergy Missouri West, Evergy Metro and Spire Missouri have cooperated with such requests.

Q. Mr. Cochrane criticizes your reliance on a 2017 Liberty Utilities Fixed Income presentation to support your capital structure recommendation.[19] What is his criticism?

A. He considers it too old to be relevant.

Q. Did Mr. Cochrane provide any more recent information to refute the company's own communications?

A. No.

[19] Cochrane Rebuttal, p. 12, lns. 7-15.

Q. Are you aware of any more recent company materials that communicate APUC's intended target for LUCo's capital structure?

A. Yes. Over the last couple of years, APUC has been less precise in its investor communications as to its targeted capital structure for its regulated utility operations. The materials I reviewed simply indicate that APUC will target a capital structure for LUCo that does not contain more than 55% debt.[20]

Q. Based on your analysis of LUCo's capital structures since December 31, 2021, what is the major cause for LUCo's higher than typical common equity ratio?

A. APUC expected two major acquisitions in 2022. The first acquisition was of New York American Water Company ("NYAWC") from American Water Works Company Inc. APUC closed on this approximately $610 million acquisition on January 3, 2022. On October 26, 2021, APUC announced its planned acquisition of Kentucky Power Company and AEP Kentucky Transmission Company, Inc. (together the "KY Assets") from American Electric Power Company Inc. ("AEP") for $2.846 billion.[21] APUC believed it would close on the acquisition of the KY Assets in mid-2022.

In order to fund these anticipated acquisitions, APUC needed to raise approximately $2.2 billion of financing. On January 3, 2022, LUCo borrowed $610.386 million from its delayed draw term credit facility to fund the purchase of NYAWC.[22] For purposes of funding its planned acquisition of the KY Assets, APUC issued approximately $617 million of common equity in the fourth quarter of 2021 and approximately $1.07 billion of junior subordinated notes in January 2022. APUC then transferred approximately $1.24 billion of these proceeds to LUCo as common equity contributions. APUC's purchase agreement with AEP also included an assumption of $1.221 billion in debt.[23] Because the acquisition of the KY Assets, and the anticipated assumption of long-term debt, was

[20] Liberty Utilities Co. Fixed Income Presentation, January 9, 2024, p. 5.
[21] Note 3 to Liberty Utilities Co.'s September 30, 2021, Financial Statements.
[22] Which APUC renamed Liberty Utilities (New York Water) Corp. ("Liberty NY Water").
[23] Eric Eng, "DBRS Morningstar Places Algonquin Power & Utilities Corp. Under Review with Developing Implications on the Announcement of the Agreement to Acquire Kentucky Power Company," Morningstar/DBRS, October 28, 2021.

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terminated in early 2023, LUCo's balance sheet had a disproportionate equity ratio of around 60%.

Based on this public information and my review of APUC's BOD materials, *** ***

Q. What other significant issues developed during 2022 and 2023?

A. As I previously described, APUC's non-regulated generation business segment significantly underperformed financial expectations in the third quarter of 2022, which caused APUC to create a Strategic Review committee in May 2023 to evaluate strategic options to attempt to stabilize APUC's financial condition and maximize shareholder value.

Q. Considering APUC's uncertain financial and business strategy since 2022, does it make sense to place any weight on capital structure ratios over this period?

A. No. LUCo's debt issuances prior to this highly active and uncertain period occurred when LUCo's adjusted capital structure had a common equity ratio of 50% or less. LUCo's capital structure at that time was consistent with its assigned BBB credit ratings. It's common equity ratio of around 60% during 2022 to 2023 is more consistent with a much stronger credit rating. However, LUCo's credit rating has not been upgraded because rating agencies recognized these events are transitory. Liberty Water's ratepayers should not pay for a higher-cost capital structure or cost of debt due to higher risks associated with APUC's acquisition and divestment activities.

Q. How much debt did LUCo issue in early 2024?

A. $850 million.

Q. What impact did the issuance of this debt have on LUCo's adjusted capital structure?

A. Including short-term debt in LUCo's capital structure, its common equity ratio was 51.38% at March 31, 2024. Excluding short-term debt in LUCo's capital structure, its common equity ratio was 52.85% at March 31, 2024.

Q. Mr. Cochrane criticizes your adjustment to LUCo's common equity to eliminate non-controlling interests.[24] Why did you make this adjustment?

A. Because these non-controlling interests do not represent common equity investments in LUCo, but rather tax equity investments in LUCo's subsidiaries, Empire and Calpeco. The tax equity investors' returns are defined in their tax equity agreements with Empire and Calpeco. As I testified in Empire's 2021 rate case, because tax equity investors purchase direct equity interest in the special purpose entities that own the projects, LUCo's and APUC's debt and common equity investors are subordinated to the tax equity investors.[25] Therefore, from corporate debt investors' perspective, the tax equity arrangements add to the risk related to the performance on LUCo's bonds.

Q. Although you do not consider LUCo's recent actual capital structures as appropriate for ratemaking, can you please address Mr. Cochrane's concerns with your calculations of LUCo's capital structure?

A. Yes.

Q. Did you calculate LUCo's capital structures in this rate case based on the same approach and adjustments you made in Liberty Midstates' concurrent rate case?

A. Yes.

Q. Are Mr. Cochrane's concerns about your calculations the same in this case as in the Liberty Midstates' rate case?

A. No. In the Liberty Midstates' rate case, Mr. Cochrane testified that I excluded long-term debt due within one year from the total long-term debt balance but included it in my

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[24] Cochrane Rebuttal, p. 14, lns. 4 – 8.
[25] Case No. ER-2021-0312, Murray Surrebuttal, p. 18, ln. 15 – p. 21, ln. 20.

calculation of LUCo's embedded cost of long-term debt.[26] However, in this case, Mr. Cochrane testifies that I included debt due within one year in my long-term debt balance but excluded it in my calculation of LUCo's embedded cost of long-term debt.[27]

Q. How did you approach long-term debt due within one year in this case and in the Liberty Midstates' rate case?

A. I included long-term debt due within one year in both my long-term debt balance and in my embedded cost of long-term debt calculations. My calculations were included in my workpapers provided with my direct testimony and are attached as Schedule DM-S-6. However, I will also explain how I calculated LUCo's December 31, 2023, capital structure to ensure the record is clear.

Note 9 to LUCo's December 31, 2023, financial statements identifies $2,286,861,000 of total third-party long-term debt outstanding, of which $606,730,000 is due within one year (*i.e.* current maturities). The long-term debt ratios I show on my Schedule DM-D-3, p. 1, are based on calculations I performed in my workpapers.

First, I started with the indicated total debt balance of $2,286,861,000 shown in Note 7 to LUCo's December 31, 2023, financial statements (this balance includes long-term debt due within one year). Next, I added the affiliate long-term debt (debt loaned to LUCo from LUF) balance of $807,729,000 also shown in Note 9 to LUCo's financial statements. This implies $3,094,590,000 in total long-term debt. Then, I subtracted LUCo's commercial paper balance ($481,720,000) and unsecured revolving credit facility balance ($496,000,000) to arrive at a net long-term debt balance of $2,116,870,000. I did not subtract the $606,730,000 of long-term debt due within one year.

Mr. Cochrane's second concern was that I did not deduct the $610,386,000 outstanding on the delayed draw credit facility from my calculation of LUCo's long-term debt balance.[28]

[26] Case No. GR-2024-0106, Cochrane Rebuttal, p. 14, ln. 21 – p. 15, ln. 2.
[27] Cochrane Rebuttal, p. 15, ln. 20 – p. 16, ln. 2.
[28] Cochrane Rebuttal, p. 16, lns. 5-8.

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Q. Why did you not deduct this amount from long-term debt?

A. Because the delayed draw term facility has been outstanding since January 2022. While APUC had intended to refinance the delayed draw credit facility with LUCo long-term bonds within the year, *** [redacted] side [redacted] ***

Q. Mr. Cochrane testified that 60%+ common equity ratios signify just the opposite of a financially unstable company.[29] *** [redacted] ded [redacted]

[29] Cochrane Rebuttal, p. 20, lns. 13-14.

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Q. Was Staff and the OPC concerned about the potential impact of APUC's non-regulated operations on Empire's access to reasonably-priced capital when deciding to support a conditional stipulation and agreement for the Commission to approve APUC's acquisition of Empire?

A. Yes. That is why the stipulation and agreement executed in Case No. EM-2016-0213 contained several conditions, which would require Empire to provide additional information to Staff and OPC if the company on which Empire relied for debt financing had its S&P Corporate Credit Rating downgraded (this company is generally understood to be LUCo even though LUF had historically been directly issuing debt to third-party debt investors). If this company's credit rating downgrade impacted Empire's ability to access reasonably priced capital, then the stipulation and agreement required Liberty to take steps to ensure that the entity on which Empire relied on for financings was ring-fenced from APUC so it could maintain its investment-grade credit rating.

Q. What will the capital structure situation of APUC and LUCo be after this transitionary period?

A. I do not know.

Q. What will Liberty Water's per books capital structure be during this period of uncertainty?

A. Approximately 52% to 53% common equity because achieving this capital structure is simply a matter of recording internal capital transfers as common equity, intercompany Promissory Notes or Payables. As discussed on page 3 of Schedule DM-S-8, *** ______________________________

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Q. After considering the complexities and uncertainties caused by Liberty Water's affiliation with APUC's financial and operational risks, do you still consider your recommended ratemaking capital structure as fair and reasonable?

A. Yes.

RETURN ON COMMON EQUITY

Q. Mr. Cochrane testified that your position that utilities' COE is lower than authorized ROEs is not based on "empirical evidence or finance literature."[30] Did you provide empirical evidence from investors in your direct testimony?

A. Yes. I provided corroborating information from Wells Faro which estimated a fair value for American Water Works Company, Inc. ("American Water") using a 7.5% cost of common equity.[31] I am not sure why Mr. Cochrane does not consider this practical example as empirical evidence.

Q. *** ______________________________

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[30] Cochrane Rebuttal, p. 40, lns. 2-5.
[31] Murray Direct, p. 27, lns. 15-22.

Q. Do you have other empirical examples that support your position that authorized ROEs are higher than utilities' COE?

A. Yes. In reviewing the equity research published on APUC and the utility industry in general, I regularly discover equity research analysis that apply a COE in the range of 8% to 9% to value utility stocks in the current higher interest rate environment. For example, in estimating a fair value for APUC's stock as recently as July 2024, BMO Capital used an 8.0% COE.[32] Also, in October of 2023 Bank of America stated the following about recent increases in the cost of equity as compared to authorized ROEs:

> **On a spot basis with 9.5-9.6% after-tax authorized ROEs in 3Q23, this is meaningfully higher than the cost of equity from the capital asset pricing model for most utilities in the 8.5-9.0% range.** The 5% 30Yr US Treasury has compressed returns for utilities which have back-levered but we do not foresee a meaningful increase in allowed ROEs back above 10%. We continue to believe that California will not increase the allowed rate of return for the electric utilities due to the continuation of the extraordinary event from covid and the related policy responses.[33] (bold in the original).

Q. What about Mr. Cochrane's claim that financial literature does not support your position that authorized ROEs are higher than the COE?

A. Financial literature recognizes that if a company achieves market-to-book ratios above one, such a situation generally supports that the company is earning more than its cost of capital. Typically, and as supported by APUC's own internal capital budgeting parameters, a company will not invest in projects unless they expect to earn at least their cost of capital. Otherwise, the company would destroy shareholder value.

Q. Can you provide the formula used to determine justified market-to-book ratios?

A. Yes. Justified price-to-book ratios are determined through the following formula, which is premised on using discounted cash flow analysis:[34]

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[32] Ben Pham and Collin Wang, "Algonquin Power & Utilities: Top 10 Questions on Upcoming Renewables Sale; Maintain Outperform Rating," BMO Capital Markets, July 8, 2024.
[33] Julien Dumoulin-Smith, et. al, "Utilities in a 5% Treasury World: Who has a plan to withstand the pain? 3Q Preview," Bank of America Securities, October 20, 2023.
[34] Refresher Reading, 2024 CFA® Program, Level 2, p. 45.

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$$P_0/B_0 = (ROE - g)/(r - g)$$

Where:	P_0	=	price/market value at period 0
	B_0	=	book value at period 0
	ROE	=	expected return on common equity
	g	=	growth in earnings
	r	=	cost of common equity

If expected earnings are higher than the cost of common equity, then the justified market/book ratio is greater than one and vice versa.

Q. Which companies in your water utility proxy group are appropriate for evaluating market-to-book ratios?

A. American States Water Company, American Water, California Water Service Group, Middlesex Water Company and SJW Group.

Q. Why?

A. Because those companies are the most pure-play (confined to water utility operations) water utility companies in my proxy group.

Q. What are recent market-to-book ratios for the companies in your proxy group which are predominately water utility companies?

A. As of October 23, 2024, market-to-book ratios for each of the above-identified companies ranged from 1.51x to 3.75x. However, these market-to-book ratios include goodwill assets booked to the water utility companies' balance sheets when they pay acquisition premiums when acquiring other water utility companies or assets. Goodwill is not included in the utility's rate base, so it does not generate a ROR. Therefore, a purer measure of the water utility companies' market-to-book ratios is to subtract goodwill from the book value of common equity, which is referred to in finance literature as market-to-tangible book ratios. The market-to-tangible book ratios for the water utilities range from 2.07x to 4.34x.

Water utility market-to-book and market-to-tangible book ratios are higher than market-to-book and market-to-tangible book ratios for the electric and LDC industries, further supporting my recommendation to authorize Liberty Water a lower ROE than for Liberty Midstates and EMW.

Q. Mr. Cochrane criticizes your comparison of market valuation data of the water utility industry to that of the LDC and electric utility industries.[35] Why?

A. Mr. Cochrane claims that my testimonies in the EMW rate case and the Liberty Midstates rate case are irrelevant because the Commission has not issued orders in those cases. Additionally, Mr. Cochrane states that water utilities, LDCs, and electric utilities face "very different risks."

Q. Does the fact that the Commission has not issued an order in the EMW or Liberty Midstates' rate cases undercut your comparative analysis of the reasonableness of a COE and recommended ROE for Liberty Water?

A. No. Investors constantly compare and contrast relative valuations of the various subsectors of the utility industry, specifically electric, natural gas and water.

Q. Does Mr. Cochrane analyze and explain why he believes the water utility subsector, the LDC subsector and the electric utility subsector face "very different risks?"

A. No.

Q. If the Commission were to authorize differing ROEs for EMW, Liberty Midstates and Liberty Water, is it important for the Commission to justify the need to do so?

A. Yes. I recommended a 9.25% authorized ROE for Liberty Water as compared to my 9.5% recommended authorized ROEs for Liberty Midstates and EMW. I did so because my COE estimates are lower for the water utility industry and comparing the valuation ratios of the electric, LDC, and water utility industries corroborates the results of my COE analysis. If an analyst does not explore/analyze the potential reasons why one subsector of the utility industry may be valued higher than the other, then the outputs derived from applying COE methods cannot be tested for logical consistency.

[35] Cochrane Rebuttal, p. 41, ln. 17 – p. 42, ln. 4.

Q. Did APUC's activist investor, Starboard Value LP ("Starboard"), compare and contrast the valuations of the various utility subsectors for purposes of providing its opinion on the best path forward to increase APUC's shareholder value?

A. Yes. Starboard encouraged APUC to sell/separate its water utility assets from the LDC and electric utilities because of the significant valuation premium assigned to the water utility subsector relative to electric and natural gas distribution utilities.

Q. Why would it be in the best interest of APUC's shareholders to sell the water utility systems at a higher valuation?

A. Because APUC can raise more capital per unit of earnings generated by its water utility systems. Starboard viewed the risk-adjusted potential returns achieved from investing in the electric and LDC utility systems to be undervalued as compared to the water utility systems.

Q. Do you agree with Mr. Cochrane's indication that water utilities, LDCs, and electric utilities have "very different risks"?

A. No. All three of these subsectors of the utility industry are regulated monopolies with rates set by utility commissions. Each subsector provides essential services for society. All three subsectors have very little to no exposure to changes in commodity prices – commodity adjustment clauses for LDCs and electric utilities and no purchased water commodity risk for water utilities. Finally, all three subsectors are allowed investment riders and trackers.

Q. Does the water utility subsector have differing characteristics to the LDC and electric utility subsectors?

A. Yes. As I testified in my direct testimony, the water utility subsector is viewed to have a long and significant need for investment to replace aging infrastructure.[36] Although some ROR witnesses argue that the significant amount of required capital expenditures for the water utility industry may cause higher business risk than the electric and LDC industries,

[36] Murray Direct, p. 26, ln. 10 – p. 27, ln. 12.

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investors and rating agencies have the opposite view. Most water utility infrastructure replacement is steady, predictable, and constant. Because there are no alternatives to water utility service, it is a smaller portion of customers' budgets, and it is an essential commodity for human survival, investors and rating agencies typically view the water utility subsector as having the lowest business risk among all three subsectors.

Q. Do water utility authorized ROEs reflect the lower risk profile as compared to the electric and LDC industries?

A. No. Water utility average authorized ROEs for the 15-months ended March 31, 2024, were in the range of 9.6% to 9.65%, which is approximately the same as the average for electric utilities and LDCs.[37]

Q. Why did you recommend a lower ROE for Liberty Water as compared to your recommended ROEs in the Liberty Midstates and EMW rate cases?

A. Because my multi-stage DCF COE estimate for the water utility proxy group is 7.5% as compared to the approximate 8.5% I estimated for the electric and LDC industries.

Q. Mr. Cochrane claims that the perpetual growth rates you assume in your multi-stage DCF are too low and rely on outdated information.[38] What is the basis for this assertion?

A. Mr. Cochrane claims that the high-end of my assumed perpetual growth rates of 3.75% to 4.25% relies on an outdated Wells Fargo report in which Wells Fargo performed its own multi-stage DCF.[39] He testified that assumed perpetual growth rates in 2019 are not relevant to estimating the COE today because "it clearly does not account for the significant changes in the Water industry and broader macroeconomic environment."[40]

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[37] Heike Doerr, "Q1 Water Utility National Equity Returns Remain Steady With 2023," S&P Capital IQ – RRA Regulatory Focus, May 10, 2024.
[38] Cochrane Rebuttal, p. 48, ln. 14 – p. 49, ln. 23.
[39] Wells Fargo correctly classifies its valuation approach as a multi-stage dividend discount model (DDM).
[40] *Id.*, p. 49, lns. 1-2.

Q. Did you rely on the Wells Fargo for the high-end of your assumed perpetual growth rates?

A. No. The highest perpetual growth rate Well Fargo applied to a water utility company was 3.4%.[41]

Q. Did you consider any other equity analysts' perpetual growth rates in your assumed range of 3.75% to 4.25%?

A. Yes. In the same footnote in which I cited the Wells Fargo report, I also cited an Evercore ISI report which provided its multi-stage DCF assumptions. Evercore ISI assumed a 4% perpetual growth rate for the water utility industry.[42]

Q. Then what is the basis for the 4.25% high-end of your assumed perpetual growth rates?

A. Because the water utility industry has a more certain and visible path for continued long-term investment, I allowed for the high-end of the perpetual growth rates to be consistent with the higher-end of some long-term projections for the CAGR in United States' nominal GDP.

Q. Should perpetual growth rates change dramatically over time?

A. No. Especially not if the subject industry is expected to be a constant proportion of the economy over time.

Q. Did you consider differing perpetual growth rates in your COE analysis of the water utility industry compared to the electric and LDC industries?

A. Yes. I assumed higher perpetual growth rates of 3.75% to 4.25% for the water utility industry as compared to my assumption of 2.5% to 3.5% for the electric utility industry in

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[41] Neil Kalton, Sarah Akers, and Jonathan Reeder, "DDM Analysis Supports Sector Valuation & Quality/Growth Trade," Wells Fargo, August 19, 2019.
[42] Durgesh Chopra, et. al, "Initiating Coverage On Water Utilities: Top pick AWK (OP); AWR (UP); WTR/CWT/SJW/CTWS (IL)," Evercore ISI, September 17, 2018, p. 13.

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the EMW rate case, Case No. ER-2024-0189, and 2% to 3.3% for the LDC industry in the Liberty Midstates rate case, Case No. GR-2024-0106.

Q. Why did you assume higher perpetual growth rates for estimating the COE for the water utility industry compared to the LDC industry?

A. Because investors do. As I testified in my direct testimony, investors typically assume a perpetual growth rate of 3.5% to 4.0% for water utility companies because they recognize that water utility infrastructure will require significant, consistent, and continuous capital expenditures for several decades. The same is not assumed for LDCs. In fact, as recently as 2020 to 2021, some equity analysts analyzed scenarios in which the LDC industry did not have any terminal value in fifty years (*i.e.* negative growth), let alone the inflationary growth rate of 2% I assumed for the low-end of LDC growth in the Liberty Midstates rate case.

Q. Did Mr. Cochrane take into consideration the different growth profiles for the water utility industry compared to the LDC industry in his DCF analysis in the Liberty Water and the Liberty Midstates' rate cases?

A. No. As it relates to the constant-growth DCF analyses he performed in both rate cases, he assumes that the constant growth in DPS for the companies in his water utility proxy group and LDC utility proxy group will be approximately 6.5% in perpetuity for both subsectors. Considering the fact that some investors/analysts have analyzed scenarios in which the LDC industry has no terminal value at some point in the future compared to the unforeseeable event of not requiring water utility infrastructure for as long as humans exist, Mr. Cochrane's lack of differentiation in growth profiles is illogical.

Q. What mid-growth rate did Mr. Cochrane assume for his "mid ROE" constant-growth COE estimates for the LDC industry in the Liberty Midstates rate case?

A. Mr. Cochrane assumed the LDCs' DPS would grow at a CAGR of 6.42% (mean) or a 6.5% (median) CAGR in perpetuity.[43]

[43] Case No. GR-2024-0106, Cochrane Direct, Schedule JC-4.

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Q. What constant-growth rate did Mr. Cochrane assume for the water utility industry's DPS for his "mid ROE" constant-growth DCF analysis in this rate case?

A. 6.4% for the mean and 6.57% for the median.[44]

Q. Is it logical to assume the same constant growth rate for both subsectors of the utility industry?

A. No. As I testified extensively in recent MAWC rate cases, equity analysts assign higher perpetual growth rates to the water utility industry because investors understand that massive investment is necessary to upgrade and extend the life of water utility infrastructure. Therefore, investors often assign a perpetual growth rate to the water industry that is consistent with long-term GDP growth of around 4%. The fact that Mr. Cochrane assumes that each subsector of the utility industry can grow in perpetuity at the same rate as short-term projections for CAGR in EPS demonstrates a lack of critical analysis.

Q. Does Mr. Cochrane's application of the constant-growth DCF to the water utility industry prove that his approach is unreliable?

A. Yes. Mr. Cochrane's constant-growth DCF COE estimates for the water utility industry (8.85%) are approximately 1.5% lower than his constant-growth DCF COE estimates for the LDC industry (10.34%). Mr. Cochrane does not explain why his constant-growth DCF COE estimates for the two subsectors should be so widely different.

Q. What is the range of individual COE estimates for Mr. Cochrane's constant-growth DCF analysis (90-day average stock price scenario) in this rate case?

A. They range from as low as 4.68% to as high as 13.00%.[45] Clearly Mr. Cochrane's assumptions for his constant-growth DCF are mis-specified.

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[44] Cochrane Direct, Schedule JC-4.
[45] *Id.*

Q. Mr. Cochrane notes that you did not provide citations to the Commission's Report & Orders in the 2015 rate cases which determined 9.5% authorized ROEs were fair and reasonable for Missouri's major electric utilities.[46] What rate cases did the Commission decide an approximate 9.5% ROE was fair and reasonable?

A. Ameren Missouri's rate case, which was assigned Case No. ER-2014-0258 and Evergy Metro's rate case, which was assigned Case No. ER-2014-0370. Although these rate cases were assigned 2014 docket numbers, the Commission issued its Report & Orders for these cases in 2015.

Q. Why did you choose to compare today's water utility, LDC and electric utility P/E ratios to electric utilities' P/E ratios during the middle of the last decade when the Commission authorized its major electric utilities' 9.5% authorized ROEs?

A. Because water utility stocks were trading at approximate 20% to 30% premiums to electric utilities in late 2014 and early 2015. In 2024 water utility stocks have been trading at 30% to 40% premiums to electric utilities. On a time-series basis, electric utility stocks are currently trading similar to their valuation levels in 2015, but water utility stocks are currently trading at higher P/E ratios than late 2014 and early 2015. Therefore, because electric utility P/E ratios are currently more similar to electric utility P/E ratios during the middle of the past decade, this provides context to test the reasonableness of ROE recommendations in the current market environment.

Q. Mr. Cochrane repeatedly testifies that analyzing and comparing utility subsector P/E ratios over time (*i.e.* time series) and to each other (*i.e.* cross-sectional) does not provide insight as to changes and differences in the utility industry's COE.[47] Do you agree?

A. I do not. Based on Mr. Cochrane's opinion, it is not worthwhile for investors to determine the relative valuation differences between utility subsectors in making investment decisions. I can assure the Commission, investors are highly focused on the differences

[46] Cochrane Rebuttal, p. 40, lns.17-21.
[47] *Id.,* p. 43, ln. 3 – p. 46, ln. 9.

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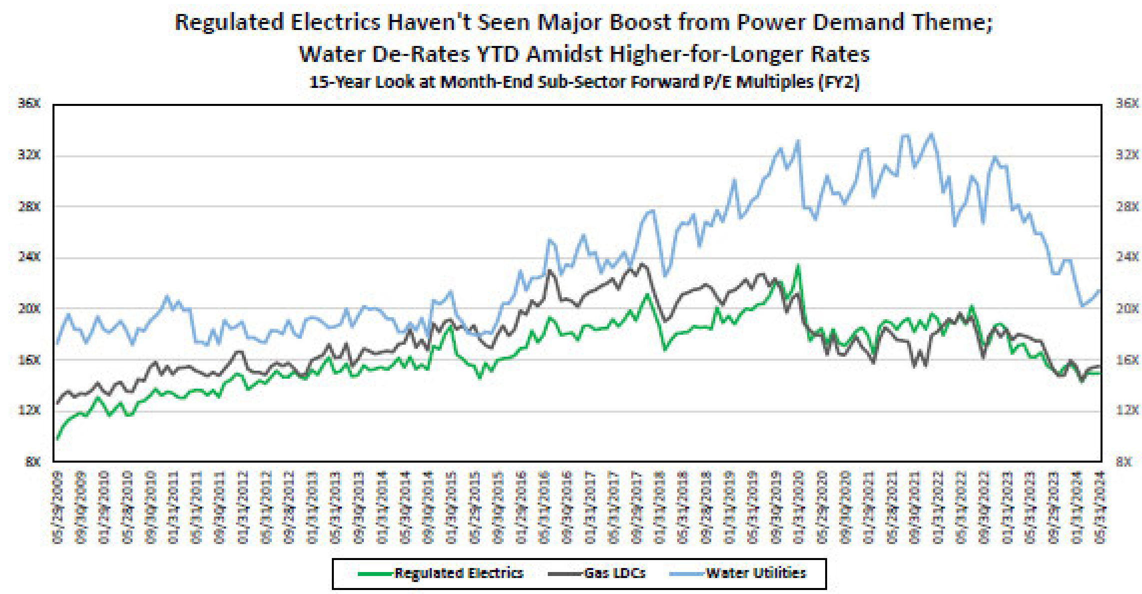
and changes in utility subsector P/E ratios. For example, Wells Fargo recently published the following graph showing the differences in the subsectors' P/E ratios over time:



Source: FactSet and Wells Fargo Securities, LLC

While I agree with Mr. Cochrane that analyzing P/E ratios does not provide specific COE estimates, they certainly provide useful information to test whether outputs from COE methodologies are logical. However, the inverse of P/E ratio, E/P or earnings yield, is often used to assess the price-level of markets. For example, in a Wall Street Journal article earlier this year in which the valuation level of the S&P 500 was assessed, the earnings yield on the S&P 500 was compared to UST yield. According to this measure, the price of the S&P 500 was at its highest level since 2003.[48] This measure certainly implied that the market (S&P 500) risk premium was much lower than usual.

Mr. Cochrane's view about acceptable COE/ROE evidence is that ROR witnesses should simply "plug and chug" variables in COE methods/models and accept the results without consideration of whether it is logical considering differing valuation levels. This type of approach provides no context for whether a ROR witnesses' COE estimates are logical.

[48] Hardika Singh, "Stocks Are at Records, but Are They Expensive? These Models Have an Answer – What investors can learn from five popular valuation models," *Wall Street Journal,* February 11, 2024.

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In my opinion, the approach Mr. Cochrane supports does not provide decision-makers with data points that may help them sort through the various technical/complex issues involved in estimating the cost of capital. It is for this reason that certain authoritative entities/sources, such as the CFA Program curriculum, provide simple, yet objective suggestions to determine if practitioners are "in the ballpark" in estimating the COE using more complex methods.

Estimating the COE for low-risk, regulated utility companies with stable credit profiles should not be complicated. The CFA Program curriculum's suggestion to add a 3% to 4% risk premium to a company's own bond yield provides a sanity check for COE estimates. Clearly, this simple test of reasonableness (a contextual comparative data point), which implies Liberty Water's COE should be in the 7% to 8% range, demonstrates Mr. Cochrane's CAPM COE estimates in the 12% range should be disregarded.

Q. Do investors consistently evaluate utility stock valuation levels as compared to interest rates and the broader markets?

A. Yes. Doing this type of analysis assists investors in determining the potential opportunity cost of investing in the S&P 500 compared to utility stocks and in bonds as compared to utility stocks. As discussed in my direct testimony, utility investors evaluate commissions' authorized ROEs as compared to changes in long-term bond yields. Investors recognized that utility commissions did not reduce authorized ROEs as much as the reduction in the cost of capital justified from 2010 to 2020. Without considering and understanding that period, the Commission would not have context as to why it is fair and reasonable to maintain authorized ROEs in the 9% range based on current market conditions.

Additionally, understanding the atypical period corresponding to the Covid-19 pandemic is important because utility stock's typical inverse correlations of P/E ratios to long-term bond yields broke down. Consequently, I did not drastically reduce my recommended ROEs during the period of all-time low long-term bond yields in 2020 to 2021, just as I did not recommend increases in authorized ROEs during 2022, when long-term bond yields increased. In my opinion, it is important to evaluate, analyze and understand why these past typical relationships did not hold true to understand if a specific ROE recommendation is logical in the current market environment.

Q. Mr. Cochrane testifies that because your COE estimates are below average authorized ROEs, this proves that your COE estimates are too low and unreliable.[49] Is your COE estimate too low?

A. No.

Q. Then why did you recommend an authorized ROE higher than your COE estimate?

A. Because the Commission has maintained authorized ROEs over the COE for well over a decade. In fact, until long-term interest rates increased since 2022, the spread between authorized ROEs and the COE had gradually expanded because authorized ROEs remained "sticky." I frequently cite investment banks, financial advisors and equity research analysts that hold the same opinion. In recommending a 9.25% ROE, I recognized the Commission's authorized ROEs in past rate cases to provide context as to an authorized ROE that may be considered fair and reasonable relative to those past decisions.

Q. Mr. Cochrane seems to believe that ROR witnesses must provide COE estimates similar to authorized ROEs in order for these COE estimates to be credible and adopted by the Commission. Is this an "end-results" oriented approach to estimating the COE?

A. Yes. In fact, based on the assumptions he uses in his COE methodologies, it would appear that Mr. Cochrane's goal is to achieve higher COE estimates, because he believes that the Commission must set an authorized ROR based on cost of capital evidence. If Mr. Cochrane's opinion is correct, the ramifications would go far beyond this rate case.

[49] Cochrane Rebuttal, p. 48, lns. 5-13, p. 51, lns. 8-11.

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Q. As it relates to your CAPM analysis, Mr. Cochrane testified that "Mr. Murray has made sure he used inputs that would achieve his desired low results."[50] What are the implications of Mr. Cochrane's accusations?

A. That not only am I biased in performing my COE analysis, but so is APUC, Bank of America, Wells Fargo, etc. I will let the corroboration of my COE estimates from these other sources be my defense against Mr. Cochrane's accusations.

Q. Mr. Cochrane claims that the CFA Program's curriculum that suggests a company's COE should be in the ballpark of 3% to 4% risk premium over its own bond yield as irrelevant.[51] Does he explain why?

A. No, he does not. However, in order to ensure the record is clear, the excerpt from the CFA Program curriculum is provided below:

> 4.3.2 *Bond Yield Plus Risk Premium*
> For companies with publicly traded debt, the **bond yield plus risk premium method** [bold in original] provides a quick estimate of the cost of equity. The estimate is
>
> BYPRP cost of equity = YTM on the company's long-term debt + Risk premium
>
> The YTM on the company's long-term debt includes
> - a real interest rate and a premium for expected inflation, which are also factors embodied in a government bond yield; and
> - a default risk premium.
>
> The default risk premium captures factors such as profitability, the sensitivity of profitability to the business cycle, and leverage (operating and financial) that also affect the returns to equity. The risk premium in Equation 13 [above] is the premium that compensates for the additional risk of the equity issue compared with the debt issue (recognizing that debt has a prior claim on the cash flows of the company). In US markets, the typical risk premium added is 3%–4%, based on experience.[52]

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[50] *Id.,* p. 51, lns. 11-12.
[51] *Id.,* p. 52, lns. 13-14.
[52] Refresher Reading, 2021 CFA Program, Level II, Reading 25, p. 35.

The only judgment I have applied to the above suggestion is my opinion that the risk premium applied to utility bonds should be at the low end of the range. The investment community recognizes that utility stocks are viewed as pseudo bonds/bond substitutes. Therefore, my position is supported by practical investment views about the characteristics of utility stocks.

SUMMARY AND CONCLUSIONS

Q. Can you summarize your main conclusions related to your surrebuttal testimony in this case?

A. Yes. Mr. Cochrane's opinions are not corroborated by APUC, investors, rating agencies or equity analysts. My analysis and opinions are. After having the ability to review at least some additional APUC internal records related to its financing and business strategies to transition to a pure-play regulated utility, I am even more confident in the fairness and reasonableness of my recommended ratemaking capital structure, cost of debt and recommended authorized ROE.

Q. Does this conclude your testimony?

A. Yes.

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BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Request of Liberty	)	
Utilities (Missouri Water) LLC d/b/a	)	
Liberty for Authority to Implement a	)	Case No. WR-2024-0104
General Rate Increase for Water and	)	
Wastewater Service Provided in its	)	
Missouri Service Areas	)	

AFFIDAVIT OF DAVID MURRAY

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

David Murray, of lawful age and being first duly sworn, deposes and states:

1. My name is David Murray. I am a Utility Regulatory Manager for the Office of the Public Counsel.

2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony.

3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

David Murray
Utility Regulatory Manager

Subscribed and sworn to me this 23rd day of October 2024.

TIFFANY HILDEBRAND
NOTARY PUBLIC - NOTARY SEAL
STATE OF MISSOURI
MY COMMISSION EXPIRES AUGUST 8, 2027
COLE COUNTY
COMMISSION #15637121

Tiffany Hildebrand
Notary Public

My Commission expires August 8, 2027.