Exhibit No. 208

Commission Staff – Exhibit 208
Peter Chari
Rebuttal Testimony
File Nos. ER-2021-0240 & GR-2021-0241

Exhibit No.:	
Issue(s):	*Rate of Return*
Witness:	*Peter Chari*
Sponsoring Party:	*MoPSC Staff*
Type of Exhibit:	*Rebuttal Testimony*
Case No.:	*ER-2021-0240*
Date Testimony Prepared:	*October 15, 2021*

MISSOURI PUBLIC SERVICE COMMISSION

FINANCIAL AND BUSINESS ANALYSIS DIVISION

FINANCIAL ANALYSIS DEPARTMENT

REBUTTAL TESTIMONY

OF

PETER CHARI

UNION ELECTRIC COMPANY
d/b/a Ameren Missouri

CASE NO. ER-2021-0240

Jefferson City, Missouri
October 2021

** Denotes Confidential Information **

TABLE OF CONTENTS OF

REBUTTAL TESTIMONY OF

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d/b/a Ameren Missouri

CASE NO. ER-2021-0240

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Q. Please state your name.

A. My name is Peter Chari.

Q. Are you the same Peter Chari who prepared the Rate of Return Section of Staff's Cost of Service Report ("COS Report"), filed on September 3, 2021?

A. Yes.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to respond to the direct testimonies of Ann E. Bulkley, Darryl T. Sagel and David Murray. Ms. Bulkley sponsored rate of return ("ROR") testimony on behalf of Union Electric Company, d/b/a Ameren Missouri ("Ameren Missouri" or the "Company"). Mr. Sagel sponsored capital structure and ROR testimony for Ameren Missouri. Mr. Murray sponsored ROE, capital structure and ROR testimony on behalf of The Office of the Public Counsel ("OPC"). Staff will address issues related to a fair and reasonable ROR for Ameren Missouri's electric utility rate base for ratemaking purposes in this proceeding.

EXECUTIVE SUMMARY

Q. What disagreements do you have with Ms. Bulkley, Mr. Sagel and Mr. Murray?

A. Staff disagrees with Ms. Bulkley's authorized return on equity ("ROE") recommendation. Staff will address Ms. Bulkley's cost of equity ("COE") and ROE analysis, with particular focus on inputs to her models for estimating the COE. Staff expresses concern with Mr. Sagel's recommended capital structure, a pro forma capital structure as of September 30, 2021. Staff will briefly address Mr. Sagel's explanation of how his pro forma capital structure is achievable. Staff disagrees with Mr. Murray's recommended authorized ROE and capital structure. Staff will address Mr. Murray's unreasonably low authorized ROE with particular focus on how his recommended authorized ROE is inconsistent with evidence indicating that COE increased. Staff will address why Mr. Murray's reasons for recommending Ameren Corp.'s capital structure for Ameren Missouri's ratemaking are baseless. Ameren Corp. is Ameren Missouri's parent company.

COST OF EQUITY ESTIMATES

Q. What methodologies are commonly used to estimate COE and produce authorized ROE recommendations?

A. Financial analysts, in general, and rate of return analysts, in particular, commonly use the Discounted Cash Flow Models ("DCF") and Capital Asset Pricing Models ("CAPM") to estimate COE and recommend authorized ROE. Each methodology has certain inherent disadvantages that may bring in personal bias that may lead to unreasonable estimates. DCF's main disadvantage revolves around the appropriate estimation of the growth rate (an input to the DCF model), and CAPM's main issue is appropriate estimation of market risk premiums ("MRP") (an important input to the CAPM). Because unreasonable inputs to the DCF and CAPM play a major role in producing unreasonable authorized ROEs, it is important that the Commission reject recommendations based upon unreasonable inputs

Rebuttal Testimony of
Peter Chari

that prejudice COE results. The following chart shows each witness' high/low COE and ROE estimates:

Chart 1

Low/High Average COE/ROE Estimates Summary			
Estimation Model	**Murray**	**Chari**	**Bulkley**
DCF			
Low	N/A	6.78%	8.40%
High	N/A	9.33%	9.91%
Average	N/A	8.06%	9.16%
Multi-Stage DCF			
Low	6.50%	N/A	N/A
High	7.00%	N/A	N/A
Average	6.75%	N/A	N/A
CAPM			
Low	6.51%	6.15%	10.92%
High	7.04%	7.75%	12.91%
Average	6.78%	6.95%	11.92%
ECAPM			
Low	N/A	N/A	11.72%
High	N/A	N/A	12.21%
Average	N/A	N/A	11.97%
Risk Premium			
Low	N/A	N/A	9.44%
High	N/A	N/A	9.88%
Average			
Witness Average	6.76%	7.50%	10.67%
Witness Recommended ROE Range	8.50% - 9.25%	9.25% - 9.80%	9.75% - 10.50%
Witness Point ROE Recommendation	9.00%	9.50%	9.90%

Q. Please summarize Ms. Bulkley's estimated COE and resulting recommended authorized ROE.

A. Ms. Bulkley's COE estimates range from 8.40% to 13.15%.[1] She recommended an authorized ROE of 9.90%, from her estimated COEs.[2] Ms. Bulkley recommended a range of 9.75% to 10.50% for her authorized ROE.[3] Ms. Bulkley's COE estimation methodologies include the constant-growth DCF, the CAPM, empirical asset pricing model ("ECAPM") and bond yield-plus risk premium ("BYPRP") model.

[1] Ann E. Bulkley's Direct Testimony, Case No. ER-2021-0240, page 69.
[2] Ibid, page 8.
[3] Ibid.

Q. Please summarize Mr. Murray's estimated COE and resulting recommended authorized ROE.

A. Mr. Murray's COE estimates range from 6.50% to 7.00%. He recommends an authorized ROE of 9.00%, in a range of 8.50% to 9.25%. It is not clear how Mr. Murray arrived at his recommended authorized ROE. It appears however, that Mr. Murray recommended his authorized ROE based on the change in COE from period to period. Mr. Murray's COE estimation methodologies include the multi-stage DCF and CAPM.

Q. Please summarize Staff's COE estimates and the recommended authorized ROE.

A. Staff's COE estimates range from 6.84% to 9.52%, with a mean of 8.29%. Staff recommended an authorized ROE of 9.50%, within a reasonable range of 9.25% to 9.80%. Staff determined its recommended authorized ROE based on change in COE since the Commission authorized The Empire District Electric Company an ROE of 9.25%.[4] Staff relied on the constant-growth DCF model for COE estimation. Staff used the CAPM and Bond Yield-Plus Risk Premium model to check the reasonableness of its DCF COE estimates.

REBUTTAL TO ANN E. BULKLEY'S COE/ROE

Q. What disagreements do you have with Ms. Bulkley?

A. Staff disagrees with Ms. Bulkley on the following issues:

(1) Ms. Bulkley's recommended authorized ROE;

(2) The growth rate Ms. Bulkley used in the DCF model;

(3) The MRP that Ms. Bulkley used in her CAPM and ECAPM models;

(4) The use of the ECAPM models;

[4] Report and Order, Case No. ER-2019-0374, issued on July 1, 2020.

(5) The use of past-authorized ROE in the Bond Yield-Plus Risk Premium; and

(6) The effect of Ameren Missouri's business risk on recommended ROE.

Q. Explain your disagreements with Ms. Bulkley's recommended ROE.

A. Ms. Bulkley's recommended authorized ROE of 9.90% is too high. A recommended authorized ROE of 9.90% is 47 basis points ("bps") higher than the 2021 national average authorized ROE of 9.43%.[5] There were 18 fully litigated electric cases in the U.S. in 2021, of which 15 cases were authorized 9.60% or less.[6] Only three cases featured awarded ROEs in excess of 9.60%, which were limited-issue riders cases in Virginia that were authorized an ROE of 10.20%. Staff considers the 10.20% awarded to Virginia Electric & Power Co. to clearly be an outlier. Ms. Bulkley's recommended authorized ROE is clearly too high when considering the prevailing authorized ROE nationwide. In order for Ameren Missouri to earn a fair return it is important that it is authorized an ROE that is comparable to other utilities, not too high or too low.

Q. Explain your disagreements with Ms. Bulkley's constant-growth DCF growth rates.

A. Ms. Bulkley uses an unreasonably high growth rate in her constant-growth DCF model. Ms. Bulkley assumes, in her constant-growth DCF model, that her electric proxy group's dividends will grow perpetually at an average growth rate of 5.38%,[7] a growth rate that is short-term in horizon, and is about 168[8] bps higher than the estimated long-term growth rate for the general economy. Assuming that businesses, much less the utility businesses included in Ms. Bulkley's electric proxy group, will grow perpetually at the analysts' estimated high

[5] 9.43% is the average of 18 fully-litigated electric cases, as of August 25, reported by Regulatory Research Associates, Inc. ("RRA").
[6] As of August 25, 2021.
[7] Schedule AEB-D2, Attachment 3 in the Direct Testimony of Ann E. Bulkley.
[8] Long-term GDP growth rate is estimated to be 3.70% according to the CBO. 5.38% minus 3.70%.

short-term growth rates is unrealistic. Firstly, the constant-growth DCF assumes a perpetual investment horizon. Analysts' estimated growth rates are valid for growths of five years or less, making them unsuitable for use, exclusively, in the constant-growth DCF. Secondly, assuming that earnings/dividends will perpetually grow at a much higher rate than the general economy (GDP) runs counter to basic economic principles. "A firm cannot in the long term grow at a rate significantly greater than the growth rate in the economy in which it operates."[9] Dr. Roger A. Morin, in his book *New Regulatory Finance,* posits. "It is useful to remember that eventually all company growth rates, especially utility service growth rates, converge to a level consistent with the growth rate of the aggregate economy [GDP growth rate]."[10] Analysts' estimated short-term growth rates are only suitable for use in the constant-growth DCF model when combined with estimated long-term GDP growth rate. A common practice by financial analysts is to average, in varying ways, the analysts' growth estimates with the long-term GDP growth rate forecast. The Federal Energy Regulatory Commission ("FERC") recommends that analysts' growth estimates be combined with long-term GDP growth rate at a ratio of two-thirds analysts' growth rate plus one-third long-term GDP growth rate.[11] Had Ms. Bulkley combined her analysts' short-term growth rates in the same way FERC does it, her estimated growth rate would have been about 4.82%,[12] which is 56 bps lower than her recommended growth rate. High growth rate estimates in the DCF model have the effect of overestimating COE and, consequently, recommended authorized ROE. Substituting Ms. Bulkley's constant-growth DCF growth rate (5.38%) with the 4.82% that Staff recalculated, would lower the upper end of Ms. Bulkley's constant-growth

[9] Investment Valuation, by Aswath Damodaran, page 192.
[10] Roger A. Morin, *New Regulatory Finance* (2006), page 302.
[11] https://www.ferc.gov/whats-new/comm-meet/2019/112119/E-11.pdf, paragraph 134.
[12] 5.38%*(2/3)+3.70%*(1/3).

DCF COE estimates to less than 9.35%[13] from 9.91%, which means that the lower end of Ms. Bulkley's recommended range of authorized ROEs would be about 9.35% at the most. It appears Ms. Bulkley used the upper end of her DCF COE estimates to represent the lower end of her range of reasonableness. It is worth noting that the new lower limit of Ms. Bulkley's recommended authorized ROE falls far below Staff's recommended authorized ROE of 9.50%, and 10 bps above Staff's lower end (9.25%) of its recommended reasonable range of 9.25% to 9.80%. Inflated growth rates in the DCF have a direct impact of producing unreasonably high authorized ROEs and should be rejected.

Q. Explain your disagreements with Ms. Bulkley's MRP.

A. Ms. Bulkley's projected (implied) MRP estimates, ranging from 11.33% to 12.36%, are too high compared to some reputable industry estimates. Aswath Damodaran, a professor of finance at Stern School of Business at New York University and respected authority on equity valuation,[14] estimates an implied MRP of about 4.61%, as of September 1, 2021.[15] Professor Damodaran also estimates an implied MRP, adjusted for the effects of the coronavirus ("COVID-19"), of 4.70%.[16] Duff and Phelps, a respected financial consultancy firm, currently recommends an MRP of 5.50%, as of December 2020. Staff used an MRP of 5.35%, which is an average of arithmetic and geometric market risk premiums (4.60% to 6.10%) calculated as the difference between long-term total returns (10.3% and 12.2%, for geometric and arithmetic, respectively) on large company stocks and total returns (5.7% and 6.1%, for geometric and arithmetic, respectively) on long-term government bonds.[17]

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[13] For lower COE – 8.40% minus 56 bps. For higher COE – 9.91% minus 56 bps.
[14] https://www.bloomberg.com/news/videos/2021-07-16/markets-dangerously-high-given-inflation-aswath-damodaran-video.
[15] https://pages.stern.nyu.edu/~adamodar/.
[16] Ibid.
[17] Duff & Phelps, Cost of Capital Navigator: U.S Cost of Capital Module, page 1.

Given that the reasonable MRPs, according to the foregoing evidence, range from 4.60% to 6.10%, Ms. Bulkley's implied MRPs ranging from 11.33% to 12.36% are too high, inconsistent with industry averages and, therefore, unreasonable. MRPs that are too high have a direct result of inflating COE/ROE estimates and it is no wonder why Ms. Bulkley's authorized ROE recommendation are too high.

Staff took a closer look at how Ms. Bulkley calculated her estimated MRP using the constant-growth DFC model and discovered three significant flaws that led to her unreasonably high MRPs. Ms. Bulkley calculated her MRP as the difference between estimated market return on the S&P 500 index and the risk-free rate.[18] She used three risk-free rates, 1.77% (current 30-day average of 30-year U.S. Treasury bond), 2.06% (near-term projected 30-year U.S. Treasury bond yield for years 2021 to 2022) and 2.80% (another projected 30-year U.S. Treasury bond yield for years 2022 to 2026).

The first significant flaw in Ms. Bulkley's calculation is that she included some companies from the S&P 500 Index that do not pay dividends or did not have dividend yield information in her constant-growth DCF model. The constant-growth DCF model assumes dividend payment which means that companies that do not pay dividends or do not have dividend information cannot be used in the constant-growth DCF model.[19] Staff found 92 companies, including Alphabet, Inc., Facebook and Netflix, that do not pay dividends, but are nonetheless included in Ms. Bulkley's S&P 500 group of companies used to estimate the expected market return.[20] The second significant flaw in Ms. Bulkley's constant-growth DCF model is that she included companies with negative growth rates and companies with

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[18] Ann E. Bulkley Direct Testimony, Case No. ER-2021-0240, page 45.
[19] https://www.investopedia.com/terms/d/ddm.asp and https://www.ferc.gov/sites/default/files/2020-06/EL14-12-004_1.pdf, page 5.
[20] See Chari's Workpapers.

growth rates of over 20%. Companies that have unusual growth rates such as negative growth rates or growth rates above 20% are considered highly unsustainable and unrepresentative of the growth rates of the companies in the electric proxy group.[21] The third significant flaw in Ms. Bulkley's calculation is that she, just like in her constant-growth DCF model described earlier, used short-term growth rates without appropriate consideration of the long-term growth rates. Recalculating the constant-growth DCF market return, adjusting for the three aforementioned significant flaws, changes Ms. Bulkley's estimated market return from 14.13% to 9.43%.[22] Using the 9.43% expected market return changes Ms. Bulkley's MRP and COE estimates as shown in the chart below:

Chart 2[23]

	CAPM		ECAPM	
	Unadjusted	Adjusted	Unadjusted	Adjusted
Expected Market Return	14.13%	9.43%	14.13%	9.43%
MRP	11.33% - 12.36%	6.63% - 7.66%	11.33% - 12.36%	6.63% - 7.66%
Mean COE Estimate	11.82% - 12.91%	8.00% - 8.89%	12.40% - 13.21%	8.36% - 8.89%

Notice that if Ms. Bulkley had calculated her MRPs the correct way, her CAPM COE estimates would range from 8.00% to 8.89%, not 11.82% to 12.91%. Her ECAPM COE estimates would range from 8.36% to 8.89%, not 12.40% to 13.21%. I will address additional issues with Ms. Bulkley's ECAPM model results later. The unreasonable MRPs used in Ms. Bulkley's CAPM clearly led to overestimation of her COE and subsequently, her recommended authorized ROE.

[21] Ibid, page 35.
[22] Chari's Workpapers.
[23] Chari's Rebuttal Workpapers.

Q. Has any utility regulatory commission ruled on the proper way of estimating total market return using the constant-growth growth DCF?

A. Yes. FERC, in Opinion 569, reaffirmed its position that only dividend-paying companies are to be included in the constant-growth DCF ex-ante MRP method, noting that DCF analysis can only be performed on companies that pay dividends.[24]

Q. How does the recalculated expected market return compare with historical market return?

A. The recalculated expected market return of 9.43% is close to the historical market return estimates. The average market return since 1928, calculated as the geometric mean of returns on the S&P 500, is 9.79%.[25] Between 1926 and 2020, the geometric mean return on large cap stocks as calculated by Ibottson's Stock, Bonds, Bills and Inflation ("SBBI") is about 10.30%.[26] Considering that the market returns that Staff cited do not exceed the long-term historical market return of 10.30%, Ms. Bulkley's expected market return of 14.13% is not reasonable.

Q. Ms. Bulkley justifies her too high, 14.13%, constant-growth DCF expected market return by citing realized historical market returns that were as high as the 14.13% expected market return estimate she estimated.[27] Do the historical figures Ms. Bulkley cite provide valid justification for the use of the 14.13%?

A. No. Ms. Bulkley errs when she selects a few examples of realized U.S. equity returns between 1926 and 2019, for comparison with her estimated long-term expected market return.[28] Her comparison seems to be a classical 'apples to oranges' comparison. For a proper

[24] FERC Opinion 569 page 126.
[25] Estimated by Aswath Damodaran.
[26] https://costofcapital.duffandphelps.com/4c1d9b5e-92d5-4b42-b1c7-ce153467cbb0.
[27] Bulkley Direct Testimony, ER-2021-0240, page 45.
[28] Ibid, page 46.

comparison, Ms. Bulkley should focus on the historical long-term average market return as of the same point in time of her estimation for her expected market return. The correct historical long-term average market return Ms. Bulkley should compare to is 10.3%, calculated as the total return on large company stocks since 1926.[29] Looking back in history for instances of realized high equity market returns as justification for using the 14.13% expected market return does not give proper perspective on reasonable expected market return. There have been instances in the same period (1926 to 2019) when market returns were negative, sometimes as low as -29.72% and -38.49% in 1974 and 2008, respectively. The few instances when market returns were negative would theoretically mean that market risk premiums were negative. Staff does not think Ms. Bulkley would ever consider negative MRPs in her analysis. It is clear that her 14.13% expected market return is too high and unreasonable. Staff recommends the Commission reject Ms. Bulkley's use of unreasonable MRPs as it led to a unreasonably high recommended authorized ROE.

Q. What issues do you have with Ms. Bulkley's ECAPM?

A. Ms. Bulkley uses the same flawed ex-ante MRPs in her ECAPM that she used in the CAPM, resulting in an inflated COE estimate. Furthermore, Ms. Bulkley's purported ECAPM calculation simply inputs numbers into Dr. Morin's ECAPM formula that Dr. Morin derived using market data from the period between 1926 and 1984.[30] Dr. Morin's finding was based on his finding that the regular CAPM underestimated returns by about 2.00%. However, Dr. Morin also cited other studies that found that the CAPM alpha of returns were between -9.61% and 13.56%, meaning that the CAPM actually overestimated returns in some

[29] 10.3% is the Geometrical Mean return calculated in the Ibottson's Stock, Bonds, Bills and Inflation ("SBBI") between the 1926 and 2020.
[30] Morin, *New Regulatory Finance,* page 190.

instances.[31] Such variations in findings do not lend credibility to Ms. Bulkley's use of the ECAPM; therefore, the Commission should disregard the results of the ECAPM.

Q. What disagreements do you have with Ms. Bulkley's Bond Yield-Plus Risk Premium?

A. Staff does not have significant disagreements with Ms. Bulkley's BYPRP model, results because her COE estimates, to a large extent, support Staff's recommended authorized ROE. Ms. Bulkley's BYPRP COE estimates range from 9.44% to 9.88% with a mean COE of 9.66%, well within Staff's zone of reasonableness. Staff only expresses concern with Ms. Bulkley's use of past-authorized ROEs in the calculation of the risk premium used in Ms. Bulkley's BYPRP model because past-authorized ROEs are not market-based, and their use introduces circularity into ratemaking.

Q. What does Staff have to say about Ms. Bulkley's position that Ameren Missouri deserves an authorized ROE above that of its proxy group because of its elevated business risk?[32]

A. Staff rejects Ms. Bulkley's position on this point as baseless. While Staff acknowledges that Ameren Missouri has a higher projected capital expenditure plan than most of its peers, and faces regulatory risk that is different from its peers, there is no evidence that Ameren Missouri faces, relatively, a business risk that is substantially worse than its peers to warrant a higher authorized ROE. Ms. Bulkley argues that Ameren Missouri's higher expected capital expenditure plan than most of its peers, in turn increases its business risk higher than its peers.[33] Ms. Bulkley also argues that Ameren Missouri does not have adequate cost recovery

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[31] Ibid.
[32] Ms. Bulkley's Direct Testimony, Case No. ER-2021-0240, page 59.
[33] Ibid, page 53.

mechanism as compared to its peers; which causes Ameren Missouri to have higher regulatory risk than its peers.[34]

Q. Does Ameren Missouri's high expected capital expenditure plan raise any concern about cost recovery (raised business risk), any more than its peers?

A. No. Ameren Missouri has various cost recovery mechanisms that are comparable to companies in its proxy group. As Ms. Bulkley pointed out, Ameren Missouri has the Plant In Service Accounting ("PISA") mechanism and the Renewable Energy Standard Rate Adjustment Mechanism ("RESRAM"), and fuel adjustment clauses that puts it on par (about 81.5% companies in the proxy group have similar riders and clauses) with many companies in Ameren Missouri's proxy group.[35] Ratings agencies such as S&P Global Ratings commented on the improved regulatory environment in Missouri when it said "company's [Ameren Missouri] regulatory construct in Missouri provides multiple avenues for cost recovery."[36] Please see the Rebuttal Testimony of Staff expert John P. Cassidy for more on Ameren Missouri's cost recovery mechanisms. As Ms. Bulkley pointed out in her testimony, companies in Ameren Missouri's proxy group have implemented a number of adjustment clauses comparable to what Ameren Missouri has implemented in one form or the other.[37] While differences exist in the cost recovery mechanisms that Ameren Missouri implemented as compared to the companies in the proxy group, there is no evidence that such differences amounted to substantial differences in overall business risk.

Q. Please provide evidence that Ameren Missouri does not face business risk that is substantially worse than that of the companies in its proxy group.

[34] Ibid, page 64.
[35] Ann E. Bulkley's Direct Testimony, Case No. ER-2021-0240, page 64.
[36] S&P Global Ratings, April 30, 2021, page 3.
[37] Ann E. Bulkley's Direct Testimony, Case No. ER-2021-0240, page 65.

A. Staff looked at ratings agencies' classification of Ameren Missouri's business risk, and the valuation of Ameren Missouri (Ameren Corp.) by the stock market, in order to provide evidence that Ameren Missouri does not deserve to be authorized an ROE that is above that of its peers. As of April 30, 2021, S&P Global Ratings classifies Ameren Missouri's business risk profile as 'Excellent'. An 'Excellent' business risk profile is the highest classification by S&P Global Ratings. S&P Global Ratings noted in its opinion on April 30, 2021 that, "Our assessment of AM's [Ameren Missouri] business risk is supported by a regulatory framework based on historical test-year ratemaking and constructive trackers and riders."[38] To the extent that Ameren Missouri is classified as 'Excellent', the highest classification clearly indicates that Ameren Missouri's business risk is not substantially different from its peers. Any minor differences in cost recovery mechanisms that Ameren Missouri has do not amount to any discernible difference in business risk, that warrant giving Ameren Missouri an authorized ROE above its proxy group.

Ameren Missouri, through its parent company, Ameren Corp., enjoys valuations, as measured by price to earnings ratio ("PE ratio"), that are higher than the average of its proxy group on the stock market. The PE ratio indicates how much an investor is willing to pay per dollar of a company's earnings. A higher PE ratio shows that investors are willing to pay a higher share price today because of growth expectations in the future.[39] In other words, stocks with high PE ratios, usually have greater future growth prospects.[40] A higher business risk in a company normally reduces growth prospects and consequently, reduces PE ratios. The following chart shows the PE ratios of Ameren Corp. and other companies in the proxy group:

[38] S&P Global Ratings, April 30, 2021, page 7.
[39] https://www.investopedia.com/investing/use-pe-ratio-and-peg-to-tell-stocks-future/.
[40] http://news.morningstar.com/classroom2/course.asp?docId=145100&page=5.

	PE Ratios As of January 2020	PE Ratios As of September 2020	PE Ratios As of January 2021	PE Ratios As of September 2021
Alliant Energy Corporation	20.48	18.16	17.74	20.79
Ameren Corporation	19.01	17.99	17.88	20.36
American Electric Power Company, Inc.	18.83	15.12	15.71	16.85
Avista Corporation	20.29	15.13	17.14	17.56
CMS Energy Corporation	20.38	18.65	18.47	20.86
Duke Energy Corporation	15.99	14.10	16.17	18.07
Evergy, Inc.	18.65	14.13	15.24	18.00
IDACORP, Inc.	NA	NA	18.22	20.62
NorthWestern Corporation	18.67	12.55	14.80	16.43
OGE Energy Corp.	16.93	12.49	13.33	15.86
Pinnacle West Capital Corporation	16.70	12.64	14.38	15.07
PNM Resources, Inc.	19.78	15.41	18.53	19.18
Portland General Electric Company	20.21	12.62	15.16	17.50
The Southern Company	18.03	13.82	16.25	17.69
Xcel Energy Inc.	20.19	20.67	19.90	20.15
Average	**18.87**	**15.25**	**16.59**	**18.33**

As you can see in the chart above, Ameren Corp.'s PE ratios are well above the average (better than about 10 out of 15 utilities in the Staff's electric proxy group). If Ameren Missouri (Ameren Corp.) was perceived to have a higher business risk than its peers, its stock would not be performing well, let alone better than most of its peers. Ameren Missouri's higher valuation than most of companies in its proxy group is enough evidence that investors do not perceive Ameren Missouri as any riskier than its peers. The evidence here is strong against Ms. Bulkley's claim that Ameren Missouri faces higher business risk than its peers; therefore, there is no basis for awarding Ameren Missouri an authorized ROE higher than its proxy group.

REBUTTAL TO DAVID MURRAY'S ROE TESTIMONY

Q. Please explain your disagreement with Mr. Murray's recommended authorized ROE.

A. Mr. Murray's recommended authorized ROE of 9.00% is too low for Ameren Missouri's electric operations and is not supported by the evidence that COE increased since the period the Commission authorized Empire District Electric Company ("Empire") an ROE of 9.25%. A recommended authorized ROE of 9.00% is about 43 bps lower than the 2021 national average authorized ROE of 9.43%.[41] As Staff stated in the Direct Testimony, COE has increased since the Commission authorized an ROE of 9.25% for Empire,[42] which even Mr. Murray acknowledged in his Direct Testimony.[43] Since evidence shows that COE increased since the period that the Commission authorized Empire an ROE of 9.25%, it only makes sense that Ameren Missouri's authorized ROE should be increased above 9.25%, not decreased below 9.25%.

Q. Please explain how Mr. Murray's analysis show that COE increased since the Commission authorized Empire an ROE of 9.25%.

A. Staff compared Mr. Murray's COE estimates for the Empire rate case in 2019/2020 to the COE estimates in the current rate case and found that Mr. Murray's analysis shows that COE increased by up to 49 bps as Staff explains here. Mr. Murray's multi-stage DCF COE estimate in the current rate case is an average of 7.33%, compared to an average of 7.22% that Mr. Murray estimated in the Empire rate case, an increase in COE of 11 bps.[44] Staff refined Mr. Murray's proxy group to exclude PG&E, because PG&E was going through bankruptcy at the time Mr. Murray presented testimony in the Empire rate case.[45] Staff removed PG&E from both the proxy group that Mr. Murray used for Empire's analysis and the

[41] 9.43% is the average of 18 fully-litigated electric cases, as of August 25, reported by RRA.
[42] Staff's Cost of Service Report, ER-2021-0240, page 8, line 21.
[43] David Murray's Direct Testimony, Case No. ER-2021-0240, page 2, lines 14 to 18.
[44] David Murray's Direct Testimony, Case No. ER-2021-0240, Schedule DM-D-3-1 and Schedule dm-d-6.
[45] https://www.nytimes.com/2020/07/01/business/energy-environment/pge-bankruptcy-ends.html#:~:text=PG%26E%20sought%20bankruptcy%20protection%20in,destroyed%20the%20town%20of%20Paradise.

proxy group in the current rate case (Ameren Missouri) and found that COE increased by up to 49 bps.[46] It is important to note that an increase in COE of up 49 bps compares to Staff's analysis which shows that COE increased by up to 55 bps.[47] It is therefore problematic that Mr. Murray would recommend an authorized ROE that is not only too low as compared to the national average but also an authorized ROE that is lower than what the Commission authorized Empire in 2020.

Q. Mr. Murray mentioned the lower ROE allowed for Ameren Illinois electric utility operations as evidence that COE declined.[48] Do you agree with Mr. Murray's evidence?

A. No, I do not. Illinois uses a performance-based formula rate[49] for determination of authorized ROE that focuses mainly on interest rates as the main determinant of COE. While interest rates affect COE, interest rates are not the only determinant of COE, as other variables such as business risk also play a role in determining COE. Focusing only on interest rates sometimes yields COE results that are unreasonable. Case in point, the Illinois ROE formula (average 30-year United States Treasury yield of 1.91% plus a 580 bps risk premium) currently indicates an ROE of 7.71%% for Ameren Illinois; an ROE that is 129 bps lower than the lowest (9.00%) authorized in the U.S. for 2021, and 172 bps lower than the average (9.43%) authorized ROE in 2021. Mr. Murray acknowledged the unreasonableness of the authorized ROE indicated for Ameren Illinois as per the Illinois ROE formula when he pointed out that the currently indicated authorized ROE for Ameren Illinois is too low.[50] Another factor that affects COE such as business risk, as indicated by elevated beta coefficients, is higher currently than was the

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[46] See Staff's adjustments of Mr. Murray's schedules DM-D-3-1 (Case No. ER-2021-0240) and dm-d-6 (Case No. ER-2019-0374).
[47] Staff's Cost of Service Report, ER-2021-0240, page 8, line 21.
[48] David Murray's Direct Testimony, Case No. ER-2021-0240, page 2, lines 18 and 19.
[49] https://pubs.naruc.org/pub.cfm?id=E3E6B3FC-C487-1876-7749-9BD5AEA07AC7, Average 30-year United States Treasury yield of 1.91% plus a 580 bps risk premium.
[50] Ibid, page 2, lines 25 to 27.

case during the prior Empire District Electric rate case, which justifies higher authorized ROEs.[51] Other factors such as the current high expected level of inflation, as explained by Staff in its direct testimony, justify a higher authorized ROE than the 9.25% authorized for Empire in 2020. Looking at the totality of all the evidence indicates that COE increased and so the authorized ROE must increase as well.

CAPITAL STRUCTURE

REBUTTAL TO DARRYL T. SAGEL'S CAPITAL STRUCTURE RECOMMENDATION

Q. Please explain your concerns with Mr. Sagel's recommended capital structure.

A. Mr. Sagel's recommended capital structure for Ameren Missouri, the pro forma capital structure as of September 30, 2021, is not sufficiently justified. Staff analyzed Ameren Missouri's per book capital structure as of June 30, 2021, and its recommended pro forma capital structure as of the true-up date of September 30, 2021. The capital structure as of June 30, 2021, is composed of 50.32% common equity, 48.92% long-term debt and 0.75% preferred stock. Mr. Sagel's recommended capital structure as of September 30, 2021, is composed of 51.93% common equity, 47.34% long-term debt and 0.73% preferred stock.[52] Staff sought to understand why the two capital structures differ substantially and how Mr. Sagel expects the capital structures will be reconciled by September 30, 2021 (the true-up date). Mr. Sagel explained that the difference between the June 30, 2021, and September 30, 2021, capital structures was " ** [redacted] **."[53] Mr. Sagel added, to explain how the equity ratio will be raised to

[51] During the Empire rate case, beta coefficients were around 0.55, compared to about 0.88 currently.
[52] Darryl T. Sagel's Direct Testimony, Case No. ER-2021-0240, page 11.
[53] Response to Staff Data Request No. 0651.

the 'typical levels' [or to 51.93%], that "** [redacted] **."[54] Given that Ameren Missouri is yet to update its capital structure with actual data as of true-up date of September 30, 2021, Staff will save its detailed discussion on its concerns for later filings. As of now, Staff continues to recommend the June 30, 2021, capital structure composed of 50.32% common equity, 48.92% long-term debt and 0.75% preferred stock.

REBUTTAL TO DAVID MURRAY'S CAPITAL STRUCTURE RECOMMENDATION

Q. Please explain your disagreements with Mr. Murray's capital structure.

A. Although Staff acknowledges some of the concerns that Mr. Murray raised about Ameren Missouri's capital structure being structured and targeted for ratemaking, Staff disagrees with Mr. Murray's recommendation that Ameren Corp.'s capital structure be used to set Ameren Missouri's ROR. As Staff already explained in its direct testimony, Ameren Missouri's standalone capital structure represents the capital structure used by Ameren Missouri to finance its rate base. Except for equity and some short-term debt issuances, Ameren Missouri raises its own capital to finance its rate base.[55] Rating agencies acknowledge the fact that Ameren Missouri has its own capital structure by highlighting Ameren Missouri's capital in their credit ratings opinion.[56]

Q. Mr. Murray justifies his recommendation of Ameren Corp.'s capital structure for the ratemaking of Ameren Missouri by arguing that Ameren Corp.'s capital structure

[54] Ibid.
[55] Response to Staff Data Request No. 0328.
[56] RatingDirect®, S&P Global Ratings, Union Electric Co. d/b/a/ Ameren Missouri, April 30, 2021.

represents the amount of debt capacity Ameren Corp. considers reasonable and appropriate for its regulated utility assets, including Ameren Missouri.[57] Do you agree that Ameren Missouri's capital structure should match Ameren Corp.'s capital structure?

A. No, I do not agree. Mr. Murray's argument fails to appreciate that Ameren Corp. and Ameren Missouri are two different entities, which have different investment obligations. Ameren Corp., as the parent company of Ameren Missouri, has other subsidiary utilities such as Ameren Illinois and Ameren Transmission Company of Illinois ("ATXI"), which require funding from Ameren Corp. for their various projects. Mr. Murray quotes, on page 39 of his direct testimony, Ameren Corp.'s position that Ameren Corp. borrows short-term and long-term debt to invest in Ameren Illinois and ATXI, but does not do the same for Ameren Missouri.[58] Mr. Murray does not dispute Ameren Corp.'s position that it does not borrow money to invest in Ameren Missouri. Clearly, from the point of view that Ameren Corp. and Ameren Missouri have different investment obligations, it is reasonable that their capital structures would be different. Besides having different investment obligations, Ameren Corp. and Ameren Missouri have different conditions to fulfill to the rating agencies, in order to maintain their credit worthiness. According to S&P Ratings, as of September 16, 2021, Ameren Missouri's credit rating is BBB+ with "Excellent" business risk profile ("BRF") and "Significant" financial risk profile ("FRP").[59] Mr. Murray's argument that Ameren Missouri should have an equity ratio of about 45% (corresponding debt ratio of about 55%) might mean that Ameren Missouri's FRP would worsen and jeopardize its current credit ratings, and subsequently lead to an increase in its cost of capital. Staff does not think that Mr. Murray intends, by forcing Ameren Missouri

[57] David Murray's Direct Testimony, Case No. ER-2021-0240, page 30.
[58] Ibid, page 39.
[59] RatingDirect®, S&P Global Ratings, Union Electric Co., d/b/a/ Ameren Missouri, April 30, 2021.

to increase its debt ratio to about 55%, to impair Ameren Missouri's credit ratings and subsequently, increase its cost of capital, but his position might accomplish just that.

COST OF DEBT

Q. Do the parties agree on the appropriate cost of debt for purposes of determining a fair and reasonable allowed ROR to apply to Ameren Missouri's rate base?

A. No. Mr. Sagel recommends a cost of debt of 3.85% based on projected debt values as of September 30, 2021.[60] Mr. Murray recommends a cost of debt of 3.95% based on an adjustment to Ameren Missouri's embedded cost of debt of 3.911% as of June 30, 2021,[61] to reflect reallocation of $626.7 million of debt to equity.[62] Staff recommends an embedded cost of debt of 3.91%, based on data as of June 30, 2021.[63]

Q. Do you agree with agree with Mr. Sagel's recommended cost of debt for Ameren Missouri?

A. Staff does not have major disagreements with Mr. Sagel's recommended cost of debt as we both use the same methodology to calculate the debt cost. The only difference between Staff's recommended cost of debt and Mr. Sagel's recommended cost of debt is that Mr. Sagel bases his calculation on projected data. Staff will wait for Ameren Missouri to update its data to see if any changes to cost debt are necessary. At this moment, the appropriate cost of debt to use for setting Ameren Missouri's ROR is the embedded cost of debt (3.91%) as of June 30, 2021.

[60] Darryl T. Sagel's Direct Testimony, Case No. ER-2021-0240, page 14.
[61] David Murray's Direct Testimony, Case No. ER-2021-0240, schedule DM-D-8.
[62] David Murray's Direct Testimony, page 41.
[63] Response to Staff Data Request No. 0114.

Q. Do you agree with Mr. Murray's proposed cost of debt for Ameren Missouri?

A. No. Staff disagrees with Mr. Murray's adjusted cost of debt to reflect the imputation of long-term debt of $626.7 million to Ameren Missouri's capital structure.[64] For the debt cost of the $626.7 million long-term debt, Mr. Murray used a weighted average cost of 2.88% based on Ameren Missouri's issuance of 30-year, 2.65% debt on October 2020 and 10-year, 2.95% debt on March 20, 2020.[65] Staff is of the position that the debt cost appropriate for Ameren Missouri is the debt cost (3.91%) that matches Ameren Missouri's capital structure as June 30, 2021.

SUMMARY AND CONCLUSIONS

Q. What should the Commission consider in deciding the reasonable ROE and capital structure for setting Ameren Missouri's ROR?

A. Staff recommends the Commission reject Ms. Bulkley's unreasonably high inputs to the DCF and CAPM models, and ignore her recommended ECAPM model results altogether. Staff recommends the Commission reject Mr. Murray's unreasonably low ROE recommendation because it is inconsistent with the evidence that cost of equity increased. Considering reasonable inputs into Staff's COE estimation models, the clear evidence that COE has increased since the Commission authorized Empire an ROE of 9.25%, and the moderating market risk, provide sufficient support for an authorized ROE of 9.50% for Ameren Missouri in this proceeding. In respect to capital structure, Staff recommends the Commission consider Ameren Missouri to be a standalone entity with investment obligations different from Ameren Corp.'s; which means that Ameren Missouri and Ameren Corp. would not be expected to have

[64] Mr. Murray

[65] David Murray's Direct Testimony, page 41.

similar capital structures. Staff recommends that the Commission reject Mr. Murray's baseless argument that Ameren Corp. is taking advantage of Ameren Missouri's debt capacity.

Q. Does this conclude your rebuttal 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-2021-0240

AFFIDAVIT OF PETER CHARI

STATE OF MISSOURI COUNTY OF COLE	)))	ss.

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

Further the Affiant sayeth not.

PETER CHARI

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 October 2021.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: April 04, 2025
Commission Number: 12412070

D Suzie Mankin
Notary Public