Exhibit No.: _____
Issue(s): Rate of Return/Capital Structure
Witness/Type of Exhibit: Murray/Rebuttal
Sponsoring Party: Public Counsel
Case No.: ER-2024-0319

REBUTTAL TESTIMONY

OF

DAVID MURRAY

Submitted on Behalf of the Office of the Public Counsel

UNION ELECTRIC COMPANY
D/B/A AMEREN MISSOURI

CASE NO. ER-2024-0319

January 17, 2025

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OF

DAVID MURRAY

UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI

FILE NO. ER-2024-0319

Q. Please state your name and business address.

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

Q. Are you the same David Murray who previously filed Direct Testimony in this case?

A. Yes.

Q. What it the purpose of your testimony?

A. To respond to the direct testimony of Ameren Missouri's witnesses, Ann E. Bulkley and Darryl T. Sagel, as it relates to rate of return ("ROR") and capital structure. I will also respond to the direct testimony of Staff witness Seoung Joun Won, PhD. Although I do not agree with some of the underlying assumptions and analysis performed by the Missouri Industrial Energy Consumers ("MIEC") ROR witness, Christopher C. Walters, because his recommended return on common equity ("ROE") of 9.5% is the same as my recommended ROE, I am not responding to his direct testimony.

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

A. I will address capital structure first. As it relates to capital structure, I will address Mr. Sagel and Dr. Won together since they recommend the same approach for purposes of setting Ameren Missouri's authorized ROR. I will then address Ms. Bulkley's and Dr. Won's recommended ROEs separately because they have different recommendations and approaches to how they arrive at their recommended ROEs.

Q. Do you plan to address any issue other than capital structure and ROE as it relates to Ameren Missouri's requested revenue requirement?

A. Yes. Although my testimony addressing capital structure is primarily focused on a fair and reasonable ratemaking capital structure for purposes of setting Ameren Missouri's ROR, I will also discuss the effect Ameren Corp's holding company's financial strategies have on standard ratemaking formulas, such as capitalizing financing costs associated with construction work in progress ("CWIP"). Based on the logic and understanding that it is customary financing practice to use short-term debt to initially fund capital expenditures, Ameren Corp's holding company's financing strategies cause unreasonably high capitalization charges (*i.e.* increases to rate base) using the standard Federal Energy Regulatory Commission ("FERC") allowance for funds used during construction ("AFUDC") formula.

CAPITAL STRUCTURE

Q. Whose direct testimony addressed the recommended ratemaking capital structure for determining Ameren Missouri's revenue requirement in this case?

A. Ameren Missouri witness Mr. Sagel, Staff witness Dr. Won, and myself.

Q. Do you agree with Mr. Sagel's and Dr. Won's positions on capital structure in this case?

A. No. Both Mr. Sagel and Dr. Won recommend the Commission determine Ameren Missouri's authorized ROR for its electric utility using Ameren Missouri's capital structure ratios. At this point, the only cause for the difference in Dr. Won's and Mr. Sagel's capital structure ratios is due to Dr. Won's use of Ameren Missouri's actual capital structure balances as of June 30, 2024, where Mr. Sagel recommends Ameren Missouri's projected capital structure ratios as of December 31, 2024. Assuming Dr. Won and Mr. Sagel update Ameren Missouri's capital structure balances for actual information through December 31, 2024, then their recommended capital structure ratios should be identical.

Q. Are you confident Ameren Missouri will achieve its projected common equity of approximately 52% as of the December 31, 2024, true-up date in this case?

A. Yes. As I identified in my direct testimony, Ameren Corp consistently manages Ameren Missouri's capital flows to achieve a common equity ratio of approximately 52% for the anticipated end-of-period test year and/or updated/trued-up test year for any given rate case. Ameren Corp has been able to consistently manage Ameren Missouri's capital structures for ratemaking to achieve an end-of-period ratemaking common equity ratio range of 51.75% to 52.30% for rate cases over the last twelve years.

Q. Fundamentally, why do you disagree with Dr. Won's and Mr. Sagel's proposed capital structure ratios for Ameren Missouri for purposes of determining Ameren Missouri's revenue requirement in this case?

A. Because regardless of the various technical issues debated in this case, it is clear from Ameren Corp's allocation of capital to Ameren Missouri and its use of debt to leverage its returns from its equity contributions into Ameren Missouri, that Ameren Corp recognizes it can maximize shareholder wealth by investing in Ameren Missouri's electric utility system. While Ameren Corp is entitled to a fair and reasonable authorized ROE, the ratemaking common equity ratio to which it is applied should be consistent with the business risk. Ameren Corp's constant target of a 52% common equity ratio for Ameren Missouri, both before and after the passage of Plant-in-Service-Accounting ("PISA"), while Ameren Corp has consistently increased the amount of leverage in its consolidated capital structure since PISA took effect, provides direct insight into Ameren Corp's managements' views as to the true debt capacity of Ameren Missouri's low-risk regulated utility investments.

Q. Has Ameren Corp consistently targeted a 52% common equity ratio on a consolidated basis?

A. No. As I explained in my direct testimony, Ameren Corp's equity ratio has continued to diverge from Ameren Missouri's targeted equity ratio. In fact, the delta between Ameren Missouri's and Ameren Corp's common equity ratio steadily increased over the last several rate cases. In Ameren Missouri's 2019 electric rate case, Case No. ER-2019-0335, the

difference was 4% (52% vs. 48%). In Ameren Missouri's 2021 rate case, Case No. ER-2021-0240, the difference increased to 7% (52% vs. 45%). In Ameren Missouri's 2022 rate case, Case No. ER-2022-0337, the gap increased to 9% (52% vs. 43%). As of this case, the gap is now 10% (52% vs. 42%). The widening gap is due to Ameren Corp's continued increase in the amount and proportion of holding company debt as compared to total consolidated debt. On March 29, 2019, Moody's lowered its Funds from Operations ("FFO")/debt threshold for Ameren Corp to 17% from 19%, which gave Ameren Corp the flexibility to incur more leverage at the holding company level without jeopardizing its credit rating. One of the primary reasons Moody's cited for allowing less stringent financial metrics was the "improved regulatory construct in Missouri facilitating meaningful rate base growth and reducing regulatory lag [PISA]."[1]

Q. What were Ameren Missouri's authorized equity ratio and ROE before it was able to elect PISA accounting?

A. 51.76% equity and a 9.53% ROE.[2]

Q. How have Ameren Corp's other major subsidiaries, Ameren Illinois Company ("AIC") and Ameren Transmission Company of Illinois ("ATXI"), common equity ratios changed since Ameren Missouri's 2019 general electric rate case?

A. AIC's common equity ratio increased from 50% to approximately 54%.[3] ATXI's common equity ratio has remained in the 58% to 60% range.

Q. If Ameren Corp increased AIC's common equity ratio and generally maintained ATXI and Ameren Missouri's common equity ratios, why does Ameren Corp's consolidated capital structure have a lower equity ratio now than it did at the time of Ameren Missouri's 2019 rate case?

A. Because it is issuing holding company debt to invest in the equity of its subsidiaries. Ameren Corp's only assets are its wholly-owned subsidiaries. Ameren Corp's debt

[1] "Updated to Credit Analysis," Moody's Investor Service, March 29, 2019, p. 2.
[2] Case No. ER-2014-0258, Report and Order, April 29, 2015, pgs. 61 and 68.
[3] Docket 23-0082, Illinois Commerce Commission, Ameren Illinois Company.

capacity arises from its indirect ownership of low-risk regulated utility assets. Ameren Corp's debt capacity increased after Ameren Missouri was able to elect PISA.

Q. Is Ameren Missouri directly using the debt capacity enabled by PISA and, in general, a more investment-friendly environment in Missouri?

A. No. Ameren Corp has not allowed it to because this would upset the ratemaking paradigm Ameren Corp believes it has established for its Ameren Missouri subsidiary. The Commission can correct this misappropriation of Ameren Missouri's debt capacity to Ameren Corp by authorizing a lower common equity ratio when setting Ameren Missouri's authorized ROR.

I recommend the Commission authorize Ameren Missouri a 42% common equity ratio, which is consistent with the leverage Ameren Corp has deemed appropriate and optimal considering the low business risk of its regulated assets. If Ameren Corp desires a higher ratemaking common equity ratio for its Ameren Missouri subsidiary, it can simply reduce the amount of holding company debt it issues and maintain the current debt ratios at its subsidiaries.

Q. Why does Dr. Won recommend that the Commission use Ameren Missouri's per books capital structure for determining the revenue requirement in this case?

A. Dr. Won testifies that he reached his recommendation based on his review of Ameren Missouri's financial relationship with Ameren Corp, and to be consistent with the Commission's previous ratemaking decisions. Therefore, he recommends the Commission set Ameren Missouri's ROR "based on its [Ameren Missouri's] most recent actual standalone capital structure."[4]

Q. What previous Commission ratemaking decisions did Dr. Won identify in his testimony?

A. Dr. Won testifies that he reviewed the Commission's decisions in the following rate cases: Spire Missouri's Case No. GR-2021-0108, The Empire District Electric Company's

[4] Won Direct, p. 38, lns. 9-15.

("Empire") Case No. ER-2019-0374, and Confluence Rivers Utility Operating Company, Inc.'s ("Confluence Rivers") Case No. WR-2023-0006.[5]

Q. Of these Commission decisions which do you consider most comparable to Ameren Missouri's relationship with its parent Ameren Corp?

A. The Spire Missouri rate case.

Q. Dr. Won testifies that, in Case No. ER-2019-0374, the Commission found that Empire's consolidated capital structure was appropriate for ratemaking. Did the Commission adopt Empire's consolidated capital structure in Case No. ER-2019-0374 for purposes of setting Empire's ROR?

A. No. The Commission used Liberty Utilities Company's ("LUCo") adjusted consolidated capital structure for purposes of setting Empire's ROR. After Algonquin Power & Utilities Corporation ("APUC") acquired Empire, it consolidated the debt financing needs of its North American regulated utility subsidiaries at the LUCo level. Since this consolidation, Empire's capital needs have been funded through affiliate financing transactions.

Q. In your opinion is Empire's financing relationship with LUCo a good comparable for Ameren Missouri's financing relationship with Ameren Corp?

A. No.

Q. Why not?

A. Because Ameren Missouri issues its own long-term debt rather than relying on a financing affiliate to access long-term debt funds on its behalf.

Q. Is the Commission's decision in the Confluence Rivers rate case a good comparable for Ameren Missouri?

A. No. In that case, the Commission deemed a hypothetical capital structure consisting of 50% common equity and 50% long-term debt to be reasonable for purposes of setting Confluence Rivers' ROR. The Commission's decision to adopt a hypothetical capital

[5] *Id.,* p. 31, lns. 16-23.

structure in that case was due to concern about the legitimacy of Confluence Rivers' per books capital structure due to affiliate financing transactions with its parent companies, U.S. Water Systems LLC and CSWR LLC. Additionally, there was a lack of transparency as to the financing activities of CSWR LLC's private equity owners, Sciens Capital Management LLC.

Q. In your opinion is Spire Missouri's financing relationship with Spire Inc. an appropriate comparable for Ameren Missouri's financing relationship with Ameren Corp?

A. Yes.

Q. Why?

A. Because Spire Missouri issues its own long-term debt rather than relying on a financing affiliate to access long-term debt funds on its behalf.

Q. Although Spire Missouri's relationship with Spire Inc. is most comparable to Ameren Missouri's relationship with Ameren Corp, should the Commission adopt Ameren Missouri's per books capital structure to set Ameren Missouri's authorized ROR?

A. No.

Q. Why not?

A. Both Ameren Corp and Spire Inc. target capital structures for their Missouri utility subsidiaries primarily for ratemaking, not to achieve a lower cost of capital for ratepayers. It is clear from Spire Inc.'s and Ameren Corp's more leveraged consolidated capital structures that management recognizes that the low business-risk of its regulated utility subsidiaries allow for a more optimal use of debt than reflected on each subsidiary's per books balance sheets.

Q. Do the purposes for which Spire Inc. and Ameren Corp issued holding company debt matter for purposes of the Commission deciding which capital structure to use for ratemaking?

A. No. Spire Inc. issued most of its holding company debt in conjunction with its acquisitions of Spire Alabama Inc. and Spire EnergySouth Inc. Ameren Corp.'s holding company debt has largely been issued for purposes of financing investments into its existing subsidiaries. However, both Spire Inc.'s and Ameren Corp's capital structure policies at the holding company level signal managements' views about the true debt capacity of its regulated utility subsidiaries. Ameren Missouri and Spire Missouri have shown through their actions that their targeted capital structures are driven by desired ratios for ratemaking rather than for targeting an economical cost of capital to charge ratepayers.

Q. As it relates to Dr. Won's citation of circumstances he believes supports the use of Ameren Missouri's stand-alone capital structure, do you disagree with any of the circumstances Dr. Won presents as statements of fact?

A. Yes. I specifically disagree with the following statements related to Dr. Won's capital structure testimony on page 34, line 15 through page 36, line 5:

> Ameren Missouri operates as an independent entity when considering Ameren Missouri's procurement of financing and the cost of that financing...[first statement]
>
> …Since January 2022, Ameren Missouri has not received long-term financing from Ameren Corp. or other Ameren Corp. subsidiaries…[second statement]
>
> …Ameren Missouri's stand-alone capital structure supports its own credit rating. The debt is rated by credit rating agencies based on the stand-alone credit quality of Ameren Missouri…[third statement]
>
> …no proceeds from Ameren Corp. long-term debt issuances have been used to infuse equity into Ameren Missouri. Therefore, Staff does not find evidence that Ameren Corp. has used "double leverage" for investing in Ameren Missouri. [fourth statement]

Q. Why do you disagree with Dr. Won's first statement?

A. While Ameren Missouri does issue its own long-term debt, I do not agree that Ameren Missouri operates as an independent entity as it relates to the procurement of financing. As I testified in direct, Ameren Services Company ("AMS") provides financing and capital management services for Ameren Corp's subsidiaries, including Ameren Missouri. Additionally, the fact that Ameren Missouri has been relying more heavily on long-term capital (*i.e.* retained earnings and long-term debt) rather than short-term debt to fund its liquidity needs illustrates Ameren Missouri is not being managed independent of Ameren Corp. Ameren Corp shares credit facilities with Ameren Missouri and AIC. Under Ameren Corp's shared credit facility with Ameren Missouri, it has the ability to directly borrow up to $1.0 billion of the shared $1.4 billion credit facility or issue this amount in commercial paper. [6] Commercial paper is typically used to support immediate cash needs, such as for working capital, construction work in progress ("CWIP"), or paying expected dividends to third-party shareholders. Ameren Corp's ability to access commercial paper is due to the credit quality of its low-risk regulated utility subsidiaries.

Ameren Corp uses its shared credit facilities with its regulated utility subsidiaries to facilitate its access to commercial paper markets (*i.e.* short-term debt). Ameren Corp can then use commercial paper to fund dividend distributions to shareholders rather than rely on the operating cash flows from its subsidiaries. However, this strategy artificially increases capital costs paid by Ameren Missouri's ratepayers as it relates to capitalizing CWIP through the standard AFUDC formula. For example, because Ameren Missouri retained 96.67% of its $1.65 billion cumulative earnings since December 31, 2021, based on the standard AFUDC formula, Ameren Missouri ratepayers are charged a long-term capital financing rate for the excess $902 million of retained earnings that Ameren Missouri would normally distribute as dividends if it were a true stand-alone company.[7] While Ameren Corp's use of commercial paper at the holding company level to fund dividends

[6] Ameren Corp SEC Form 10-K Filing, December 31, 2023, p. 117.
[7] Ameren Corp's recent dividend payout ratio of approximately 58% multiplied by $1.65 billion less $55 million of dividends actually distributed.

is financially efficient for Ameren Corp, this inflates Ameren Missouri's rates through a higher capitalization rate (*i.e.*, AFUDC) applied to CWIP.

Q. Why do you disagree with Dr. Won's second statement that Ameren Missouri has not received long-term financing from Ameren Corp?

A. Ameren Corp has made $350 million of common equity contributions to Ameren Missouri since January 1, 2022. Therefore, Ameren Corp has provided long-term financing to Ameren Missouri.

If Dr. Won intended to state that Ameren Corp has not provided long-term *debt* financing to Ameren Missouri since January 1, 2022, then I agree.

Q. Why do you disagree with Dr. Won's third statement that Ameren Missouri's stand-alone capital structure supports its own credit rating?

A. Because it is not true as it relates to S&P's ratings methodology. Moody's and S&P have differing approaches for assigning credit ratings to Ameren Missouri. Moody's assigns weight to Ameren Missouri's stand-alone capital structure for purposes of determining its long-term issuer rating of 'Baa1'. However, S&P assigns Ameren Missouri a credit rating based on Ameren Corp's group credit profile.

Dr. Won cites S&P Global Ratings – Ratings Direct to support his position.[8] However, as shown in the attached S&P Global Ratings report published on March 23, 2023, Ameren Missouri's S&P credit rating is based on S&P's group rating methodology (attached as Schedule DM-R-1). S&P specifically states the following on page 8 of this report:

> Under our group rating methodology, we consider Ameren Missouri a core subsidiary of parent Ameren with a group credit profile of 'bbb+'. This core status reflects our view that Ameren Missouri is highly unlikely to be sold, integral to the group's overall strategy, possesses a strong long-term commitment from senior management, and closely linked to the parent's name and reputation. Given its core subsidiary status and Ameren's group

[8] Won Direct, p. 35, lines 3-5.

> credit profile of 'bbb+', the issuer credit rating on Ameren Missouri is 'BBB+'.[9]

Therefore, Dr. Won is incorrect when he testifies that S&P assigns Ameren Missouri a credit rating based on its own capital structure. S&P assigns a 'BBB+' rating to Ameren Missouri because Ameren Corp's rating is 'BBB+'. It is a coincidence that Ameren Missouri's hypothetical stand-alone credit profile ("SACP") is the same as Ameren Corp's consolidated credit profile.

Q. How do you know this is a coincidence?

A. Because, despite S&P assigning AIC a hypothetical SACP of 'A-', it ultimately assigns AIC a credit rating of 'BBB+' based on Ameren Corp.'s group credit profile.[10]

Q. Why do you disagree with Dr. Won's fourth statement that because Ameren Corp has not used long-term debt proceeds to fund its equity contributions into Ameren Missouri, no evidence of double leverage exists?

A. First, the existence of double leverage is not limited to a direct reconciliation of the use of holding company debt to purchase equity in any specific subsidiary. In fact, in the past, Ameren Corp attempted to legitimize Ameren Missouri's per books common equity balance by claiming that equity infusions in Ameren Missouri were sourced from Ameren Corp's issuance of third-party common equity. This caused Ameren Corp to allocate most of the proceeds from common equity issuances to Ameren Missouri while it used proceeds from holding company debt to fund equity infusions in AIC and ATXI. Ameren Corp's creative financial management to attempt to mislead Missouri regulators should be duly noted. This narrow interpretation of double leverage does not consider the fact that Ameren Corp balances its consolidated capital structure based on the business risk of its subsidiaries, including Ameren Missouri. Dr. Won's view that because Ameren Corp only has a small percentage of non-regulated utility operations, Ameren Missouri's capital structure is appropriate is incorrect. Rather, it is the fact that Ameren Corp is

[9] William Hernandez, et. al., Union Electric Co. d/b/a Ameren Missouri, S&P Global Ratings – RatingsDirect, March 23, 2023, p. 8.
[10] Ameren Illinois Company, S&P Global Ratings – RatingsDirect, March 20, 2024.

predominately a pure-play regulated utility that allows Ameren Corp the ability to issue significant amounts of holding company debt in addition to its subsidiary debt (*i.e.* double leverage).

Second, Ameren Corp appears to have abandoned attempting to manage its inter-affiliate financing transactions to give the false impression that Ameren Missouri's per books common equity is not funded by debt financing. Ameren Corp contributed $350 million of equity capital to Ameren Missouri during the second quarter of 2024, despite Ameren Corp issuing only $11 million of common equity through its dividend reinvestment plan and receiving $25 million in dividends from its subsidiaries during this quarter. In order to fund its equity contribution to Ameren Missouri, Ameren Corp issued $301 million of short-term debt during the second quarter of 2024.

Q. Does Ameren Missouri need support from Ameren Corp to issue stand-alone debt?

A. No. In fact, Ameren Missouri could have its own stand-alone credit facility without sharing it with Ameren Corp, but this would not be beneficial to Ameren Corp as it relates to its access to commercial paper to fund other investments and dividend payments to shareholders.

Q. Has Ameren Corp disaggregated shared credit facilities in the past when an entity was causing strain on Ameren Corp's credit quality?

A. Yes. Ameren Corp did so in 2010 when it was attempting to limit the impact Ameren Corp's non-regulated subsidiary, Ameren Energy Generating Company, had on its credit quality.[11] Ameren Corp also did so in 2006 when it no longer allowed AIC (then operating as five different companies: Central Illinois Public Service Company, CILCORP Inc., Central Illinois Light Company, Illinois Power Company and Ameren Energy Resources Generating Company) access to the shared credit facility Ameren Corp had with Ameren Missouri and Ameren Energy Generating Company.[12]

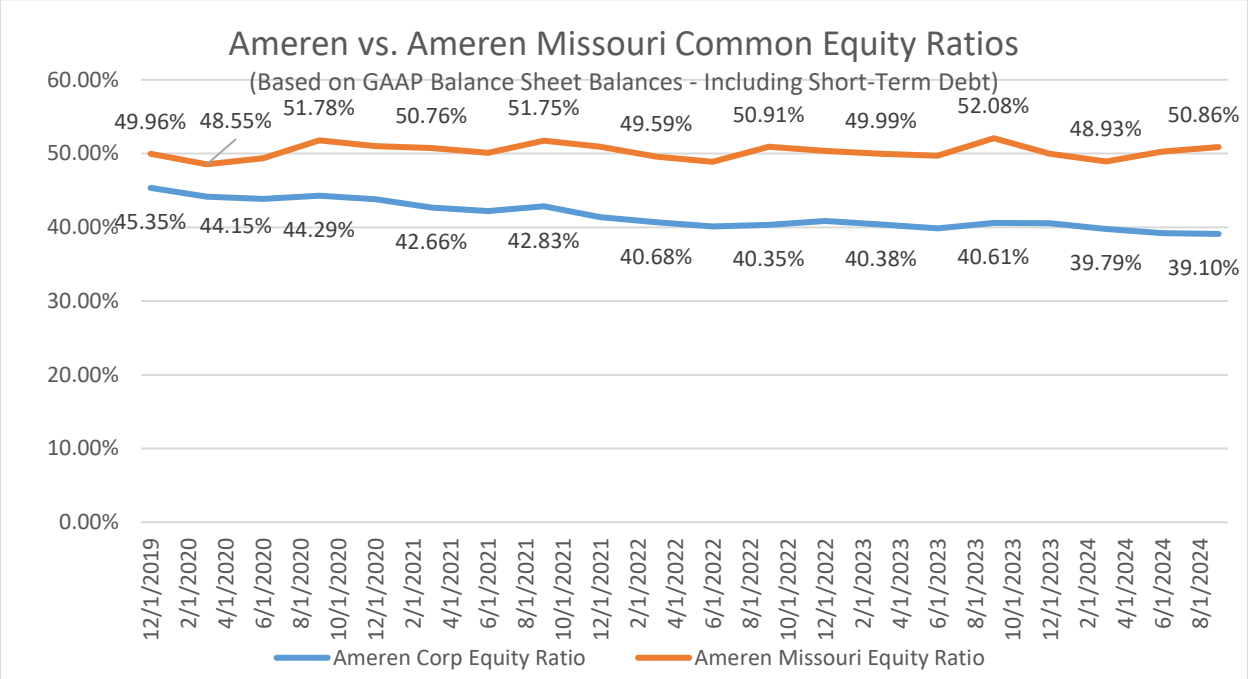
[11] Ameren Corp 2010 SEC 10-K Filing, pgs. 114-118.
[12] Ameren Corp 2006 SEC 10-K Filing, pgs. 124-128.

Q. Does Ameren Corp currently provide financial support for non-regulated subsidiaries?

A. Not that I am aware. The financial obligations Ameren Corp is required to fund is its holding company debt.

Q. What capital structure reflects the benefits of the lower cost of capital afforded by the reduced business-risk associated with Ameren Missouri's electric utility operations?

A. Ameren Corp's consolidated capital structure rather than Ameren Missouri's capital structure. Ameren Corp has dynamically managed its capital structure as detailed in Schedule DM-R-2 and illustrated in the below graph. I created this graph by using data from Ameren Corp's and Ameren Missouri's balance sheets filed with the Securities and Exchange Commission ("SEC"). Ameren Corp's consolidated common equity ratio has been declining whereas Ameren Missouri's has remained generally constant.



As demonstrated in the above chart, Ameren Corp's common equity ratio has dropped by 625 basis points (*i.e.* 6.25%) since December 31, 2019, while Ameren Missouri's common equity ratio has oscillated around 50%. As shown in the uptick in Ameren Missouri's

common equity ratio at September 30, 2024, Ameren Corp is repositioning Ameren Missouri's capital structure to meet its 52% target for ratemaking.

Q. What allowed Ameren Missouri's common equity ratio to increase significantly between March 30, 2024, and September 30, 2024?

A. Ameren Missouri did not pay a dividend to Ameren Corp during this period, despite generating $511 million of earnings and Ameren Corp contributed $350 million of additional common equity through a capital infusion. Because Ameren Corp can fund dividend obligations to its shareholders from parent company financings, Ameren Corp can forego dividends from Ameren Missouri. These strategies do not support the argument that Ameren Missouri's capital structure is managed independent of Ameren Corp's capital structure.

Q. Would you summarize your disagreement with Dr. Won regarding the information he cites to support the use of Ameren Missouri's stand-alone capital structure for ratemaking in this case?

A. Yes. Dr. Won is incorrect in stating that Ameren Missouri's capital structure supports its own credit rating and that its debt is rated based on its own stand-alone credit profile. While I agree that Moody's considers Ameren Missouri's capital structure, and consequently its financial risk, when assessing Ameren Missouri's financial risk profile, S&P clearly states that it assigns Ameren Missouri a credit rating based on Ameren Corp's group credit profile. There is no reason Ameren Missouri's capital structure should be less levered than Ameren Corp's capital structure. Instead of passing the benefit of lower capital costs through to Ameren Missouri's ratepayers who provide the certainty of recovery of costs associated with PISA investments and now a securitization charge, Ameren Corp is attempting to retain the financial benefit of lower costs of capital for its shareholders. The Commission should correct the misappropriation of Ameren Missouri's debt capacity to Ameren Corp by authorizing a lower ratemaking common equity ratio.

While there are differing degrees of merit in deciding when to consider the holding company's consolidated capital structure compared to a subsidiary's capital structure, the overarching consideration that should be weighed most heavily is whether the use of

leverage is consistent with a company's business risk. As I discussed in my direct testimony, Ameren Corp and Moody's recognized the lower business risk afforded to the Ameren group by the ability of Ameren Missouri to elect PISA in 2018. This was cited as a primary reason to allow Ameren Corp to carry more leverage. The Commission is the only entity that has the authority to ensure Ameren Missouri's ratepayers receive fair consideration for the lower business risk profile their rate payments support.

RETURN ON COMMON EQUITY

ANN E. BULKLEY'S RECOMMENDED ROE

Q. What is Ms. Bulkley's recommended allowed ROE for Ameren Missouri's electric utility?

A. Ms. Bulkley recommends the Commission allow Ameren Missouri a ROE anywhere in the range of 10.25% to 11.25% for its electric utility operations. Based on her range, she concludes that the Company's request of a 10.25% allowed ROE is reasonable.[13]

Q. What premise underlies Ms. Bulkley's recommended allowed ROE?

A. Ms. Bulkley estimates the cost of equity ("COE") for Ameren Missouri's electric utility operations to be in the range of 10.25% to 11.25% based on her application of three primary COE methodologies: (1) the constant-growth discounted cash flow ("DCF") method, (2) the Capital Asset Pricing Model ("CAPM") – a standard CAPM and an empirical CAPM, and (3) a Bond Yield Plus Risk Premium ("BYPRP") analysis.

Q. What is your general reaction to Ms. Bulkley's testimony regarding estimating the utility industry's COE?

A. First, I disagree with her that the utility industry's COE is in the double digits. While estimating a COE for the utility industry this high may be consistent with the utility industry's attempt to increase authorized ROEs, they are not consistent with the discount rates, *i.e.* the COE, that investors use for purposes of estimating the intrinsic value of utility

[13] Bulkley Direct, p..9. ln. 23 – p. 10, ln. 4.

common equity. The Commission need look no further than the discount rates (*i.e.* COE) actually used by investors to dismiss the reliability of Ms. Bulkley's COE estimates.

Second, Ms. Bulkley has been filing ROR testimony in Missouri since 2020. The constant theme in her testimony has been that the utility industry's COE will increase in future periods when utility rates are in effect. Although the COE has increased since Ameren Missouri's 2022 rate case, Ms. Bulkley projects the utility industry's COE will increase further. Despite utility stocks significant contraction during 2023, Ms. Bulkley continues to warn the Commission that methods such as the DCF still underestimate the COE because utility stock prices may continue to decline after Ameren Missouri's rates are changed in this case.[14]

Finally, while she devotes approximately twenty pages of testimony trying to convince the Commission that Ameren Missouri is riskier than average utilities, she forgets that her proxy group contains companies that are or have been exposed to competitive markets. Her opinions are also completely contradicted by Ameren Missouri's actual increased investment in its utility system. This increased capital spend is due directly to utility-friendly legislation passed in Missouri in recent years.

Q. Do you have concerns about Ms. Bulkley's proxy group?

A. Only to the extent that she doesn't recognize or discuss the fact that some of her companies have or have had significant exposure to non-regulated operations. Cyclical industries, such as energy companies, with exposure to changes in commodity prices are impacted to a much greater extent by variations in economic/market conditions. This explains why companies in cyclical industries typically have stock betas closer to one, which indicates that the equity risk associated with these industries are higher than for regulated utilities. For example, the consumption of commodities, such as energy, are highly correlated with the expansion and contraction of the economy. This explains why utility companies with exposure to unregulated commodity prices typically have higher betas than pure-play regulated utilities. The following companies included in Ms. Bulkley's proxy group have significant (greater than 10%) non-regulated business exposure at least as recently as 2023:

[14] *Id.*, p. 8, ln. 8 – p. 9, ln. 22.

DTE Energy Company and NextEra Energy Inc. While Entergy Corporation, OGE Energy Corporation, and PPL Corporation did not have significant non-regulated or international business exposure in 2023, they have had such exposure within the last five years, which causes higher stock betas if the analyst relies on historical 5-year beta calculations. Unfortunately, Ms. Bulkley focuses on her perception that supposed shortcomings in Missouri's regulatory ratemaking environment as compared to her proxy group, causes Ameren Missouri to have a higher cost of capital than the cost of capital of her proxy companies.[15]

Q. Ms. Bulkley testifies that the fact that Ameren Missouri is owned by Ameren Corp does not affect her analysis of Ameren Missouri's cost of capital.[16] Was this prudent on her part?

A. No. Ameren Missouri is inextricably linked to its parent company, Ameren Corp. Ameren Corp's financial strategies, such as capital structure management, directly impact Ameren Missouri.

Ameren Corp's cost of equity is based on the collective business risks of its various subsidiaries, with slightly over 50% attributed to its electric utility assets in Missouri, as well as the financial risk it incurs at the consolidated level. Because Ameren Corp's business operations are predominately regulated utilities (vertically integrated electric utility in Missouri, transmission and distribution electric utility in Illinois, natural gas distribution utility in Illinois and Missouri, and a transmission electric utility subject to FERC jurisdiction) its capital structure and cost of equity are ideal proxies for estimating Ameren Missouri's cost of capital.

Therefore, because Ms. Bulkley did not consider Ameren Corp in her assessment of Ameren Missouri's cost of capital, I consider her cost of capital analysis to be incomplete.

[15] *Id.,* p. 55, ln. 3 – p. 70, ln. 3.
[16] *Id.*, p. 13, ln. 18 – p. 14, ln. 7.

Q. Did Ms. Bulkley testify about the negative impact the Illinois Commerce Commission's ("ICC") decision in the AIC's electric utility rate case had on Ameren Corp's share price?

A. Not in this case, but she did in the concurrent Missouri American Water Company ("MAWC") rate case, Case No. WR-2024-0320, and the recently concluded Evergy Missouri West rate case, Case No. ER-2024-0189.

Q. Considering Ameren Missouri's cost of capital may be affected by the financial and business risks of its affiliates, was it prudent to not consider Ameren Corp or its other subsidiaries in determining a fair and reasonable ROR for Ameren Missouri?

A. No. Although she did not testify in this case about the potential impact of the ICC's decision on Ameren Corp's cost of capital and investment decisions, in both the EMW and MAWC rate cases Ms. Bulkley testifies that it is important to consider an operating company's ability to attract capital within its family of companies.[17] In her testimony in the EMW and MAWC rate cases, Ms. Bulkley acknowledges the fact that Ameren Corp's other jurisdictions (Missouri and FERC) would be more attractive than investing in Illinois.

Q. Ms. Bulkley maintains that the Commission should consider Ameren Missouri's substantial planned capital expenditures in setting a fair and reasonable authorized ROR in this case.[18] Do you agree?

A. Yes. However, these significant planned capital expenditures support ensuring Ameren Missouri's authorized ROR is not set too high over the cost of capital rather than too low as Ms. Bulkley suggests. This is especially true considering that Ameren Corp's utility operations in Illinois are authorized a lower ROR than typically authorized and anticipated in Missouri.

[17] Case No. WR-2024-0320, Bulkley Direct, p. 11, lns. 10-20; Case No. ER-2024-0189, Bulkley Direct, p. 11, lns. 3-9.
[18] *Id.,* p. 50, ln. 1 – p. 59, ln. 15.

Q. Can you provide Ameren Corp's projected 5-year capital expenditure plan for Ameren Missouri as compared to Ameren Corp on a consolidated basis?

A. Yes. Ameren Corp projects investing $13 billion in Ameren Missouri's utility system over the next five years. This represents approximately 59% of Ameren Corp's projected capital spend.[19] As of September 30, 2024, Ameren Missouri's net property, plant and equipment ("PP&E") represented 51.79% of Ameren Corp's consolidated PP&E.

Q. Can you approximate how much value this investment would create for Ameren Corp's shareholders based on your recommended ROR compared to your estimate of Ameren Missouri's cost of capital?

A. Yes. I made the following assumptions in my analysis:

-Ameren Missouri's cost of capital parameters:

-Common equity ratio – 42%

-Cost of equity – 8.0%

-Long-term debt ratio – 58%

-Current cost of long-term debt – 5.5%

-5 years of capex made in one lump sum;

-30-year depreciation period; and

-rates reset every year.

Based on these assumptions and applying my recommended authorized ROE of 9.5% to my recommended common equity ratio of 42%, Ameren Corp would create $712,742,482 of additional shareholder wealth over the shareholder's original investment of $5.46 billion (42% equity ratio times $13 billion). To put it another way, if the Commission authorized

[19] Ameren Corp's November 10-12, 2024 Investor Presentation, "Powering a Reliable, Sustainable Tomorrow."

Ameren Missouri an ROE of 8.0%, Ameren Corp's equity investment in Ameren Missouri would not create additional returns for the shareholder over the COE.

Q. How much Ameren Corp shareholder value would an investment in AIC's electric utility of the same amount create for shareholders?

A. Using the 50/50 capital structure authorized in the 2023 AIC electric rate case and applying the 8.72% authorized ROE, a $13 billion lump sum investment with a 30-year life would create $760,227,330 of additional shareholder wealth over the shareholder's original investment of $5.46 billion.

Q. What if the Commission adopted Staff and Ameren Missouri's recommended capital structure consisting of an approximate 52% common equity ratio?

A. Under this scenario, an investment of $13 billion in Ameren Missouri creates $1.324 billion of additional shareholder value.

Q. Would Ameren Missouri be able to attract capital from Ameren Corp regardless of whether Ameren Missouri is authorized a common equity ratio of 42% or 52%?

A. Yes. Under either scenario, the investments create wealth for shareholders above their initial investment of $5.46 billion.

Q. What equity value would be recorded on Ameren Missouri's balance sheet at the time the project is funded?

A. $5.46 billion. The original equity capital used to fund the project would be recorded on Ameren Missouri's balance sheet at cost rather than market value.

Q. If Ameren Missouri's new investments are expected to be allowed and earn a 9.5% ROE, and its COE is 8.0%, does this dynamic increase the market value of the original equity investment?

A. Yes. Whether the Commission authorizes a 52% common equity ratio or a 42% common equity ratio, the market value of the equity is equal to principal investment ($5.46 billion) plus the additional shareholder wealth created through the 150 basis point spread between

the COE and the ROE (~$712.742 million to $1.324 billion). The resulting market-to-book ratio of the equity investment is in the 1.13x to 1.24x range, which is a function of earning a higher return than the required return.

INTERPRETATION OF MARKET CONDITIONS

Q. Ms. Bulkley testifies that interest rates and utility share prices are inversely correlated, which means increases in interest rates will result in a decline in utility share prices.[20] Did this relationship hold true from 2020 to 2022?

A. No. During extraordinary periods in which the Federal Reserve ("The Fed") and U.S Congress intervened in the markets, many typical relationships did not hold true. For example, while long-term bond yields declined to all-time low levels in the early period of Covid-19, utility stock valuation ratios did not increase consistent with these typical patterns. Consequently, I did not recommend significant decreases in authorized ROEs for Missouri utilities. On the flip side, in 2022 when long-term bond yields increased significantly, utility stock valuation ratios did not decrease consistent with these patterns, which caused me to still recommend authorized ROEs consistent with the low-rate period. However, as I testified in my direct testimony, the typical inverse correlation to long-term bond yields emerged again in 2023, which caused a contraction in utility P/E ratios. The impact of this dynamic is fully captured in my current COE estimates, which while higher than before 2023, are still below authorized ROEs.

Q. Ms. Bulkley testifies that "utility sector stock prices will most likely underperform over the near-term."[21] How long has Ms. Bulkley been predicting utility stock prices are likely to decline?

A. Since at least the 2020 MAWC rate case, Case No. WR-2020-0344, which is the first case in which she sponsored ROR testimony in Missouri. Ms. Bulkley has consistently and repeatedly predicted that the utility industry's COE will increase because of potential increases in long-term bond yields. Her repeated predictions had to be realized at some

[20] Bulkley Direct, p. 23, lns. 3-11.
[21] *Id.,* p. 26, lns. 9-10.

point, which they were in 2023. This is consistent with the often-quoted adage that "economists have predicted 9 of the last 5 recessions." In fact, according to the Wall Street Journal's survey of economists in 2022, over 60% predicted a likely recession in 2023 due to the Fed's aggressive tightening of monetary policy in 2022.[22] The economy did not experience a recession in 2023, but these expectations were factored into stock prices, with utility stocks outperforming the broader markets in 2022 despite the significant rise in long-term bond yields. For this reason, it is important for ROR witnesses to estimate the cost of capital based on current market prices, because they reflect investors' expectations.

Q. Have these projections and relationships held true in recent years?

A. Long-term bond yields did finally increase in 2022, but utility stock prices did not contract as typically expected. As I explained in my direct testimony, this breakdown in the typical inverse correlation was likely due to a couple of factors: (1) long-term interest rates increased from all-time lows during 2020 to 2021, which was largely attributed to the massive support and stimulus provided by The Fed and US Congress and (2) investors feared The Fed's tightening would cause a recession in 2023, causing investors to rotate into defensive sectors, such as utilities.

Q. How long has Ms. Bulkley been expressing her concerns that COE methods, such as the DCF, underestimate the COE because of her continuous predictions that utility stock prices are likely to decline?

A. Since at least early 2020 when she filed ROR testimony in the 2020 Missouri American Water Company rate case.

Q. Based on current market conditions, is it logical to project that current utility stock prices are likely to be higher than future utility stock prices, as Ms. Bulkley suggests?

A. No. But as I have testified in previous rate cases before long-term interest rates increased, I am not a market prognosticator, nor do I consider it appropriate for ROR witnesses to

[22] Harriet Torry and Anthony DeBarros, "Economists Now Expect a Recession, Job Losses by Next Year: Majority think Federal Reserve will start cutting rates in late 2023 or early 2024," Wall Street Journal, October 16, 2022.

attempt to be market prognosticators. We should simply be providing insight as to investors' expectations, which are already embedded in current utility share prices.

Q. Did Ms. Bulkley's prediction of increased long-term bond yields eventually occur?

A. Yes. After predicting that long-term bond yields were unsustainably low, which in her opinion caused utility stock prices to be unsustainably high, an increase in bond yields did finally occur, but not until at least three years after she began making this prediction.

Q. What about utility stock prices contracting as a result of increases in bond yields?

A. Utility stock prices' inverse correlation with long-term bond yields did not reoccur until late 2022.

Q. Did Ms. Bulkley cite to a past Commission ROE determination in which it supported its 9.8% authorized ROE by citing to anticipated increases in interest rates?

A. Yes. In supporting her view that multiple COE methods should be considered in setting an authorized ROE, Ms. Bulkley cites to the Commission's Report and Order in Spire Missouri's 2017 rate case, Case No. GR-2017-0215.[23] In supporting its decision to authorize Spire Missouri a higher 9.8% authorized ROE the Commission cited "anticipated increasing interest rates."[24]

Q. What happened to long-term bond yields and utility stock valuation levels subsequent to the Commission's decision?

A. As shown on page 8 of my direct testimony, long-term bond yields continued their steady decline until the onset of the Covid-19 pandemic. Over this same period, utility stock valuation levels, as measured by P/E ratios, continued their steady expansion, reaching all-time high valuation levels right before Covid-19. This period of three-to-four years covered the entirety of Spire Missouri's interval between its 2017 and 2021 rate cases.

[23] *Id.,* p. 33, ln. 10 – p. 34, ln. 7.
[24] *Id.*

Consequently, I advise the Commission not to cite projected interest rates in either supporting a lower or higher allowed ROE.

Q. Ms. Bulkley testifies that equity analysts expected the utility sector to underperform in 2024.[25] Does Ms. Bulkley imply this was a consensus view?

A. Yes.

Q. Was it?

A. No.

Q. Can you provide some examples of differing views?

A. Yes. Guggenheim Securities, LLC stated the following about its outlook for the utility sector in 2024:

> The sector oversold going into '24 vs. '23 as valuation decline outpaced broad markets while interest rates rose; after a period of normalization into year-end, we see opportunity to revert. As stated above, we see the sector as 20%+ cheap, and we are making a case for a sector-wide upside call (i.e., no Sell ratings going into 24', with several Neutrals we highlight with upside bias should a catalyst bear fruit). [26]

Also, contrary to Ms. Bulkley's opinion that utility stock prices do not already reflect investors' expectations regarding changes in interest rates, Guggenheim also states the following regarding forward rates underlying current fair value stock price estimates:

> **How do we arrive at our target utility multiple? Incorporating the forward yield outlook for corporate bonds of 5.3% for 2026 (see Figure 15) and the PEG ratio approach, we incorporate a blended valuation resulting in a 16x P/E for 2026E**; we believe the group should trade higher than what our bond regression shows in isolation (~3x premium vs. where the group currently trades) in light of a differentiated "growth" outlook based on a reversion to the mean PEG [price-to-earnings-to-long-term growth] ratio in the LT [long-term], especially as utilities have demonstrated the ability to navigate 2023 headwinds with cost efficiencies, increased capex and modest programmatic equity issuance – **"Growth"**

[25] *Id.,* p. 24, ln. 7 – p. 27, ln. 3.
[26] Shahriar Pourreza, CFA, et. al., "24 Utilities Outlook: Utility Valuations Finally 'NSYNC' with Fundamentals? Buy Buy Buy…" Guggenheim Securities, LLC, January 22, 2024, p. 10.

> **continues to be a material driver with longer-term utility valuation levels vs. "Yield".** (bold in original).

Well Fargo's 2024 outlook for the utility sector was neutral. It stated the following:

> **Valuation - It's Mixed**
>
> *Bottom line: we do not view utilities as either overly expensive nor overly cheap.*
>
> Relative to long-term interest rates the group continues to screen expensive (Exhibit 4 depicts the group's valuation relative to the 10-Yr Treasury yield). Based on the historical relationship, the 10-Yr yield would need to decline to 2.5% in order to bring the valuation into alignment with the median. At the current 10-Yr yield, the P/E [price-to-earnings] multiple that would bring the relationship back in line is 9.2x, or ~40% below the current P/E multiple of 15.5x. That being said, we point out that the sector's current P/E multiple is not out of bounds with how the group traded the last time the 10-Yr yield was between 4.0-5.0% (Exhibit 5). And during that period (2004-2007) the group's EPS growth outlook was lower (4-6% vs. 5-7% now)…
>
> …Relative to the S&P 500, utilities continue to screen attractive. The current relative P/E multiple of ~80% is well below the 15-yr average of 100-105%. We point out that prior to 2000, utilities traded at a relative P/E multiple of 70-80%. However, the EPS growth outlooks (~4%) were far lower than the current target growth rates of ~6%.[27]

Finally, Wolfe Research stated the following about its 2024 outlook for utilities:

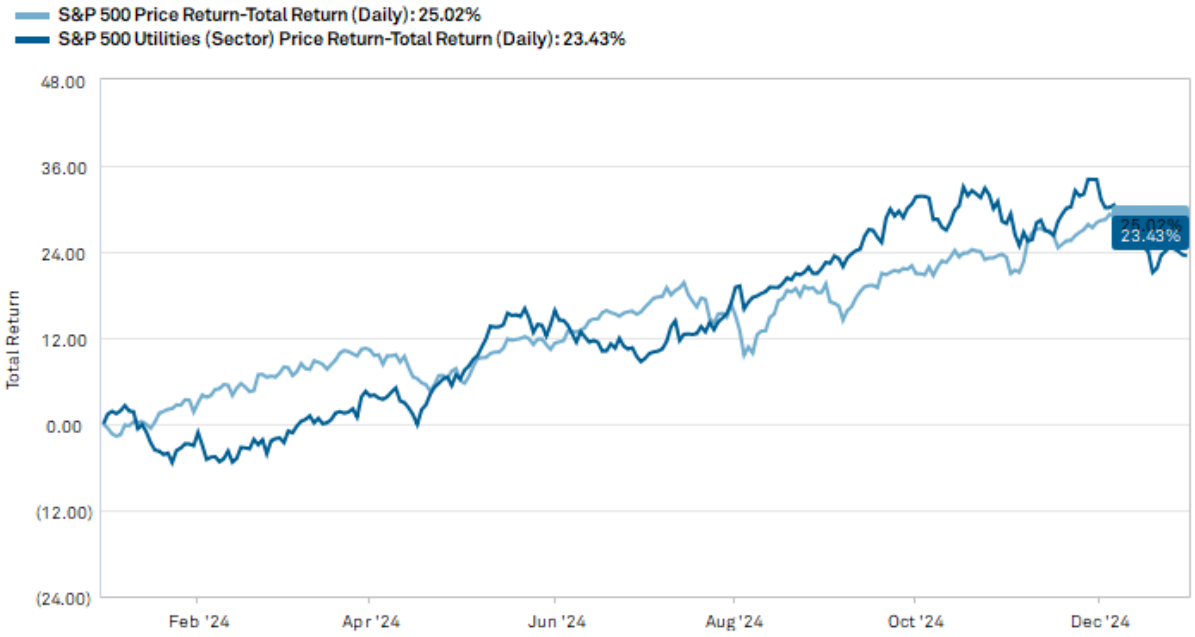
> **Bullish for 2024.** Utilities typically bounce after worst years. Valuations are at buy levels. The Fed cycle looks timely – utilities o/p [outperform] after tightenings and heading into easings. We see 10% total return intact. Risks are regulation, elections/IRA and an extended bull market.[28]

Q. Now that 2024 is over, how did the utilities sector perform relative to other sectors?

A. The S&P 500 Utilities sector price return (*i.e.* not including dividends) ranked fifth among the eleven sectors in the S&P 500.[29] The utilities sector's 19.58% stock price return compares to the S&P 500's price return of 23.31%. After factoring in dividends, the total return for the utilities sector was 23.43% compared to the S&P 500's total return of 25.02%.

[27] Neil Kalton, et. al., "2024 Utility Outlook: Back to Square One," Wells Fargo, November 30, 2022
[28] Steve Fleishman, et. al, "Utilities & Power – Top 10 Things to Watch for 2024," Wolfe Research, January 15, 2024, p. 1.
[29] The eleven sectors consist of the following: Communications Services, Information Technology, Consumer Discretionary, Financials, Utilities, Industrials, Consumer Staples, Energy, Real Estate, Health Care, and Materials.

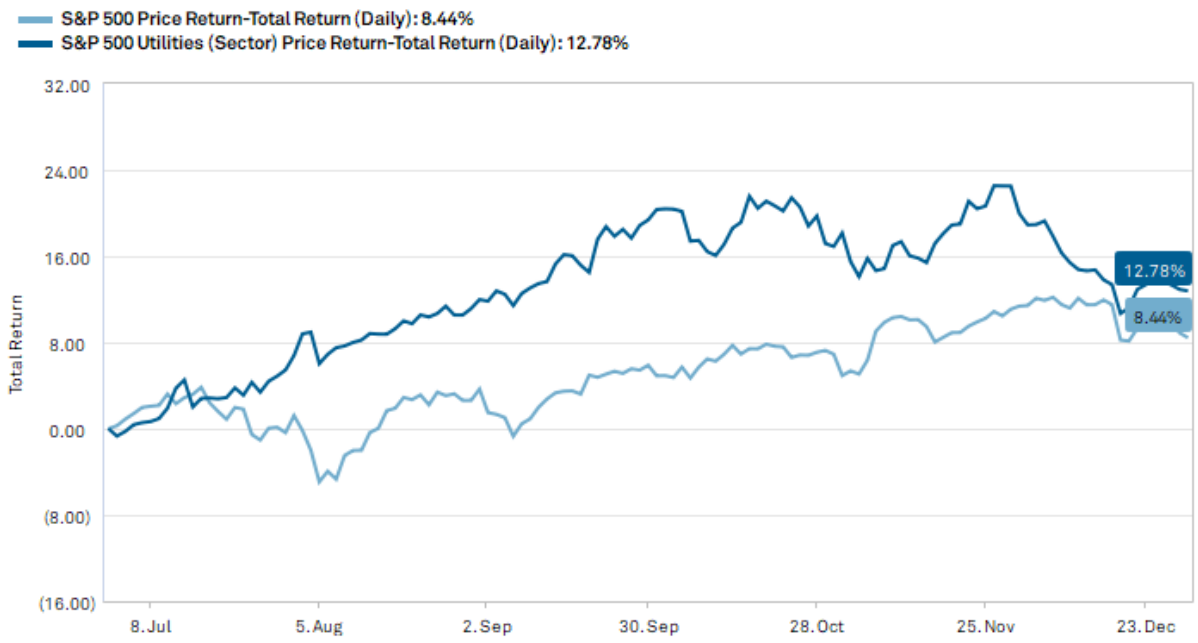
The following chart illustrates the changes in the S&P 500 total returns compared to the utility's sector total returns over the entire year:



Q. When did the utilities sector achieve a majority of their returns in 2024?

A. During the second half of 2024. The utilities sector achieved a return of 12.78% during the second half of 2024 as compared to the S&P 500's total return of 8.44%.

The following chart is limited to total returns for the second half of 2024:



Q. Does the utility sectors' strong performance during the second half of 2024 support your conclusion in your direct testimony that the utility industry's COE has declined since you sponsored testimony in Evergy Missouri West's rate case, Case No. ER-2024-0189, on June 27, 2024?

A. Yes.

Q. Have equity analysts published their opinions for the utility sector for 2025?

A. Yes, I am aware of some reports published regarding 2025 outlooks, but I do not have comprehensive access to all broker-research covering the utility industry so I may not be aware of others.

Q. Regardless of the variety of equity analysts' past and current views, do current utility stock prices already reflect investors' expectations of macro, industry, and company-specific factors?

A. Yes. COE estimation methods assume efficient capital markets, meaning utility share prices, and for that matter utility bond prices, reflect potential economic and business cycles over the long-term. Ms. Bulkley's attempt to overemphasize short-term sentiments is misguided. Utility investors already factor in the potential consequences of macro

factors in the price they are willing to pay today for utility stocks. As many equity analysts also emphasize, despite business cycle swings, utility companies continue to move forward with capital expenditures that allow them to meet their guidance for long-term compound annual growth rate ("CAGR") in earnings per share ("EPS"). The utility industry is the rare sector, and one of the reasons it is one of safest sectors, which is fairly immune to moderating capital expenditures during periods of slower economic growth.

Q. But do you not rely on equity analyst information for your own analysis of the cost of capital?

A. Yes, but not for purposes of "predicting" future stock prices. I analyze the information equity analysts include in their reports to ensure my inputs and assumptions for variables, such as intermediate to perpetual growth rates in my application of the DCF, are consistent with the methodologies employed by Wall Street analysts.

Q. Does your DCF analyses, using current utility share prices, accurately and reliably capture changes in utilities' COE due to changes in their stock prices?

A. Yes.

Q. Is your COE estimate mis-specified because of your use of current utility share prices?

A. No.

Q. Are Ms. Bulkley's COE estimates mis-specified due to her view that long-term bond yields will remain higher for longer?

A. Yes. Ms. Bulkley surmises that because utility dividend yields are lower than long-term bond yields, such as United States Treasury ("UST") bonds, that this may result in a decline in utility stock prices. Investors in utility stocks are aware of current and past correlations of long-term bond yields and utility stocks. Investors not only compare utility stock valuation levels to the changes and levels of long-term bond yields, but they also compare utility stock valuation levels to that of the S&P 500. Currently, utility stocks are trading at a discount to the S&P 500. Investors will also take these factors into consideration in

determining a fair price to pay for utility stocks, with these factors already embedded in utility share prices. Current share prices reflect investors' expectations of all factors which may impact stock prices, which includes changes in Fed Funds rates, long-term bond yields, recessions, recoveries, opportunity costs, etc.

Q. Despite data that shows utilities' COE has increased since 2022 due to a contraction in utility stock prices during 2023, does Ms. Bulkley double-down on her consistent view that current utility share prices *still* understate the utility industry's COE?

A. Yes. Ms. Bulkley testifies as follows on page 26, lns. 7-14 of her direct testimony:

> Because of the fact that the yield spread is currently well below the long-term average, and the expectation that interest rates will remain relatively high through at least the next year, it is reasonable to conclude that the utility sector stock prices will most likely underperform over the near-term. This is because investors that purchased utility stocks as an alternative to lower yields on long-term government bonds would otherwise be inclined to rotate back into government bonds, particularly as yields long-term government bonds remain elevated, thus resulting in a decrease in the share prices of utilities.[30]

Q. What is Ms. Bulkley's purpose for repeatedly emphasizing over the last several years that the utility industry's stock prices are likely to decline in subsequent years?

A. Because doing so was paramount to her objective of deemphasizing the lower implied COE derived from using the DCF methodology. Although her COE estimates using the DCF methodology were low relative to her estimates using methods such as the CAPM and risk premium methodologies, even her DCF estimates were upwardly biased due to misuse of financial metrics in her constant-growth DCF.

DISCOUNTED CASH FLOW ASSUMPTIONS

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

A. Her opinion that utility investors expect perpetual annual stock price gains at parity with equity analysts' projected 3-5 year CAGR in EPS. For purposes of her mean 90-day

[30] *Id.,* p. 26, lns. 7-14.

constant-growth DCF COE estimate of 10.74%, she assumes the perpetual stock price appreciation will be 6.31%/year. Ms. Bulkley's assumption implies that utility investors expect approximately 58.75% of their total returns will be in the form of capital gains with the remaining portion achieved through dividend returns. Considering on average, utility companies distribute approximately 2/3 of their EPS in dividends per share ("DPS"), her assumption is illogical. Although admittedly a simplified test, simply flipping Ms. Bulkley's assumption to cause 58.75% of utility stock investors' returns to be achieved from dividends results in a COE estimate of 7.54%. While lower than my own COE estimate, this implied COE is much closer to those used by investors than Ms. Bulkley's 10.74% estimate.

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

A. No.

CAPM ASSUMPTIONS

Q. Why are Ms. Bulkley's CAPM cost of equity estimates so high?

A. Because she uses irrational expected market returns. Ms. Bulkley estimates a total compound annual market return for the S&P 500 of 12.51% for the foreseeable future (perpetually based on her use of a constant-growth DCF to estimate S&P 500 returns).[31] Subtracting long-term risk-free rates from Ms. Bulkley's estimated market return results in her market risk premium estimates of 7.86% to 8.21%.[32]

Q. How is Ms. Bulkley able to achieve such high market risk premium estimates?

A. Because she assumes that the S&P 500 can grow its earnings at a compound annual rate of 10.83% in perpetuity.[33]

[31] *Id.,* p. 41, ln. 14 – p. 42, ln. 6.
[32] *Id.*
[33] *Id.*

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

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

Q. What academic support are you aware of?

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

> Earnings growth rate = GDP growth rate + Excess corporate growth (for the index companies)
>
> where the term *excess corporate growth* may be positive or negative depending on whether the sectoral composition of the index companies is viewed as higher or lower growth than that of the overall economy. If the analyst has chosen a broad-based equity index, the excess corporate growth adjustment, if any, should be small.[34]

Considering that the S&P 500's current dividend yield of approximately 1.60% and projected long-term growth in U.S. nominal GDP is around 4.0%, it seems that investment professionals' forecasts of long-term returns for the S&P 500 of around 7%[35] are consistent with the above-prescribed formula.

[34] 2010 CFA® Program Curriculum, Level III, Volume 3, p. 34.
[35] Murray Direct, p. 28, ln. 28 – p. 29, ln. 1.

Q. Are you aware of any common valuation metrics that demonstrate Ms. Bulkley's market growth rate expectations are irrational?

A. Yes. A comparison of a broad equity market capitalization amount to that of the total size of the U.S. economy. This valuation metric provides a sanity check on potential growth for capital markets. Warren Buffett made it popular when he provided insight on how high the market, as measured by the Wilshire 5000, became valued as compared to U.S. GDP at the time of the "dot com" bubble around March 2000. At that time, the Wilshire 5000 was around 1.4x that of GDP. As of September 30, 2024, it was 1.96x, which demonstrates investors are currently requiring lower than average market risk premiums.

Q. What would this ratio be in 50 years if the market grew at the 10.83% compound annual growth rate Ms. Bulkley suggests is appropriate?

A. The Wilshire 5000 index would be approximately 47x times the GDP level. Based on the market capitalization of the Wilshire 5000 of approximately $57.64 trillion as of September 30, 2024, the Wilshire 5000 would have a market capitalization of $9.85 quadrillion in 50 years. U.S. GDP was $29.35 trillion as of the same date. Based on a 4.0% long-term growth rate for the U.S. economy, GDP would be approximately $208.61 trillion in 50 years. It is not rational to assume corporate wealth will become much larger than the economy in which it operates, let alone 47x the size of the economy. This explains why the CFA Program advises not using a perpetual growth rate much, if any, higher than the GDP growth rate of the economy(ies) in which a company operates.

Q. Why are Ms. Bulkley's Empirical CAPM ("ECAPM") results higher than her standard CAPM results?

A. The results are higher because Ms. Bulkley's ECAPM gives 25% weight to the unadjusted market risk premium and 75% weight to the utility beta adjusted market risk premium. Being that Ms. Bulkley's utility betas at least reduce her high equity risk premium estimates by 10% to 30%, because her ECAPM allows for a 25% weighting to an unadjusted risk premium, this amplifies the bias inherent in Ms. Bulkley's high risk premiums.

Q. Does this mean that the larger the market risk premium estimate, the more widely divergent the ECAPM results will be compared to the standard CAPM?

A. Yes.

Q. Can you explain?

A. Yes. Ms. Bulkley assumes a market risk premium of approximately 7.86% to 8.21% compared to more rational estimates of around 5%. If Ms. Bulkley had used a more reasonable market risk premium of 5%, her ECAPM adjustment would have been approximately 4 to 19 basis points lower.

BOND YIELD PLUS RISK PREMIUM ANALYSIS

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

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

CONSIDERATION FOR SPECIFIC BUSINESS AND REGULATORY RISK

Q. Ms. Bulkley devotes approximately twenty pages of direct testimony to justify her view that Ameren Missouri's 100% pure-play regulated vertically integrated electric utility causes its cost of equity to be higher than that of her proxy group.[36] Does any of Ms. Bulkley's testimony recognize that her proxy group consists of utility holding companies with exposure to competitive markets and more leveraged capital structures?

A. No. As I indicated when discussing Ms. Bulkley's proxy group, she includes companies that have or have had significant non-regulated business exposure, which exposes or exposed the companies to competitive energy markets. Non-regulated operations expose companies to commodity market price volatility. While utility companies rely on commodities (*i.e.* natural gas, coal, nuclear fuel, renewable power projects, etc.), they are not exposed to gains and losses from changes in prices of commodities. This is not true for companies engaged in merchant power projects or energy marketing and trading.

While I admit there typically have been very few pure-play regulated utilities, let alone pure-play vertically-integrated electric utilities, to develop a larger proxy group, it is important to recognize that many of the proxy companies used to estimate the COE for a regulated electric utility have or have had this exposure. To only focus on the selected proxy companies' regulated operations, and perceived risks related to their regulatory ratemaking constructs, to attempt to justify an authorized ROE above the proxy group, should be duly noted as to the weight given to this comparative analysis.

Q. What is your response to Ms. Bulkley's discussion related to her views on Ameren Missouri's specific business and regulatory risks?

A. Ms. Bulkley essentially maintains that because Ameren Missouri plans to invest more in its system over the next few years, customers should pay a higher ROR because of higher risk. Ameren Corp ramped up its capital investment in Missouri after it elected PISA in the fall of 2018. Ameren Corp did so knowing its authorized ROE would not likely be

[36] Bulkley Direct, pgs. 49-71.

much different than the 9.5% it had been previously authorized. In fact, the language included in the PISA law was unusually prescriptive in directing that electric utilities would be allowed to use a 9.5% ROE for purposes of determining PISA accruals in the absence of a Commission decision or stipulation and agreement to use a different figure. Clearly, Ameren Corp viewed a 9.5% ROE as reasonable. Otherwise, it would not have allowed such prescriptive ratemaking variables to become memorialized in statute. In fact, when the PISA law was amended in 2022 to allow electric utilities to continue to use PISA through 2028 without Commission authority, the statute did not amend the default ROE of 9.5% for PISA accruals.

As the scale of investment increases, the higher the allowed ROR over the cost of capital, the higher the net present value created for shareholders. Under this scenario, management is incentivized to pursue all projects it believes will be allowed in rate base because the mere process of investment causes an increase to shareholder wealth above the minimum required return. However, this excess shareholder wealth is derived at the expense of ratepayers. This is the economic rationale for attempting to set utility companies' ROR as close to the cost of capital as possible, because otherwise the scales are tilted in favor of inefficient investing for the sake of maximizing shareholder wealth.

Q. Did Ms. Bulkley attempt to minimize the favorability of the original PISA law in Ameren Missouri's 2021 rate case, Case No. ER-2021-0240?

A. Yes. Although she acknowledged Ameren Missouri's election of PISA reduced regulatory lag, she emphasized in her testimony that Ameren Missouri's statutory mandate to be able to take advantage of PISA expired in 2023, unless the Commission authorized it to be extended to 2028, when it would permanently expire.[37]

[37] Case No. ER-2021-0240, Bulkley Direct, p. 57, ln. 15 – p. 58, ln. 23.

Q. Has Ameren Corp decreased its investment in Ameren Missouri due to the sunset clause?

A. No. As Ms. Bulkley correctly notes, Ameren Corp is investing significant amounts of capital in Ameren Missouri's electric utility system. Ameren Corp is willing to do so at a 9.5% default ROE because this investment increases its shareholder value.

Q. Has Ameren Corp allocated even more capital to Missouri subsequent to the ICC's decision in December 2023 on AIC's multi-year rate plan?

A. Yes. Ameren Corp reallocated capital expenditures it had intended to spend on its AIC systems to Ameren Missouri and ATXI. AIC's projected 5-year CAGR in its electric rate base declined from 7.4% to 2.3% and its projected 5-year CAGR in natural gas distribution rate base growth declined from 6.7% to 3.3%. Ameren Missouri's projected 5-year CAGR in rate base increased to 9.8% from 8.4%. ATXI's 5-year CAGR in rate base increased to 10.8% from 10.0%.[38]

Q. Does the amended PISA law include language acknowledging potential ratemaking consideration (through the allowed return) for business risk changes due to the ability to elect PISA?

A. Yes. SB 764 specifically states the following:

> The commission may take into account any change in business risk to the corporation resulting from implementation of the deferrals in setting the corporation's allowed return in any rate proceeding, in addition to any other changes in business risk experienced by the corporation.

Q. Did Ms. Bulkley give any credit to the changes in the Missouri legislative and regulatory environment in recommending a fair and reasonable ROR for Ameren Missouri?

A. No.

[38] "Transforming for Our Future," Ameren Third Quarter 2023 Earnings Investor Presentation, November 9, 2023; and "Powering a Reliable, Sustainable Tomorrow," Ameren Fourth Quarter 2023 Earnings Investor Presentation, February 23, 2024.

Q. How do you recommend the Commission explicitly consider Ameren Missouri's reduced business risk related to its ability to elect PISA?

A. By setting Ameren Missouri's authorized ratemaking capital structure and corresponding ROR based on capital structure ratios consistent with those targeted and maintained by Ameren Corp.

STAFF'S RECOMMENDED ROE

Q. What is Dr. Won's recommended allowed ROE?

A. Dr. Won recommends an ROE of 9.74%, which is the mid-point of his ROE range of 9.49% to 9.99%.

Q. Can you summarize the analysis Dr. Won performed for purposes of his testimony?

A. Yes. Dr. Won performed a COE analysis using two COE methods/models – a constant-growth DCF and the Capital Asset Pricing Model. Dr. Won's COE estimates using the DCF method were in the range of 7.49% to 9.70%.[39] Dr. Won's COE estimates using the CAPM were in the range of 9.06% to 10.42%.[40] Dr. Won then takes an average of his CAPM and DCF COE results for purposes of determining his final estimated COE range of 8.28% to 10.06%.[41]

Dr. Won also performed a risk premium analysis which he classified as a bond yield plus risk premium ("BYPRP") model. Dr. Won classified his BYPRP method as an "ROE" estimation approach rather than a COE estimation method. Dr. Won's indicated ROE using this approach was in the range of 9.72% to 9.76%.[42]

[39] Won Direct, p. 42, ln. 17 – p. 43, ln. 2.
[40] *Id.,* p. 45, lns. 1-6.
[41] *Id.* p. 47, ln. 13 – p. 48, ln. 2.
[42] *Id.*

Q. What methodology did Dr. Won rely for purposes of developing his recommended ROE?

A. His BYPRP method. He applied a +/- 25 basis point adjustment to his mean indicated ROE of 9.74% to arrive at a range of 9.49% to 9.99%.

Q. When did Dr. Won first introduce this version of his BYPRP approach to directly determine his recommended authorized ROE?

A. Dr. Won introduced this version of his BYPRP in the Evergy Missouri West rate case, Case No. ER-2024-0189.

Q. How had Dr. Won approached his BYPRP analysis before the Evergy Missouri West rate case?

A. Dr. Won added a generic risk premium to a recent utility bond yield to estimate the COE. In this case, Dr. Won performed a regression analysis of bond yields to authorized ROEs from 2014 through early 2024 to determine the impact bond yields had on authorized ROEs.

Q. Is Dr. Won's BYPRP analysis similar to Ms. Bulkley's risk premium approach?

A. Yes. Ms. Bulkley compared authorized ROEs to bond yields. The key differences between her analysis and Dr. Won's analysis is the following:

- Dr. Won regressed authorized ROEs against utility bond yields, whereas Ms. Bulkley used 30-year U.S. Treasury ("UST") yields;
- Dr. Won used data since 2014 whereas Ms. Bulkley used data since 1980;
- Dr. Won analyzed monthly interval data whereas Ms. Bulkley analyzed quarterly interval data.

Q. Do you agree with Dr. Won that this type of risk premium analysis should not be characterized as a COE analysis?

A. Yes. My own COE analysis since at least 2010 has consistently established that authorized ROEs are higher than the COE. I have also consistently and frequently provided corroborating information/analysis from the investment community and from utility companies' internal analysis that corroborate the fact that authorized ROEs are higher than the COE.

Q. Considering such, what does Dr. Won's regression analysis prove about authorized ROEs since 2014?

A. That they are "sticky" as investors often characterize them. Applying Dr. Won's regression equation to the lowest monthly bond yield of 2.77% since 2014 indicates an ROE of 9.6% would be appropriate. Applying the regression equation to the highest bond yield of 6.32% since 2014 indicates an ROE of 9.77% would be appropriate.

Q. Considering the narrow range of only 17 basis points based on Dr. Won's regression analysis, is it logical to recommend an ROE range of 50 basis points?

A. No. The Commission should disregard any ROE above 9.75%. However, considering my 9.5% ROE recommendation is still at least 150 basis points over the COE, I still recommend the Commission adopt my point recommendation.

Q. Although Dr. Won does not appear to rely on some of his higher COE estimates to determine his authorized ROE recommendation, can you address what causes some of his higher COE estimates?

A. Yes. Dr. Won's higher COE estimates are primarily a function of his CAPM analysis. The high-end of Dr. Won's CAPM range is premised on a market risk premium estimate of 6.51%. Dr. Won calculated the high-end of the historical market risk premiums by calculating the annual arithmetic average returns for large company stocks and long-term government bonds and taking the difference of the two. While Dr. Won used the same data source (Stocks, Bonds, Bills and Inflation ("SBBI") published by Kroll, LLC) and period (1926 to 2023) I used in my own CAPM analysis for purposes of his 6.22%

historical risk premium spread, he also relied on historical return data for the period from 1928 to 2023 he retrieved from the website of Dr. Aswath Damadoran, Professor of Finance at the Stern School of Business at New York University.

Q. Does SBBI provide actual market return data for the period 1928 to 2023?

A. Yes. If Dr. Won desired to determine the earned return spreads for the period 1928 to 2023, he did not need to rely on a different source for this period.

Q. Using the SBBI return data for the period 1928 to 2023, what was the arithmetic earned return spread between large-cap stocks and long-term government bonds?

A. 6.36%, which is lower than the 6.8% Dr. Won calculated from the realized return data provided on Dr. Damadoran's website.

Q. What is the primary cause for the difference in the realized return spread between the two sources?

A. The government bond return data available on Dr. Damadoran's website is based on 10-year UST bonds, where the government bond return data provided by SBBI is based on 20-year government bonds.

Q. What was the difference in the arithmetic average annual returns for 20-year UST bonds compared to 10-year UST bonds for the period reviewed by Dr. Won?

A. The arithmetic average total return for 20-year UST bonds was 5.55%, whereas the arithmetic average total return for 10-year UST bonds was 4.86%, a difference of 71 basis points.

Q. Is there anything wrong with determining an earned risk premium spread between large capitalization stocks compared to 10-year UST bonds?

A. No, but if the analyst uses a 10-year UST bond to calculate the historical risk premium, then for purposes of estimating the COE, this historical risk premium should be added to the yield of the same security – 10-year UST bonds.

Q. What tenor of UST bonds did Dr. Won use for the risk-free rate in his CAPM analysis?

A. A 30-year UST bond, which typically trades at higher yields than 10-year UST bonds.

Q. What is a typical spread between 10-year UST notes and 30-year UST bonds?

A. Around 20 basis points based on monthly averages for the 2024 calendar year. Use of the same tenor of UST notes for Dr. Won's CAPM analysis using the 1928 to 2023 annual data on Dr. Damadoran's website would reduce his COE estimates by 20 basis points.

Q. What market risk premium does Dr. Damadoran view as reasonable based on current market conditions?

A. 4.00% to 4.33% over the 10-year UST yield.[43] Based on recent 10-year UST yields, this implies a market COE of approximately 8.3% to 8.6%.

Q. What cost of equity does Dr. Damadoran estimate for the utility industry?

A. 6.28%.[44]

Q. What market risk premium does Kroll, Dr. Won's other data source, consider reasonable based on current market conditions?

A. Kroll considers a 5% market risk premium as reasonable based on current market conditions. Because Kroll evaluates large company stocks as compared to 20-year UST bonds, it applies its recommended market risk premium estimate to a recent 20-year UST bond, unless it is below 3.5%, which Kroll then recommends adding 5% to this rate. Based on recent 20-year UST bond yields of around 4.6%, this implies a market COE of 9.6%.

[43] https://pages.stern.nyu.edu/~adamodar/
[44] *Id.*

Q. Based on these authoritative sources, what is a current reasonable estimate of the market COE?

A. In the range of 8.6% to 9.6%. Applying a typical utility beta of approximately 0.75 to the market risk premium estimates from these authoritative sources indicates a utility industry COE in the range of 7.55% to 8.35%.

Q. What beta does Dr. Won apply to his market risk premium estimates?

A. 0.92.

Q. Why are Dr. Won's beta estimates so high?

A. Dr. Won uses Value Line's published betas, which calculates betas based on 5-years of historical market data. Value Line calculates the covariance of the weekly returns of the company's stock as compared to the weekly returns for the market (Value Line uses New York Stock Exchange Composite Index as a proxy for the market). Therefore, Value Line's published betas capture the abnormal period that occurred at the start of the Covid-19 pandemic in the spring of 2020. As I testified in my direct testimony, if this abnormal period is removed from the beta calculations, this reduces the historical beta to a range of 0.64 to 0.69.

Q. Based on the 5-year historical period from January 10, 2020, through January 10, 2025, what is the historical adjusted beta for Dr. Won's proxy companies?

A. 0.90, which is only slightly lower than the 0.92 beta provided by Value Line.

Q. What is the impact on the beta of Dr. Won's proxy companies if you exclude the first three months of data (January 10, 2020 – April 10, 2020) from the beta calculation?

A. It declines by 0.20 to 0.70. Consequently, if an analyst estimates the utility industry's COE using Value Line betas after the market data at the beginning of Covid-19 drops off the 5-year lookback period, the analysts' COE estimate would decline by 20% of the market risk premium. Based on the low-end and high-end of Dr. Won's market risk premium estimates, this would lower his COE estimates by 0.98% and 1.27%, respectively.

Q. Using Dr. Won's market risk premium estimates, what is the final indicated COE if you changed the beta to 0.70?

A. The CAPM COE would be in the range of approximately 8% to 9%.

SUMMARY AND CONCLUSIONS

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

A. Yes. Ameren Missouri recommends the Commission set its authorized ROR based on an approximate 52% common equity ratio. Ameren Corp is targeting a higher-cost capital structure for Ameren Missouri than it targets for itself on a consolidated basis. Ameren Corp's strategy is to optimize the use of debt at the consolidated level rather than at its subsidiaries. This strategy increases shareholder wealth at ratepayers' expense. Because Ameren Missouri's business risk has declined with its ability to elect PISA, its capital structure should include a higher debt ratio rather than remain static. Instead of managing Ameren Missouri's capital structure to allow Ameren Missouri's ratepayers to receive the benefit of lower costs of capital their rates support, Ameren Corp is retaining the cost of capital savings for shareholders by issuing holding company debt. The Commission should correct this misappropriation of debt capacity by authorizing a lower common equity ratio for purposes of setting Ameren Missouri's ROR.

The Commission should not increase Ameren Missouri's authorized ROE above 9.5%. While I agree with Ms. Bulkley that Ameren Missouri's COE has increased since 2022, I do not agree it is above the previous authorized ROE of 9.5%. As I demonstrated in my capital budget example, Ameren Corp can still create excess] wealth for its shareholders when the COE is below authorized returns. Authorizing an ROE at significant margins over the COE creates inefficient incentives to invest in one jurisdiction over the other. Ameren Corp and its common equity investors already view Missouri as a more investor-friendly jurisdiction compared to Illinois. The Commission should not increase Ameren Missouri's authorized ROE. Otherwise, Missouri runs the risk of overallocation of capital, which is funded at ratepayers' expense.

Staff's recommended allowed ROE is based on its regression of allowed ROEs compared to changes in bond yields. Staff's analysis proves the views of equity analysts – that commissions did not reduce authorized ROEs despite the decline in utility industry's COE. This is not necessarily the fault of commissions because as is clear from this case and previous rate cases during the long-term decline in the cost of capital, ROR witnesses systematically over-estimate the COE. Therefore, Dr. Won's regression analysis highlights the stickiness of authorized ROEs rather than proving that required risk premiums to invest in utility stocks increase as bond yields decrease.

Q. Does this conclude your testimony?

A. Yes.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Adjust Its Revenues for Electric Service	)))	Case No. ER-2024-0319

AFFIDAVIT OF DAVID MURRAY

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

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

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

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

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

David Murray
Utility Regulatory Manager

Subscribed and sworn to me this 16th day of January 2025.

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

Tiffany Hildebrand
Notary Public

My Commission expires August 8, 2027.