Exhibit No.: _____
Issues: Return on Equity, Cost of Debt, Capital Structure
Witness: John Cochrane
Type of Exhibit: Rebuttal Testimony
Sponsoring Party:
Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty
Case No.: GR-2024-0106
Date Testimony Prepared: August 2024

Before the Public Service Commission
of the State of Missouri

Rebuttal Testimony

of

John Cochrane

on behalf of

Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty

August 22, 2024

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20 CSE 4240-2.135(2)(A)8

PUBLIC VERSION

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LIBERTY UTILITIES (MIDSTATES NATURAL GAS) CORP. D/B/A LIBERTY
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I. INTRODUCTION

Q. Please state your name and business address.

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

Q. On whose behalf are you submitting testimony?

A. I am submitting rebuttal testimony on behalf of Liberty Utilities (Midstates Natural Gas) Corp. ("Liberty" or the "Company").

Q. Have you previously submitted testimony in this proceeding?

A. Yes. I submitted direct testimony as part of the Company's February 9th, 2024, filing for an increase in rates. My educational background, professional background, and qualifications are in that prior testimony.

II. PURPOSE AND OVERVIEW OF TESTIMONY

Q. What is the purpose of your rebuttal testimony in this proceeding before the Missouri Public Service Commission ("Commission")?

A. The purpose of my testimony is to respond to the direct testimony of Christopher Walters, who appears on behalf of the Staff of the Missouri Public Service Commission ("Commission"), and the direct testimony of David Murray, who appears on behalf of

the Missouri Office of the Public Counsel ("OPC"), regarding Liberty's proposed cost of common equity ("ROE"), cost of debt, and capital structure.[1]

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

A. Yes, I have. In the Company's cost of service update filing, I updated the capital structure for December 31, 2023 actuals and the debt cost rate. The common equity ratio was updated to 52.5% from my filed 52.9% and the long-term debt ratio to 47.5% from 47.1%. The long-term debt rate declined to 5.58% from 5.59%.

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

A. No, I did not. My recommendation was still 10.80%, which I still believe is reasonable as the midpoint of my range. However, after reviewing all the parties filed testimony, the Company has decided movement to 10.0% is appropriate in an effort to reduce issues in the case and to lessen the overall rate increase impact on its customers. I have included this change as well as my capital structure and cost of debt updates in Rebuttal Exhibit JC-1 pages 1 and 2. My overall rate of return has declined from 8.32% in the update filing to 7.90% in my rebuttal testimony.

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

A. For reasons I discuss in detail later in my testimony, I conclude that the arguments proposed by Mr. Walters and Mr. Murray, as well as their proposed ROE, are flawed. Acceptance of their recommendations would result in an authorized ROE for Liberty that is below the current average State Authorized allowed ROE for gas utilities of

[1] Cost of debt updated to 5.58%, long-term debt ratio to 47.50% and common equity ratio to 52.50% based on December 31, 2023 actuals. See **Rebuttal Schedule JC-1**.

9.93%[2], my recommended ROE range of 10.43% to 11.28%, with a midpoint of 10.80% and the Company's proposed ROE of 10.0%.

I continue to find that my recommended capital structure of 52.9% common equity and 47.1% long-term debt is reasonable[1], that (1) Mr. Walters' recommended common equity ratio of 50.0% is based on a flawed proxy group and ignores the results for common equity ratios allowed for other gas utilities over the last twelve years (51.80% average over the twelve years, 52.45% in 2023, and 52.25% in 2024 provided in his Direct Testimony in CCW-2, and (2) Mr. Murray's 47.50% common equity recommendation should be disregarded because it is not supported by any facts, analysis, documentation or empirical evidence. Mr. Murray's testimony ignores the one set of calculations he performs, which support my recommendation of 52.90%[1].

Finally, Liberty agrees with Mr. Walters recommendation that the cost of long-term debt should be 5.58%, as updated by the Company based on December 31, 2023 actuals (see **Rebuttal Schedule JC-1**) and that Mr. Murray's recommendation should be totally ignored.

Q. How is the remainder of your testimony organized?

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

- Section III addresses Staff and OPC's capital structure recommendations.
- Section IV addresses Staff and OPC's cost of long-term debt recommendations.
- Section V responds to Mr. Walters ROE results and recommendation for Liberty by examining (1) his proxy group composition, (2) the results and assumptions underlying his constant growth Discounted Cash Flow ("DCF")

[2] Walters Direct Testimony pg. 6, Table CCW-1.

model using analysts' projections, (3) his DCF results and methodology using sustainable growth rate estimates, (4) his multi-stage DCF model assumptions, analysis and results, (5) his risk premium model methodology and results, and (6) the assumptions, methodologies and results of his nine different Capital Asset Pricing Model ("CAPM") analyses.

- Section VI responds to Mr. Murray's Liberty ROE recommendation by examining the assumptions, calculations and results of his multi-stage DCF analysis, and his Capital Asset Pricing Model CAPM analyses underlying his cost of equity (COE) analysis as well as his reasonableness check analysis which uses a bond yield plus risk premium method. I will also respond to his statements supporting his selection of his reasonable range and recommended ROE for Liberty, which is different from his COE calculated from his DCF and CAPM analyses.
- Section VI summarizes my conclusions.

III. RESPONSE TO CAPITAL STRUCTURE RECOMMENDATIONS

A. Response to Staff's Capital Structure Recommendation

Q. What is Mr. Walters' recommended capital structure?

A. Mr. Walters is recommending a 50.0% common equity ratio versus my recommendation of 52.90%.

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

A. He bases his 50.0% recommendation on his proxy group average common equity ratio of 43.7% (including short-term debt) and 49.4% (excluding short-term debt). Based on this statement, it appears Mr. Walters selected the average common equity ratio of his proxy group that excludes short-term debt and rounded up to 50.0%. I also excluded

short-term debt in my capital structure analysis to arrive at 52.90%, which was shown in Direct Schedules JC-15 and 16 and updated in **Rebuttal Schedule JC-1**.

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

A. Mr. Walters uses a proxy group composed of twelve utility holding companies: five gas distribution companies, six water companies and one combination electric/gas/water company (Eversource Energy). He started with my proxy group which was composed of seven pure gas distribution utilities but he removed Chesapeake for not being rated by Moody's and S&P as well as for its acquisition of Florida City Gas. He also excluded NiSource Inc. because of their announced sale on June 20, 2023 (closed on January 2, 2024) of Northern Indiana Public Service Company, a vertically integrated electric utility in Indiana, for $2.15 billion. After excluding these two gas distribution utilities he stated that in his opinion five companies do not represent a large enough proxy group sample so he decided to add six water utilities and one multi-utility (electric/gas/water) to increase his proxy group to twelve.

Q. Can you address Mr. Walters' exclusion of Chesapeake and NiSource?

A. Yes. I specifically addressed the credit ratings issue for Chesapeake in my Direct testimony. Chesapeake has an "A" rating from Value Line[3] for Financial Strength, Value Line's highest rating, indicating its strong ability to generate net income and cash flow. Because this suggests that Chesapeake's finances are at least as strong as the other companies that passed my screening criterion and because it passed every other criterion, it was included in my analysis as explained in my direct testimony. As for the Florida City Gas acquisition, Chesapeake announced and closed the transaction in 2023. The transaction has been fully digested by the market. Florida City Gas is a gas

[3] Mr. Walters uses Value Line as a source in his analysis supporting his direct testimony.

distribution utility similar to Chesapeake. As for the exclusion of NiSource, Mr. Walters' description of the transaction is not correct. NiSource only sold a minority ownership interest of 19.9% in Northern Indiana Public Service Company (a subsidiary), not the entire company. This is far different from a major merger transaction involving the parent company, NiSource. Therefore, neither Chesapeake nor NiSource should have been removed from the gas distribution proxy group.

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

A. His inclusion of these companies as part of his proxy group is inappropriate. As for Eversource, they recently announced a sale process of their water utility, Aquarion, in February 2024. Eversource is predominantly an electric utility not gas. 83% of their regulated earnings come from electric transmission and distribution[4]. This combined with the announced sale is more than ample justification for excluding it from his proxy group. As for the six water utilities, they should also be excluded. Water utilities are very different from and subject to significantly different risks than a gas distribution company like Liberty. Water utilities are much more capital intensive due to stringent water quality regulations, customer growth, and geographic expansion through acquisition of municipal owned water systems. In addition, they are facing constant supply challenges due to weather conditions. Their regulatory risks and capital expenditure profiles are much different than gas. Gas as a commodity is historically subject to significant price volatility which can create balance sheet deferrals and many states are not allowing new gas customer connections due to carbon and climate change

[4] 2023 Eversource 10k.

concerns which affect capital expenditure plans. This creates a much different growth and risk profile for gas utilities when compared to water. Therefore, they should be ignored as comparable companies in Mr. Walters proxy group.

Q. Did Mr. Murray use water or electric utilities in his proxy group?

A. No, his proxy group included gas distribution utilities only, including NiSource.

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

A. No, they have not. I have reviewed cases back to 2010 and have found no examples where MPSC staff recommended anything but gas utilities only for their proxy group.

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

A. No, they have not based on my review of cases back to 2010. As stated above the Staff has not proposed a non-gas proxy group for gas utility rate cases in the past. In addition, Mr. Walters did not cite any Commission decisions supporting his inclusion of non-gas companies.

Q. How did Mr. Walters justify using his proxy group to recommend Liberty's common equity ratio?

A. Mr. Walters referenced a recent S&P credit report on APUC and subsidiaries (BBB from S&P/Baa2 from Moody's), including LUCo (Baa2 Moody's; BBB/BBB+ from Fitch; BBB from S&P)), that provided a Stable Outlook for APUC and subsidiaries on the expectation of the sale of their higher risk renewable investments. Even though APUC has carried a BBB rating from S&P back to the end of 2013, he states that it is not reasonable to rely on LUCo's or APUC's current investment grade ratings of BBB/Baa2 as an indicator of Liberty's risk profile. Liberty has no credit ratings, but

Mr. Walters states that there is no reason to believe that the Company would be rated much differently than that of his proxy group on a stand-alone basis. From this he concludes that the 50.0% common equity ratio from his proxy group average should be used for Liberty. He further states that my 52.90% recommendation significantly exceeds the equity ratio for my proxy group used to estimate the cost of common equity for Liberty.

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

A. Yes. On August 9, 2024, APUC announced the planned sale of its renewable investments to LS Power for $2.5 billion, and on May 28, 2024, they announced an agreement with Energy Capital Partners to dispose of their Atlantic Yield equity interests. These transactions would allow for their full exit from the renewables business. Based on the S&P ratings Direct Report referred to by Mr. Walters in footnote 13 of his direct testimony, the announced sale provides confirmation to S&P's Stable Outlook and their current rating of BBB for LUCo and APUC. This contradicts Mr. Walters' statement that they cannot be relied upon.

Q. Why does Liberty not have credit ratings?

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

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

A. No. Given the shortcomings I discuss above in Mr. Walters proxy group selection, I do not believe it should be used as a basis or even used to provide additional support. The capital structure of the actual utility filing for the new rates should be used as the basis

for determining the appropriate common equity ratio as I stated and demonstrated in my direct testimony.

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

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

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

A. First, he cites an October 25, 2023, MPSC water company Report and Order (WR-2023-0006) that refers to a Commission finding that a hypothetical 50% equity and 50% debt capital structure is appropriate in this case. There is no specific mentioning in the cited Order of a need for linkage between capital structure and cost of equity to a proxy group, but simply that equity is more expensive than debt. In addition, he cites two random Commission Orders from other states, Baltimore Gas and Electric in Maryland from 2016 and Southwestern Electric Power Company in Arkansas from 2022, as further proof to support his conclusions.

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

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

Q. Did Mr. Walters provide any other capital structure information for gas distribution utilities?

A. Yes. In Table CCW-2 he provided State Authorized Common Equity Ratios for natural gas distribution utilities for the years 2013 through May 31, 2024, based on S&P Global Market Intelligence data. He provided averages per year and an average for the entire period plus a Min and Max.

Q. What do the results show?

A. Over the eleven year and five-month period ending May 31, 2024, the average was 51.80% with a Min of 49.79% in 2015 (next lowest year was 2017 at 51.13%) and a Max of 52.72%. All results are higher than Mr. Walters 49.40% average for his Proxy group and only 2015 was slightly below his Recommendation of 50.0% common equity ratio, while all other years were higher ranging from 51.13%-52.72%. Those results are closer to my 52.90% recommendation (updated to 52.5%) for Liberty. The more recent results shown in Table CCW-2 for 2023 and 2024 were 52.45% and 52.25%, respectively, which are much higher than his recommendation and more than support my Recommendation of 52.9%, which I updated to 52.5% based on actuals as of December 31, 2023.

Q. Did Mr. Walters provide any other information that shows a linkage between common equity ratios and COE for gas distribution utilities?

A. Yes, in Table CCW-1 he provided the annual averages for 2016 through May 31, 2024 for Commission Authorized Natural Gas ROEs from the same S&P Global Market Intelligence source as his State Authorized Common Equity Ratios. The average Authorized ROE over the nine-year period 2016-2024 was 9.63% with a minimum of 9.47% (2020) and a maximum of 9.93%, which was for the five months ended May 31, 2024. Comparing these Authorized ROEs to the Authorized Common Equity Ratios over the same timeframe, the average ROE of 9.63% compares to an average common

equity ratio of 52.09%. The minimum ROE of 9.47% corresponds to a common equity ratio of 52.34%. If you look at more recent years the 2023 and 2024 average ROEs were 9.60% and 9.93% and the common equity ratios 52.45% and 52.25%.

Q. What do you conclude from Mr. Walters' CCW-1 and CCW-2 tables on capital structure and ROE alignment?

A. Based on the averages for Natural Gas Utility State Authorized Common Equity Ratios and Authorized ROEs used and provided by Mr. Walters his Recommendation of 50.0% and 9.45% are well below the higher historical 2013-2024 period common equity ratios and higher awarded ROEs provided in his testimony. This is even more evident for the recent 2023 and 2024 years. His 50.0% should be ignored and the Company's 52.90% (52.5% updated) Recommendation adopted.

B. Response to OPC's Capital Structure Recommendation

Q. What is Mr. Murray's recommended capital structure for Liberty?

A. Mr. Murray recommends a common equity ratio of 47.5% and a long-term debt ratio of 52.5%.

Q. How did Mr. Murray derive his recommended common equity ratio?

A. Mr. Murray states "my recommended common equity ratio is the mid-point of the common equity ratio that APUC had typically communicated to investors it targets for its Regulated Services Group."

Q. Does Mr. Murray provide a source(s) for his Recommendation?

A. Mr. Murray's one and only source for his statement "the mid-point of the common equity ratio that APUC typically communicated to investors it targets for its Regulated Services Group" is a September 2017 Liberty Utilities Fixed Income Presentation, which is seven years old and clearly out of date and of no relevance in a 2024 rate case

for Liberty. Mr. Murray has referred to this 2017 Presentation every time in testimony in past cases to support his 47.5% common equity recommendation for Liberty affiliated Missouri utilities.

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

A. No, he doesn't point to any specific analysis. Normally Mr. Murray would also calculate the capital structure ratios for Liberty, APUC and LUCo over several quarters and years and select the lowest common equity ratio from whichever company supported his Recommendation, but this time he only provided LUCo's capital structure calculations for the last several years under three different methodologies shown in Exhibits DM-D-3 pages 1 and 2. He appears to ignore those calculations because these results do not support his recommendation of 47.5% common equity. Rather the results of those calculations support my 52.9% common equity recommendation (updated to 52.5%).

Q. What were the results of his analysis for LUCo in Exhibit DM-D-3 pages 1 and 2?

A. His quarterly average common equity ratios for LUCo only based on the Per Books, Adjusted and Adjusted and Excluding Short-Term Debt ratios were 57.63%/50.14%/54.29% for 2021, 61.11%/57.29%/59.55% for 2022 and 60.38%/56.54%/61.39% for 2023. As you can see from these results every common equity ratio, he calculated for LUCo, is significantly higher than his common equity ratio recommendation and they more than support my 52.90% recommendation (updated to 52.5%).

Q. How did Mr. Murray calculate LUCo's capital structure ratios in DM-D-3 pages 1 and 2?

A. He calculated quarterly averages for the years 2020-2023 based on LUCo's financial statements provided in response to OPC Data Request 3031. His quarterly calculations show common equity attributable to LUCo shareholder, non-controlling interest (redeemable and non-redeemable) long-term debt and short-term debt. He then calculates the percentage of capital for each component for his Per Books calculations. For his Adjusted ratios he first adds the amount of off-balance sheet guarantees LUCo has made for debt issued by its affiliate Finance Company, GP-1, to long-term debt and then subtracts the same amount from common equity attributable to shareholders. This set of adjustments was first done by Mr. Murray in the 2019 Empire Electric rate case and, while I do not agree with the methodology, the Commission first reviewed and approved it in the 2019 Empire Electric case[5]. He then makes a second adjustment which removes all the non-controlling interests from the capital structure and recalculates the ratios. He provides no rationale for this adjustment despite the fact these non-controlling interests are included in LUCo's common equity accounts on its audited financial statements. This adjustment was not reviewed and approved by the Commission in the 2019 Empire Electric case. For his last set of Ratio calculations, he simply removes short-term debt from the Adjusted ratios and calculates the common equity and long-term debt percentages.

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

A. No, he did not.

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

A. No, he didn't even though he has in all past rate cases for Liberty's Missouri utility companies and I can only surmise that his reason is that the calculations also do not

[5] The Empire District Electric Company, Case No. ER-2019-0374.

provide any support for his 47.5% common equity recommendation or the other unsupported statements he makes in his testimony that I will address later.

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

A. Yes, I performed the calculations for Liberty for 2022 and 2023 (Direct Schedule JC-15), LUCo (Direct Schedule JC-19) and APUC (Direct Schedule JC-18) as of year-end 2022 both Per Books and including the guarantees and other adjustments used in the past by Mr. Murray and approved by the Commission in the 2019 Empire Electric case. My calculations resulted in common equity ratios of 62.0% at the end of 2022 and 52.9% at the end of 2023 (my Recommendation) for Liberty, 68.8% common equity for LUCo and 65.7% for APUC both at year end 2022. In addition, the Company's response to OPC Data Request 3000, included as **Rebuttal Schedule JC-2**, provides LUCo and APUC calculations by quarter from the fourth quarter of 2021 through December 31, 2023, and follow the past adjustment methodology as approved by the Commission in the 2019 Empire Electric rate case. The results from OPC Data Request 3000 show common equity ratios for LUCo and APUC in the 60's+%, which are well in excess of my Recommendation for Liberty in every quarter. My results for LUCo are similar to Mr. Murray's results in DM-D-3, which as discussed, he totally ignores in making his common equity recommendation.

Q. Did you check Mr. Murray's calculations in DM-D-3 pages 1 and 2?

A. Yes, I did and several mistakes were found in his analysis.

Q. What were those mistakes?

A. First, he classified long-term debt due within one year as short-term debt which is incorrect in his 2022 and 2023 calculations. Long-term debt is long-term debt. Interestingly, Mr. Murray includes this same debt in his calculation of his

Recommended long-term debt rate, which is based on LUCo's long-term debt cost at 12/31/2023, so I assume his capital structure ratio calculation was an error. Secondly, he neglected to remove short-term debt related to LUCo's bank credit facilities as well as commercial paper from long-term debt and add it to short-term debt. He did make this adjustment in his long-term debt rate calculation Recommendation and removed these amounts from LUCo's long-term debt to calculate the long-term rate so I assume this was another error in his capital structure calculations.

Q. When you adjust his analysis for these errors what were the results?

A. The recalculations only affected his common equity ratios for the Adjusted and Excluding Short-Term Debt common equity ratios for the years 2022 and 2023, because the errors were simply reclassifications between short and long-term debt. The 2022 common equity ratio increased from 59.55% to 63.98% and for 2023 the increase was from 61.39% to 66.90% (see page 1 of **Rebuttal Schedule JC-3**) both of which are even more supportive of my Recommendation of 52.9% (updated to 52.50%).

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

A. As discussed above Mr. Murray is basing his recommendation on a September 2017 fixed income investor presentation solely. He has referred to this presentation every time in past Liberty affiliate Missouri utility rate cases, more specifically the 2019 Empire Electric rate case was the first time, and as is his typical practice mis-interprets the presentation to justify his Recommendation of 47.5%. The reason he uses that out-of-date presentation is because his calculations in DM-D-3, for LUCo only, do not support his Recommendation but instead more than support mine, 52.9% (updated to 52.5%). In addition, he fails to provide Liberty and APUC's calculations, which he has

in the past and the Commission has approved, and as I mentioned above more than support my recommendation. Instead of providing facts, specific quotes and supporting financial analysis, as well as ignoring the financial analysis he did perform, he uses a seven-year-old 2017 fixed income presentation and supports its use by making a series of random unsupported, and inaccurate statements.

Q. What statements does Mr. Murray make?

A. His first series of statements begins on page 3 line 11 of his direct testimony. He states that "APUC manages its operating utility subsidiaries' capital structures through affiliate financing transactions. Liberty, as well as its Missouri sister subsidiaries, do not issue their own debt or equity to third parties." This statement is true and has been since all the Missouri affiliated companies were acquired by APUC. The reason for this practice which was included as a benefit in all the merger applications by APUC in Missouri was to save customers money through lower debt financing costs than they could achieve on their own given their small size. He then goes on to say that the Commission has reviewed LUCo's common equity ratios when deciding to authorize a capital structure for APUC's Missouri utility subsidiaries. Liberty does not dispute this statement either because in fact the Commission has reviewed the Missouri affiliate companies', APUC's and LUCo's capital structures in past cases as I discussed above, and specifically in the 2019 Empire Electric rate case. The original methodology, not followed by Mr. Murray in this case, was proposed by Mr. Murray in that case. The issue I have is that Mr. Murray has decided to ignore the results of his own LUCo analysis in this case (DM-D-3 pages 1 and 2) because the results do not justify his Recommendation and he also has not included any APUC or Liberty capital structure analysis as he has in the past and the Commission approved in 2019, which also, as I

mention above, do not justify his Recommendation. Mr. Murray makes additional statements that are unsupported by any facts or references in his testimony to justify his Recommendation, ignoring his past and current capital structure analysis and Commission policy to essentially make his Recommendation up.

Q. Can you provide some of these additional statements to why he ignores his own LUCo results in DM-D-3?

A. Yes. On page 3 lines 19 – 27 he makes a series of statements starting with "While LUCo's average capital structures at the time of Liberty Midstate's, Liberty Water's and Empire's past rate cases were consistent with their low business risks, this is no longer true." Mr. Murray provides no analytics, exhibits or workpapers for this statement. I surmise that he makes this statement because LUCo's common equity ratios based on his own calculations do not support his Recommendation but instead mine. He then goes on to further state in lines 26-29 and page 4 lines 1-4 regarding his perceived notion that APUC and LUCo are not financially stable that "However, even after the divestiture, APUC will likely still have a sizable amount and proportion of holding company debt outstanding." He goes on to say that APUC's business and financial risk will not stabilize until it completes its transition to an owner of only regulated utilities. Until that occurs the Commission should set the debt ratio in the range of 50-55% (52.5%) based on the outdated September 2017 fixed income presentation which results in his common equity ratio Recommendation of 47.5%. The divestiture he is referring to is the sale of the non-regulated generation/renewables business. All these statements by Mr. Murray are not supported by analytics, workpapers or exhibits. He has provided no firm evidence or factual support.

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

A. No, I do not. First, APUC's credit ratings are Baa/BBB and have been at that level since 2013. Second, on August 9, 2024, APUC announced the planned sale of their non-regulated generation/renewables business to LS Power for $2.5 billion in cash which will be used to recapitalize the balance sheet and retire debt. They had already announced the planned disposal of their Atlantica Yield equity interests to Energy Capital Partners in May 2024. These two transactions would allow for APUC's total exit from the renewables business. Third, his statements make no sense when you look at APUC's common equity ratio at year end 2022 of 65.7% (Direct Schedule JC-18) and also the results provided in response to OPC DR 3000 for the quarters December 31, 2021 through December 31, 2023 for APUC, see **Rebuttal Schedule JC-2**. All calculated ratios shown in response to OPCDR 3000 are in the 60s+% for APUC. Common equity ratios in the 60s+% range do not signify a financially unstable company but rather just the opposite. The use of the renewable cash proceeds for debt reduction will only make these ratios even higher.

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

A. Yes, in the remaining pages 5 to 13 of his capital structure testimony Mr. Murray continues to make unsupported statements along the same theme as the statements I referenced and discuss above. All these statements are unsupported with no references to facts, analytics, empirical evidence, Company or third-party statements.

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

A. Yes. There are too many unsupported, incorrect statements made by Mr. Murray to go through them all but one in particular on page 12 of his Direct Testimony is especially telling. **[redacted]**

[redacted] **

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

A. ** [redacted] **

Q. What is your conclusion on 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 and the Commission should use a seven-year-old September 2017 fixed income investor presentation as a basis to determine the appropriate common equity ratio for Liberty in 2024. He ignores his own financial

analysis for LUCo because it does not support the answer he is trying to achieve. The Commission should ignore his recommendation.

IV. COST OF LONG-TERM DEBT

Q. What is Mr. Walters' recommended cost of long-term debt?

A. Mr. Walters proposed 5.58% which is the number I provided in my December 31, 2023, update and is included in **Rebuttal Schedule JC-1** page 2. My original number was 5.59%. Liberty supports Mr. Walters' recommendation of 5.58% for the cost of long-term debt in this case.

Q. What is Mr. Murray's recommended long-term cost of debt?

A. Mr. Murray recommends 3.97% which he states represents LUCo's embedded cost of long-term debt on December 31, 2023.

Q. What is his justification for using LUCo's year end 2023 embedded cost of debt?

A. His only statement is "because it is based on all third-party debt issuances." He provides no other statements, analysis, documents, or Order cites to support his statement and Recommendation.

Q. Can you comment on Mr. Murray's statement above?

A. My only comment is that I have no idea what his justification statement means. Mr. Murray has decided to use LUCo's historical embedded cost of debt, but he does not use LUCo's actual capital structure on December 31, 2023 supporting that cost of long-term debt, 61% common equity and 39% long-term debt based on his DM-D-3 page 2 and 66%/34% based on my corrections of his errors (page 2, **Rebuttal Schedule JC-3**).

Q. For what other reasons is Mr. Murray's use of a LUCo embedded cost of debt inappropriate for Liberty's actual cost of long-term debt?

A. After reviewing Mr. Murray's submitted Workpaper, WP-Embedded COD LUCo-Q4-23, from "Confidential Schedules 3 and 8 Capital Structure and ROR", supporting his 3.97% cost of long-term debt, the first concern I have is that he includes Senior Unsecured Utility Notes and Senior Secured Utility Bonds that were issued directly by LUCo subsidiaries such as Granite State Electric, CalPeco Electric, New England Natural Gas Company, The Empire District Electric and Gas. Since the debt was issued directly by the subsidiary, which in some cases preceded APUC's acquisition of Midstates, the proceeds could not have been used to finance Midstates. Including this debt makes no sense. Second, the remaining debt he includes was issued by LUCo or its Finance Subsidiary GP1 and a substantial amount precedes the Midstates acquisition. Third, Mr. Murray, by using his calculated LUCo $2.1 billion of long-term debt, is making the argument that despite Midstates having only $120 million of long-term debt outstanding its cost of debt should be based on $2.1 billion of LUCo "Consolidated" (consolidation accounting combines the financial statements of the parent and its subsidiaries and then eliminates intercompany transactions with the end result that both parent debt and subsidiary debt directly issued to third parties is included) long-term debt, which clearly wasn't used by Midstates. Finally, as shown in Direct Schedule JC-17 $90.6 million of Midstates $120 million long-term debt outstanding was issued in December 2023 pursuant to Missouri Commission Financing Order dated July 26, 2023, in Case No. GF-2023-0280 (Financing Order). This newly issued debt was priced at LUCo's market cost of debt on December 14, 2023, based on a ten-year maturity, at 5.774%. The pricing mechanism for Midstates long-term cost of debt was approved by the Commission in its Financing Order. The 5.774%, as well as Midstates remaining $29 million of previously issued long-term debt, reflected the

current market costs of LUCo issuing new debt in the market at those times. The pricing mechanism was approved by the Commission. The market costs at the time of issuance are the appropriate rates to use to determine Midstates cost of long-term debt as shown in my Direct Schedule JC-17 and updated in **Rebuttal Schedule JC-1.**

Q. What is your conclusion on Mr. Murray's proposed cost of long-term debt?

A. For these reasons stated above, Mr. Murray's Cost of Long-Term Debt Recommendation makes no sense similar to his capital structure analysis and Mr. Murray's 3.97% recommended cost of long-term debt should be ignored and the Staff and Company supported long-term cost of debt of 5.58% per my update in **Rebuttal Schedule JC-1** should be approved by the Commission.

V. RESPONSE TO STAFF'S ROE RECOMMENDATION

Q. Please summarize Mr. Walters' ROE recommendation.

A. Mr. Walters recommends an ROE range of 9.0% to 9.9% resulting in a midpoint and his recommendation of 9.45% ROE for Liberty. He performs three DCF analyses, two are constant growth DCF's using (1) analyst projections with average and median results of 9.64% and 9.92% and (2) sustainable growth rate estimates with average and median results of 8.58% and 8.47%. He also performs a multi-stage DCF analysis with average and median results of 8.10% and 7.93%, as well as nine different CAPM analyses using three different methods (Kroll, Risk Premium and FERC DCF) to calculate the expected market return and resulting risk premiums and three different beta values (based on his proxy group current and historical Value Line betas and the proxy group's current Market Intelligence beta). Finally, he performs several Risk Premium analyses.

Q. What are your principal criticisms with Mr. Walters ROE analyses?

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

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

A. As I described earlier in my capital structure rebuttal testimony on Mr. Walters' recommendation, his proxy group includes twelve companies, but only five are gas utilities. Six are water utilities and one is a multi-utility, but predominantly electric. His proxy group primarily consists of non-natural gas utility distribution companies, seven out of twelve. This is inappropriate as water companies are subject to significantly different risks than a gas distribution utility like Liberty for reasons I explained earlier. In addition, using a multi-utility that derives eighty-three percent of its regulated earnings from electric transmission and distribution and is disposing of its water business is also inappropriate due to the different risks facing electric distribution companies versus gas.

Q. Why does Mr. Walters include six water companies and one multi-utility in his proxy group?

A. Mr. Walters included six water companies, one multi-utility, and only five gas distribution companies. His original proxy group was based on my recommended proxy group, however he specifically excluded Chesapeake and NiSource. After excluding those two companies, he states his sample size of five is too small. To compensate, he

then adds seven non-gas distribution companies to replace only two gas distribution companies. He appears to believe a double-digit proxy group is more reliable, even though seven out of the 12 companies he selected are not representative of the risks of a gas distribution utility like Liberty.

Q. Do you agree with Mr. Walters' removal of Chesapeake and NiSource and addition of seven non gas distribution utilities?

A. No, I do not, for the reasons I stated earlier in my testimony NiSource and Chesapeake should be included and the water and electric companies should be excluded. I fully explained the rationale for NiSource and Chesapeake's continued inclusion and why the risks facing gas distribution companies are very different from water and electric. When these adjustments are factored in, Mr. Walters is back to my proxy group of seven, which is more than enough companies to be a representative sample to determine a cost of common equity for Liberty.

Q. Did you present any additional testimony on Mr. Walters' proxy group selection earlier?

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

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

A. Mr. Walters performs a constant growth DCF analysis using three different sources for analyst growth forecasts which he then averages for each proxy company and combines with a dividend yield based on a thirteen-week stock price average and an annualized dividend adjusted forward by one-half of the growth rate average. His results using analyst projections are an average of 9.64% and a median of 9.92%. These results are above his 9.45% recommendation.

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

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

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

A. His DCF results based on a sustainable growth rate analysis result in an average of 8.58% and a median of 8.47%.

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

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

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

Where g is the sustainable growth rate, b is earnings expected to be retained by the company, r is an estimate of ROE. They represent internal growth and s * v represents growth due to external financing. The s represents expected growth in the number of shares issued and v reflects the profitability of the equity investment. The Constant Growth DCF model implies that the chosen b and r will continue in perpetuity. Importantly, Mr. Walters' sustainable growth calculation assumes an expected ROE, r, which he adjusts from end of year to an average value. Using data from Value Line, Mr. Walters uses an average expected ROE estimate of 9.91% for his proxy group, yet the results of his analysis are 8.58% and 8.47%. Essentially, his calculated sustainable growth DCF ROE recommendation is inconsistent with the expected ROE used as an input in his model. His methodology is circular.

Q. Does Mr. Walters explain this inconsistency?

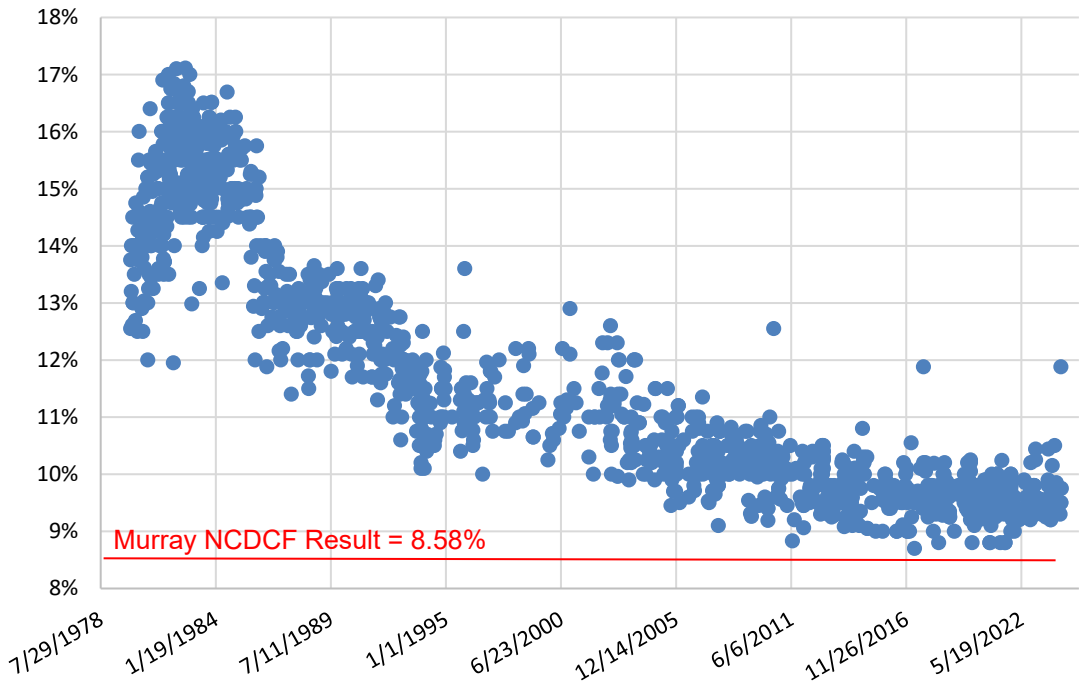
A. No, he does not.

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

A. Yes, Mr. Walters' results of 8.58% and 8.47% are lower than any State Commission Authorized ROE for a gas distribution utility over the last 45 years. Since 1980, there have been 1,313 authorized ROEs for gas distribution utilities. In that time, there has not been an authorized ROE below 8.58% for natural gas utilities. In fact, there hasn't been an ROE authorized below 9.0% outside of New York or Connecticut, where ROEs are traditionally accompanied with earnings sharing formulas which allow them to earn ROEs in excess of 9.0%. So compared to

historical decisions, Mr. Walters sustainable growth rate DCF results are below any historical decisions in the last 45 years, as shown in Figure 1 below. His sustainable growth rate DCF results should be ignored.

Figure 1: Authorized ROEs for Gas Utilities since 1980



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

A. Mr. Walters multi-stage DCF analysis results show an average of 8.10% and a median of 7.93%. Nine of his twelve DCF results are below 8.56%. Three results range from 8.01% to 8.56%, four range from 7.13% to 7.84% and two from 6.49% to 6.97%. His multi-stage DCF analysis results make no sense. The results overall and for nine of his twelve proxy companies are lower than any gas distribution company ROE decision in the past 45 years, see Figure 1 above.

Q. Why are Mr. Walters' multi-stage DCF results lower than yours and so much lower than historical State Authorized ROEs for gas utilities?

A. This brings me to my second critique of Mr. Walters analysis. Mr. Walters utilizes a long-term growth rate of 4.14%, that is clearly too low.

Q. How did Mr. Walters arrive at his 4.14% long-term growth rate?

A. His stated support for the 4.14% is a quote from a textbook titled "Fundamentals of Financial Management" published by Eugene Brigham and Joel F. Houston. They state "the constant growth model is most appropriate for mature companies with a stable history of growth and stable future expectations. Expected growth rates vary somewhat among companies, but dividends for mature firms are often expected to grow in the future at about the same rate as nominal gross domestic product (real GDP plus inflation)." Based on this statement Mr. Walters relied on the average of long-term GDP growth projections as projected by independent economists from Blue Chip Economic Indicators. He further states on page 40 lines 11-12 that these projections are "likely to be influential on investors' expectations of future growth outlooks". Their consensus was 4.14% over the next 10 years. He further reviewed other sources of projected long-term GDP growth and came up with a range of 3.8% to 4.3% which he says supports his 4.14%.

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

A. Yes. First, his selected quote from the Brigham and Houston textbook he referred to left out the last sentence of the paragraph he quoted which states "On this basis, one might expect the dividends of an average, or normal, company to grow at a rate of 5 to 8 percent a year." The full paragraph excerpt is included in Mr. Walter's workpaper[6].

[6] Christopher Walter's work paper: "CCW Confidential WP 21," p. 11 of PDF.

The sentence Mr. Walters neglected to include does not support his proposed 4.14% growth rate, but actually a much higher one, midpoint of 5% to 8% is 6.5%. Second, his additional quote concerning his belief of the influence on investors of the BlueChip Financial Forecasts report is not supported by any facts or empirical evidence. I believe investors are more likely to review a Value Line or other analyst reports than they are various GDP and inflation forecasts and then do a multi-stage DCF analysis. I think that is quite wishful thinking. Third, as I stated earlier his results are so low they don't make any sense versus State Authorized ROE Decisions over the last 45 years. His low results are primarily driven by his 4.14% long-term growth rate selection. His long-term growth rate is too low. My long-term growth rate is 5.50% and produces results more in line with past authorized ROE decisions (my muti-stage midpoint ROE was 9.90%). His multi-stage DCF results should be ignored by the Commission.

Q. Any other comments on Mr. Walters' three DCF sets of calculations?

A. Yes, I find it interesting that for his constant, sustainable and multi-stage growth DCF calculations all of his assumptions and inputs are based on forward projections and not historical. As I will discuss later in my testimony for his nine CAPM calculations, six of them rely on historical betas and historical expected market returns. Only one relies on current market information and forward treasury rates. His one remaining CAPM result based on current information results in an 11.03% ROE. It appears Mr. Walters is selectively using historical versus current and forward information to achieve the results he wants to achieve.

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

A. Yes, he uses several different methods and time periods of measurement. His methods rely on comparisons of (1) Authorized Gas Returns to 30-year Treasury Bond Yields

from 1986 through 2024 and (2) Authorized Gas Returns to Average "A" Rated Utility Bond Yields over the same period resulting in risk premiums averaging 5.63% and 4.27%, respectively. He then looks at rolling 5 and 10-year averages to "gauge the variability over time of risk premiums". Those calculations resulted in risk premium averages of 5.67% and 5.68% for the rolling 5 and 10-years based on 30-year Treasury Bonds and an average of 4.32% for both 5 and 10-year rolling based on the "A" rated utility Bonds. It appears his averaging results had little impact versus the average of his 1986-2024 period results.

Q. What did he do next?

A. He added the 5.63% average 30-year Treasury Bond risk premium to a projected 30-year Treasury Bond rate of 4.20% as of May 1, 2024 for a total of 9.83%, the 4.27% average "A" Utility Bond average risk premium of 5.69% to a 13-week period ending May 31, 2024 average "A" bond yield for a 9.96% result, the same 4.27% "A" average Utility Bond spread to a current "Baa" utility bond yield of 5.92% based on 13 weeks ending May 31, 2024 for a 10.19% result and finished by using the same "A" utility bond risk premium of 4.27% but with 26-week period ending May 31, 2024 "A" and "Baa" Utility bond yields of 5.58% and 5.52% for results of 9.85% and 10.09%.

Q. Do you have any concerns with Mr. Walters' risk premium calculations?

A. No, I do not. I used a similar risk premium approach using 30-year Treasury bonds and Authorized Gas Returns and obtained similar results averaging 9.97%.

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

A. Yes. If you look at Exhibit CCW-10 page 1 of 1 in column (1) Authorized Gas Returns, the lowest annual average authorized return is 9.46% in 2020 and the 30-yr Treasury Bond Yield in column (2) was 1.56%. Mr. Walters projected 30-yr Treasury bond rate

used in his risk premium analysis is 4.20% as of May 1, 2024, which is 2.64% higher than the 1.56% for the same year the authorized ROE's averaged 9.46% for gas. Clearly, if 30-yr Treasury bond rates have risen 2.64% from 2020 when the ROE average was 9.46% it is hard to understand how Mr. Walters can recommend the same ROE today of 9.45% as the 2020 average for Liberty. The results show that 30-year Treasury rates have risen since 2020 but Mr. Walters would propose that the cost of equity stayed the same. His recommended ROE is too low.

Q. Describe Mr. Walters' CAPM methodology.

A. Mr. Walters used a projected 30-year Treasury Bond rate of 4.20% as of May 1, 2024, for his risk-free rate. He used three different beta sources: Value Line current average for his proxy group, Value Line historical average since 2014 for his proxy group and Market Intelligence's Beta Generator Model which relies on a five-year historical period ending May 31, 2024. The results were 0.85 for his current Value Line average for his proxy group and averages of 0.75 for his ten-year historical Value Line average and average and medians of 0.75 for his five-year historical Market Intelligence results. To calculate his expected market returns to determine his market risk premiums, he uses a historical risk premium and two FERC based DCF approaches. He also considers the normalized market risk premium of 5.50% with a normalized risk-free rate of 4.65% as recommended by Kroll, formerly known as Duff & Phelps, which results in an expected market return of 10.15%.

Q. Do you have issues with his beta selections?

A. Yes, I do with his historical betas. Mr. Walters' current proxy group average and median betas are both 0.85, see Exhibit CCW-14 from his Direct Testimony. However, he suggests that the "current" proxy group beta results of 0.85, "in his experience", are

abnormally high and unlikely to be sustained, so he decides that going back and averaging proxy group results since 2014 (no reason given for selecting that year as the starting point) is more representative of today's market. The result was not surprisingly lower at 0.75 for a beta value.

Q. Are his Market Intelligence Beta calculations also based on historical results?

A. Yes. They are based on a five-year historical period. Once again historical betas are used as representative of today's market. The average and median results are both 0.75.

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

A. Mr. Walters is using five and ten-year average historical periods to calculate beta inputs (0.75) for his CAPM analysis today for two sets of his CAPM calculations. His historical analysis is based on selection of two random historical periods as representative of the appropriate betas for today's market. The use of historical betas makes no sense. The more likely reason he selects old historical lower betas is because his third beta, the 0.85 which represents current average for his proxy group, is too high for the CAPM ROE results he is trying to achieve. His historical beta analyses resulting in 0.75 betas should be ignored and only the current 0.85 beta should be used in Mr. Walters "forward looking" CAPM analysis to determine the current ROE for Liberty, which is what I did in my Direct Testimony.

Q. How does the 0.85 current beta compare to the beta in your CAPM analysis in your Direct Testimony?

A. My current proxy group beta was 0.86 compared to Mr. Walters 0.85.

Q. Describe the calculation of Mr. Walters' market risk premium using the Risk Premium approach to calculate the expected market return.

A. Mr. Walters states his risk premium method to estimate the expected market return results in a "forward-looking" estimate of a market risk premium. However, his calculation of the risk premium for the expected market return is based on an arithmetic average, real market return over the period 1926 to 2022 of 9.02%. He then adds a "projected" inflation rate as of May 1, 2024, of 2.40% to calculate an expected market return of 11.64%. When the projected 30-year Treasury rate of 4.20% as of May 1, 2024, is subtracted the resulting market risk premium is 7.44%. For some reason Mr. Walters used a projected Treasury rate today versus Treasury rates from 1926 to 2022 to calculate his risk premium. That would appear to be in conflict with and contradictory to his risk premium analysis in his testimony and Exhibits (CCW-10 and 11) that I commented on above. In addition, the only part of his risk premium method that is forward is the "projected" inflation rate. Using a ninety-six-year historical period to incorrectly compute a cost of common equity today in a CAPM formula makes no sense and results from this method should be ignored.

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

A. He uses two methods. The first follows the FERC method for estimating the expected market return which is a constant growth DCF analysis of the S&P 500 companies, but only including those that pay dividends and excluding companies that have negative growth rates or growth rates more than 20%. The weighted average growth rate for these companies is 10.30% and when added to the weighted average expected dividend yield of 1.79% the result is 12.09% expected market return. The resulting market risk premium is 7.90%, 12.09% - 4.20%. He then performs the same analysis without

excluding any companies and calculates an expected market return of 12.28% which results in a market risk premium of 8.10%. He then averages the 12.09% and 12.28% which results in 12.19% and a risk premium of 8.00%.

Q. What are the results of his CAPM calculations?

A. Using his 4.20% projected 30-year Treasury Bond rate as of May 1, 2024, a current beta of 0.85 and his historical betas of 0.75 and expected market returns of 10.15%, 12.19% and 11.64%, Mr. Walters calculates an ROE range of 8.76% - 9.35% under the Kroll Normalized Market Risk Premium method (he also uses a Kroll risk free rate of 4.65% instead of the 4.20%), ROEs ranging from 9.73% - 10.52% for his Risk Premium Derived Market Risk Premium method and ROEs ranging from 10.18% - 11.03% for his average FERC S&P 500 DCF Market Risk Premium method.

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

A. My first previously stated criticism of Mr. Walters' CAPM analysis and results is the use of the 0.75 historical betas in six of his nine CAPM calculations. I addressed above why using the 0.75 is inappropriate versus using the current 0.85 based on his proxy group as of May 1, 2024. The results of those six should be ignored. Second, the market risk premium in his Kroll cases is very low and two of the CAPM results are 8.76% and 8.77% which are below the forty-five-year results for State Authorized Gas ROEs shown earlier in Figure 1. The results from the Kroll cases are also well below his other six CAPM cases. The Kroll results should be ignored. Third, his expected market return for his Risk Premium derived market risk premium relies on real market returns over the period 1926-2022 and his risk premium calculation methodology is incorrect since he only used a projected Treasury rate today against ninety-six years of historical results versus the Treasury rates in those years. Mr. Walters is therefore using a

historical market risk premium incorrectly calculated and adding a current inflation projection to it and calling the result a "forward looking expected market return". I think rather than forward looking he is instead mixing apples and oranges to achieve lower numbers for his results. His Risk Premium Derived MRP results are not valid and should be ignored. Finally, his two FERC S&P 500 DCF expected market return calculations are very close and recognizing that, Mr. Walters averages them. This is the only expected market return calculation that uses current and projected inputs for the risk-free rate, beta and expected market return. His other two methods do not. My CAPM analysis is similar to his Average FERC S&P 500 DCF Derived MRP without removing any companies from the index. Based on these calculations and 0.85 current beta the only CAPM result from Mr. Walters analysis that makes sense is the 11.03% ROE (only one of his nine cases), which uses a projected 4.20% 30-year Treasury bond, a current beta of .85 for the proxy group and an expected market return of 12.09%. His other eight CAPM results should be ignored.

Q. What are your final conclusions on Mr. Walters' Cost of Common Equity analysis?

A. Mr. Walters' sustainable growth and muti-stage DCF results should be ignored due to results lower than any State Authorized ROE in the last 45 years and also for circularity in logic errors in the case of sustainable growth and a low long-term growth rate in his multi-stage DCF. Eight of his nine CAPM results should be ignored because they use historical random unsupported results in the case of historical betas and historical market results to determine expected market returns today as well as incorrect calculations. When you eliminate these results, you are left with Mr. Walters constant growth DCF results of 9.64% and 9.92%, risk premium results of 9.85% to 10.19% and

a CAPM result of 11.03%. The resulting range would be 9.64% to 11.03% and the midpoint 10.34%. The low end of the range is higher than his Recommended ROE and the midpoint of 10.34% is significantly higher than Mr. Walters recommended 9.45% ROE.

VI. RESPONSE TO OPC'S ROE RECOMMENDATION

Q. Please summarize Mr. Murray's ROE recommendation.

A. Mr. Murray recommends an authorized ROE range of 9.25% to 9.75% and an allowed ROE for Liberty of 9.5%. Mr. Murray conducted a multi-stage DCF analysis, resulting in a ROE range of 8.5% to 8.6% as well as CAPM analysis to arrive at a ROE range of 8.0% to 8.8%. He states on page 14 line 7-8 that Liberty's current COE is around 8.5% based on his analysis. Although he never states exactly how he arrived at the 8.5%, I assume it is based on his multi-stage DCF and CAPM results which I will address later in my testimony.

Q. What is COE?

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

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

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

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

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

A. No, he does not.

Q. Does Mr. Murray explain how he calculates or arrives at his recommended ROE range of 9.25 -9.75%?

A. He does not provide any calculations but does provide his rational on page 2, lines 6-18.

Q. Can you summarize what statements Mr. Murray makes on page 2 lines 6-18 supporting his recommended 9.25%-9.75% ROE range?

A. Mr. Murray claims that (1) the local gas distribution (LDC) industry's stock valuation levels are similar to the electric utility industry's stock valuation levels and (2) therefore his cost of equity estimates for the LDC industry are very similar to his COE estimates for the electric utility industry in the concurrent Evergy Missouri West ("EMW") rate case (Case No. ER-2024-0189). He further states (3) that his COE estimates are lower than the average authorized ROEs of around 9.6% for the last twelve months ending March 2024, and finally (4) references a supposed 2015 determination of the Commission that authorized ROEs of approximately 9.5% were fair and reasonable for Missouri's electric utilities (no Commission Order cite was provided), "which was the

last time electric and LDC industry price-to-earnings ratios traded at levels consistent with current valuation levels[7]".

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

A. He states on page 2 lines 27-28 and page 3 lines1-8 "that during most of 2020 to 2022, utility stocks had not traded consistent with their typical negative correlation to changes in long-term bond yields. However, since the end of 2022, utility stock valuation levels resumed their typical negative correlation to interest rates. Further utility stocks have been significantly underperforming the S&P 500 since the end of 2022. The S&P 500's P/E ratios during 2023 and 2024 have been higher than modern historical averages, which implies a lower market risk premium than in 2022. Based on his application of several cost of equity methods and "corroborating information from investors", he estimates the COE for LDC's to be around 8.5%, which is similar to his estimate for the electric utility industry in EMW's rate case". All these statements in this answer and the prior one appear to be the basis of support for "LDC and electric industry stock valuation levels and therefore their cost of common equity are very similar" referred to in (1) above. Therefore, his belief is that his recommendation in the 2024 EMW case should be the same for Liberty.

Q. Are his statements correct?

A. No. First, the EMW case is still in process and has not been decided by the Commission. Therefore, anything Mr. Murray says in that case is meaningless for a Commission decision in Liberty's current 2024 case, especially since this is a gas LDC case and EMW is electric, two industries facing very different risks. Second, he appears to make

[7] Murray Direct page 2, lines 16-18.

numerous statements about (1) how utility stocks have not traded consistent with their negative correlation to long-term bond yields, (2) utility stocks have been underperforming the S&P 500, (3) long-term yields increased in 2022 causing the S&P 500 to contract but utility stocks didn't contract as much and outperformed the S&P 500, and (4) P/E ratios for the LDC and electric industry are at parity implying similar costs of equity. All these events according to Murray lead to conclusions he reaches to support his COE and ROE recommendations. I do not agree with his conclusions.

Q. Explain why you disagree with his conclusions.

A. Mr. Murray makes all these above statements many of which are statements of historical fact and of no relevance and uses them to make unsupported commentary and conclusions. Other incorrect statements he makes conclusions about even though his data does not support the statement such as P/E ratios today for electric and gas utilities are at parity and are at the same levels as 2015 which is the basis for his 9.5% recommended ROE. His data doesn't support that statement. He uses them to support his conclusions and recommendations as to how he sees the utility markets without any precise analysis or other explanations to justify his 8.5% COE and 9.25%-9.75% recommended range. In most cases, his statements do not support any conclusions outside of restating actual factual market trading information or misrepresenting his own data. He appears to make conclusions from these events that can clearly be explained by many other reasons. For example, he restates the facts that utilities underperformed the S&P 500 when interest rates fell and that utility stocks outperformed the S&P 500 when interest rates rose. The relevance of how the S&P 500 performs versus utility stocks in different interest rate environments is not remotely meaningful in determining the cost of common equity for Liberty today. Further, the

fact that he believes LDC and electric P/E ratios have been trading similarly does not mean their cost of equity is the same. The electric and LDC industries have significantly different risks today and these risks have varied over the years which is the reason the averages of allowed ROEs for each industry have varied. I do not find any of Mr. Murray's statements on pages 2 and 3 of his Direct testimony factually correct or empirically supported and the Commission should ignore them.

Q. Do you have any further comments on Mr. Murray's statements supporting his recommended range?

A. Yes, Mr. Murray's reliance on the Commission's 2015 ROE determinations for electric utilities is out of date and irrelevant to a determination of ROE for Liberty, a gas utility. He states that 2015 was the last time electric and LDC industry's Price-to earnings ratios traded at levels consistent with current valuation levels. For some reason, he equates decisions for electric utilities in 2015 as relevant to a decision for a gas utility in 2024. Using his data[8] for 2015 the average P/E ratio for electrics was 16.51x and for gas 18.60x. Gas and electrics were not trading the same in 2015. The same ratios for 2024 are 15.96x for electrics and 16.56x for gas. Today's ratios are not comparable to 2015 ratios and are in fact lower so under his theory their cost of capital cannot be the same. His conclusion on a 2024 recommended range based on comparability to 2015 makes no sense and should be ignored by the Commission. All of Mr. Murray's tales of past history to provide his unsupported conclusions in his determination of a recommended range of ROEs for Liberty today is incorrect and should be ignored by the Commission.

[8] "Charts and Graphs in Testimony" workpaper provided by David Murray, tabs "Gas PNTMEPS" and "Electric PNTMEPS."

Q. Does Mr. Murray explain how he calculates or arrives at his recommended ROE 9.5%?

A. Once again, he does not provide any calculations, but he does provide his rational on page 14 lines 13-21. He begins by stating that he considers his 9.25%-9.75% a reasonable range and goes on to say, "his recommended allowed ROE of 9.50% is within the range of the Commission's typically defined ZOR range of 100 basis points above and below recent average authorized ROE's of approximately 9.6% for the last twelve months ended March 31, 2024." His next sentence provides the justification for his recommendation. Mr. Murray states "after considering my COE estimates, the Commission's authorized ROE of approximately 9.5% for Missouri's major electric utilities for rate cases decided in 2015, the Commission's 10% authorized ROE for Liberty in 2014 rate case and the Commission's 9.37% authorized ROE for Spire Missouri in Case No. GR-2021-0108, he considers a 9.5% ROE to be just and reasonable."

Q. What are your comments on Mr. Murray's statements justifying his 9.5% ROE recommendation?

A. First, Mr. Murray provides no calculations or rationale for his 9.5% versus his calculated cost of equity of 8.5%. Instead, he cites decisions by the Commission in three historical rate cases from 2014, 2015 and 2021. He never states any rationale or provides any analytical support as to why those historic cases are relevant to a determination of an authorized ROE in mid-2024. If those references are the basis of his recommendation, then I think Mr. Murray's 9.5% really says that his 8.5% COE is too low by at least 100 basis points. I believe and will also demonstrate later in my testimony that his multi-stage and CAPM results that produce the 8.5% are based on

unsupported assumptions and inputs that produce results lower than any State Authorized Gas ROE for the last forty-five years. His COE calculations should be ignored. In addition, if you look at 30-year Treasury rates in 2014, 2015 and 2021[9] they averaged 3.34%, 2.84% and 2.06% for 2014, 2015 and 2021. Today, they average 4.33% - an increase ranging from 0.99% to 2.27%. Given this rise in interest rates it is difficult to imagine that the cost of equity has also not risen from the levels in those years and certainly above 9.50%.

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

A. Mr. Murray used the same proxy group he used in Spire Missouri's last rate case, Case No. GR-2022-0179. His LDC proxy group consists of seven companies: Atmos Energy Corporation ("Atmos"), New Jersey Resources Corporation ("NJR"), NiSource Inc. ("NiSource), Northwest Natural Holding Company ("Northwest"), ONE Gas Inc. ("One Gas"), Southwest Gas Holdings Inc. ("Southwest") and Spire Inc.

Q. What issues do you have with Mr. Murray's proxy group?

A. In his testimony, Mr. Murray's approach to selecting the proxy group for ROE calculations is problematic. He chose the same proxy group he used in Spire Missouri's last rate case, Case No. GR-2022-0179. Unlike our testimony and that of Mr. Walters, Mr. Murray fails to provide any clear selection criteria for his proxy group, leading to questionable inclusion of NJR.

Q. Should NJR be removed from the proxy group?

A. NJR derives only 45-46% of its revenues from its regulated New Jersey gas business, with the remaining 54-55% coming from unregulated energy services and clean energy

[9] S&P Global Market Intelligence tables 4, 5 and 6 from Walters supplied workpapers, CCW WP 10 and 11.xlsx.

projects. A significant portion of NJR's business, over 40%, is focused on providing unregulated wholesale natural gas and energy management services across a broad geographic area, which exposes it to different risks compared to a traditional regulated utility. Given this large unregulated revenue base, NJR faces risks that are not comparable to those of a regulated natural gas utility like Liberty. This makes NJR an inappropriate choice for Murray's proxy group.

Finally, NJR is increasingly shifting its focus toward renewables and clean energy ventures, further distancing itself from the traditional regulated utility model. NJR has invested over $1.2 billion in the solar marketplace and continues to expand its clean energy portfolio, including approximately 469 megawatts of solar projects and a pipeline of 1.3 gigawatts of potential investments. This growing emphasis on renewables provides additional evidence why NJR is not a comparable company to be included in the proxy group for ROE calculations for a natural gas utility.

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

A. The results of Mr. Murray's Multi-Stage DCF is an ROE range of 8.5% to 8.6%.

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

A. Yes. Mr. Murray's multi-stage DCF analysis, which yields a COE estimate of 8.5% to 8.6%, is deeply flawed and significantly underestimates the appropriate ROE for a gas distribution utility. As shown in Figure 1 earlier, Mr. Murray's multi-stage results are lower than any State Commission Authorized ROE for a Gas Utility in the last forty-five years. No State Commission has authorized an ROE below 8.58% for a natural gas utility during that period. In fact, outside of New York and Connecticut—where ROEs are typically paired with earnings sharing formulas—there hasn't been an authorized

ROE below 9.0%. Mr. Murray's multi-stage DCF results, therefore, fall well below any historical decisions, as evidenced by the data presented earlier in this testimony.

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

A. Yes. Mr. Murray selects perpetual growth rates ranging from 2% (inflationary growth) to 3.3%. These growth rates are too low and fail to reflect current economic conditions. Mr. Murray's 2% low end relies solely on an inflationary growth estimate without any real growth included. The 3.3% upper end of his growth rate range is based on an out-of-date August 2019 Wells Fargo report[10]. Using a 2019 report to determine a 2024 cost of common equity makes no sense, since it clearly does not account for the significant changes in the LDC industry and broader macroeconomic environment. The report is five years old. Mr. Murray further justifies a perpetual growth rate within this range by stating that its "consistent with the 'sustainable growth model.'" However, that statement implies his sustainable growth model calculations are correct. Mr. Murray uses a novel approach in justifying a perpetual growth rate within his 2-3.3% range. He uses his 9.50% recommended ROE and a 30% retention ratio to calculate a 2.85% perpetual growth rate which is within his range. He uses the results of his model to support the inputs to the model. This is very creative.

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

A. Mr. Murray's multi-stage DCF analysis, yielding an ROE range of 8.5% to 8.6%, is fundamentally flawed and unsupported. His resulting ROE range is historically low, as no state commission has authorized an ROE below 8.58% for a natural gas utility in the last 45 years. The primary driver of his low results is an unsupported and out of

[10] Page 29, footnote 19 of Murray direct testimony.

date long-term perpetual growth rate range, based solely on an inflation rate with no real growth for the low end and an outdated 2019 article published five years ago supporting the high end. He further supports this range by using results from his calculations to justify the inputs to the calculations. That circular logic clearly makes no sense. On the other hand, my long-term growth rate of 5.50% produces results more consistent with past authorized ROEs, with my multi-stage midpoint ROE at 9.90%. Mr. Murray's multi-stage DCF results should be disregarded, as Murray himself disregards his own results when determining his recommended ROE range and allowed ROE.

Q. What are the results of Mr. Murray's CAPM COE analysis?

A. Mr. Murray's CAPM COE analysis indicates that the LDC industry's COE is in the range of 8% to 8.8%.

Q. How did he calculate those results?

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

Q. What beta did he use?

A. Before selecting a beta, he discusses historical betas. First, he refers to a 2018 Liberty rate case where the beta was 0.68. I don't believe Liberty filed a rate case in 2018. I assume he was referring to 2014. Second, he states that betas were low at the end of 2019 at 0.6 and in a 2021 Spire Missouri rate case they were 0.77. Finally, he mentions

the current 5-year historical stock betas for LDC's are around .85-.90. He then decides the last five-year betas of .85-90 are too high because he concludes those betas are not normal and much lower betas are more appropriate. Therefore, he shortens his historical measurement period to four years to justify using a beta of 0.7 which he states is consistent with historical betas for both the electric and natural gas subsectors of the utility industry.

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

A. Using his 0.7 beta and equity risk premium range of 5%-6% he performed his CAPM calculations using risk free rates based on three-month averages of 20 year and 30-year Treasury rates resulting in a range of 8.11% to 8.79% and 8.01% to 8.69%, respectively. He also performed an analysis with his Kroll 5% equity risk premium, Kroll risk free rate as of June 16, 2024 of 4.54% and a 0.7 beta for a result of 7.97%. Based on these calculations he selects a range of 8% to 8.8%.

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

A. As for the results, Mr. Murray's 8 to 8.8% range is well below any State Authorized Gas ROE decision for the last 45 years based on Figure 1 as were his multi-stage DCF results and therefore should be ignored by the Commission. As for his actual calculations, Mr. Murray has made sure he used inputs that would achieve his desired low results. He ignores current market equity risk premiums and current market betas for the LDC industry. His low historical equity risk premiums are based on ancient history (1926-2023) and irrelevant as well as his four-year historical LDC beta of 0.7 for a calculation of a cost of common equity for Liberty today. I used current S&P 500 stock market data to determine my equity risk premium, current betas for my LDC proxy group of .86 and current thirty-year Treasury rates to arrive at my CAPM average

of 12.58%. My methods are consistent with using current assumptions to calculate a current cost of common equity and they generally follow the FERC Approved CAPM methodology. Mr. Murray's CAPM results should be ignored by the Commission.

Q. Did you review Mr. Murray's reasonableness check using a risk premium plus bond yield analysis?

A. Yes, I did. On page 36, Mr. Murray explains that he used "a simple rule of thumb the CFA Program curriculum suggests to estimate the COE, which is to add 3% to 4% risk premium to a company's bond yield to provide a fairly simple, but objective cost of equity." However, he then decides "it is logical and reasonable not to add a risk premium any higher than 3% to the bond, based on the investment community views that utility stocks are bond surrogates/substitutes." Consequently, then adds 3% to Liberty's January 12, 2024, 5.87% 10-year unsecured bond coupon rate to arrive at a COE of 8.87%.

Q. What are your comments on Mr. Murray's "reasonableness check"?

A. First, Mr. Murray provided no CFA curriculum supporting his statement in his Exhibits or Workpapers. Second, even if he had, I would not view the rule of thumb 3-4% risk premium as relevant. If you use Mr. Murray's 5-6% risk premium and 0.7 beta from his CAPM model, then surprisingly, you get an approximate 3-4% range, the same as his rule of thumb. Third, he then arbitrarily decides that the risk premium should be no higher than 3% based on a statement about investment community views that I struggle to see how it supports 3% versus 4%. Once again, he draws conclusions that are unsupported by the statements he provides as evidence. In addition, he also provides no Exhibits or Workpapers supporting these "investment community views". Finally, it's clear Mr. Murray ignored the 4% risk premium, because when you add that to the

5.87% bond coupon rate he selected, the result would be 9.87%, which is significantly higher than his COE and recommended ROE.

Q. What are your final conclusions on Mr. Murray's ROE recommendation and analysis?

A. Mr. Murray proposes a recommended range of 9.25% to 9.75% and a Recommended ROE of 9.5%. His multi-stage DCF and CAPM support a COE of 8.5% which is below any State authorized gas utility ROE over the last 45 years. His actual recommended 9.5% is based on 2014, 2015 and 2021 decisions that are very out of date and irrelevant to a decision in 2024 for Liberty ROE. His testimony is full of unsupported and inaccurate statements that lead to incorrect conclusions. His results should be ignored by the Commission.

VII. CONCLUSION

Q. Can you summarize your conclusions?

A. Yes. For the reasons I have stated in my rebuttal testimony;

(1) Mr. Walters 50.0% and Mr. Murray's 47.50% common equity ratio recommendations should be ignored by the Commission and my updated 52.5% for Liberty should be adopted;

(2) The Commission should adopt the 5.58% cost of long-term debt as proposed by Staff and agreed upon by Liberty, and disregard Mr. Murray's 3.97% figure; and

(3) Mr. Walters ROE recommendation of 9.45% and Mr. Murray's 9.50% are too low and should be ignored by the Commission. The Company proposed 10.00% should be adopted.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

VERIFICATION

I, John Cochrane, under penalty of perjury, on this 22nd day of August, 2024, declare that the foregoing is true and correct to the best of my knowledge and belief.

/s/ John Cochrane