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

REBUTTAL 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

*** _____ ***
Denotes Highly Confidential Information that has been redacted.

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Denotes Confidential Information that has been redacted.

September 27, 2024

PUBLIC

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REBUTTAL TESTIMONY

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 Testimony in this case?

A. Yes.

Q. What is the purpose of your testimony?

A. To respond to the direct testimony of Liberty Utilities (Missouri Water) LLC ("Liberty Water") witness, John Cochrane, as it relates to rate of return ("ROR"), capital structure and cost of debt. I will also address Staff witness Chris Walter's cost of debt recommendation.

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

A. I will address cost of debt and capital structure jointly because both are impacted by Liberty Water's internal bookkeeping processes. As Mr. Cochrane and Mr. Walters both recommend using Liberty Water's internally assigned cost of debt, my rebuttal on cost of debt applies to each of their direct testimonies. Then, I will address Mr. Cochrane's recommended ROE.

COST OF DEBT AND CAPITAL STRUCTURE

Q. What cost of debt does Mr. Cochrane and Mr. Walters recommend be applied to the debt ratio in their recommended ratemaking capital structures?

A. Liberty Water and Staff both recommend a cost of debt premised on Liberty Water's internally assigned cost of debt, which was 4.97% according to Liberty Water's updated

revenue requirement model. This cost of debt is presumably based on affiliate promissory notes Liberty Water had outstanding to Liberty Utilities Co. ("LUCo") as of April 30, 2024.

Q. Before discussing the details of the problems with LUCo's cost of debt assignment process, can you provide recent embedded cost of long-term debt data for some of Missouri's other utilities?

A. Yes. In the Evergy Missouri West ("EMW") rate case (Case No. ER-2024-0189) that is running concurrently to this one, its embedded cost of long-term debt as of June 30, 2024, was 4.34%. Ameren Missouri's embedded cost of long-term debt as of June 30, 2024, was 4.24%.

These embedded costs of long-term debt are lower than LUCo's actual embedded cost of long-term debt of 4.48% as of March 31, 2024, but similar to my recommended adjusted embedded cost of LUCo debt of 4.29%.

Q. Do the affiliate financing transactions LUCo executes with Liberty Water have a legitimate economic purpose other than creating an internally assigned capital structure and cost of debt?

A. No. In fact, until May 14, 2021, Liberty Water had never executed a long-term affiliate Promissory Note with LUCo.

Q. Then how did LUCo transfer capital to Liberty Water?

A. Through an affiliate payable. The affiliate payable did not have an assigned term or interest rate. Until 2020, Liberty Water's Annual Reports filed with the Missouri Public Service Commission simply identified the amount of the payable and assigned a 0% interest rate to the payable. After LUCo's internal money pool program became operational on September 25, 2020, LUCo began charging variable short-term interest rates on the affiliate payables.[1]

[1] Case No. AO-2018-0179, Notice of Operation, September 14, 2020 (EFIS Item No. 96).

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Q. Did you address the insignificance of Liberty Water's affiliate Promissory Notes in Liberty Water's most recent financing authority application, assigned File No. WF-2024-0135?

A. Yes. Instead of repeating my opinion in the body of my testimony, I am attaching the memorandum OPC filed in response to Liberty Water's request for the Commission's authority to issue the Promissory Notes as Schedule DM-R-1.

Q. Based on the timing of the execution of Liberty Water's affiliate Promissory Notes, what is LUCo's main purpose for executing these instruments?

A. To support its requested ROR in this rate case. LUCo executed the affiliate promissory notes to reclassify a portion of the affiliate payables as long-term debt with the other portion reclassified as common equity. LUCo determines the amount of affiliate payables to reclassify as promissory notes and common equity based on its desired ratemaking capital structure of approximately 53% common equity and 47% long-term debt.

Q. Although these affiliate financing transactions do not have any ramifications for accessing third-party capital, could they have an economic impact on the revenue requirement Liberty Water requests from its ratepayers?

A. Yes.

Q. Did you attempt to analyze Liberty Water's quarterly balance sheets to illustrate the insignificance and lack of continuity of APUC's internal bookkeeping?

A. Yes. However, according to Liberty Water's response to Staff Data Request No. 0057, APUC does not prepare quarterly financial statements for Liberty Water (*see* Schedule DM-R-2).

Q. Did Liberty Water provide information through data request responses that allowed you to compile Liberty Water's quarterly per books capital structures since 2022?

A. Yes. Liberty Water provided its quarterly per books capital balances in response to Staff Data Request No. 59. As shown in Schedule DM-R-3, Liberty Water's capital structure consisted of over 75% of internal money pool balances (*i.e.* affiliate payables) for the

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period March 31, 2022, through September 30, 2023. Because Liberty Water reclassified $17 million of its money pool balances to common equity during the fourth quarter of 2023, this reduced the money pool capital ratio to 37.57%.

Q. If March 31, 2024, had been the ordered updated test year in this case, what capital structure would be implied from Liberty Water's per books capital balances?

A. 35.92% common equity, 10.50% long-term debt and 53.58% short-term debt (*i.e.* money pool borrowings).

Q. How did Liberty Water achieve its requested ratemaking common equity ratio of approximately 53% by April 30, 2024?

A. According to Schedule 8 of Liberty Water's updated revenue requirement model, it reclassified an additional $3.5 million of money pool advances to long-term debt and another $13 million to common equity (*see* Schedule DM-R-4) for purposes of supporting its requested ROR in this case.

Q. In context of File No. WF-2024-0135, did Liberty Water file an executed affiliate promissory note for the additional $3.5 million of money pool advances reclassified as long-term debt?

A. No. Pursuant to the Commission ordered condition 2.b) approving Liberty Water's request for financing authority in File No. WF-2024-0135, Liberty Water was ordered to file the final terms and condition of its promissory notes within 30 days of execution. Liberty Water filed the Promissory Note executed for $12 million of affiliate debt, but not for the additional $3.5 million shown on Schedule DM-R-4.

Q. Does the coupon rate of 2.079% assigned to Liberty Water's 10-year Promissory Note for $5.715 million align with a LUCo bond issued in 2020?

A. Yes. However, it is slightly higher than the actual 2.05% coupon because the bond was issued at a slight discount to the face value/principal amount of the bonds.

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Q. Mr. Cochrane includes a 6.3% affiliate Promissory Note in the amount of $12 million in his recommended cost of debt for Liberty Water.[2] Is this the cost which was ultimately assigned to the affiliate Promissory Note issued to LUCo?

A. No. According to the executed affiliate Promissory Note Liberty Water filed in File No. WF-2024-0135, the Promissory Note was assigned a 5.875% annual coupon rate.[3]

Q. What coupon rate was assigned to the affiliate note in Liberty Water's updated revenue requirement workpapers?

A. 5.875%. While the stated interest rate in the workpapers was 5.96%, Liberty Water included an allowance for amortization of issuance expenses assigned to the affiliate note.

Q. How was the 5.875% coupon rate determined?

A. J.P. Morgan provided APUC indicative pricing information for the potential price of a LUCo bond if it were issued on April 1, 2024. As shown on Schedule DM-R-5, LUCo added a ** ___ ** basis point credit spread to the 4.325% UST yield as of April 1, 2024, to determine the assigned coupon of 5.875%.

Q. Did LUCo issue bonds on the same date?

A. No. APUC requested J.P. Morgan provide indicative pricing information specifically for the purposes of assigning a rate to the affiliate Promissory Note.

Q. How much issuance expenses were assigned to the 5.875% notes?

A. $96,000 or 80 basis points.

Q. How did APUC quantify the issuance expenses it charged Liberty Water for the 5.875% Promissory Notes?

A. It appears to be an estimate of a proportional amount of issuance expenses APUC estimates would be charged on a LUCo bond issuance (*see* Schedule DM-R-6).

[2] Cochrane Direct Testimony, Schedule JC-15.
[3] File No. WF-2024-0135 (EFIS Item No. 19).

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Q. When did LUCo last issue bonds?

A. LUCo last issued bonds on January 12, 2024 – $500 million of 5-year bonds at a coupon rate of 5.577% and $350 million of 10-year bonds at a coupon rate of 5.869%.

Q. Did LUCo's cost of debt information Liberty Midstates provided in response to Staff Data Request No. 60 in Case No. GR-2024-0106 show the amount and percentage of issuance expenses LUCo incurred to issue the 5.869% bond?

A. No. While I am sure LUCo incurred issuance expenses, this information was not provided in response to the data request.

Q. Did LUCo's cost of debt information provide issuance expense information for a 5.58% 5-year bond issued on the same day?

A. Yes. The data request response indicated $1.435 million of issuance expenses on a $500 million bond. This equates to 29 basis points.

Q. Did LUCo's cost of debt information provided in response to Staff Data Request No. 60 in the Liberty Midstates rate case show the amount and percentage of issuance expenses LUCo incurred to issue the 2.05% bond?

A. Yes. According to the response, $8.786 million in issuance expenses (146 basis points) were incurred to issue the $600 million in bonds.

Q. How much issuance expenses were assigned to the $5.715 million affiliate notes?

A. $52,352 or 92 basis points of the $5.715 million.

Q. Was Liberty Water assigned a debt cost that you determined was influenced by APUC's current financial instability and uncertainty related to its investments and divestments?

A. Yes. As I testified in my direct testimony, I made a 50 basis point downward adjustment to LUCo's 5.869% bond because it was priced more similar to 'BBB-' debt than 'BBB' debt. Although I do not recommend the Commission adopt Liberty Water's assigned debt

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cost for purposes of setting it authorized ROR, if the Commission were to do so, I recommend the Commission reduce the 5.875% coupon by 50 basis points to 5.375%.

Q. Considering LUCo issued 5-year and 10-year bonds on January 12, 2024, why wasn't Liberty Water assigned debt costs consistent with 5-year debt?

A. I do not know.

Q. If Liberty Water's debt had been assigned a rate consistent with 5-year debt, what cost of debt should have been assigned?

A. 5.59% based on LUCo's pricing methodology (4.34% UST yield plus 125 basis point credit spread). However, based on the pricing information I attached to my direct testimony, this rate should be reduced by 75 basis points to 4.84%.

Q. Again, although you are not recommending the Commission adopt Liberty Water's internal assigned cost of debt, if the Commission did, should Liberty Water be assigned a weighted-average rate consistent with the weighting of LUCo's two bond issuances in January 2024?

A. Yes. After making the adjustments to LUCo's actual debt costs because they were priced more similar to a 'BBB-' rating, the cost of the new debt assigned to Liberty Water should be 5.06% (350/850 x 5.375% + 500/850 x 4.84%).

Q. Are there other issues related to APUC's debt assignment process which cause you concern?

A. Yes. The timing of the assignment of long-term debt is not consistent with market-based financing decisions.

Q. What do you mean?

A. LUCo advanced $5,715,000 of capital to Liberty Water on June 26, 2020, for the acquisition of the water utility assets of its affiliate, The Empire District Electric Company

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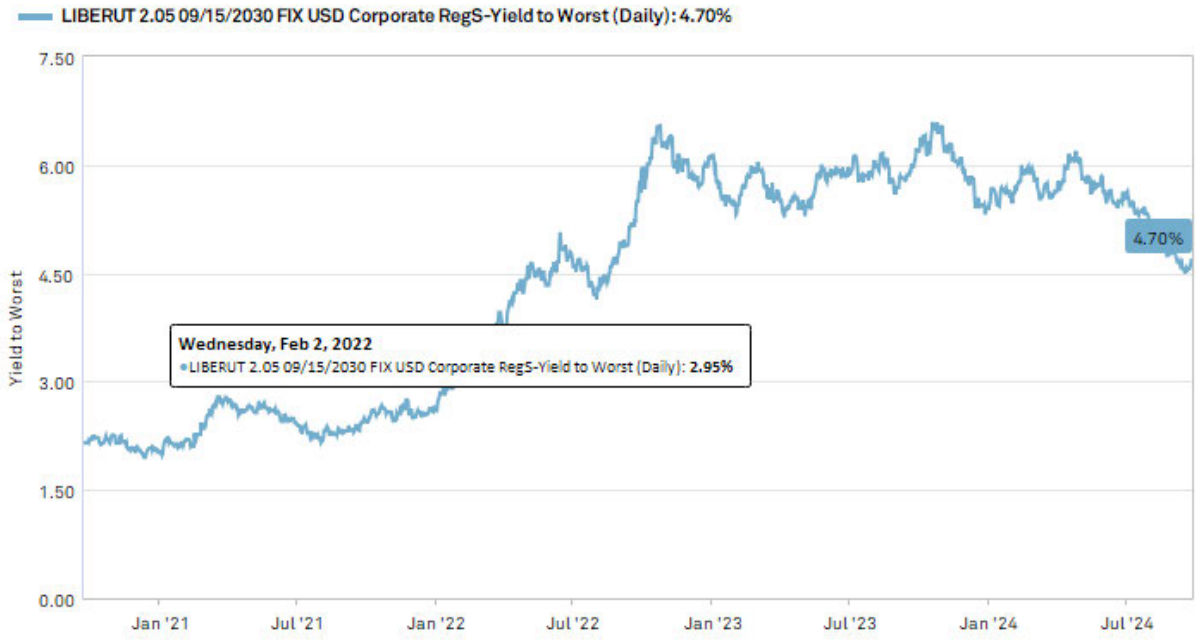
("Empire").[4] Liberty Water executed an affiliate promissory note with LUCo on May 14, 2021, to reclassify the affiliate accounts payable to a long-term promissory note. On February 1, 2022, Liberty Water purchased the Bolivar water and sewer system for over $20 million. The Bolivar acquisition explains the increase in affiliate accounts payable from $13,973,400 on December 31, 2021, to $41,230,425 on December 31, 2022. If LUCo had assigned a long-term affiliate promissory note at closing on February 1, 2022, the cost would have been much lower than waiting until April 1, 2024, to update Liberty Water's books.

Q. How much lower?

A. Up to 290 basis points lower. As shown in the following chart, the yield-to-maturity ("YTM") on LUCo's 10-year bonds issued in 2020 was around 2.95% when Liberty Water closed on its acquisition of the Bolivar systems on February 1, 2022. Liberty Water wasn't assigned a rate on its long-term promissory note until April 1, 2024, over two years after Liberty Water closed on the Bolivar acquisition.



[4] File No. WF-2021-0016, Written Consent Of The Board of Managers of Liberty Utilities (Missouri Water) LLC, February 18, 2021 (EFIS Item No. 13).

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Q. Did Liberty Water provide any pricing information in context of its financing application, assigned File No. WF-2021-0016?

A. No. However, Liberty Water provided estimated pricing based on the ** ___ ** basis point spread over 10-year United States Treasury ("UST") notes required on LUCo's 2020 bonds.

Q. What were 10-year UST yields around February 1, 2022?

A. Around 2%. Therefore, a potential required coupon on new LUCo debt would have been around 3.4% (2% + 1.4%).

Q. Does APUC analyze market yields of LUCo's 10-year bonds for purposes of its own decisions related to accessing debt capital markets?

A. *** _____
_____
_____
_____
_____
_____ ***

Q. Has the Office of Public Counsel ("OPC") discovered past instances in which APUC's debt assignment process violated affiliate transaction rules?

A. Yes. In Case No. ER-2019-0374, the OPC discovered that LUCo attempted to charge The Empire District Electric Company ("Empire") a higher cost for credit facility borrowings by assigning a long-term interest rate to these capital advances.[5] The Commission agreed with the OPC that this transaction violated the affiliate transaction rules.[6]

[5] Case No. ER-2019-0374, Direct Testimony of Robert E. Schallenberg, p. 11, ln. 12 – p. 16, ln. 14.
[6] *Id.,* Report and Order, July 1, 2020, pages 77-84 and 122.

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Q. What is the best methodology to ensure Liberty Water's ratepayers are not charged a cost of capital that exceed the lessor of market or cost?

A. Adopt my recommendation to use LUCo's adjusted embedded cost of debt of 4.29% and apply it to my recommended debt ratio of 52.5%. LUCo's embedded cost of long-term debt is a function of the timing, tenors and coupons applied to third-party debt issuances issued by LUCo, LUF and LUCo's operating utility subsidiaries.

Q. Are you recommending the use of LUCo's cost of debt because it is lower than the cost of debt assigned to Liberty Water?

A. No. In Empire's last rate case, Case No. ER-2021-0312, I recommended LUCo's embedded cost of debt of 4.09% be applied to my recommended debt ratio, despite the fact that APUC's debt assignment process implied Empire's cost of debt was 3.76%.

RETURN ON COMMON EQUITY

JOHN COCHRANE'S RECOMMENDED ROE

Q. What is Mr. Cochrane's recommended allowed ROE for Liberty Water?

A. Mr. Cochrane recommends an authorized ROE of 10.62%, which is the midpoint of his suggested reasonable ROE range of 10.19% to 10.94%.[7]

Q. What is the premise underlying Mr. Cochrane's recommended allowed ROE?

A. Mr. Cochrane estimates the cost of equity ("COE") for Liberty Water to be in the range of 10.43% to 11.28% based on his application of three primary COE methodologies: (1) discounted cash flow ("DCF") analyses – constant-growth version, (2) the Capital Asset Pricing Model ("CAPM") and (3) a Bond Yield Plus Risk Premium analysis.

[7] Cochrane Direct, p. 4, lns. 1-13.

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Q. Had Mr. Cochrane sponsored ROR testimony in Missouri before the Liberty Midstates and Liberty Water rate cases?

A. No.

Q. Are his approach, methodologies, and assumptions similar to other recent company ROR witnesses who have testified before this Commission?

A. Yes.

Q. Do you have concerns with Mr. Cochrane's proxy group?

A. No.

Q. Does Mr. Cochrane recommend company-specific considerations to his water utility industry COE estimate?

A. Yes. Although Mr. Cochrane does not make discrete adjustments to his COE estimate, he testifies that the Commission should consider Liberty Water's small size when determining a fair and reasonable authorized ROE.

Q. What cost of equity methodologies are the subject of small size risk premium studies?

A. Cost of equity methodologies that utilize risk premium estimates, such as the Capital Asset Pricing Model ("CAPM"). The small size risk premium studies are based on observing CAPM predicted returns to actual returns for companies of various sizes (most studies group companies in 10 deciles with some deciles being divided into even more refined sub-categories within the decile).

Q. Is it necessary to consider small size risk premium adjustments when performing a DCF analysis on smaller companies?

A. No.

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Q. Why not?

A. Subject companies' stock prices are a direct input in the DCF method. If investors require a higher risk premium because of a company's smaller size, then the company's stock price will be discounted for this additional risk premium.

Q. Do Mr. Cochrane's DCF COE estimates corroborate the theory of the need for a generic small-size risk premium adjustment for regulated utility companies?

A. No. Despite Middlesex Water Company being the smallest company in Mr. Cochrane's proxy group, Mr. Cochrane's DCF COE estimate for Middlesex is the lowest of all of the water utility companies. American Water, the largest company in Mr. Cochrane's proxy group, has the third-lowest COE estimate of the proxy group, rather than the lowest.

Q. Should Mr. Cochrane's DCF COE estimates be relied upon for purposes of testing the applicability of a small size risk premium for the water utility industry?

A. No. The mere fact that Mr. Cochrane's 90-day constant-growth DCF COE estimates range from 4.68% to 13.00% for a relatively homogeneous and stable water utility industry, illustrates the fact that Mr. Cochrane misapplied the DCF method to estimate the water utility industry's COE. This wide dispersion is caused by Mr. Cochrane's assumption that water utility stock prices will increase in perpetuity at a CAGR consistent with equity analysts' short-term projected CAGR in each company's EPS.

Q. What do your multi-stage DCF COE estimates imply about investors requiring a higher risk premium for smaller water utility companies' stocks?

A. I estimate the same COE for American Water, which is the largest company in my proxy group, and American States Water Company, which is the second smallest company in my proxy group. While this comparison as of a point-in-time of two water utility companies does not constitute a study, the lack of conclusive evidence of a small-size effect on

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regulated water utilities is consistent with the analysis I performed in the recent Confluence Rivers Utility Operating Company, Inc. rate case, Case No. WR-2023-0006.[8]

Q. Does Liberty Water have any affiliate companies that would be considered small in size, which raises third-party capital based primarily on its stand-alone risk profile?

A. Yes. APUC owns Liberty Utilities Gas New Brunswick LP ("LUNB") through its holding company Liberty Utilities (Canada) LP ("LUCA"). LUNB is a rate-regulated pure-play natural gas distribution company in Canada. It has 12,400 customers as compared to Liberty Water's 12,100 water customers and 4,900 wastewater customers.[9] LUNB had a rate base of approximately $200 million United States Dollars ($272.6 million Canadian dollars) as of December 31, 2022. Liberty Water's requested Missouri jurisdictional rate base in this case is approximately $52.2 million.[10]

Q. What is LUNB's authorized ROE?

A. 9.8%.

Q. What was the authorized common equity ratio?

A. 45%.

Q. What cost of debt is charged to LUNB ratepayers?

A. 3.315%.

Q. When does this debt mature?

A. February 14, 2050.

Q. What entity issued the debt?

A. LUCA, which receives "substantially all cash flow" from LUNB.

[8] Case No. WR-2023-0006, Murray Rebuttal, p. 24, ln. 1 – pg. 30, ln. 9.
[9] Penna Direct, p. 3, lns. 18-22.
[10] Liberty Water's Updated Revenue Requirement Model.

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Q. What is LUCA's credit rating?

A. 'BBB'.[11]

Q. Does this affiliate-allowed ROE, capital structure and cost of debt information establish the unreasonableness of Mr. Cochrane's recommended ROR in this case?

A. Yes. LUCA's 'BBB' credit rating is based primarily on LUNB's credit profile. LUNB's authorized common equity ratio of 45% is consistent with the common equity ratios LUCo had communicated to investors is consistent with the low business risk of its regulated utilities. Despite its small size, more leveraged capital structure and a 9.8% authorized ROE, LUNB was able to issue third-party debt at reasonable cost consistent with its credit rating.

LUNB's market-based capital structure and cost of debt parameters refute not only Mr. Cochrane's argument for a small-size risk premium adjustment, but also his equity-rich ratemaking capital structure and the unreasonably high affiliate cost of debt. In fact, these data points alone imply that my ROR recommendation may be too generous. Nevertheless, I will briefly address some of the technical disagreements I have with Mr. Cochrane's cost of equity testimony and analysis.

DISCOUNTED CASH FLOW ASSUMPTIONS

Q. What is the most glaring mis-specification in Mr. Cochrane's constant-growth DCF analysis?

A. His opinion that utility investors expect perpetual annual stock price gains at parity with equity analysts' projected 3-5 year CAGR in EPS. For his mid constant-growth DCF COE estimate of 8.85% (mean) and 9.43% (median), he assumes the perpetual stock price appreciation will be 6.40% per year and 6.57% per year, respectively.

However, as Mr. Cochrane acknowledges on page 12 of his testimony, utility companies pay out a high percentage of their income as dividends. The average dividend payout ratio

[11] Eric Eng, et.al., "Ratings Report: Liberty Utilities (Canada) LP," Morningstar-DBRS, March 16, 2023.

for the last two years for his proxy group, without California Water Services Group in 2023 due to non-recurring impacts on 2023 net income, was approximately 59%. Based on the fundamentals of the constant-growth DCF formula, this difference implies that investors' returns from capital gains should be 41% (1 – 59%). Mr. Cochrane's assumed growth rate in his constant-growth DCF analysis implies that utility investors will achieve approximately 70% to 72% of their returns from capital gains. This fundamental flaw in his constant-growth DCF assumptions causes his COE estimates to be inflated.

Q. Are you aware of any equity analysts that assume a utility's DPS can grow in perpetuity at the same rate as their own projected 3-to-5 year CAGR in EPS?

A. No.

Q. Did Mr. Cochrane perform a multi-stage DCF analysis in this case?

A. No. Considering the fact that Mr. Cochrane performed a multi-stage DCF analysis in the Liberty Midstates' gas rate case, I am not sure why he did not do so for the water utility industry. If he had, his multi-stage DCF results would have been lower than his constant-growth DCF results.

CAPM ASSUMPTIONS

Q. Why are Mr. Cochrane's CAPM cost of equity estimates so high?

A. Because the expected market returns are not rational. Mr. Cochrane estimates a total compound annual market return for the S&P 500 of 13.96% for the foreseeable future (perpetually based on his use of a constant-growth DCF to estimate S&P 500 returns).[12] Subtracting long-term risk-free rates from Mr. Cochrane's estimated market return results in his market risk premium estimates of 9.43% to 9.77%.[13]

[12] Cochrane Direct, p. 17, lns. 6-14.
[13] *Id.*, p. 17, Table 6.

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Q. How is Mr. Cochrane able to achieve such high market risk premium estimates?

A. Because he assumes that the S&P 500 can grow its earnings at a compound annual rate of 12.45% in perpetuity.[14]

Q. Are you aware of any authoritative sources, academic or practical, that use Mr. Cochrane's approach for estimating market returns?

A. No. I know of no authoritative source that suggests this is a rational or reasonable approach for purposes of estimating market returns. In fact, I know of several authoritative sources that recommend against using a growth rate higher than GDP for purposes of determining the long-term expected return for a broad index, such as the S&P 500.

Q. What academic support are you aware of?

A. The 2010 curriculum for Level III of the Chartered Financial Analyst ("CFA") Program discusses how analysts often use the Gordon growth model (synonymous with the constant growth DCF model used in utility ratemaking) to formulate the long-term expected return for the broader equity markets. In the case of a broad-based equity index, such as the S&P 500, it is reasonable to estimate the long-term potential capital gains for the index by using estimated nominal GDP over a long-term period. The curriculum specifically provides the following formula for estimating the constant growth rate with an explanation that follows:

> Earnings growth rate = GDP growth rate + Excess corporate growth (for the index companies)
>
> where the term *excess corporate growth* may be positive or negative depending on whether the sectoral composition of the index companies is viewed as higher or lower growth than that of the overall economy. If the analyst has chosen a broad-based equity index, the excess corporate growth adjustment, if any, should be small.[15]

Considering the S&P 500's current dividend yield of approximately 1.32% as of June 30, 2024,[16] and projected long-term growth in U.S. nominal GDP is around 4.0%, it seems that

[14] *Id.,* Schedule JC-6.
[15] 2010 CFA® Program Curriculum, Level III, Volume 3, p. 34.
[16] https://ycharts.com/indicators/sp_500_dividend_yield

investment professionals' forecasts of long-term returns for the S&P 500 of around 7%[17] may be a bit optimistic based on current market valuation levels.

Q. Are you aware of any common valuation metrics that illustrate the irrationality of Mr. Cochrane's market growth rate assumption?

A. Yes. The comparison of a broad equity market capitalization amount to that of the total size of the U.S. economy. This valuation metric provides a sanity check on potential growth for capital markets. Warren Buffett made it popular when he provided insight on how high the market, as measured by the Wilshire 5000, became valued as compared to U.S. GDP at the time of the "dot com" bubble around March 2000. At that time, the Wilshire 5000 was around 1.4x that of GDP. As of June 30, 2024, it was around 1.9x, which demonstrates investors are currently requiring lower market risk premiums than usual.

Q. What would this ratio be in 50 years if the market grew at the 12.45% compound annual growth rate Mr. Cochrane suggests is consistent with investor expectations?

A. The Wilshire 5000 index would be approximately 95x times the GDP level, which is over twice as high as the irrational assumptions Ms. Anne Bulkley made in the concurrent Evergy Missouri West rate case. Based on the market capitalization of the Wilshire 5000 of approximately $54.47 trillion as of June 30, 2024, the Wilshire 5000 would have a market capitalization of $19.24 quadrillion in 50 years. U.S. GDP was $28.63 trillion as of the same date. Based on a 4.0% long-term growth rate for the U.S. economy, GDP would be approximately $203.46 trillion in 50 years. It is not rational to assume corporate wealth will become much larger than the economy in which it operates, let alone 95x the size of the economy. This explains why the CFA Program advises not using a perpetual growth rate much, if any, higher than the GDP growth rate of the economy(/ies) in which a company operates.

[17] Murray Direct, p. 37, ln. 4.

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BOND YIELD PLUS RISK PREMIUM ANALYSIS

Q. What are your thoughts on Mr. Cochrane's Bond-Yield-Plus Risk Premium ("BYPRP") analysis?

A. Mr. Cochrane's BYPRP analysis is a regression analysis of allowed ROEs to interest rates. He concludes from his regression analysis that because allowed ROEs haven't changed as much as interest rates, an adjustment needs to be made to recognize that regulators have been hesitant to adjust allowed ROEs as much as interest rates would suggest. This approach is circular in that the regression coefficient is dependent on commissions' regulatory decisions rather than on market required returns. As I testified in my direct testimony, the investment community recognizes that authorized ROEs did not decline along with the COE.

FLOTATION COSTS

Q. Mr. Cochrane recommends the authorized ROE be adjusted for flotation costs. How does he define flotation costs?

A. Mr. Cochrane defines flotation costs as explicit/hard costs for issuing common equity such as underwriting expenses, legal expenses, issuance preparation, etc. (hereinafter referred to as "issuance costs" rather than "flotation" costs).[18]

Q. How have Missouri's utility companies traditionally recovered common equity issuance costs?

A. If common equity proceeds can be specifically reconciled to beneficial investments in their Missouri utility systems, then assuming the common equity was issued within the test year, or any updates to the test year, then issuance costs are allowed to be recovered through an amortization over a reasonable period. Liberty Water relies on APUC for indirect access to equity markets. The only common equity contributions Liberty Water has received since 2021 was in 2023 for Liberty Water's acquisition of the Bolivar water and sewer system.

[18] Cochrane Direct, p. 22, lines 8-11.

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Generally, any transaction costs related to mergers and acquisitions cannot be recovered in rates.

Q. Has APUC recently issued common equity to fund investments?

A. No. APUC has not issued a sizeable amount of common equity since 2021. APUC's current strategy is to avoid issuing common equity because the market value of its common equity has declined significantly since the end of 2022. If anything, APUC plans to buy back common shares if it believes it can do so without having its credit rating downgraded from 'BBB.'

Q. Just to be clear, should Mr. Cochrane's flotation cost adjustment be rejected?

A. Yes.

SUMMARY AND CONCLUSIONS

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

A. Yes. The Commission should reject Liberty Water's requested assigned cost of debt and assigned capital structure for purposes of setting its ROR. The Commission correctly did so in the following cases involving APUC's Missouri utility companies: (1) Liberty Midstates 2014 rate case, Case No. GR-2014-0152,[19] (2) Liberty Water 2018 rate case, Case No. WR-2018-0170,[20] and (3) The Empire District Electric Company' 2019 rate case, Case No. ER-2019-0374.[21] The facts and evidence in this case are the same as they were in those cases. Liberty Water relies entirely on affiliate financing transactions to fund its rate base and the cost assigned to the affiliate financing transactions is based on LUCo's consolidated risk profile. Further, the timing of the affiliate financing transactions is not determined based on a prudently and efficiently managed capital structure, but rather for purposes of organizing the books for an anticipated rate case.

[19] Case No. GR-2014-0152, Report and Order, December 3, 2024, pages 15-19 (item 183 in EFIS).
[20] Case No. WR-2018-0170, Report and Order, October 24, 2018, pages 26-30 (item 144 in EFIS).
[21] Case No. ER-2019-0374, Amended Report and Order, July 23, 2020, pages 24-39 (item 617 in EFIS).

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Liberty Water's capital structure is not market-based. Therefore, the appropriate ratemaking capital structure and cost of debt for purposes of setting Liberty Water's authorized ROR is that which is consistent with LUCo's typical targeted capital structure and embedded cost of debt as of March 31, 2024.

Mr. Cochrane's COE estimates are inflated due to several fundamental flaws and irrational assumptions. It is widely recognized in the investment community that commissions have consistently authorized ROEs higher than the COE. Mr. Cochrane's COE estimates for the water utility industry are as high as approximately 12.5%. This is approximately 285 basis points higher than authorized ROEs of around 9.65%. Clearly Mr. Cochrane's COE estimates are not in line with the investment community. While the utility industry's COE has increased since 2022, they are still below authorized ROEs.

My recommended 9.25% authorized ROE is above my COE estimates for the water utility industry. This dynamic allows Liberty Water to attract capital. Therefore, my ROE recommendation is fair and reasonable.

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 General Rate Increase for Water and Wastewater Service Provided in its Missouri Service Areas	))))))	Case No. WR-2024-0104

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 rebuttal 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 26th day of September 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.