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Witness: John Cochrane  
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Sponsoring Party:  
Liberty Utilities (Missouri Water) LLC d/b/a  
Liberty  
Case No.: WR-2024-0104  
Date Testimony Prepared: September 2024

**Before the Public Service Commission  
of the State of Missouri**

**Rebuttal Testimony**

**of**

**John Cochrane**

**on behalf of**

**Liberty Utilities (Missouri Water) LLC d/b/a Liberty**

**September 27, 2024**



**\*\*DENOTES CONFIDENTIAL\*\***  
20 CSR 4240-2.135(2)(A)8

**PUBLIC VERSION**

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LIBERTY UTILITIES (MISSOURI WATER) LLC D/B/A LIBERTY  
BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION  
CASE NO. WR-2024-0104

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REBUTTAL TESTIMONY OF JOHN COCHRANE  
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BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION  
CASE NO. WR-2024-0104

1 **I. INTRODUCTION**

2 **Q. Please state your name and business address.**

3 A. My name is John Cochrane. My business address is 200 State St, 9th Floor, Boston,  
4 Massachusetts. I am a Senior Managing Director in the Power, Renewables & Utilities  
5 practice at FTI Consulting, Inc. (“FTI”).

6 **Q. On whose behalf are you submitting testimony?**

7 A. I am submitting rebuttal testimony on behalf of Liberty Utilities (Missouri Water) LLC  
8 (“Liberty” or the “Company”).

9 **Q. Are you the same John Cochrane that previously submitted direct testimony in**  
10 **this proceeding?**

11 A. Yes.

12 **II. PURPOSE AND OVERVIEW OF TESTIMONY**

13 **Q. What is the purpose of your rebuttal testimony in this proceeding before the**  
14 **Missouri Public Service Commission (“Commission”)?**

15 A. The purpose of my rebuttal testimony is to respond to the direct testimony of  
16 Christopher Walters, who appears on behalf of the Staff of the Commission (“Staff”),  
17 and the direct testimony of David Murray, who appears on behalf of the Missouri Office  
18 of the Public Counsel (“OPC”), regarding Liberty’s proposed cost of common equity  
19 (“ROE”), cost of debt, and capital structure.<sup>1</sup>

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<sup>1</sup> Cost of debt updated to 4.97%, long-term debt ratio to 47.01% and common equity ratio to 52.99% based on April 30, 2024 actuals with pro-forma adjustments. See **Rebuttal Schedule JC-1**.

1 **Q. Have you updated your capital structure, cost of debt and rate of return from**  
2 **your direct testimony?**

3 A. Yes, I have. In the Company's cost of service update, I updated the capital structure for  
4 April 30, 2024, actuals plus pro-forma adjustments and the long-term debt cost rate.  
5 The common equity ratio was updated to 52.99% from my filed 52.61% and the long-  
6 term debt ratio was updated to 47.01% from 47.39%. (See **Rebuttal Schedule JC-1**).  
7 The long-term debt rate declined to 4.97% from 5.04%, at the same point in time, and  
8 includes a \$12 million note issued and priced in April 2024 and a \$3.5 million note  
9 issued in September 2024 pursuant to the Commission financing order in File No. EF-  
10 2024-0135. (See **Rebuttal Schedule JC-2**).

11 **Q. Did you change your cost of common equity in the Company's update?**

12 A. Yes, I did. My updated recommendation is 10.79% (10.62% filed), which I still believe  
13 is reasonable as the midpoint of my updated range, 10.56% to 11.03% (10.19% to  
14 10.94% filed). (See **Rebuttal Schedules JC-3 through JC-10**).

15 **Q. Does that remain the Company's recommendation?**

16 A. No. After reviewing the parties' direct testimony, the Company has decided movement  
17 of its cost of common equity recommendation to 10.0% is appropriate in an effort to  
18 reduce issues in the case and to lessen the overall rate increase impact on its customers.  
19 I have included this change as well as my capital structure and cost of debt updates in  
20 **Rebuttal Schedules JC-1 and JC-2**. My overall rate of return has declined from 8.05%  
21 in the update filing to 7.64% in my rebuttal testimony.

22 **Q. Please summarize your conclusions regarding Staff's and OPC's proposed ROE,**  
23 **cost of debt and capital structure for the Company.**

1 A. For reasons I discuss in detail later in my testimony, I conclude that the arguments  
2 propounded by Staff witness Walters and OPC witness Murray, as well as their  
3 proposed ROEs, are flawed. Acceptance of their recommendations would result in an  
4 authorized ROE for Liberty that is below the current average State Authorized allowed  
5 ROEs for water utilities of 9.65%<sup>2</sup>, my updated recommended ROE range of 10.56%  
6 to 11.03%, with a midpoint of 10.79% and the Company’s proposed ROE of 10.0%.

7 I find that my updated April 30, 2024 recommended capital structure of 52.99%  
8 common equity and 47.01% long-term debt is reasonable<sup>1</sup>, and that: (1) Mr. Walters’  
9 recommended common equity ratio of 50.0% is based on a flawed proxy group and  
10 ignores the results for common equity ratios allowed for other water utilities over the  
11 last twelve years (50.68% average over the twelve years, 52.53% in 2023, and 50.56%  
12 in 2024, as provided in his Direct Testimony in Table CCW-2; and (2) Mr. Murray’s  
13 47.50% common equity recommendation should be disregarded because it is not  
14 supported by any facts, analysis, documentation or empirical evidence. In fact, Mr.  
15 Murray’s testimony ignores the one set of calculations he performs, which support my  
16 recommendation of 52.99%<sup>1</sup>.

17 Finally, Liberty agrees with Staff witness Walters’ recommendation that the  
18 cost of long-term debt should be 4.97%, as updated by the Company based on April  
19 30, 2024 actuals and pro-forma adjustments (see **Rebuttal Schedule JC-2**) and that  
20 Mr. Murray’s recommendation regarding cost of long-term should be totally ignored.

21 **Q. How is the remainder of your rebuttal testimony organized?**

22 A. The remainder of my rebuttal testimony is organized as follows:

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<sup>2</sup> Walters Direct Testimony, p. 6, Table CCW-1, columns (6) and (7) Line 9 and Murray Direct Testimony, p. 2, lines 15-16.

- 1 • Section III addresses Staff and OPC’s capital structure recommendations;
- 2 • Section IV addresses Staff and OPC’s cost of long-term debt recommendations;
- 3 • Section V responds to Mr. Walters ROE results and recommendation for
- 4 Liberty by examining (1) his proxy group composition, (2) the results and
- 5 assumptions underlying his constant growth Discounted Cash Flow (“DCF”)
- 6 model using analysts’ projections, (3) his DCF results and methodology using
- 7 sustainable growth rate estimates, (4) his multi-stage DCF model assumptions,
- 8 analysis and results, (5) his risk premium model methodology and results, and
- 9 (6) the assumptions, methodologies and results of his nine different Capital
- 10 Asset Pricing Model (“CAPM”) analyses;
- 11 • Section VI responds to Mr. Murray’s Liberty ROE recommendation by
- 12 examining the assumptions, calculations and results of his multi-stage DCF
- 13 analysis, and his Capital Asset Pricing Model CAPM analyses underlying his
- 14 Cost Of Equity (COE) analysis as well as his reasonableness check analysis
- 15 which uses a bond yield plus risk premium method. I will also respond to his
- 16 statements supporting his selection of his reasonable range and recommended
- 17 ROE for Liberty, which is different from his COE calculated from his DCF and
- 18 CAPM analyses; and
- 19 • Section VII summarizes my conclusions.

20 **III. RESPONSE TO CAPITAL STRUCTURE RECOMMENDATIONS**

21 **A. Response to Staff’s Capital Structure Recommendation**

22 **Q. What is Staff witness Walters’ recommended capital structure?**

23 A. Mr. Walters is recommending a 50.0% common equity ratio versus my 52.6% (updated  
24 to 52.99%) recommendation.

1 **Q. What is the basis of Mr. Walter's recommendation?**

2 A. He bases his 50.0% recommendation on his proxy group average common equity ratio  
3 of 44.8% (including short-term debt) and 48.5% (excluding short-term debt). Based on  
4 this statement, it appears Mr. Walters selected the average common equity ratio of his  
5 proxy group that excludes short-term debt and rounded up to 50.0%. I also excluded  
6 short-term debt in my capital structure analysis to arrive at 52.61%, which was shown  
7 in Direct Schedule JC-14 and updated to 52.99% in **Rebuttal Schedule JC-1**.

8 **Q. What is Mr. Walter's proxy group?**

9 A. Mr. Walters uses a proxy group composed of twelve utility holding companies: five  
10 gas distribution companies, six water companies and one combination  
11 electric/gas/water company (Eversource Energy). He started with my proxy group,  
12 which was composed of six water utilities. However, in his opinion, a proxy group of  
13 six companies is insufficient to accurately assess the COE for Liberty Water,  
14 necessitating an expanded proxy group. He then considered other utilities that have  
15 significant regulated distribution utility operations and started with the natural gas  
16 utility universe from Value Line Investment Survey. From this group, he removed  
17 Chesapeake for not being rated by Moody's and S&P as well as for its acquisition of  
18 Florida City Gas. He also excluded NiSource Inc. because of their announced sale on  
19 June 20, 2023 (closed on January 2, 2024) of Northern Indiana Public Service  
20 Company, a vertically integrated electric utility in Indiana, for \$2.15 billion. After  
21 excluding these two gas distribution utilities he added one multi-utility with electric,  
22 gas and water delivery services, Eversource, to increase his proxy group to twelve.

1 **Q. How do you address Mr. Walters’ additions of gas distribution utilities and the**  
2 **multi-utility Eversource to his proxy group representing Liberty, a pure water**  
3 **and wastewater utility?**

4 A. His inclusion of these companies as part of his proxy group is inappropriate. As for  
5 Eversource, they recently announced a sale process concerning their water utility,  
6 Aquarion, in February 2024. Eversource is predominantly an electric utility not water  
7 or wastewater. 83% of its regulated earnings come from electric transmission and  
8 distribution<sup>3</sup>. This, combined with the announced sale, is more than ample justification  
9 for excluding it from his proxy group. As for the five gas distribution utilities, they  
10 should also be excluded. Gas utilities are very different from and subject to  
11 significantly different risks than a water and wastewater utility like Liberty. Water  
12 utilities are much more capital intensive due to aging infrastructure, stringent water  
13 quality regulations, customer growth, and geographic expansion through acquisition of  
14 municipal owned water systems. In addition, they are facing constant supply challenges  
15 due to weather conditions. Their regulatory risks and capital expenditure profiles are  
16 much different than gas. Gas as a commodity is historically subject to significant price  
17 volatility, which can create balance sheet deferrals, and many states are not allowing  
18 new gas customer connections due to carbon and climate change concerns, which affect  
19 capital expenditure plans. This creates a much different growth and risk profile for gas  
20 utilities when compared to water and wastewater. Therefore, the gas distribution  
21 utilities should be ignored as comparable companies in Mr. Walters proxy group.

22 **Q. Did Mr. Murray use gas or electric utilities in his proxy group?**

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<sup>3</sup> 2023 Eversource 10k.



1 A. No. His proxy group included water utilities only. His proxy group of five water  
2 companies was identical to mine except he excluded Middlesex Water.

3 **Q. Should have Middlesex Water, Inc have been excluded from Mr. Murray’s proxy**  
4 **group?**

5 A. No. Middlesex Water, Inc. was appropriately included in my Proxy Group. I developed  
6 the group to reflect the risks associated with Liberty, using a set of criteria that have  
7 been accepted in prior Commission proceedings. Middlesex met all relevant criteria,  
8 making it a suitable proxy company for my analysis.

9 **Q. Has the MPSC Staff proposed using gas or electric utility companies in their proxy**  
10 **groups in recent water utility rate cases?**

11 A. No, they have not. I have reviewed cases back to 2010 and have found no examples  
12 where Commission Staff recommended anything beyond water utilities for their proxy  
13 group.

14 **Q. Has the Commission accepted the inclusion of gas or electric utility companies in**  
15 **proxy groups in past water utility rate cases?**

16 A. Based on my review of cases back to 2010, they have not. As stated above, the Staff  
17 has not proposed a non-water proxy group for water utility rate cases in the past either.  
18 In addition, Mr. Walters did not cite any Commission decisions supporting his  
19 inclusion of non-water companies. Instead, he cites five cases from outside of Missouri.  
20 Accordingly, his proxy group is flawed and should be ignored.

21 **Q. How did Mr. Walters justify using his proxy group to recommend a common**  
22 **equity ratio for Liberty?**

23 A. Mr. Walters referenced a recent S&P credit report on Algonquin Power & Utilities  
24 Corp. (“APUC”) and subsidiaries (BBB from S&P/Baa2 from Moody’s), including

1 LUCo (Baa2 Moody's; BBB/BBB+ from Fitch; BBB from S&P)), that provided a  
2 Stable Outlook for APUC and subsidiaries on the expectation of the sale of their higher  
3 risk renewable investments. Even though APUC has carried a BBB rating from S&P  
4 since the end of 2013, he states that it is not reasonable to rely on LUCo's or APUC's  
5 current investment grade ratings of BBB/Baa2 as an indicator of Liberty's risk profile.<sup>4</sup>  
6 Liberty has no credit ratings, but Mr. Walters states that there is no reason to believe  
7 that the Company would be rated much differently than that of his proxy group on a  
8 stand-alone basis. From this, he concludes that the 50.0% common equity ratio from  
9 his proxy group average should be used for Liberty. He further states that his 50.0%  
10 recommendation is consistent with the mean and median capital structures for my  
11 proxy group, citing my Direct Testimony, p. 33 and Direct Schedule JC-13.

12 **Q. What does your direct testimony, p. 33, say and Direct Schedule JC-13 show as to**  
13 **capital structure?**

14 A. Page 33 is the last page of my testimony and just provides my recommendations. Direct  
15 Schedule JC-13 compares construction work in progress to short-term debt for my  
16 proxy group. There are no ratios. The cites Mr. Walters provides are inaccurate and  
17 therefore do not support his statement.

18 **Q. Has APUC announced the sale of its renewable investments?**

19 A. Yes. On August 9, 2024, APUC announced the planned sale of its renewable  
20 investments to LS Power for \$2.5 billion. Additionally, on May 28, 2024, APUC  
21 announced an agreement with Energy Capital Partners to dispose of their Atlantic Yield  
22 equity interests. These transactions would allow for their full exit from the renewables  
23 business. Based on the S&P ratings Direct Report referred to by Mr. Walters in footnote

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<sup>4</sup> Christopher Walters' Direct Testimony, p. 25, lines 3-4.

1 15 of his direct testimony, the announced sale provides confirmation to S&P's Stable  
2 Outlook and their current rating of BBB for LUCo and APUC were affirmed. This  
3 further contradicts Mr. Walters' statement that LUCo and APUC cannot be relied upon.

4 **Q. Why does Liberty not have credit ratings?**

5 A. All external funding for Liberty comes from LUCo, who is rated Baa2/BBB from  
6 Moody's and S&P, respectively. That, combined with Liberty's small size, makes  
7 credit ratings unnecessary and not economic to acquire.

8 **Q. Is Mr. Walters' proxy group credible as a basis for determining Liberty's common  
9 equity ratio?**

10 A. No. Given the shortcomings I discuss above in Mr. Walters proxy group selection, I do  
11 not believe it should be used as a basis or even used to provide additional support. The  
12 capital structure of the actual utility filing for the new rates should be used as the basis  
13 for determining the appropriate common equity ratio as I stated and demonstrated in  
14 my direct testimony.

15 **Q. Why does Mr. Walters use his proxy group's average common equity ratio?**

16 A. He believes the common equity ratio for Liberty needs to be based on the proxy group  
17 he uses to determine his recommended cost of common equity, because the COE for  
18 the proxy group needs to be aligned with the proxy group capital structure.

19 **Q. What is the basis of Mr. Walters statements on COE and capital structure  
20 alignment?**

21 A. First, he cites an October 25, 2023, Commission Report and Order in a Confluence  
22 Rivers Utility Operating Company, Inc. rate case (WR-2023-0006) that refers to a  
23 Commission finding that a hypothetical 50% equity and 50% debt capital structure is  
24 appropriate in that case. There is no specific mention in the cited Order of a need for

1 linkage between capital structure and cost of equity to a proxy group, but simply that  
2 equity is more expensive than debt. In addition, he cites two random Commission  
3 Orders from other states, Baltimore Gas and Electric in Maryland from 2016 and  
4 Southwestern Electric Power Company in Arkansas from 2022, as further proof to  
5 support his conclusions.

6 **Q. Do these cited cases provide credible support to Mr. Walters' linkage conclusion**  
7 **for Liberty?**

8 A. No. A single 2023 Commission Report and Order that doesn't support his premise on  
9 alignment and two random non-Missouri state Commission orders from 2016 and 2022  
10 does not support his conclusions on the proper common equity ratio for Liberty.

11 **Q. Did Mr. Walters provide any other capital structure information for water**  
12 **utilities?**

13 A. Yes. In Table CCW-2 of his Direct Testimony, he provided State Authorized Common  
14 Equity Ratios for water utilities for the years 2013 through March 31, 2024, based on  
15 S&P Global Market Intelligence data. He provided averages per year and an average  
16 for the entire period plus a Min and Max.

17 **Q. What do the results show?**

18 A. Over the eleven year and three-month period ending March 31, 2024, the average was  
19 50.68% with a Min of 48.34% in 2013 and a Max of 52.53% for 2023. Ten of the twelve  
20 years of results are higher than Mr. Walters' 48.50% average for his Proxy group. The  
21 Table CCW-2 results are closer to my 52.61% recommendation (updated to 52.99%)  
22 for Liberty. The more recent results shown in Mr. Walters' Table CCW-2 for 2023  
23 were 52.53%, which are much higher than his recommendation and more than support

1 my Recommendation of 52.61%, which I updated to 52.99% as of April 30, 2024 in  
2 **Rebuttal Schedule JC-1.**

3 **Q. Did Staff witness Walters provide any other information that shows a linkage**  
4 **between common equity ratios and COE for water utilities?**

5 A. Yes, in his Table CCW-1, he provided the annual averages for 2016 through March 31,  
6 2024 for Commission Authorized Water ROEs from the same S&P Global Market  
7 Intelligence source as his State Authorized Common Equity Ratios. The average  
8 Authorized ROE over the nine-years from 2016-2024 was 9.53%, with a minimum of  
9 9.04% and a maximum of 9.74%. Comparing these Authorized Water ROEs to the  
10 Authorized Water Common Equity Ratios over the same 2016 to 2024 timeframe, the  
11 average ROE of 9.53% compares to an average common equity ratio of 50.95%. The  
12 minimum ROE of 9.04% for 2020 corresponds to a common equity ratio of 49.75% in  
13 2020 and the maximum of 9.74% in 2016 corresponds to a 50.65% average common  
14 equity ratio in 2016. If you look at more recent years, the 2023 and 2024 average ROEs  
15 were 9.64% and 9.65% and the common equity ratios 52.53% and 50.56% in those  
16 years.

17 **Q. What do you conclude from Mr. Walters' Tables CCW-1 and CCW-2 as to capital**  
18 **structure and ROE alignment?**

19 A. Based on the averages for State Authorized Water Utility Common Equity Ratios and  
20 Authorized Water Utility ROEs used and provided by Mr. Walters, his  
21 Recommendations of 50.0% and 9.45% are below the average historical 2016-2024  
22 period common equity ratios of 50.95% and ROE of 9.53%. This is even more evident  
23 for the recent 2023 and 2024 years, 53.53% and 9.64% from 2023 and 50.56% and

1 9.65% for 2024. His 50.0% should be rejected and the Company’s 52.61% (52.99%  
2 updated) Recommendation adopted.

3 **B. Response to OPC’s Capital Structure Recommendation**

4 **Q. What is OPC witness Murray’s recommended capital structure for Liberty?**

5 A. Mr. Murray recommends a common equity ratio of 47.5% (Murray Direct, p. 3, lines  
6 14-15) and a long-term debt ratio of 52.5%.

7 **Q. What is the source for his Recommendation?**

8 A. Mr. Murray’s one and only source for his Recommendation is a September 2017  
9 Liberty Utilities Fixed Income Presentation (Murray Direct, p. 12, footnote 6), which  
10 is seven years old and of no relevance in a 2024 rate case for Liberty. Mr. Murray  
11 interprets this one presentation from 2017 to say that APUC is targeting 50% to 55%  
12 (45% to 50% equity ratio) for its regulated service group and therefore the 47.5%  
13 midpoint equity ratio is the target. Mr. Murray has referred to this 2017 Presentation in  
14 several past cases in support of a 47.5% common equity recommendation for Liberty  
15 affiliated Missouri utilities.

16 **Q. Does he provide or point to any analytical support for his 47.5%  
17 Recommendation?**

18 A. No, he doesn’t point to any specific analysis. Normally, Mr. Murray would also  
19 calculate the capital structure ratios for Liberty, APUC and LUCo over several quarters  
20 and years and select the lowest common equity ratio from whichever company  
21 supported his Recommendation, but this time he only provided LUCo’s capital  
22 structure calculations for the last several years under three different methodologies  
23 shown in Schedules DM-D-3, pp. 1-2. He appears to ignore those calculations because  
24 the results do not support his recommendation of a 47.5% common equity. Rather the

1 results of those calculations support my 52.61% common equity recommendation  
2 (updated to 52.99%). Instead, he states on p. 12, lines 11-13 of his Direct Testimony  
3 that “as shown in Schedule DM-D-3 LUCo’s capital structure has recently consisted of  
4 as much as 60% common equity during 2022 and 2023. Despite having this high of a  
5 common equity ratio, LUCo is still rated “BBB”.

6 **Q. What were the results of Mr. Murray’s analysis for LUCo in Schedule DM-D-3,**  
7 **pp. 1 and 2 that led him to make the above statement?**

8 A. His quarterly average common equity ratios for LUCo only, based on the Per Books,  
9 Adjusted, and Adjusted/Excluding Short-Term Debt ratios, were 57.63%/  
10 50.14%/54.29% for 2021, 61.11%/57.29%/59.55% for 2022 and 60.38%/  
11 56.54%/61.39% for 2023. As you can see from these results, every common equity  
12 ratio he calculated for LUCo, is significantly higher than his common equity ratio  
13 recommendation and LUCo’s common equity ratios have been in the 50%’s and 60%’s  
14 for the last three years. This analysis more than supports my 52.61% recommendation  
15 (updated to 52.99%).

16 **Q. How did Mr. Murray calculate LUCo’s capital structure ratios in Schedule DM-**  
17 **D-3, p. 1 and 2?**

18 A. He calculated quarterly averages for the years 2020-2023. His quarterly calculations  
19 show common equity attributable to LUCo’s shareholder, non-controlling interest  
20 (redeemable and non-redeemable) long-term debt and short-term debt. He then  
21 calculates the percentage of capital for each component for his Per Books calculations.  
22 For his Adjusted ratios, he first adds the amount of off-balance sheet guarantees LUCo  
23 has made for debt issued by its affiliate Finance Company, GP-1, to long-term debt and  
24 then subtracts the same amount from common equity attributable to shareholders. This

1 set of adjustments was first done by Mr. Murray within his calculations for the 2019  
2 Empire District Electric Company (“Empire”) rate case (an affiliate of the Company)  
3 and, while I do not agree with the methodology, the Commission first reviewed and  
4 authorized it in the 2019 Empire case<sup>5</sup>. Mr. Murray then makes a second adjustment  
5 that removes all the non-controlling interests from the capital structure and recalculates  
6 the ratios. He provides no rationale for this adjustment despite the fact these non-  
7 controlling interests are included in LUCo’s common equity accounts in its audited  
8 financial statements. It is important to note this adjustment was not reviewed and  
9 authorized by the Commission in the 2019 Empire case. For his last set of Ratio  
10 calculations, he simply removes short-term debt from the Adjusted ratios and calculates  
11 the common equity and long-term debt percentages.

12 **Q. Did Mr. Murray also perform these calculations for Liberty and APUC?**

13 A. No, he did not.

14 **Q. Did he provide a reason for not calculating the ratios at APUC?**

15 A. No, he didn’t, even though he has in all past rate cases for Liberty’s Missouri utility  
16 companies. I can only surmise that his reason for not performing these calculations is  
17 that the calculations also do not provide any support for his 47.5% common equity  
18 recommendation or the other unsupported statements he makes in his testimony which  
19 is addressed later in my testimony.

20 **Q. Did you perform the calculations for Liberty, APUC and LUCo?**

21 A. Yes, I performed the calculations for Liberty as of year-end 2023 with now completed  
22 pro-forma adjustments (Direct Schedule JC-14), and LUCo (Direct Schedule JC-17)

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<sup>5</sup> *In the Matter of The Empire District Electric Company’s Request for Authority to File Tariffs Increasing Rates*, Case No. ER-2019-0374.



1 and APUC (Direct Schedule JC-16) as of year-end 2022. This was performed both Per  
2 Books and including the guarantees and other adjustments used in the past by Mr.  
3 Murray and authorized by the Commission in the 2019 Empire case. My calculations  
4 resulted in common equity ratios of 52.61% at the end of 2023 (my Recommendation)  
5 for Liberty, 68.8% common equity for LUCo and 65.7% for APUC, both at year end  
6 2022. In addition, the Company's response to OPC Data Request 3005, included as  
7 **Confidential Rebuttal Schedules JC-11 and 12**, provides LUCo and APUC  
8 calculations by quarter from the fourth quarter of 2021 through December 31, 2023,  
9 and follow the past adjustment methodology as approved by the Commission in the  
10 2019 Empire rate case. The results from OPC Data Request 3005 show common equity  
11 ratios for LUCo and APUC in the 60's+%, which are well in excess of my  
12 Recommendation for Liberty in every quarter. Finally, I also provide updated actuals  
13 as of April 30, 2024, including pro-forma adjustments that occurred in July and  
14 September of 2024 for Liberty. The updated common equity ratio was 52.99%.  
15 **(Rebuttal Schedule JC-1)**. My results for LUCo are similar to Mr. Murray's results in  
16 his Schedule DM-D-3, which as discussed, he totally disregards in making his common  
17 equity recommendation.

18 **Q. Did you check Mr. Murray's calculations in Schedule DM-D-3, p. 1 and 2?**

19 A. Yes, I did and found several inconsistencies in his analysis.

20 **Q. What were those inconsistencies?**

21 A. First, he included long-term debt due within one year in long-term debt for calculating  
22 his capital structure ratios but he excluded this same debt when calculating his  
23 Recommended long-term debt rate, that is based on LUCo's consolidated long-term  
24 debt cost on March 31, 2024. Additionally, he should have also removed that debt from

1 the long-term debt line in his capital structure calculation. The debt in question is  
2 actually a short-term floating rate bank term loan. Second, he appropriately included  
3 the commercial paper program and the bank credit facility backstopping it in short-term  
4 debt despite this facility having a 2027 maturity. He also appropriately removed these  
5 amounts in his recommendation of the long-term debt rate calculation. The  
6 inconsistency is that he appropriately removed the bank credit facility supporting  
7 commercial paper with a 2027 maturity but not the bank facility with a maturity in one  
8 year.

9 **Q. When you adjust OPC witness Murray's analysis for these inconsistencies what**  
10 **are the results?**

11 A. The recalculations only affected his common equity ratios for the Adjusted and  
12 Excluding Short-Term Debt common equity ratios for the years 2022 and 2023,  
13 because they were simply reclassifications between short and long-term debt. The 2022  
14 common equity ratio increased from 59.55% to 63.98% and for 2023 the increase was  
15 from 61.39% to 66.90% (Rebuttal Schedule JC-13) both of which are even more  
16 supportive of my Recommendation of 52.61% (updated to 52.99%).

17 **Q. If LUCo and APUC common equity ratios have been in the 50%'s and 60%'s the**  
18 **last three years, why doesn't Mr. Murray use them instead of referring to one out-**  
19 **of-date 2017 presentation?**

20 A. I believe he does not use the actual results because they do not support his desired result  
21 of 47.5%.

22 **Q. What then is the basis for Mr. Murray's 47.5% common equity**  
23 **Recommendation?**

1 A. As discussed above, Mr. Murray based his recommendation on a September 2017 fixed  
2 income investor presentation. He has referred to this same presentation in numerous  
3 past Liberty affiliate Missouri utility rate case, since the 2019 Empire rate case. His  
4 calculations in Schedule DM-D-3, for LUCo only, do not support his Recommendation  
5 but instead more than support my recommendation of 52.61% (updated to 52.99%). In  
6 addition, he fails to provide Liberty and APUC's calculations, which he has in the past  
7 and the Commission has previously authorized, and, as I mentioned above, when  
8 calculated more than support my recommendation.

9 **Q. What statements does Mr. Murray make that you would like to address?**

10 A. His first series of statements begins on page 3, line 16 of his direct testimony. He states  
11 that "APUC manages its operating utility subsidiaries' capital structures through  
12 affiliate financing transactions. Liberty, as well as its Missouri sister subsidiaries, do  
13 not issue their own debt or equity to third parties." He goes on further on page 5, lines  
14 10-16 to: (1) define a market-based capital structure as one in which third-parties can  
15 directly purchase securities funding a company's assets; and (2) suggests that since  
16 Liberty is financed completely by affiliate financing transactions, it does not have an  
17 investable capital structure.

18 **Q. How do you react to these statements?**

19 A. The statement on page 3 of OPC witness Murray's Direct Testimony regarding Liberty  
20 Water being financed completely by affiliate financing transactions (outside of  
21 internally generated cash flow) is true and has been since all the Missouri affiliated  
22 companies were acquired by APUC. The reason for this practice, which was included  
23 as a benefit in the merger application in Missouri was to save customers money through  
24 the lower debt financing costs than could be achieved by Liberty on its own, given its

1 small size. The statements regarding his definition of market-based capital structures  
2 and Liberty having a non-investable capital structure make no sense. LUCo invests in  
3 Liberty short and long-term debt at current market rates and since it wholly owns  
4 Liberty, expects to receive the same return on its common equity invested in Liberty as  
5 Liberty receives authorization from the Commission.

6 **Q. Are there other statements on Mr. Murray’s page 3 to which you would like to**  
7 **respond?**

8 A. Yes. Mr. Murray goes on to say on page 3, lines 19-23, that the Commission has  
9 reviewed LUCo’s common equity ratios when deciding to authorize a capital structure  
10 for APUC’s Missouri utility subsidiaries. Liberty does not dispute this statement as the  
11 Commission has reviewed the Missouri affiliate companies’, APUC’s and LUCo’s,  
12 capital structures in past cases as I discussed above, and specifically in the 2019 Empire  
13 rate case. The original methodology, not followed by Mr. Murray in this case, was  
14 proposed by Mr. Murray in that 2019 Empire case. The issue I have is that Mr. Murray  
15 has decided to ignore the results of his own LUCo analysis in this case (Schedule DM-  
16 D-3, p. 1 and 2), and not provide any APUC or Liberty analysis, I suspect because the  
17 results do not justify his Recommendation. Mr. Murray ignores his past and current  
18 capital structure analysis and prior Commission authorization to essentially support his  
19 recommendation.

20 **Q. Are there additional statements to why Mr. Murray ignores his own LUCo results**  
21 **in Schedule DM-D-3?**

22 A. Yes. On page 3, lines 24 – 29, he makes a series of statements starting with “While  
23 LUCo’s average capital structures at the time of Liberty Midstate’s, Liberty Water’s  
24 and Empire’s past rate cases were consistent with their low business risks, this is no

1 longer true.” Mr. Murray provides no analytics, schedules or workpapers to support  
2 this statement. I surmise that he makes this statement because LUCo’s common equity  
3 ratios based on his own calculations do not support his recommendation. He then goes  
4 on to further state in lines 26-29, and page 4, lines 1-5, regarding his perceived notion  
5 that “APUC has not been financially stable since November of 2022”. He then  
6 acknowledges the August 9, 2024 APUC announced sale of its non-regulated assets for  
7 \$2.5 billion and a 40% dividend cut. However, he fails to acknowledge that APUC’s  
8 planned use for the proceeds is all for debt reduction despite providing the second  
9 quarter 2024 APUC earnings and sale announcement as well as the transcript of that  
10 call with APUC and investor analysts in the Midstates Gas’ case through an information  
11 request. (See **Rebuttal Schedule JC-14**). He also fails to acknowledge that APUC also  
12 has effectively converted its \$1.15 billion of mandatorily convertible equity units  
13 earlier than the required date of June 15, 2026, and that APUC’s credit ratings were  
14 Affirmed by S&P. (Walters Direct, p. 24, footnote 15). Instead, he states on page 4,  
15 lines 6-11 of his Direct Testimony that “APUC’s strategic intent to transition to an  
16 owner of only regulated utility companies should eventually stabilize its business and  
17 financial risk, as well as simplify its capital structure. Until that occurs, the Commission  
18 should set APUC’s authorized ROR for its Missouri utilities based on APUC’s own  
19 past communications to investors as to the proportion of debt that its low risk regulated  
20 utility segment can support, which is in the range of 50% to 55% of its capital  
21 structure”.

22 **Q. Do you agree with these statements above by Mr. Murray?**

23 A. No, I do not. First, as to APUC not being financially stable, APUC’s credit ratings are  
24 Baa/BBB and have been at that level since 2013, and, as mentioned above, were

1 recently Affirmed by S&P. Second, as discussed above, on August 9, 2024, APUC  
2 announced the sale of their non-regulated generation/renewables business to LS Power  
3 for \$2.5 billion in cash, which will be used to recapitalize the balance sheet by retiring  
4 debt. They had already announced the planned disposal of their Atlantica Yield equity  
5 interests to Energy Capital Partners in May 2024. These two transactions would allow  
6 for APUC's total exit from the renewables business and the significant paydown of  
7 debt. Third, APUC converted \$1.15 billion of mandatory convertible notes to equity  
8 this year prior to the June 15, 2026 required date. Fourth, his statements are illogical  
9 when evaluated utilizing APUC's common equity ratio at year end 2022 of 65.7%  
10 (Direct Schedule JC-16) and also the results provided in response to OPC DR 3005 for  
11 the quarters December 31, 2021 through December 31, 2023 for APUC. (See  
12 **Confidential Rebuttal Schedule JC-11**). All calculated ratios shown in **Confidential**  
13 **Rebuttal Schedule JC-11** are in the 60s+% for APUC. Common equity ratios in the  
14 60s+% range do not signify a financially unstable company but rather just the opposite.  
15 The use of the renewable cash proceeds for debt reduction will only make these ratios  
16 even higher. All of Mr. Murray's statements made on these pages are not factually  
17 supported by analytics, workpapers, or schedules, therefore should be rejected.

18 **Q. Do you have any further comments on Mr. Murray's capital structure testimony?**

19 A. Yes, on pages 5 to 13 of his capital structure testimony, Mr. Murray continues to make  
20 unsupported statements along the same theme as discussed previously.

21 **Q. Are there any statements in particular you want to highlight?**

22 A. Yes. There are too many unsupported, incorrect statements made by Mr. Murray to go  
23 through them all, but one in particular, on page 13 of his Direct Testimony, is especially  
24 telling. \*\* [REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] \*\*

**Q. How do you respond to this statement by Mr. Murray?**

A. \*\* [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] \*\*

**Q. What is your conclusion as to Mr. Murray’s common equity recommendation of 47.5%?**

A. Mr. Murray’s recommendation is based on his inaccurate and unsupported belief that APUC and LUCo are financially distressed, despite investment grade bond ratings, a stable outlook, recently Affirmed ratings and a number of significant debt reduction transactions principally the conversion of the \$1.15 billion mandatory convertible notes

1 this year, and because of these beliefs the Commission should use a seven-year-old  
2 September 2017 fixed income investor presentation as a basis to determine the  
3 appropriate common equity ratio for Liberty Water in 2024. He ignores his own  
4 financial analysis for LUCo because it does not support the answer he is trying to  
5 achieve. The Commission should reject his common equity recommendation.

6 **IV. COST OF LONG-TERM DEBT**

7 **Q. What is Staff witness Walters’ recommended cost of long-term debt?**

8 A. Mr. Walters’ proposed 4.97%, which is the updated number I provided in my April 30,  
9 2024, update and is included in **Rebuttal Schedule JC-2**. My filed cost of long-term  
10 debt was 5.04%. Liberty supports Mr. Walters’ recommendation of 4.97% for the cost  
11 of long-term debt in this case.

12 **Q. What is OPC witness Murray’s recommended long-term cost of debt?**

13 A. Mr. Murray recommends 4.29%, which he states represents LUCo’s embedded cost of  
14 long-term debt on March 31, 2024, adjusted down by 19 basis points from his original  
15 calculations of 4.48%. (**Confidential Rebuttal Schedule JC-15**: Murray Workpaper,  
16 WP-Embedded COD LUCo-Q1-24 from Confidential Schedules 3 and 8 Capital  
17 Structure and ROR).

18 **Q. What is his justification for using LUCo’s March 31, 2024 embedded cost of debt  
19 for Liberty?**

20 A. His only statement is “because it is based on all third-party debt issued by LUCo,  
21 indirectly by LUF and legacy operating subsidiary debt”. (Murray Direct, p. 14 lines 5-  
22 6). He provides no other statements, analysis, documents, or Order cites to support his  
23 statement and Recommendation.

24 **Q. Would you comment on Mr. Murray’s statement above?**



1 A. I have no idea what his justification statement means. Mr. Murray has decided to use  
2 LUCo’s historical embedded cost of debt, but he does not use LUCo’s actual capital  
3 structure on March 31, 2024, which supports that cost of long-term debt. At December  
4 31, 2023, LUCo’s actual capital structure was 61% common equity and 39% long-term  
5 debt, based on Mr. Murray’s Schedule DM-D-3, page 2, and 66%/34% based on my  
6 corrections of his inconsistencies (**Rebuttal Schedule JC-13**, p. 2). On March 31,  
7 2024, LUCo’s actual capital structure was 59% common equity and 41% long-term  
8 debt. (See **Rebuttal Schedule JC-16**).

9 **Q. What other reasons is Mr. Murray’s use of a LUCo embedded cost of debt**  
10 **inappropriate for Liberty’s actual cost of long-term debt?**

11 A. Based on Mr. Murray’s submitted Workpaper, WP-Embedded COD LUCo-Q1-24,  
12 from “Confidential Schedules 3 and 8 Capital Structure and ROR” in **Confidential**  
13 **Rebuttal Schedule JC-15**, supporting his 4.29% cost of long-term debt, the first  
14 concern I have is that he includes Senior Unsecured Utility Notes and Senior Secured  
15 Utility Bonds that were issued directly by LUCo subsidiaries such as Granite State  
16 Electric, CalPeco Electric, New England Natural Gas Company, The Empire District  
17 Electric Company and The Empire District Gas Company. Since the debt was issued  
18 directly by the subsidiary, which in some cases preceded APUC’s acquisition of Liberty  
19 Water, the proceeds could not have been used to finance Liberty. Including this debt  
20 makes no sense. In addition, no dividends or return of capital have been made to LUCo  
21 by these companies. Second, the remaining debt he includes was issued by LUCo or its  
22 Finance Subsidiary GP1 and a substantial amount precedes the Liberty acquisition.  
23 Third, Mr. Murray, by using his calculated LUCo \$2.95 billion of long-term debt, is  
24 making the argument that despite Liberty having only \$5.715 million of long-term debt

1 issued May 14, 2021, and recently issuing \$13 million of long-term debt at a 5.875%  
2 coupon on April 1, 2024 for a total outstanding of only \$18.715 million, its cost of debt  
3 should be based on \$2.95 billion of LUCo “Consolidated” (consolidation accounting  
4 combines the financial statements of the parent and its subsidiaries and then eliminates  
5 intercompany transactions with the end result that both parent debt and subsidiary debt  
6 directly issued to third parties is included) long-term debt, which very clearly couldn’t  
7 have been, and wasn’t, used by Liberty. Finally, as shown in **Rebuttal Schedule JC-**  
8 **2**, \$13 million of Liberty Water’s \$18.715 million long-term debt outstanding was  
9 issued in April 2024 pursuant to the Commission’s Financing Order issued February  
10 29, 2024, in File No. WF-2024-0135. This newly issued debt was priced at LUCo’s  
11 market cost of debt on April 1, 2024, based on a ten-year maturity, at 5.875%. The  
12 pricing mechanism for Liberty’s long-term cost of debt, which was reviewed by the  
13 Commission in Case No. WF-2024-0135, demonstrated the market cost of LUCo’s  
14 long-term debt, see response to OPC Data Request No. 3018, **Confidential Rebuttal**  
15 **Schedule JC-17**. The 5.875% reflected the current market costs of LUCo issuing new  
16 debt in the market on April 1, 2024. The market costs at the time of issuance are the  
17 appropriate rates to use to determine Liberty’s cost of long-term debt as shown in my  
18 Direct Schedule JC-15, as updated in **Rebuttal Schedule JC-2**.

19 **Q. Why does Mr. Murray reduce LUCo’s embedded cost of debt at March 31, 2024**  
20 **from 4.48% to 4.29%?**

21 A. He believes, as stated on page 14, lines 4-13 of his Direct Testimony, that LUCo’s debt  
22 has been trading more similar to the lowest investment grade credit rating (BBB-/Baa3)  
23 rather than the BBB/Baa2 rating it is assigned. He believes the debt is trading at his

1 perceived higher cost due to the terminated Kentucky Power Company Acquisition and  
2 uncertainty related to APUC's non-regulated renewable generation assets.

3 **Q. How do you respond?**

4 A. In terms of the terminated Kentucky Power Company acquisition, I would think  
5 investors would have reacted positively to that announcement since it resulted in less  
6 debt being issued by APUC. As for APUC's announcement of the sale of the renewable  
7 assets, APUC stated the proceeds would be used for debt reduction, another very  
8 positive event for debt investors in LUCo's debt. Finally, Mr. Murray's Schedule DM-  
9 D-4, which contains the pricing information for these LUCo January 2024 debt  
10 issuances, makes no mention of the statements Mr. Murray makes or any statements as  
11 to LUCo trading closer to BBB-/Baa3. In fact, the correct ratings are on the pricing  
12 sheet and S&P recently Affirmed APUC's credit ratings.

13 **Q. What is your conclusion as to Mr. Murray's proposed cost of long-term debt?**

14 A. For the reasons stated above, Mr. Murray's Cost of Long-Term Debt Recommendation  
15 makes no sense, similar to his capital structure Recommendation. Mr. Murray's 4.29%  
16 recommended cost of long-term debt should be rejected, and the Staff and Company  
17 supported long-term cost of debt of 4.97%, per my update in **Rebuttal Schedule JC-**  
18 **2**, should be approved by the Commission.

19 **V. RESPONSE TO STAFF'S ROE RECOMMENDATION**

20 **Q. Please summarize Mr. Walters' ROE recommendation.**

21 A. Mr. Walters recommends an ROE range of 9.0% to 9.9% resulting in a midpoint, and  
22 his recommendation, of a 9.45% ROE for Liberty. He performs three DCF analyses,  
23 two are constant growth DCF's using (1) analyst projections with average and median  
24 results of 9.63% and 9.89% and (2) sustainable growth rate estimates with average and

1 median results of 8.21% and 8.13%. He also performs a multi-stage DCF analysis with  
2 average and median results of 8.18% and 8.02%, as well as nine different CAPM  
3 analyses using three different methods (Kroll, Risk Premium and FERC DCF) to  
4 calculate the expected market return and resulting risk premiums and three different  
5 beta values (based on his proxy group current and historical Value Line betas and the  
6 proxy group's current Market Intelligence beta). Finally, he performs several Risk  
7 Premium analyses.

8 **Q. What are your principal criticisms of Mr. Walters ROE analyses?**

9 A. I have four major issues with his ROE analyses: (1) proxy group screening criteria and  
10 composition; (2) the methodology and results of his DCF using sustainable growth  
11 rates; (3) the results and assumptions of his multi-stage analysis; and (4) the historical  
12 betas from Value Line and Market Intelligence as well as his Kroll and DCF Risk  
13 Premium based expected market returns used to determine the market risk premiums  
14 used in his CAPM models.

15 **Q. Please summarize your concern with Mr. Walters' proxy group.**

16 A. As I described earlier as to capital structure, Mr. Walters' proxy group includes twelve  
17 companies, but only six are water utilities. Five are gas utilities and one is a multi-  
18 utility, but predominantly electric. His proxy group primarily consists of non-water  
19 utility distribution companies, six out of twelve. This is inappropriate as gas companies  
20 are subject to significantly different risks than a water utility like Liberty, for the  
21 reasons I explained earlier. In addition, using a multi-utility that derives eighty-three  
22 percent of its regulated earnings from electric transmission and distribution and is  
23 disposing of its water business is also inappropriate due to the different risks facing  
24 electric distribution companies versus water.

1 **Q. Why does Mr. Walters include five gas companies and one multi-utility in his**  
2 **proxy group?**

3 A. His original proxy group was based on my recommended proxy group of six water  
4 utilities. He states a sample size of six is too small. To compensate, he then adds  
5 seven gas distribution companies, but then removes two of them, and then adds a  
6 “multi-utility” Eversource. He appears to believe a double-digit proxy group is  
7 more reliable, even though six out of the 12 companies he selected are not  
8 representative of the risks of a water utility like Liberty.

9 **Q. Did Mr. Walters provide any support for a proxy group needing to be larger than**  
10 **than six?**

11 A. No, he did not. The sole support was on page 29 line 2 “it is his opinion...”.

12 **Q. Do you believe a proxy group of more than six water utilities is necessary?**

13 A. No, I do not. I also believe that adding non-water utilities to your proxy group to  
14 increase the sample size does not provide accurate results for a water utility.

15 **Q. Did you present any additional testimony on Mr. Walters’ proxy group selection**  
16 **earlier?**

17 A. Yes, I also reviewed Missouri water company rate case filings and Commission Orders  
18 going back to 2010 and could not find one instance where Staff proposed a water  
19 company proxy group with anything but water utilities. I also found no evidence of a  
20 water rate case Commission Order based on a non-water proxy group. Also, as I  
21 mentioned earlier Mr. Walters provides no citation to a Commission Order supporting  
22 inclusion of non-water companies in a water company proxy group.

1 **Q. What are the results of Mr. Walters' first DCF analysis, constant growth?**

2 A. Mr. Walters performs a constant growth DCF analysis using three different sources for  
3 analyst growth forecasts which he then averages for each proxy company and combines  
4 with a dividend yield based on a thirteen-week stock price average and an annualized  
5 dividend adjusted forward by the growth rate average. His results using analyst  
6 projections are an average of 9.63% and a median of 9.89%. These results are above  
7 his 9.45% recommendation.

8 **Q. Do you have any other comments on Mr. Walters' constant growth DCF results?**

9 A. Yes, he only performs average growth rate calculations for each of his proxy group  
10 companies and average and median calculations for his entire proxy group. For my  
11 DCF analyses, I calculated low, mid, and highs from my three analyst projection  
12 sources and combined those with multiple price periods resulting in nine different  
13 cases. The goal was to reflect different periods of time for stock price movements and  
14 the variability in different analyst projections for the same company to come up with a  
15 reasonable range of results.

16 **Q. What are the results of his DCF analysis using his calculated sustainable growth  
17 rates?**

18 A. His DCF results based on a sustainable growth rate analysis result in an average of  
19 8.21% and a median of 8.13%.

20 **Q. Do you agree with Mr. Walters' use and calculations based on sustainable growth  
21 rates?**

22 A. I do not. Mr. Walters' sustainable growth rates are calculated using the following  
23 formula:

1

$$g = b * r + s * v$$

2 Where g is the sustainable growth rate, b is earnings expected to be retained by the  
3 company, r is an estimate of ROE. They represent internal growth and s \* v represents  
4 growth due to external financing. The s represents expected growth in the number of  
5 shares issued and v reflects the profitability of the equity investment. The Constant  
6 Growth DCF model implies that the chosen b and r will continue in perpetuity.  
7 Importantly, Mr. Walters' sustainable growth calculation assumes an expected ROE, r,  
8 which he adjusts from end of year to an average value. Using data from Value Line, in  
9 Schedule CCW-6, page 1, Mr. Walters uses an average expected adjusted ROE of  
10 9.90% for his proxy group, yet the results of his analysis are 8.21% and 8.13%.  
11 Essentially, his calculated sustainable growth DCF ROE recommendation is  
12 inconsistent with the expected ROE used as an input in his model. His methodology is  
13 circular.

14 **Q. Does Mr. Walters explain this inconsistency?**

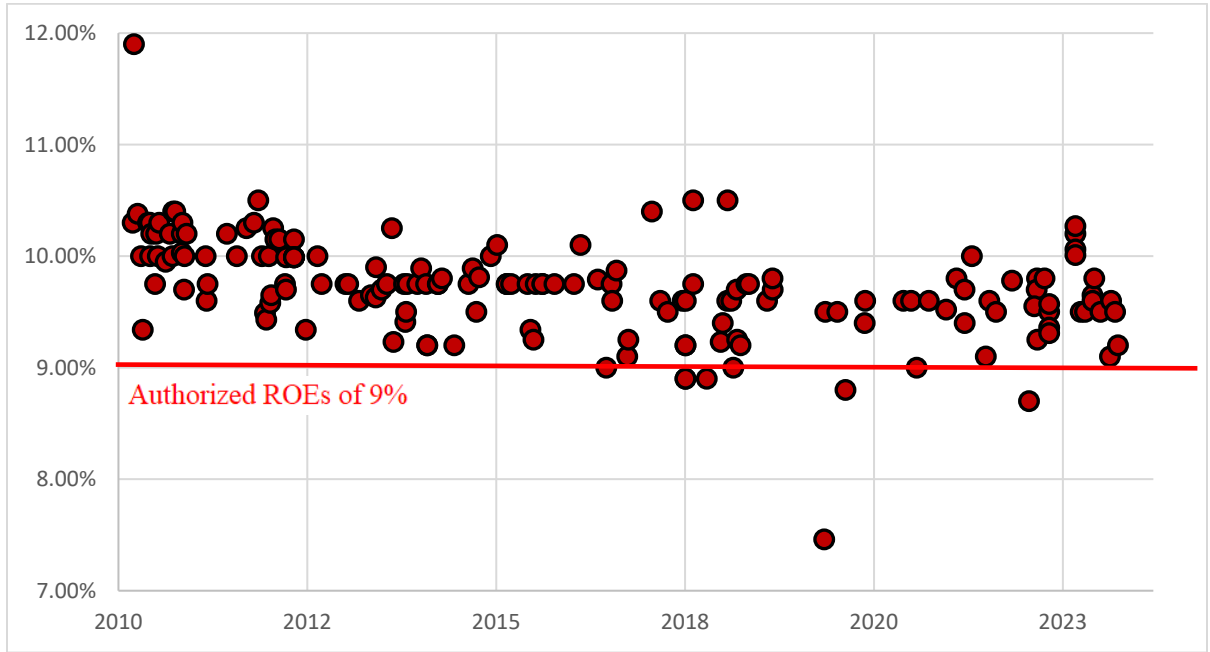
15 A. No, he does not.

16 **Q. Do you have other issues with Mr. Walters' sustainable growth rate analysis DCF  
17 results?**

18 A. Yes, Mr. Walters' results of 8.21% and 8.13% are lower than every State Commission  
19 authorized ROE for a water utility since 2009 (14 years), except for two. Since 2009,  
20 there have been 213 water utility cases. In that time, there have been two ROE's at  
21 8.90% and three authorized ROEs below 8.90% for water utilities, one was 8.80% and  
22 another was a penalty ROE of 8.70%. All other authorized ROEs were 9% and higher.  
23 Compared to historical decisions, Mr. Walters sustainable growth rate DCF results are

1 below all but one historical decision in the last 14 years, as shown in Figure 1 below.  
2 His sustainable growth rate DCF results should be ignored.

3 **Figure 1: Authorized ROEs for Water Utilities: Jan 1<sup>st</sup>, 2010 to June 30<sup>th</sup>, 2024**



4

5 **Q. What were the results of his multi-stage DCF analysis?**

6 A. Mr. Walters multi-stage DCF analysis results show an average of 8.18% and a median  
7 of 8.02%, see CCW-8. Nine of his twelve proxy company DCF results are below  
8 8.65%. One result is 6.57%, five results range from 7.06% to 7.98% and average  
9 7.52%, three from 8.05% to 8.65% and average 8.29%, two average 9.54% and one is  
10 10.01%. His multi-stage DCF analysis results make no sense. The results overall and  
11 for nine of his twelve proxy companies are lower than all but one ROE decision in the  
12 past 14 years. (See Figure 1 above).



1 **Q. Why are Mr. Walters’ multi-stage DCF results lower than yours and so much**  
2 **lower than historical State Authorized ROEs for water utilities?**

3 A. This brings me to my second critique of Mr. Walters analysis. Mr. Walters utilizes a  
4 long-term growth rate of 4.24%. This is clearly too low.

5 **Q. How did Mr. Walters arrive at his 4.24% long-term growth rate?**

6 A. His stated support for the 4.24% is a quote from a textbook titled “Fundamentals of  
7 Financial Management” published by Eugene Brigham and Joel F. Houston. They state  
8 “the constant growth model is most appropriate for mature companies with a stable  
9 history of growth and stable future expectations. Expected growth rates vary somewhat  
10 among companies, but dividends for mature firms are often expected to grow in the  
11 future at about the same rate as nominal gross domestic product (real GDP plus  
12 inflation).” Based on this statement Mr. Walters relied on the average of long-term  
13 GDP growth projections as projected by independent economists from Blue Chip  
14 Economic Indicators. He further states on page 42, lines 4-5, that these projections are  
15 “likely to be influential on investors’ expectations of future growth outlooks”. Their  
16 consensus was 4.24% over the next 10 years. He further reviewed other sources of  
17 projected long-term GDP growth and came up with a range of 3.8% to 4.1%, which he  
18 says supports his 4.24%.

19 **Q. Do you have concerns with Mr. Walters’ long-term growth rate estimate?**

20 A. Yes. First, his selected quote from the Brigham and Houston textbook he referred to  
21 left out the last sentence of the paragraph he quoted, which states “On this basis, one  
22 might expect the dividends of an average, or normal, company to grow at a rate of 5 to  
23 8 percent a year.” The full paragraph excerpt is included in Mr. Walter’s workpaper<sup>6</sup>.

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<sup>6</sup> **Rebuttal Schedule JC-9**: Christopher Walter's work paper: "CCW Confidential WP 21," p. 11 of PDF.

1 The sentence Mr. Walters neglected to include does not support his proposed 4.24%  
2 growth rate, but actually supports a much higher one, the midpoint of 5% to 8% is  
3 6.5%. Second, his additional quote concerning his belief as to the influence on investors  
4 of the BlueChip Financial Forecasts report is not supported by any facts or empirical  
5 evidence. I believe investors are more likely to review a Value Line or other analyst  
6 reports than they are various GDP and inflation forecasts and then perform a multi-  
7 stage DCF analysis. Third, as I stated earlier, his results are so low they are  
8 inappropriate when comparing to State Authorized Water Utility ROE Decisions over  
9 the last 14 years. His low results are primarily driven by his 4.24% long-term growth  
10 rate selection. His long-term growth rate is too low.

11 **Q. Does Mr. Walters perform a risk premium analysis?**

12 A. Yes, he uses several different methods and time periods of measurement. His methods  
13 rely on comparisons of (1) Authorized Gas Returns to 30-year Treasury Bond Yields  
14 from 1986 through 2024, Schedule CCW-10 and (2) Authorized Gas Returns to  
15 Average “A” Rated Utility Bond Yields over the same period, Schedule CCW-11,  
16 resulting in risk premiums averaging 5.63% and 4.27%, respectively. He then looks at  
17 rolling 5 and 10-year averages to “gauge the variability over time of risk premiums”.  
18 Those calculations resulted in risk premium averages of 5.67% and 5.68% for the  
19 rolling 5 and 10-years based on 30-year Treasury Bonds and an average of 4.32% for  
20 both 5 and 10-year rolling based on the “A” rated utility Bonds. It appears his averaging  
21 results had little impact versus the average of his 1986-2024 period results.

22 **Q. What did he do next?**

23 A. He added the 5.63% average 30-year Treasury Bond risk premium to a projected 30-  
24 year Treasury Bond rate of 4.30% as of May 31, 2024 for a total of 9.93%, the 4.27%

1 average “A” Utility Bond average risk premium to a 13-week period ending June 21,  
2 2024 average “A” bond yield of 5.71% for a 9.98% result, the same 4.27% “A” average  
3 Utility Bond spread to a current “Baa” utility bond yield of 5.93% based on 13 weeks  
4 ending June 21, 2024 for a 10.20% result and finished by using the same “A” utility  
5 bond risk premium of 4.27% but with 26-week period ending June 21, 2024 “A” and  
6 “Baa” Utility bond yields of 5.61% and 5.84% for results of 9.88% and 10.11%.

7 **Q. Do you have any concerns with Mr. Walters’ risk premium calculations?**

8 A. Yes, I do. Mr. Walters used Authorized Gas Returns to calculate his Indicated Risk  
9 Premiums instead of Authorized Water Returns, which is what I used. Outside of  
10 updating his Treasury rates to June from May, his risk premium matches the testimony  
11 he submitted in the current Liberty Midstates Gas case. I used a similar risk premium  
12 approach using 30-year Treasury bonds and Authorized Water Returns and obtained  
13 similar results averaging 9.99%.

14 **Q. Do you have any other observations from Mr. Walters risk premium calculations?**

15 A. Yes. If you look at Schedule CCW-10, page 1 of 1, in column (1) Authorized Gas  
16 Returns, the lowest annual average authorized return is 9.46% in 2020 and the 30-yr  
17 Treasury Bond Yield in column (2) was 1.56%. Mr. Walters projected 30-yr Treasury  
18 bond rate used in his risk premium analysis is 4.30% as of May 31, 2024, which is  
19 2.74% higher than the 1.56% for the same year the authorized ROE’s averaged 9.46%  
20 for gas. If 30-yr Treasury bond rates have risen 2.74% from 2020 when the ROE  
21 average was 9.46% it is hard to understand how Mr. Walters can recommend the same  
22 ROE today of 9.45% as the 2020 average for Liberty. The results show that 30-year  
23 Treasury rates have risen significantly since 2020, but Mr. Walters would propose that  
24 the cost of equity stayed the same. His recommended ROE is too low.

1 **Q. Describe Mr. Walters' CAPM methodology.**

2 A. Mr. Walters used a projected 30-year Treasury Bond rate of 4.30% as of May 31, 2024,  
3 for his risk-free rate. He used three different beta sources: Value Line current average  
4 for his proxy group, Value Line historical average since 2014 for his proxy group and  
5 Market Intelligence's Beta Generator Model which relies on a five-year historical  
6 period ending May 31, 2024. The results were 0.85 for his current Value Line average  
7 and median for his proxy group and averages of 0.75 for his ten-year historical Value  
8 Line average and average and medians of 0.75 for his five-year historical Market  
9 Intelligence results. To calculate his expected market returns to determine his market  
10 risk premiums, he uses a historical risk premium and two FERC based DCF  
11 approaches. He also considers the normalized market risk premium of 5.00% with a  
12 normalized risk-free rate of 4.67% as recommended by Kroll, formerly known as Duff  
13 & Phelps, which results in an expected market return of 9.67%.

14 **Q. Do you have issues with his beta selections?**

15 A. Yes, I do. Mr. Walters' current proxy group average and median betas are both 0.85,  
16 see Schedule CCW-14, page 1. However, he suggests that the "current" proxy group  
17 beta results of 0.85, "in his experience", are abnormally high and unlikely to be  
18 sustained, so he decides that going back ten years and averaging proxy group results  
19 since 2014 (no reason given for selecting ten years) is more representative of today's  
20 market. The result was not surprisingly lower at 0.75 for a beta value.

21 **Q. Did you review Mr. Walters Schedule CCW-14, page 2, and, if so, what are your**  
22 **observations?**

23 A. Yes. Page 2 shows quarterly average betas for the 2Q 2024 back through the 3Q 2014,  
24 roughly ten years. For the four-year period 2Q 2024 through the 2Q 2020 the average

1 quarterly betas were all 0.80 and higher up to 0.85. Mr. Walters ignores that four-year  
2 trend and decides that ten years of historical beta information is better, especially since  
3 the result is a lower average beta of 0.75.

4 **Q. Did Mr. Walters provide any support for using 10 years versus the last four**  
5 **years?**

6 A. No, he did not. The selection of ten years was not supported but likely stems from his  
7 belief that betas since early 2020 have been too high. Conveniently, the average over  
8 the 10 years is a lower 0.75 beta result.

9 **Q. Do you think four years of historical beta evidence is enough to show a trend?**

10 A. Yes, I do. Clearly, Mr. Walters picked a longer period so he could derive a lower beta  
11 to input into his CAPM results to achieve lower results.

12 **Q. What are his Market Intelligence Beta calculations based on?**

13 A. They are based on a five-year historical period ending June 21, 2024, per his direct  
14 testimony. His Schedule CCW-14, page 1, shows the five-year period as ending April  
15 26, 2024. The average and median results are both 0.75.

16 **Q. What are your comments on Mr. Walters beta analysis?**

17 A. Mr. Walters uses three different sources for the betas he uses in his three different  
18 CAPM methodologies. Current betas from Value Line investment sheets, a ten-year  
19 historical average of Value Line betas and S&P Market Intelligence's Beta Generator  
20 Model results which are based on a five-year historical period ending June 2024.  
21 Outside of his "opinion" he provides no factual or literature support for why a ten-year  
22 average of Value Line betas is more appropriate to use than current Value Line betas  
23 or even Value Line beta averages going back the last four years. He then decides using  
24 an alternative source for his betas further corroborates his "opinion" that current betas

1 are too high. The more likely reason he selects ten-year average betas and an alternative  
2 source is because they both result in lower betas of 0.75 versus his third beta which is  
3 0.85 from current Value Line sources. His 0.75 betas should be ignored and only the  
4 current 0.85 beta should be used in Mr. Walters “forward looking” CAPM analysis to  
5 determine the current ROE for Missouri Water.

6 **Q. How does the 0.85 current beta compare to the beta in your CAPM analysis in**  
7 **your direct testimony?**

8 A. My current proxy group beta was 0.83 compared to Mr. Walters 0.85.

9 **Q. Describe the calculation of Mr. Walters’ market risk premium using the Risk**  
10 **Premium approach to calculate the expected market return.**

11 A. Mr. Walters states his risk premium method to estimate the expected market return  
12 results in a “forward-looking” estimate of a market risk premium. However, his  
13 calculation of the risk premium for the expected market return is based on an arithmetic  
14 average, real market return over the period 1926 to 2022 of 9.02%. He then adds a  
15 “projected” inflation rate as of May 31, 2024, of 2.40% to calculate an expected market  
16 return of 11.64%. When the projected 30-year Treasury rate of 4.30% as of May 31,  
17 2024, is subtracted the resulting market risk premium is 7.34%. The only part of Mr.  
18 Walters risk premium method that is forward is the “projected” inflation rate. Using a  
19 ninety-six-year historical period to compute an expected market return used to calculate  
20 the cost of common equity today in a CAPM formula makes no sense and the results  
21 from this method should be ignored.

22 **Q. How does he calculate his DCF approach market risk premium?**

23 A. He uses two methods. The first follows the FERC method for estimating the expected  
24 market return which is a constant growth DCF analysis of the S&P 500 companies, but

1 only including those that pay dividends and excluding companies that have negative  
2 growth rates or growth rates more than 20%. The weighted average growth rate for  
3 these companies is 10.90% and when added to the weighted average expected dividend  
4 yield of 1.79% the result is 12.69% expected market return. The resulting market risk  
5 premium is 8.40%, 12.69% - 4.30%. He then performs the same analysis including the  
6 non-dividend companies and calculates an expected market return of 12.79% which  
7 results in a market risk premium of 8.50%. He then averages 12.69% and 12.79%,  
8 which results in 12.74% and a risk premium of 8.45%.

9 **Q. What are the results of his CAPM calculations?**

10 A. Using his 4.30% projected 30-year Treasury Bond rate as of May 31, 2024, a current  
11 beta of 0.85, his historical betas of 0.75 and market risk premiums of 5.50% (Schedule  
12 CCW-15, page 1), 7.30% and 8.45%, Mr. Walters calculates an ROE range of 8.79% -  
13 9.36% under the Kroll Normalized Market Risk Premium method (he also uses a Kroll  
14 risk free rate of 4.67% instead of the 4.30%), ROEs ranging from 9.77% - 10.54% for  
15 his Risk Premium Derived Market Risk Premium method and ROEs ranging from  
16 10.63% - 11.52% for his average FERC S&P 500 DCF Market Risk Premium method.

17 **Q. What are your criticisms of Mr. Walters' CAPM results?**

18 A. My first previously stated criticism of Mr. Walters' CAPM analysis and results is the  
19 use of the 0.75 betas in six of his nine CAPM calculations. I addressed above why using  
20 the 0.75 is inappropriate versus using the current 0.85 based on his proxy group as of  
21 May 31, 2024. Second, the market risk premium in his Kroll cases is very low and two  
22 of the CAPM results based on that method are 8.79% and 8.80% which are below the  
23 results for the last fourteen years for State Authorized Water ROEs shown earlier in  
24 Figure 1. The results from the Kroll cases are also well below his other six CAPM

1 cases. The Kroll results should be ignored. Third, his expected market return for his  
2 Risk Premium derived market risk premium relies on real market returns over the  
3 period 1926-2022. Mr. Walters is therefore using a ninety-six-year historical market  
4 risk premium and adding a current inflation projection to it and calling the result a  
5 “forward looking expected market return”. I think rather than forward looking he is  
6 instead mixing apples and oranges to achieve lower numbers for his results. Despite  
7 this his Risk Premium Derived MRP results average 10.03% and are all higher than his  
8 ROE recommendation of 9.45%. Finally, his two FERC S&P 500 DCF expected  
9 market return calculations are very close and recognizing that, Mr. Walters averages  
10 them. The results average 10.93% and the lowest is 10.63%. My CAPM analysis is  
11 similar to his Average FERC S&P 500 DCF Derived MRP but I include all companies  
12 from the index, no exclusions, which results in a higher expected market return, a 0.83  
13 beta and similar average 30-year Treasuries. My results averaged 12.35% due to the  
14 higher expected market return and compare closest in methodology to Mr. Walters’  
15 CAPM result of 11.52%. That one result makes sense out of his nine cases, six of which  
16 are higher than his recommendation.

17 **Q. What are your final conclusions on Mr. Walters’ Cost of Common Equity**  
18 **analysis?**

19 A. Mr. Walters’ sustainable growth and multi-stage DCF results should be ignored due to  
20 results lower than any State Authorized Water ROE in the last 14 years and also for  
21 circularity in logic errors in the case of sustainable growth and a low long-term growth  
22 rate in his multi-stage DCF. Six of his nine CAPM results are higher than his ROE  
23 recommendation, but his Kroll and historical expected market results should be  
24 ignored. When you eliminate these results, you are left with Mr. Walters constant



1 growth DCF results of 9.63% and 9.89%, risk premium results of 9.93% to 10.20% and  
2 a CAPM result of 11.52%. The resulting range would be 9.63% to 11.52% and the  
3 midpoint 10.58%. The low end of the range is higher than his Recommended ROE and  
4 the midpoint of 10.5% is significantly higher than Mr. Walters recommended 9.45%  
5 ROE and closer to the Company's proposed 10.0% ROE.

6 **VI. RESPONSE TO OPC'S ROE RECOMMENDATION**

7 **Q. Please summarize OPC witness Murray's ROE recommendation.**

8 A. Mr. Murray recommends an authorized ROE range of 9.00% to 9.50% and an allowed  
9 ROE for Liberty of 9.25%. Mr. Murray conducted a multi-stage DCF analysis, resulting  
10 in a ROE range of 7.3% to 7.9% as well as CAPM analysis to arrive at a ROE range of  
11 8.4% to 9.3%. He states on page 15 line 22 that Liberty Water's current COE range is  
12 7.5% to 8.5% based on his analysis. He never states exactly how he arrived at this  
13 range.

14 **Q. What is "COE"?**

15 A. COE stands for cost of equity, a term constantly referred to by Mr. Murray in his  
16 testimony and a term he appears to distinguish from an authorized allowed ROE.

17 **Q. Can you comment on his COE versus an authorized allowed ROE?**

18 A. Yes, in my experience, the cost of equity is traditionally estimated using several  
19 different financial models based on academic and financial literature. A number of  
20 these methods are used by the witnesses in this case and in many other cases during the  
21 time utilities have been regulated and filed rate cases. The results of these methods  
22 typically provide a range since determination of a current cost of equity is not an exact  
23 science nor highly visible in the market unlike the cost of debt which is highly visible.  
24 This range of results serves as the basis for Commission determinations of the

1 appropriate allowed cost of common equity for the filing utility. The COE and the  
2 allowed ROE are based on the same set of results. Financial literature does not refer or  
3 distinguish between these two terms separately. However, Mr. Murray appears to  
4 believe there is a real difference between the two terms, which is not based on empirical  
5 evidence or finance literature.

6 **Q. Does Mr. Walters distinguish between a COE and allowed ROE in his testimony?**

7 A. No, he does not.

8 **Q. Does Mr. Murray explain how he calculates or arrives at his recommended ROE  
9 range of 9.00%-9.50%?**

10 A. He does not provide any calculations, but does provide his rationale on page 2, lines 9-  
11 23 of his direct testimony. Mr. Murray claims that “(1) during 2024 the water utility  
12 industry’s stock valuation levels (measured by price to earnings ratios) traded at  
13 premiums of approximately 38% to electric utilities and 47% to local gas distribution  
14 utilities (LDC) and (2) his multi-stage DCF cost of common equity (“COE”) estimates  
15 for the water utility industry imply the COE for water utilities may be up to 100 basis  
16 points lower than the COE for electric and LDC industries; (3) his COE estimates are  
17 lower than the average authorized ROEs of around 9.65%, (4) references a supposed  
18 2015 determination of the Commission that authorized ROEs of approximately 9.5%  
19 were fair and reasonable for Missouri’s electric utilities (no Commission Order cite  
20 was provided) and that water utilities have generally been trading at higher P/E ratios  
21 than in 2015 and (5) under the Commission’s typical zone of reasonableness standard

1 a recommended ROE in the range of 8.65% to 10.65% is generally considered  
2 reasonable (no Commission Order cite provided)”.

3 **Q. What other statements does Mr. Murray make to support his recommended ROE**  
4 **range?**

5 A. He states on page 3, lines 2-13 of his direct testimony that “during most of 2020 to  
6 2022, utility stocks had not traded consistent with their typical negative correlation to  
7 changes in long-term bond yields. However, since the end of 2022, utility stock  
8 valuation levels resumed their typical negative correlation to interest rates. Further  
9 utility stocks have been significantly underperforming the S&P 500 since the end of  
10 2022. The S&P 500’s P/E ratios during 2023 and 2024 have been higher than modern  
11 historical averages, which implies a lower market risk premium than in 2022. Based on  
12 his application of several cost of equity methods and “corroborating information from  
13 investors”, he estimates the COE for the water utility industry to be in the 7.5% to 8.5%  
14 range, which is lower than his COE estimate for LDC’s in the Liberty Midstates Natural  
15 Gas rate case, Case No. GR-2024-0106, and 8.5% for electric utilities in the Evergy  
16 Missouri West, Inc. rate case, Case No. ER-2024-0189”.

17 **Q. Would you comment on these statements?**

18 A. Yes. First, the EMW and Midstates Natural Gas cases are still in process and have not  
19 been decided by the Commission. Therefore, anything Mr. Murray says in those cases  
20 is meaningless for a Commission decision in Liberty’s current 2024 case, especially  
21 since this is a water utility case and EMW is electric and Midstates is gas, three  
22 industries facing very different risks. Second, he arrives at his COE range for the water  
23 industry by using his COE calculations similar to his methods in the other two cases  
24 referred to, which are his multi-stage DCF and CAPM methods that I will demonstrate

1 later in my testimony the results of which are too low. The results are determined using  
2 unsupported assumptions by Mr. Murray. Finally, he further supports his range through  
3 “corroborating information from investors”, which as I will show later is either  
4 outdated or just a one-off random report.

5 **Q. Does Mr. Murray explain how he calculates or arrives at his recommended ROE**  
6 **9.25%?**

7 A. He does not provide any calculations, but he does provide his rationale on page 16, lines  
8 5-15 of his direct testimony. He begins by stating on line 5 that he considers his 9.0%-  
9 9.5% a reasonable range and goes on to say, “my recommended allowed ROE (9.25%)  
10 is within the range of the Commission’s typically defined ZOR range of 100 basis  
11 points above and below recent average authorized ROE’s of approximately 9.65% for  
12 the water utility industry for the 2023 calendar year and the first quarter of 2024 (8.65%  
13 to 10.65%).” His next sentence provides the justification for his recommendation. Mr.  
14 Murray states “after considering my COE estimates, the Commission’s authorized  
15 ROE of approximately 9.5% for Missouri’s major electric utilities for rate cases  
16 decided in 2015, the Commission’s 9.75% authorized ROE for Liberty in 2018 rate  
17 case (WR-2018-0170) and the Commission’s 9.37% authorized ROE for Spire  
18 Missouri in Case No. GR-2021-0108, he considers a 9.25% ROE to be fair and  
19 reasonable.”

20 **Q. What are your comments on Mr. Murray’s statements justifying his 9.0% to**  
21 **9.50% range and 9.25% ROE recommendation?**

22 A. First, Mr. Murray provides no calculations or rationale for his 9.0% to 9.50  
23 recommended range versus his COE range of 7.5% to 8.5%. Instead, he cites decisions  
24 by the Commission in 2015 electric, 2018 water and 2021 gas rate cases only one of

1 which is water to determine his 9.25% is fair and reasonable. He believes these  
2 historical cases are relevant “after considering his COE estimates”.

3 **Q. Would you explain how Mr. Murray believes his COE estimates justify using**  
4 **historical electric and gas rate case decisions to determine a 9.25% ROE for**  
5 **Liberty?**

6 A. Yes. On page 24, Mr. Murray compares electric, gas and water utility P/E ratios over  
7 2012-2024 in a graph and concludes the obvious - that water P/E’s have been higher  
8 than electric and gas over that period. He then continues this discussion on page 25,  
9 lines 4-7, by stating that “considering that both the electric and gas distribution utility  
10 industries are trading in line with the electric utility valuation levels around 2015 this  
11 supports the reasonableness of a 9.5% authorized ROE for electric and gas distribution  
12 companies in the current capital market environment” (I assume based on his graph).  
13 This is all based on (1) his interpretation of his graph that electric and gas P/E ratios  
14 are trading in line even though the graph clearly shows gas P/E’s trading higher than  
15 electric from 2012 into 2020 and then electric trading higher after that until 2023 and  
16 (2) his belief that changes in P/E ratios determine whether there have been changes in  
17 cost of capital. Because he believes 2015 P/Es are similar to 2024 P/Es based on his  
18 graph, the cost of equity in 2015 must be same in 2024 and therefore his choice of 9.5%  
19 for the electric and gas distribution industries as the starting point for determining his  
20 cost of equity for the water utility industry.

21 **Q. Would you comment on OPC witness Murray’s conclusions in (1) and (2) above?**

22 A. Yes. Mr. Murray appears to make conclusions on the cost of equity based solely on P/E  
23 trading levels that he interprets to be the same today versus 2015. He never actually  
24 provides any support as to why P/E ratio levels are an indicator for changes in the cost

1 of equity. The fact that he believes LDC and electric P/E ratios have been trading  
2 similarly does not mean their cost of equity is the same. The electric and gas industries  
3 have significantly different risks today and these risks have varied over the years which  
4 is the reason the averages of allowed ROEs have varied. I do not find Mr. Murray's  
5 statements on pages 24 and 25 factually correct or empirically supported and the  
6 Commission should reject them.

7 **Q. Did you review the P/E data used to create Mr. Murray's graph on page 24 of his**  
8 **direct testimony?**

9 A. Yes. Looking at the data for 2015 in Mr. Murray's Workpaper<sup>7</sup>, the average P/E ratio  
10 for electrics was 16.51x and for gas 18.60x. Gas and electrics were not trading the same  
11 in 2015. The same ratios for 2024 are 15.96x for electrics and 16.56x for gas. Today's  
12 ratios are not comparable to 2015 ratios and are in fact lower so under his theory their  
13 cost of equity cannot be the same and would be higher. His conclusion on a 2024  
14 recommended range for gas and electrics based on comparability to 2015 makes no  
15 sense and should be ignored by the Commission.

16 **Q. Why doesn't Mr. Murray recommend the 9.75% for Missouri Water's ROE**  
17 **based on the 2018 Commission decision he references?**

18 A. Because he states on page 25, lines 13-15, that "the Commission's authorized ROEs of  
19 approximately 9.5% were awarded to Ameren Missouri and Evergy Metro in 2015. The  
20 cost of capital was higher in 2015 as compared to 2018, when the Commission awarded  
21 Liberty Water a 9.75% ROE in the 2018 rate case. Considering that Ameren Missouri  
22 and Evergy Metro continued to access third-party debt markets at reasonable prices  
23 after being awarded 9.5% ROEs, this demonstrates their reasonableness".

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<sup>7</sup> Murray Direct Testimony, WP, "Chart on Bond Yields vs. Utility P-E Ratios - WR-2024-0104".

1 **Q. How do you respond to these statements?**

2 A. Based on these random, unsupported statements lacking any facts analysis or empirical  
3 support and his earlier unsupported statements mentioned above that the cost of capital  
4 in 2015 is the same as in 2024, Mr. Murray concludes the Commission should give  
5 more weight to the 9.5% ROEs it awarded electric utilities in 2015 in determining a  
6 fair and reasonable ROE in this case than the 9.75% in 2018. The Commission should  
7 ignore his recommendation. Further his statement that despite the two Missouri electric  
8 utilities receiving 9.5% ROE awards they still issued bonds at reasonable prices to third  
9 party investors in 2015 has absolutely nothing to do with an ROE award good or bad  
10 in 2015 and even less relevance to an ROE award for a water utility in 2024.

11 **Q. Why is Mr. Murray recommending a lower ROE for the water utility industry  
12 than the 9.5% for electric and gas utilities?**

13 A. Mr. Murray states on page 26, lines 8-9, that “because my comparative cost of capital  
14 analysis in this case establishes that the water utility industry has a relative lower cost  
15 of capital than the electric and LDC industries”. His recommended 9.0% to 9.5%  
16 recommended range and 9.25% recommended ROE reflect the results of his graph on  
17 page 24 of his direct testimony. Because the graph shows water P/E ratios are above  
18 electric and gas ratios he concludes that the water utility industry has a lower cost of  
19 capital. In addition, he states on page 23 lines 10-12 that “because I am recommending  
20 the same capital structure for Liberty Water as for Liberty Midstates (where he  
21 recommended 9.5% ROE), he is now recommending Liberty Water be authorized a  
22 lower ROE”. That ROE is 9.25%.

1 **Q. How do you respond to these conclusions of Mr. Murray?**

2 A. As I stated above, P/E ratio trading level comparisons are not a determinant as to  
3 changes in cost of capital as Mr. Murray believes. He has not provided any factual  
4 support for reaching that conclusion and the Commission should ignore his  
5 recommendation and conclusions leading to it. As to his references to his Midstates  
6 Gas ROE recommendation in a still undecided case by the Commission providing  
7 support for a lower ROE for Liberty Water, his analysis in that case is equally as  
8 unsupported as his testimony in this case, so it is irrelevant to the Commission's  
9 decision here and the reference should be ignored.

10 **Q. Does Mr. Murray provide any “corroborating information from investors” to**  
11 **support his range and ROE recommendation?**

12 A. Yes. On pages 26 and 27 of his direct testimony, he references a random, single 2018  
13 report from Evercore ISI in footnote 16 on page 27, but it is unclear, ignoring the fact  
14 it is 6 years old, how that report even supports his recommendations since the quote he  
15 selects on page 27, lines 9-12, discusses falling ROE's for water utilities to 8.75% to  
16 9.25%, which is even further below his recommended range. He also references a solo  
17 Wells Fargo report on American Water Works that states Wells Fargo used a 7.5%  
18 COE to determine a fair price to pay for the stock. These two random reports are the  
19 basis for Mr. Murray's “corroborating information from investors” statement. The  
20 irrelevance of these random one-off reports is obvious, and the Commission should  
21 reject them in making its decision on an ROE for Liberty.



1 **Q. Do you have any further comments on Mr. Murray's ROE statements and**  
2 **recommendation discussed above?**

3 A. Yes. If you look at 30-year Treasury rates in 2015, 2018 and 2021<sup>8</sup> they averaged  
4 2.84%, 3.11% and 2.06% for 2015, 2018 and 2021. Today, they average 4.33% - an  
5 increase ranging from 1.22% to 2.27%. Given this rise in interest rates it is difficult to  
6 imagine that the cost of equity has also not risen from the levels in those years and  
7 certainly above the 9.25% Mr. Murray recommends.

8 **Q. Please summarize Mr. Murray's proxy group.**

9 A. Mr. Murray's proxy group includes six water utility companies: American States Water  
10 Company, American Water Works Company, California Water Service Group,  
11 Essential Utilities, Middlesex Water Company, and SJW Group. He selected these  
12 companies due to their classification as water utilities by Value Line. Although  
13 Middlesex Water Company was included in the group, it was excluded from his multi-  
14 stage DDM analysis due to a lack of financial metric estimates from investment  
15 analysts but was included in the CAPM analysis.

16 **Q. What issue do you have with Mr. Murray's proxy group?**

17 A. My main issue is with the exclusion of Middlesex Water Company from Mr. Murray's  
18 multi-stage DDM analysis. While he acknowledges that Middlesex has a business risk  
19 profile consistent with other water utilities, he excluded it due to a lack of financial  
20 metric estimates from analysts. However, Middlesex was included in my analysis  
21 because it meets the screening criteria used to ensure a representative Proxy Group for  
22 Liberty, including having over 60% of its income from regulated water utility  
23 operations and maintaining an investment-grade rating. Excluding a relevant company

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<sup>8</sup> S&P Global Market Intelligence tables 4, 5 and 6 from Walters supplied workpapers, CCW WP 10 and 11.xlsx.

1 like Middlesex can result in an incomplete and potentially biased estimation of  
2 Liberty's COE.

3 **Q. What are the results of Mr. Murray's Multi-Stage DCF analysis?**

4 A. The results of Mr. Murray's Multi-Stage DCF is an ROE range of 7.3% to 7.9%.

5 **Q. Are there flaws in Mr. Murray's multi-stage DCF analysis that led to an  
6 unrealistic and unsupported ROE range?**

7 A. Yes. Mr. Murray's multi-stage DCF analysis, which yields a COE estimate of 7.3% to  
8 7.9%, is deeply flawed and significantly underestimates the appropriate ROE for a  
9 water distribution utility. As shown in Figure 1 earlier, Mr. Murray's multi-stage  
10 results are lower than all but one State Commission Authorized ROE for a Water Utility  
11 in the last fourteen years. Mr. Murray's multi-stage DCF results also fall well below  
12 any historical decisions, as evidenced by the data, and also below the Missouri rate case  
13 references presented earlier in this testimony.

14 **Q. Besides the actual results are their other issues with Mr. Murray's multi-stage  
15 DCF calculations?**

16 A. Yes. Mr. Murray selects perpetual growth rates ranging from 3.75% to 4.25%. These  
17 growth rates are too low and fail to reflect current economic conditions. Mr. Murray  
18 arbitrarily selects this range, citing it reflects the following considerations: (1) potential  
19 long-term sustainable growth rate of the U.S. economy, (2) water utility industry  
20 fundamentals as it relates to expected ROEs on water utility rate base growth, and (3)  
21 commentary/analysis available from the investment community. The 4.25% upper end  
22 of his growth rate range is based on an out-of-date August 2019 Wells Fargo report<sup>9</sup>.  
23 Using a 2019 report to determine a 2024 cost of common equity makes no sense, since

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<sup>9</sup> Murray Direct Testimony, p. 29, footnote 19.

1 it clearly does not account for the significant changes in the Water industry and broader  
2 macroeconomic environment. The report is five years old. The 3.75% reflects his  
3 footnote 26 references but the number does not show up anywhere in the references.  
4 Mr. Murray further calculates a perpetual growth rate within this range of 4% based on  
5 the fundamentals of the water utility industry, his (2). He bases the calculation on an  
6 expected book ROE of 9.25% (his recommendation) and an average long-term utility  
7 retention rate of 43.24%. The end result is a growth rate of approximately 4%. The  
8 problem with these calculations is that they are circular. Mr. Murray uses an expected  
9 book ROE of 9.25% and a 43.24% retention ratio, which he fails to provide support  
10 for, to calculate the 4% perpetual growth rate. He then uses the 4% to calculate an ROE  
11 in the 7%'s from his multi-stage DCF. That makes no sense as does his entire growth  
12 rate range because the results are too low versus past State Authorized ROE decisions.  
13 His growth rate selections are too low and should be rejected by the Commission.

14 **Q. What are your final conclusions on Mr. Murray's Multi-Stage DCF analysis?**

15 A. Mr. Murray's multi-stage DCF analysis, yielding an ROE range of 7.3% to 7.9%, is  
16 fundamentally flawed and unsupported. His resulting ROE range is historically low, as  
17 only one state commission has authorized an ROE below that level for a water utility  
18 in the last 14 years. The primary driver of his low results is an unsupported and out of  
19 date long-term perpetual growth rate range, based on references not supporting his  
20 selection for the low end, circular logic for his 4% and an outdated 2019 article  
21 published five years ago supporting the high end. Mr. Murray's multi-stage DCF results  
22 should be disregarded, as Murray himself disregards his own results when determining  
23 his recommended ROE range and allowed ROE.

1 **Q. What are the results of Mr. Murray’s CAPM COE analysis?**

2 A. Mr. Murray’s CAPM COE analysis indicates that the LDC industry’s COE is in the  
3 range of 8.4% to 9.3%.

4 **Q. How did he calculate those results?**

5 A. First, he selected a 5.0% equity risk premium based on a June 2024 Kroll report. He  
6 also looked at a range of realized historical equity risk premiums of 5.14% (geometric  
7 mean) to 6.56% (arithmetic mean) based on Ibbotson data covering a period from 1926  
8 through 2023. From these observations he decided 5% to 6% were the appropriate  
9 equity risk premiums to use in his CAPM models to estimate the COE for the water  
10 utility industry.

11 **Q. What beta did he use?**

12 A. Before selecting a beta, he discusses historical betas. First, he states “prior to the onset  
13 of Covid-19, water utility stock betas based on 5-years of historical stock market prices  
14 were approximately 0.6.” He provides no support or calculations for this statement. He  
15 then asserts that, following the market's synchronized decline at the onset of the  
16 COVID-19 pandemic, water utility betas rose to slightly above 0.80. He then calculated  
17 water utility betas using data from S&P Market Intelligence (Murray Workpaper ROE  
18 Schedules 5-8) from the past four years, which he claims reflects the market dynamics  
19 influenced by monetary and fiscal policies in response to COVID-19, while excluding  
20 the market downturn in March 2020. Therefore, he shortens his historical measurement  
21 period to four years to justify using a beta of 0.78 which he states is consistent with  
22 historical betas for water industry, higher than the electric and natural gas subsectors  
23 of the utility industry.

1 **Q. What was his last step to calculating his CAPM range?**

2 A. Using his 0.78 beta and equity risk premium range of 5%-6% he performed his CAPM  
3 calculations using risk free rates based on three-month averages of 20-year (4.60%)  
4 and 30-year (4.51%) Treasury rates resulting in ranges of 8.51% to 9.29% and 8.41%  
5 to 9.19%, respectively. He also performed an analysis with his Kroll 5% equity risk  
6 premium, Kroll risk free rate as of June 16, 2022, of 4.56% and a 0.78 beta for a result  
7 of 8.46%. Based on these calculations he selects a range of 8.4% to 9.3%.

8 **Q. What are your comments on Mr. Murray's results and calculation assumptions?**

9 A. As for the results, Mr. Murray's low end 8.4% result is lower than all but one  
10 Authorized ROE Decision in the last 14 years and the 9.3% is at the low end (bottom  
11 10%) of decisions in the last 14 years. As for his actual calculations, Mr. Murray has  
12 made sure he used inputs that would achieve his desired low results. He ignores current  
13 market equity risk premiums and current market betas for the Water industry. His low  
14 historical equity risk premiums are based on ancient history (1926-2023) and irrelevant  
15 as well as his four-year historical Water beta of 0.78 for a calculation of a cost of  
16 common equity for Liberty Water today. I used current S&P 500 stock market data to  
17 determine my equity risk premium, current betas for my water proxy group of .83 and  
18 current thirty-year Treasury rates to arrive at my CAPM average of 12.35%. My  
19 methods are consistent with using current assumptions to calculate a current cost of  
20 common equity and they generally follow the FERC Approved CAPM methodology.  
21 Mr. Murray's CAPM results should be dismissed by the Commission.

1 **Q. Did you review Mr. Murray’s reasonableness check using a risk premium plus**  
2 **bond yield analysis?**

3 A. Yes, I did. On page 40, Mr. Murray explains that he used “a simple rule of thumb the  
4 CFA Program curriculum suggests to estimate the COE, which is to add 3% to 4% risk  
5 premium to a company’s bond yield to provide a fairly simple, but objective cost of  
6 equity.” However, he then decides “it is logical and reasonable not to add a risk  
7 premium any higher than 3% to the bond, based on the investment community views  
8 that utility stocks are bond surrogates/substitutes.” Consequently, he then adds 3% to  
9 Liberty’s January 12, 2024, 5.87% 10-year unsecured bond coupon rate to arrive at a  
10 COE of 8.87%.

11 **Q. What are your comments on Mr. Murray’s “reasonableness check”?**

12 A. First, Mr. Murray provided no CFA curriculum supporting his statement in his  
13 Schedules or Workpapers. Second, even if he had, I would not view the rule of thumb  
14 3-4% risk premium as relevant. If you use Mr. Murray’s 5-6% risk premium and 0.7  
15 beta from his CAPM model, then unsurprisingly, you get an approximate 3-4% range,  
16 the same as his rule of thumb. Third, he then arbitrarily decides that the risk premium  
17 should be no higher than 3% based on a statement about investment community views  
18 that I struggle to see how it supports 3% versus 4%. Once again, he draws conclusions  
19 that are unsupported by the statements he provides as evidence. In addition, he also  
20 provides no schedules or Workpapers supporting these “investment community views”.  
21 Finally, it’s clear Mr. Murray ignored the 4% risk premium, because when you add that  
22 to the 5.87% bond coupon rate he selected, the result would be 9.87%, which is  
23 significantly higher than his COE and recommended ROE.

1 **Q. What are your final conclusions on Mr. Murray’s ROE recommendation and**  
2 **analysis?**

3 A. Mr. Murray proposes a recommended range of 9.0% to 9.5% and a Recommended ROE  
4 of 9.25%. His multi-stage DCF (midpoint of 7.6%) and CAPM (midpoint of 8.85%)  
5 support a COE which would be lower than all but three State Authorized Water Utility  
6 ROEs over the last 14 years. His actual recommended 9.25% is based on 2015, 2018  
7 and 2021 decisions that are out of date and irrelevant to a decision in 2024 for Liberty  
8 ROE. His testimony is full of unsupported and inaccurate statements that lead to  
9 incorrect conclusions. His results should be rejected by the Commission.

10 **VII. CONCLUSION**

11 **Q. Please summarize your conclusions.**

12 (1) Mr. Walters 50.0% and Mr. Murray’s 47.50% common equity ratio  
13 recommendations should be rejected by the Commission and my updated 52.99% for  
14 Liberty should be adopted.

15 (2) The Commission should adopt the 4.97% cost of long-term debt as proposed by  
16 Staff and agreed upon by Liberty, and disregard Mr. Murray’s 4.29% figure.

17 (3) Mr. Walters ROE recommendation of 9.45% and Mr. Murray’s 9.25% are too low  
18 and should be dismissed by the Commission. The Company proposed 10.00% should  
19 be adopted.

20 **Q. Does this conclude your rebuttal testimony?**

21 A. Yes, it does.

**VERIFICATION**

I, John Cochrane, under penalty of perjury, on this 27<sup>th</sup> day of September, 2024, declare that the foregoing is true and correct to the best of my knowledge and belief.

/s/ John Cochrane