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MISSOURI PUBLIC SERVICE COMMISSION

COMMISSION STAFF DIVISION

FINANCIAL ANALYSIS

REBUTTAL TESTIMONY

OF

DAVID MURRAY

LIBERTY UTILITIES (MIDSTATES NATURAL GAS) CORP., d/b/a LIBERTY UTILITIES

CASE NO. GR-2018-0013

Jefferson City, Missouri
April 2018

** **Denotes Confidential Information** **

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Q. Please state your name.

A. My name is David Murray.

Q. Are you the same David Murray who prepared the Rate-of-Return Section of Staff's Cost of Service Report ("Staff Report") and Appendix 2 attached to the Staff Report?

A. Yes, I am. I filed rate-of-return ("ROR") testimony on March 2, 2018.

Q. What is the purpose of your Rebuttal Testimony?

A. I will address the direct testimony of Liberty Utilities (Midstates Natural Gas) Corp.'s ("Liberty Midstates") ROR witness, Keith Magee. I will also briefly address the direct testimony of Liberty Midstates' witness, Robert B. Hevert, as it relates to his discussion of the impact of rate stabilization mechanisms on business risk and financial integrity.

Additionally, I will provide an update to my ROR recommendation based on updated financial data provided by Liberty Midstates since I filed direct testimony. The updated figures include Liberty Utilities Company's ("LUCo") capital structure and cost of debt.

EXECUTIVE SUMMARY

Q. Should the Commission rely on Mr. Magee's capital structure and ROE recommendations in this case?

A. No, it should not. In addition to Mr. Magee's failure to explain why the Commission should not use LUCo's capital structure in this case, as it did in the last case,[1] Mr. Magee's hypothetical capital structure recommendation assumes Liberty Midstates is capitalized with much more equity than Algonquin Power and Utilities Corporation ("APUC") considers appropriate for its low-risk regulated utility assets. I recommend that the Commission use LUCo's updated capital structure as of December 31, 2017. This choice is appropriate because LUCo's capital structure is used to finance LUCo's United States' regulated utility assets, including Liberty Midstates. LUCo's capital structure contains 42.83%[2] common equity. Applying a 9.8% allowed ROE to Mr. Magee's recommended capital structure as compared to my recommended capital structure causes an increase to the annual revenue requirement of approximately $725 thousand.

Mr. Magee recommends an ROE of 10.25%, within a recommended range of 9.90% to 10.35%. My allowed ROE recommendation continues to be 10.00%, which allows a 20 basis point consideration over the Commission's recent authorized ROE of 9.8% for Spire Missouri because of Liberty Midstate's more leveraged capital structure.

It is Staff's understanding that Mr. Magee's 4.7% cost of debt recommendation is premised on debt reported on LUCo's books. Staff could not find a workpaper or schedule supporting this cost of debt calculation. Staff discovered debt issued by entities between APUC and LUCo that should also be included in the cost of debt. As of the update period, December 31, 2017, Staff calculated the cost of this debt to be 4.57% (Confidential Schedule DM-r1). Staff recommends that the Commission set Liberty Midstates' ROR using this updated cost of debt.

[1] Case No. GR-2014-0152.
[2] See below, Updated Capital Structure and Cost of Debt.

Q. What conclusion have you reached regarding Mr. Magee's cost-of-equity estimates?

A. I have concluded that his cost-of-equity estimates are founded on irrational assumptions and faulty logic, which explains why his estimates are not corroborated by reputable investors.

UPDATED CAPITAL STRUCTURE AND COST OF DEBT

Q. Did you receive data through December 31, 2017, that allows you to update your capital structure and cost of debt recommendation?

A. Yes. I received LUCo's December 31, 2017, unaudited financial statements and updated cost-of-debt information. Consequently, I am updating my ROR recommendation to reflect this data because the parties agreed to use December 31, 2017, for the updated test year.

Q. What is your updated ROR recommendation?

A. Applying the same allowed ROE range of 9.5% to 10.0%, but an updated cost of debt of 4.57%, to an updated capital structure consisting of 42.83% common equity and 57.17% long-term debt, results in my updated recommended ROR range 6.68% to 6.90% (see Confidential Schedules DM-r2-1 and r2-2).

Q. Has any information caused you to reconsider adjusting LUCo's capital structure to include intermediate holding company debt?

A. No. Information provided by Liberty Midstates shows that these intermediate entities' purpose is to provide financing and equity to the downstream entities.[3] Given that LUCo guarantees this debt and that the only reason these entities have any value is due to

[3] Response to Staff DR 117.3, dated March 16, 2018 (see Confidential Schedule DM-r3).

their financial interest in LUCo's downstream subsidiaries, this debt could not be raised but for the cash flows provided by LUCo's regulated utilities. Additionally, this debt directly impacts LUCo's credit rating, which impacts LUCo's financial stability and cost of capital. For these reasons, this debt should be included in Liberty Midstates' ratemaking capital structure.

MR. MAGEE'S RECOMMENDED CAPITAL STRUCTURE AND COST OF DEBT

Q. What capital structure does Mr. Magee recommend the Commission use for purposes of setting Liberty Midstates' allowed ROR?

A. Mr. Magee recommends a hypothetical capital structure consisting of 53% equity and 47% long-term debt, based on the average capitalization ratios of his proxy companies.

Q. What capital structure did the Commission use in Liberty Midstates' last rate case, Case No. GR-2014-0152?

A. The Commission used LUCo's capital structure, rejecting the Company's recommendation to use Liberty Midstates' capital structure, because LUCo issues debt (through Liberty Utilities Finance GP1) on behalf of its United States' regulated utility subsidiaries.

Q. Does Mr. Magee explain why he recommends a hypothetical capital structure rather than LUCo's capital structure?

A. No.

Q. Do you have concerns about the approach Mr. Magee used to determine his recommended hypothetical capital structure?

A. Yes. Mr. Magee recommends using an average of the capital structure ratios of his proxy group. However, several of the companies in Mr. Magee's proxy group are not sufficiently confined to natural gas distribution operations.

Q. What companies should be removed from his proxy group because they are not sufficiently confined to natural gas distribution operations?

A. Black Hills Corporation ("Black Hills"), Sempra Energy ("Sempra") and Vectren Corporation ("Vectren"). Only about half of Black Hills' and Vectren's regulated utility operations are comprised of natural gas utility operations.[4] Sempra is a diversified multinational energy company with its United States' regulated electric and gas operations providing about 65% of its total earnings. Staff estimates that its gas operations probably contribute about 40-45% of total earnings.[5]

Q. Should any other companies be removed from Mr. Magee's proxy group for purposes of recommending a hypothetical capital structure?

A. Yes. Chesapeake Utilities Corporation ("Chesapeake") should be removed.

Q. Why?

A. Chesapeake's common equity ratio of 71.43% is clearly an outlier and is inconsistent with typical regulated gas utility equity ratios.[6] Therefore, Staff analyzed all of the components of Chesapeake's capital structure and discovered that it consistently included a large percentage of short-term debt in its capital structure.

[4] Black Hills is also more leveraged than the other proxy companies.
[5] Publicly available financial information indicates that San Diego Gas & Electric Company ("SDG&E") and Southern California Gas Company make up about 65% of total earnings. SDG&E is a combination gas and electric utility company. While Staff could not find information that indicates the percentage of earnings SDG&E's gas operations contribute, it is probably less than 50% based on revenues of 80% electric and 20% gas. Consequently, Staff estimates the gas distribution operations may contribute 40-45% to Sempra's total earnings.
[6] Magee Direct, p. 51, Table 8.

Q. What percentage of Chesapeake's capital structure is typically supported by short-term debt?

A. Over 20% of Chesapeake's capital structure has been supported by short-term debt over the last two and a half years. This equates to over 50% of Chesapeake's total debt outstanding for the entire period. Because short-term debt has to be continuously refinanced, this much short-term debt significantly enhances the company's liquidity risk, which causes equity investors to require a higher ROE. However, if the short-term debt is removed from the ratemaking capital structure, then this causes a mismatch in the amount of leverage that equity investors consider when determining their required ROE. Either way, Chesapeake should be excluded from the proxy group at least for the purpose of estimating a hypothetical capital structure.

Q. After removing the aforementioned four companies, which companies remain in Mr. Magee's proxy group?

A. Atmos Energy Corporation ("Atmos"), Northwest Natural Gas Company ("Northwest"), One Gas Inc. ("One Gas"), Southwest Gas Corporation ("Southwest"), and Spire Inc. ("Spire"). These are the same companies in Staff's proxy group.

Q. What is the average common equity ratio of these five remaining companies based only on long-term capital balances over the last 2.5 years?

A. 54.6%.

Q. What is the average common equity ratio of the proxy group if you include short-term debt in their capital structures?

A. 51.45%.

Q. What is Staff's capital structure recommendation?

A. I recommend that the Commission use LUCo's adjusted actual capital structure as of December 31, 2017, for purposes of setting Liberty Midstates' allowed ROR. This capital structure reflects the amount of debt leverage APUC considers reasonable for purposes of capitalizing its United States' regulated utility assets, including Liberty Midstates.[7]

Q. Can you summarize the problems you see in Mr. Magee's capital structure testimony?

A. Yes.

1. Mr. Magee did not explain why he did not recommend LUCo's capital structure.

2. Mr. Magee did not exclude companies with diverse operations from his proxy group.

3. Mr. Magee did not consider the proxy companies' utilization of short-term debt.

KEITH MAGEES' RECOMMENDED ALLOWED ROE FOR LIBERTY MIDSTATES

Q. How did Mr. Magee develop his recommended allowed ROE of 10.25%?

A. Mr. Magee used four primary methods.[8] Reviewing his results, the mean of his DCF results support an allowed ROE in the 9% to 9.25% range; his CAPM supports an allowed ROE in a range of 9.80% to 11.22%; his Bond-Yield-Plus Risk Premium method supports an allowed ROE of around 9.8%; and his Expected Earnings Analysis supports an allowed ROE of around 10.90%.

[7] Calculated with short-term debt removed.
[8] Magee Direct, p. 5, Table 1.

Although Mr. Magee did not provide a specific weighting methodology in deciding that a 9.90% to 10.35% ROE range is fair and reasonable, he testified that he gave "…less weight to the low end of the DCF results shown in Table 1…"[9]

Q. If Mr. Magee had given due consideration to his mean DCF results, what ROE would be implied from these analyses?

A. 9.00% to 9.25%, even after allowing for a quarterly discounting adjustment, which Staff does not consider appropriate.

Q. Does Mr. Magee explain why he decided not to give significant consideration to his DCF results?

A. Yes. He explains that current market conditions, such as high utility P/E ratios, cause him to give his DCF results less weight.[10] Although I agree with Mr. Magee's observations about low interest rates and high utility stock valuation levels, I disagree with his interpretation of these market conditions as it relates to the reliability of cost-of-capital models. Mr. Magee indicates that because utility price-to-earnings (P/E) ratios are "well in excess of their historical averages," these conditions have driven dividend yields lower, resulting in lower DCF-based ROE estimates. Mr. Magee believes that this is reason to give DCF results less consideration in setting a utility's allowed ROR. However, in my opinion, this is reason to give DCF results even more consideration because they are more reflective of the utility industry's current cost of capital. Quite simply, if utility stock P/E ratios are high, then the cost of capital is low. The DCF best captures this relationship because it specifically incorporates utility companies' stock prices. This is reason to embrace the method rather than minimize it.

[9] Magee Direct, p. 7, line 5.
[10] *Id.*, at pp. 5-6, 38-48.

Q. Why is Mr. Magee concerned about the implications of high P/E ratios?

A. Mr. Magee is concerned that the constant-growth and quarterly-growth DCF methods he used do not allow him to incorporate potential changes in the valuation levels of utility stocks, such as a return to more normal P/E ratios.

Q. Does Mr. Magee's concern support his position that lower DCF results are less reliable?

A. No. If current utility valuation levels are not sustainable, then this means that investors are factoring in a contraction in utility P/E ratios when deciding on a fair price to pay for utility stocks. This means that utility stock investors expect a lower return than a fundamental DCF analysis implies. If factors other than the fundamentals of the company affect the stock price, such as a change in the value investors place on the overall industry, then this will not be captured in a fundamental cost-of-equity estimate.

Q. Mr. Magee indicates that the constant growth and quarterly growth DCF do not allow for consideration of changes in P/E ratios. Is this true?

A. No. The constant-growth model can be extended to include expected changes in the P/E ratio. This version of the constant-growth DCF is referred to as the "Grinold-Kroner" model.[11] It is expressed algebraically as:

$$k = D_1/P_0 + g + \Delta PE$$

Where:

k	=	the cost of equity;
D_1	=	the expected next 12 months dividend;
P_0	=	the current price of the stock;
g	=	the dividend growth rate; and
ΔPE	=	the per period change in the P/E multiple

[11] 2010 CFA® Program Curriculum, Level III, Volume 3, p. 35.

Q. If Mr. Magee had used this derivative of the constant-growth DCF method to estimate the cost of common equity, how would this impact his cost of equity estimates?

A. They would be lower.

Q. Do you have an opinion as to whether investors are factoring in a change in the P/E ratio due to macroeconomic expectations, such as projected changes in interest rates?

A. Over the last several years, to the extent utility equity analysts have factored in forward yields, most have consistently factored in projected increases in bond yields when estimating a justified P/E ratio. Therefore, utility stock prices, and consequently their P/E ratios, already reflect a projected increase in interest rates, if this is in fact the consensus.

Q. Has the DCF method been widely-accepted as being reliable for estimating investors' required returns on equity?

A. Yes. The constant-growth DCF is widely used by ROR witnesses throughout the country. This is for good reason. The DCF is used in investment practice by equity analysts to estimate the value of utility stocks. Therefore, the application of the DCF using reasonable inputs will provide accurate and reliable estimates of investors' required returns on utility common equity (i.e. the cost of equity) investments. However, the results are only as good as the inputs.

Q. Although you consider Mr. Magee's DCF results as reasonable for purposes of setting a reasonable allowed ROE for Liberty Midstates, do you agree with Mr. Magee's assumptions?

A. No. I disagree with two primary issues as they relate to Mr. Magee's DCF analysis. They are: (1) Mr. Magee's position that equity analysts' projected long-term compound annual growth rates ("CAGR") in earnings per share ("EPS") form the basis for

investors' constant growth rates, and (2) that the dividend yield needs to be adjusted for quarterly compounding. Both of these assumptions are wrong.

Q. Why don't you agree with Mr. Magee's position on these issues?

A. Because I have never seen an investment analysis that estimates a fair price to pay for a utility stock based on these premises. This is very informative in the first instance because the very equity analysts that provide these CAGR do not use them in practice as Mr. Magee suggests. In the second instance, Staff's review of utility stock price analyses has revealed that equity analysts use an unadjusted annual discount rate to discount projected annual cash flows (whether it is dividends in a dividend discount model or free cash flow to the firm and/or equity investors in a generic discounted cash flow analysis). If Mr. Magee was correct that investors determine a fair price to pay for utility stock because dividends are paid quarterly, then anticipated cash flows would be projected on a quarterly basis. Staff has never seen a utility equity stock analysis that estimates value based on quarterly dividend expectations.

Q. How many utility equity research reports have you reviewed during your career at the Missouri Public Service Commission?

A. Thousands.

Q. Given that Mr. Magee's recommended ROE of 10.25% seems to be more influenced by his CAPM and "Expected Earnings Analysis," can you explain why he estimates a higher cost of equity with these methods?

A. Yes.

Q. What are the primary drivers for his higher CAPM cost-of-equity estimates?

A. Primarily, his high market risk premium estimates and, to a lesser extent, his use of projected interest rates.

Q. How did Mr. Magee determine an expected market return?

A. Mr. Magee used information from two sources, Bloomberg and Value Line, to determine an expected return over the long-run for the S&P 500. For all of the companies in the S&P 500 in which projected long-term CAGR in EPS were available, Mr. Magee simply added the growth rate to the dividend yield to determine the expected return for each company.[12]

Q. Are the projected returns Mr. Magee provides based on Value Line's and Bloomberg's projections for stock market returns?

A. No. Although Mr. Magee relies on these sources for data, he uses his own method for estimating stock market returns. I cannot find any corroborating information from other capital market experts that supports either Mr. Magee's method or his results.

Q. Based on Mr. Magee's approach, what are the expected returns on the S&P 500 over the long-term?

A. Mr. Magee estimates an expected long-term compound annual return of 13.41% using equity analysts' long-term CAGR in EPS provided through Bloomberg and 14.16% using long-term CAGR in EPS provided by Value Line. This forms the basis for his estimated market risk premiums of 10.06% to 11.31%.

[12] Magee Direct, Sch, KM-4. Interestingly, although Mr. Magee considered the constant-growth DCF unreliable for directly estimating the utility proxy group's cost of equity, he considered it reliable for purposes of estimating a market return. As is the case with any method, it's not the method that causes unreliable results, it's the inputs.

Q. What long-term growth rate is embedded in Mr. Magee's expected market returns?

A. 11.31% using the equity analyst growth rates provided by Bloomberg and 11.99% using the Value Line growth rates.

Q. Is it rational to expect the market to grow at these rates perpetually, as the constant-growth DCF assumes?

A. No. While using equity analysts' projected long-term CAGR in EPS as a constant-growth rate for a utility cost-of-equity estimate causes some upward bias, it causes extreme upward bias when making this assumption for the market as a whole. It is recognized in both academic literature and on a practical basis that the market as a whole is bound by the growth in the overall economy, which is typically measured by GDP. If Mr. Magee had considered the fact that growth rates in excess of 10% are not sustainable for the markets, his estimated equity risk premium would be much lower, which would significantly reduce his CAPM cost of equity estimates.

Q. Are you aware of any sources that provide a reasonableness check to Mr. Magee's expected market returns of 13% to 14%?

A. Yes. Reputable market return forecasts range from 5.5% to 6%.[13]

Q. How can the Commission avoid the uncertainty associated with measuring the market risk premium to estimate a fair return for Liberty Midstates?

[13] The Philadelphia Federal Reserve provides market return estimates through *The Survey of Professional Forecasters.* As of the February 9, 2018, survey, the projected long-term compound annual return on the S&P 500 was 6%; see https://www.philadelphiafed.org/research-and-data/real-time-center/survey-of-professional-forecasters/2018/survq118. According to JP Morgan Asset Management's 2018 Long-Term Capital Market Return assumptions, it expects the S&P 500 to achieve a long-term compound annual return of 5.5%. JP Morgan Asset Management assumed that the S&P 500's earnings growth over the long-term would be 4.5%, which is consistent with most projections for long-term nominal GDP growth. See https://am.jpmorgan.com/gi/getdoc/1383498247596.

A. The Commission should rely more heavily on DCF analyses performed directly on utility companies. A DCF analyses using reasonable inputs directly measures the risk premium utility stock investors require over interest rates.

Q. How is that?

A. It is captured in the dividend yield. If utility investors perceive more risks to the potential growth, then the dividend yield will be higher. If utility investors perceive less risk, then the dividend yield will be lower.

Q. Considering the fact that Mr. Magee used the DCF to estimate the market risk premium, does this imply that he considers the DCF to be reliable for estimating the risk premium for utility companies?

A. Yes.

Q. What risk premium is implied from his DCF analyses on his utility proxy group?

A. 5.65% or 6.15%, depending on whether the expected return of approximately 9% is compared to the current 2.85% risk-free rate or the projected 3.35% risk-free rate.

Q. Does this risk premium need to be adjusted by beta?

A. No. Performing an industry and/or proxy-group-specific DCF removes this step. This is one of the reasons why the DCF has historically been appealing to setting the allowed return because it is straight-forward and direct in that it uses market factors directly related to the risk and growth profile of the utility industry.

Q. What's wrong with Mr. Magee's "Bond Yield Plus Risk Premium" method?

A. Mr. Magee's use of projected bond yields, especially the projected bond yield of 6.67% used in his "Long Term Projected Utility Bond Yield" ROE estimate. Mr. Magee

developed this ROE estimate by using projected bond yields for 2024 to 2028. This is similar to developing a DCF estimate based on projected stock prices during this period. Analysts already disagree on fair and reasonable inputs to estimate the cost of equity based on current security prices, let alone based on estimates several years into the future. Investors buying bonds now are well aware of the potential for interest rates to change. Therefore, the current price they pay for the bond allows for a risk premium for this interest rate risk. If investors knew with certainty that bond yields would increase by approximately 200 basis points, then they would be irrational in buying long-term bonds based on current yields.

The other general concern I have is with Mr. Magee's logic that, because allowed ROEs have not declined at the same pace as bond yields, this proves that required risk premiums increase as bond yields decrease. It is a fact that average allowed ROEs have not declined at the same rate as bond yields, but this is not proof that the cost of equity has not declined similarly. Mr. Magee's analysis just confirms Staff's position that state utility commissions have been reluctant to set allowed returns on equity at parity with the cost of equity. While Staff understands that rate-of-return witnesses in utility ratemaking settings have differing opinions on the cost of common equity there are some fairly simple, common sense tests of reasonableness that should limit the upper end of reasonable and rational cost of equity estimates (*see* the "Rule of Thumb" method provided by Staff in its Detailed Direct Testimony).[14] Additionally, the fact that utility stock analysts and valuation consultants estimate a much lower cost of equity than allowed ROEs proves that cash flows from utility companies' regulated utility assets are not discounted at levels consistent with allowed

[14] Detailed Direct Testimony of David Murray, p. 46, ll. 6-20.

ROEs. If they were, then utility stock prices as well as merger/acquisition transaction values would be much lower.

That being said, to the extent the Commission desires to benchmark itself based on other commission-allowed ROEs, then the method proposed by Mr. Magee may be appealing. However, Staff emphasizes that the Commission should not apply a risk premium to projected interest rates because current interest rates already include compensation for interest rate risk.

Q. Why should the Commission dismiss the results related to Mr. Magee's "Expected Earnings Analysis" method?

A. Using expected earnings is circular because investors' projections for earned ROEs are heavily dependent on expected rate case outcomes. If investors believe commissions will lower allowed ROEs, then they will lower their expected ROEs. If they expect commissions to hold allowed ROEs constant, then they will project ROEs based on current levels.

Not only is Mr. Magee using projected ROE's that are already circular in nature, but he is making a further upward adjustment to Value Line's ROE projections because he believes the book value of the equity is overstated in Value Line's projections. Mr. Magee makes an adjustment to Value Line's book value per share in order to provide his own projection of the average book value per share over the period of Value Line's projections. Mr. Magee is already using figures that are a projected 3-year average for the years 2020 through 2022; the overall impact of Mr. Magee's adjustment is to increase the projected return on common equity by an additional 30 basis points over what Value Line estimates directly.

Finally, it should be noted that many of the companies Mr. Magee used in his analyses receive earnings contributions from non-regulated operations. The earnings of non-regulated operations are not capped. The effect is to skew Mr. Magee's results upward. If the Commission were to rely on this method to set Liberty Midstates' allowed ROE, then its decision would be directly influenced by additional earnings provided by these non-regulated operations.

Q. Mr. Magee proposes potential adjustments to an allowed ROE for Liberty Midstates because of its small size.[15] What has Staff's position been regarding the need for an adjustment to the cost of common equity to consider a utility company's smaller size relative to the proxy group?

A. Staff has consistently recommended the Commission reject any adjustments to the cost of common equity because of a utility company's smaller size. The Duff & Phelps size premium adjustment approach cited by Mr. Magee is not based on analysis of the regulated utility industry, but on all of the stocks in the New York Stock Exchange, the American Stock Exchange and the Nasdaq National Market.

Q. Do expert valuators consistently dismiss the need for a small size adjustment when determining a fair value to assign to regulated utility assets?

A. Yes. In goodwill impairment analyses for other Missouri utility companies, financial consultants such as Duff & Phelps and Price Waterhouse Coopers have routinely dismissed a small size adjustment to the cost of equity for purposes of discounting cash flows generated by regulated utility assets.

Q. Additionally, how can small size affect Liberty Midstates since it is not a stand-alone entity?

[15] Magee Direct, p. 31, line 13, through p. 33, line 15.

A. It cannot. Liberty Midstates is an indirect subsidiary of LUCo, which is the entity that guarantees the debt issued on behalf of all of its subsidiaries. To Staff's knowledge, Liberty Midstates has not tried to directly access third-party debt capital. Therefore, there is no company-specific data to support Mr. Magee's position that Liberty Midstates would have to pay a higher cost if it financed itself on a stand-alone basis.

Q. Mr. Magee also argues for consideration of flotations costs.[16] Should there be consideration for flotation costs in setting the allowed ROE?

A. No. In past Missouri rate cases, Staff has allowed recovery of actual costs associated with issuing common equity by allowing an amortization of these issuance costs over a 5-year period, but only if the company could show that it or its parent company had to issue additional shares for purposes of investing in its utility assets in Missouri. Consequently, if a company proves these costs have been incurred for the benefit of investment in Missouri utility assets, the recovery would be through an expense allowance rather than through an adjustment to the ROR.

Q. Mr. Magee discusses the lower Regulatory Research Associates ("RRA") ranking assigned to Missouri as of May 2017.[17] Do you think this warrants an adjustment to Liberty Midstates allowed ROE?

A. No. This ranking is based on RRA's reaction to the fact that utility legislation did not pass during the 2017 legislative session. Most of the proposed legislative changes were targeted toward the electric utility industry. The fact that Missouri's gas utilities have not had to file rate cases very frequently and already have the ability to recover investment

[16] Magee Direct, p. 37, line 6, through p. 38, line 7.
[17] *Id.* p. 33, line 6, through p. 37, line 5.

costs through the Infrastructure System Replacement Surcharge ("ISRS") shows that gas utilities in Missouri have not had issues with earning reasonable returns on a consistent basis.

Q. Are you aware that the Company is proposing various mechanisms, including a decoupling mechanism, to stabilize revenues?

A. Yes.

Q. If the Commission were to approve the mechanisms sponsored by the Company and explained by Company Witness Mr. Robert Hevert, should the Commission make a corresponding adjustment to the allowed ROE?

A. Yes. Mr. Hevert explains that allowing such mechanisms will improve a company's financial integrity.[18] Because allowing such mechanisms reduces business risk, this results in a lower required return. The Commission addressed this when gas companies requested straight-fixed variable rate designs in 2006. Specifically, the Commission considered a 30-35 basis point reduction to Missouri Gas Energy's allowed ROE in Case No. GR-2006-0422.[19]

Adjustments such as these are a matter of judgment. Consideration can be as general as recommending the lower end of a range or something more quantifiably objective if it can be proven that the reduction of business risk would allow for an upgrade to the credit rating, if it were a stand-alone company. For example, based on Standard & Poor's RatingsDirect benchmark tables, an upgrade to an assigned business risk profile from "Strong" to "Excellent" warrants an approximate two-notch improvement in an anchor credit rating. This translates into an approximate 20-basis point lower cost of debt in the current capital market environment, which can be used as a proxy for an ROE adjustment.

[18] Hevert Direct, p. 22, ll. 3-7.
[19] Staff also discovered corroboration from Goldman Sachs as to the value investors place on risk-reducing mechanisms that decouple revenue requirement recovery from volume-based rates.

Q. Can you summarize the problems you see in Mr. Magee's ROE testimony?

A. Yes.

1. Mr. Magee did not give appropriate weight to his utility-specific DCF results, when in fact, its results are the most consistent with rational expectations.

2. I disagree with Mr. Magee (1) that equity analysts' projected long-term compound annual growth rates ("CAGR") in earnings per share ("EPS") form the basis for investors' constant growth rates, and (2) that the dividend yield needs to be adjusted for quarterly compounding.

3. Mr. Magee uses high market risk premium estimates and projected interest rates, which cause unreasonably high CAPM cost of equity estimates.

4. Mr. Magee uses unsustainable growth rates of 11.31% and 11.99% to inflate projected market returns in calculating his market risk premiums.

5. Mr. Magee's Bond Yield Plus Risk Premium analysis is not a cost of equity estimate; it is a measure of the difference in awarded ROEs as compared to bond yields. Additionally, Mr. Magee applies this "allowed ROE risk premium" to projected bond yields, causing an even higher result.

6. Mr. Magee draws the wrong conclusion from the fact that allowed ROEs have not declined at the same pace as bond yields. It does not show that required risk premiums increase as bond yields decrease; rather, it shows that state utility commissions have been reluctant to set allowed returns on equity at parity with the cost of equity.

7. Mr. Magee's Expected Earnings Analysis method is unreliable because it is based on circular reasoning and Mr. Magee's further upward adjustment to Value Line's

projected 3-year average ROEs. The result is to increase the projected return on common equity by an additional 30 basis points.

8. Mr. Magee's proposed small size adjustment should be rejected both because expert analysts do not use such an adjustment and because Liberty Midstates does not access the capital markets directly.

9. Mr. Magee's proposed flotation costs adjustment should be rejected. If Liberty Midstates can show that it has actually incurred any flotation costs for the benefit of investment in its system, they should be recovered as an operating expense.

10. If a rate stabilization mechanism is adopted, the allowed ROE should be correspondingly reduced to reflect the reduction in business risk.

SUMMARY AND CONCLUSIONS

Q. What are the main points the Commission should consider in determining an appropriate capital structure and fair rate of return for Liberty Midstates?

A. With respect to capital structure, the Commission should ask whether anything has changed since Liberty Midstates' last rate case that would cause it to adopt a capital structure other than LUCo's. Mr. Magee did not even address the Commission's decision in Liberty Midstates' last rate case to adopt LUCo's capital structure and he never explains why a hypothetical capital structure is preferable. It is important to use the capital structure that reflects the financial strategy and policies of the owner of the utility assets to the extent that the capital structure is reasonable and not cost prohibitive. If the Commission were to authorize a common equity ratio of 53% for Liberty Midstates, then LUCo would not have an incentive to capitalize its utility assets more conservatively in order to reduce financial risk and allow financial flexibility.

Although Mr. Magee embraces the DCF methodology for purposes of estimating a market return for his CAPM analysis, he attempts to discredit the DCF when he applies it to his utility proxy group. The constant-growth DCF is most appropriate for utility companies because it is a mature industry. In fact, one of Mr. Magee's reasons for questioning the reliability of the DCF can be addressed by using the Grinold-Kroner method. This additional step results in a lower cost-of-equity estimate than Mr. Magee's current estimates.

Q. Does this conclude your Rebuttal Testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Liberty Utilities	)	
(Midstates Natural Gas) Corp. d/b/a	)	Case No. GR-2018-0013
Liberty Utilities' Tariff Revisions	)	
Designed to Implement a General Rate	)	
Increase for Natural Gas Service in the	)	
Missouri Service Areas of the Company	)	

AFFIDAVIT OF DAVID MURRAY

STATE OF MISSOURI	)	
	)	ss.
COUNTY OF COLE	)	

COMES NOW DAVID MURRAY and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Rebuttal Testimony and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

DAVID MURRAY

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 13th day of April 2018.

Notary Public

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: June 28, 2019
Commission Number: 15207377

SCHEDULES 1 through 3

HAVE BEEN DEEMED

CONFIDENTIAL

IN ITS ENTIRETY