Exhibit No.:	_____
Issue(s):	Rate of Return (ROR)/ Return on Equity (ROE)/ Capital Structure
Witness/Type of Exhibit:	Murray/Direct
Sponsoring Party:	Public Counsel
Case No.:	GR-2021-0241

DIRECT TESTIMONY

OF

DAVID MURRAY

Submitted on Behalf of the Office of the Public Counsel

UNION ELECTRIC COMPANY
D/B/A AMEREN MISSOURI

FILE NO. GR-2021-0241

** **

Denotes Confidential Information that has been Redacted

September 3, 2021

PUBLIC

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Union Electric Company d/b/a Ameren Missouri's Tariffs to Increase its Revenues for Gas Service	)))))	Case No. GR-2021-0241

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 direct 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 3rd day of September 2021.

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI

TIFFANY HILDEBRAND
My Commission Expires
August 8, 2023
Cole County
Commission #15637121

Tiffany Hildebrand
Notary Public

My Commission expires August 8, 2023.

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DIRECT TESTIMONY

OF

DAVID MURRAY

UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI

FILE NO. GR-2021-0241

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. By whom are you employed and in what capacity?

A. I am employed by the Missouri Office of the Public Counsel ("OPC") as a Utility Regulatory Manager.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of the OPC.

Q. What it the purpose of your testimony?

A. To recommend a fair and reasonable rate of return ("ROR") for purposes of setting Ameren Missouri's revenue requirement for its natural gas distribution utility operations.

Q. What experience, knowledge and education qualify you to sponsor ROR testimony in this case?

A. Please see the attached Schedule 1 for my qualifications as well as a summary of the cases in which I have sponsored testimony on ROR and other financial issues.

Q. What aspects of ROR will you address?

A. I will address a fair and reasonable allowed return on common equity ("ROE") and a fair and reasonable capital structure.

Q. What is your main conclusion after analyzing Ameren Missouri's specific financial situation as well as the current state of capital markets?

A. Ameren Missouri's allowed ROE for its gas distribution operations should be set at 9.25%, but at the very least no higher than 9.5% considering local gas distribution companies ("LDCs") have recently traded at a discount to electric utility companies. Ameren Missouri's authorized common equity ratio should be more consistent with Ameren Corp.'s actual consolidated common equity ratios, which have been around 45% recently after excluding short-term debt.

Q. Before you discuss the details supporting your analysis, can you summarize the rationale for your conclusions?

A. Yes. Although capital structure and the allowed ROE are interrelated as to the ultimate impact on Ameren Missouri's revenue requirement, I will first briefly explain my rationale for each component, separately.

I recommend that the Commission set Ameren Missouri's allowed ROE for its gas distribution operations at 9.25%, which is consistent with The Empire District Electric Company's ("Empire") authorized ROE. Although utility industry capital market conditions indicate an increase in the cost of common equity ("COE") since the Commission set Empire's ROE at 9.25%, the COE for regulated electric and local natural gas distribution utilities (LDCs) is still lower at approximately 6.5% to 7.0%. Setting Ameren Missouri's authorized ROE for its natural gas distribution operation at approximately 9.25% allows it to fairly compensate Ameren for its investment in the Ameren Missouri gas distribution system. However, due to the fact that LDC stocks had been trading at a discount to electric utilities, I consider an authorized ROE of as high as 9.5% as reasonable for this case. Although my recommended ROE allows Ameren Corp to create value for its shareholders through investment in Ameren Missouri's gas distribution operations, it should be noted that because the Illinois Commerce Commission ("ICC") authorized a 9.67% ROE in its 2020 rate case, Docket No. D-20-0308, Ameren Corp will have more incentive to invest in its Ameren Illinois gas distribution operations,

especially since this higher authorized ROE was applied to an unreasonable 52% common equity ratio.

Although there has been speculation that long-term interest rates will increase, causing utilities' cost of capital to increase, this simply hasn't happened. In fact, post the onset of the COVID-19 pandemic, utility bond yields declined even further than they had prior to the onset of the COVID-19 pandemic. There is no reason to set Ameren Missouri's ROE higher based on speculation that long-term interest rates will increase considering they have been in an overall declining trend over the past decade. This "lower for longer" interest rate environment allows utility companies, such as Ameren Missouri, to continue to raise capital at low costs. This reduces Ameren Missouri's cost of service.

I recommend that the Commission set Ameren Missouri's authorized common equity ratio at 45% rather than the 52% ratio Ameren Corporation ("Ameren Corp") has been targeting for Ameren Missouri over the last several rate cases. Ameren Missouri's business risk profile declined after Missouri passed Senate Bill ("SB") 564, which allowed Ameren Missouri to elect, in September 2018, an investor-friendly ratemaking mechanism referred to as plant in service accounting ("PISA") for its electric utility operations.[1] Additionally, in its 2019 gas rate case, Case No. GR-2019-0077, Ameren Missouri was allowed a mechanism referred to as the Volume Indifference Recognition to Normal ("VIRN"), which reduced the business-risk profile for Ameren Missouri's natural gas distribution operations. Ameren Missouri's reduced business risk profile allows for greater debt capacity, as Moody's directly acknowledged in response to the availability of the PISA mechanism when it relaxed the benchmark credit metrics it requires for Ameren Corp to maintain its current credit rating. However, the reduced cost of capital afforded by such higher debt capacity is not being shared with Ameren Missouri's customers. Rather, Ameren Corp is managing Ameren Missouri's capital structure for purposes of maintaining a higher ROR for ratemaking rather than achieving a lower cost of capital. Ameren Corp has been and continues to misappropriate Ameren Missouri's higher debt capacity to

[1] SB 564 resulted in the creation/modification of several Sections of Chapter 393 with the primary new subsection being Section 393.1400, RSMo.

Ameren Corp, which benefits Ameren Corp's shareholders at the expense of Ameren Missouri's ratepayers. The Commission can rectify this unfair transfer of Ameren Missouri's debt capacity to Ameren Corp by authorizing Ameren Missouri a common equity ratio consistent with Ameren Corp's on a consolidated basis.

Q. Did you take any other matters into consideration when determining a fair and reasonable allowed ROE to apply to your recommended capital structure?

A. Yes. I recognize that Ameren Missouri has affiliates that compete with it for capital. In my opinion, Ameren Corp should choose projects between Ameren Illinois' natural gas distribution utility operations and Ameren Missouri's natural gas distribution utility operations based on economic efficiency rather than which jurisdiction awards the highest ROR. The Commission would have to award Ameren Missouri's natural gas distribution system a 10.85% ROE, applied to my recommended 45% equity ratio, in order to offer a similar allowed ROR as the ICC authorized Ameren Illinois for its gas distribution utility. The ICC authorized a 9.67% ROE applied to a 52% equity ratio. Therefore, in order to generate a similar authorized ROR based on my lower recommended common equity ratio, the ROE would have to be increased to achieve parity. Therefore, an authorized ROE below 10.85% makes Ameren Missouri's natural gas distribution's capital projects less attractive, from a shareholder perspective, to Ameren Corp than Ameren Illinois' natural gas distribution's utility capital projects.

As I note in the testimony I am concurrently filing in the Ameren Missouri electric rate case, my recommended ROE for Ameren Missouri's electric utility rate case will result in a higher ROR offered by Ameren Missouri's electric utility projects as compared to Ameren Illinois' electric utility projects.[2] Therefore, although I recognize my recommended ROR for Ameren Missouri's gas distribution operations is not at parity with that authorized for Ameren Illinois, the incentive to invest in Ameren Missouri's electric system, due to its scale, far outweighs the comparative disincentive to invest in its gas distribution system.

[2] Case No. ER-2021-0240, Murray Direct, pages 3-4.

FAIR RETURN ON COMMON EQUITY

Q. How did you determine the approach you would take to estimate a fair and reasonable allowed ROE for purposes of this case?

A. I reconciled the principles established in *Hope* and *Bluefield*[3] with modern financial models used to estimate the COE. While setting the allowed ROE based on the COE is at least theoretically sufficient to allow a company to attract capital in efficient markets, because average allowed ROEs have been set higher than the COE, this fact must be considered when determining a fair and reasonable allowed ROE. In fact, this Commission has set a "zone of reasonableness standard" [4] for purposes of setting an allowed ROE with the starting point for this zone of reasonableness being a recent industry average allowed ROE. Considering these principles, I first estimate Ameren Missouri's current COE, then compared my current COE estimates to those I estimated in recent rate cases to determine if there has been a fundamental change in the cost of capital. My analysis also includes consideration of other recently authorized ROEs with specific consideration given to Ameren Illinois' allowed ROE for its natural gas distribution utility operations.

Q. Based on your analysis, what is your estimate of Ameren Missouri's COE?

A. Ameren Missouri's COE is no higher than a range of 6.5% to 7.0%.

Q. Based on your analysis and awareness of capital market conditions, investor expectations and recent average allowed ROEs for LDCs, what do you consider to be a fair and reasonable allowed ROE for Ameren Missouri's local natural gas distribution operations?

A. 8.50% to 9.50%. 8.5% is approximately the lowest ROE that the Commission would consider under its "zone of reasonableness" standard, while 9.50% gives some consideration of the following facts: (1) LDC stocks had been out of favor as it relates to

[3] *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591, 64 S.Ct. 281, 88 L.Ed. 333 (1943); *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679, *43 S.Ct. 675, 67 L.Ed. 1176* (1923).
[4] *State ex rel. Missouri Gas Energy v. Public Service Commission,* 186 S.W.3d 376, 383 (Mo App. W.D. 2005)

the electric utility industry since approximately the start of 2020 and (2) Ameren Illinois' higher authorized ROE and common equity ratio. After considering my COE estimates, the Commission's authorized ROE for Empire, and the ROE authorized for Ameren Illinois' natural gas distribution operations, I consider 9.25%, to be fair and reasonable if applied to my recommended common equity ratio of 45%.

Q. How did you inform yourself for purposes of determining the best methods and approaches to use to estimate Ameren Missouri's COE?

A. For purposes of this case, I reviewed Ameren Corp's Board of Directors ("BOD") strategic financing and investment considerations since June 30, 2020, as well as equity investment research reports covering Ameren Corp and the utility industry for the same period. After performing this research, I estimated Ameren Missouri's COE by performing a company-specific COE analysis on Ameren Corp as well as a COE analysis on a LDC group for Ameren Missouri's gas distribution operations.

Q. What specific COE models did you use?

A. I used a multi-stage discounted cash flow ("DCF") method, with specific emphasis on consensus analysts' estimated dividends and the modeled growth of dividends. When the DCF method is applied to dividends as the proxy for cash flow, it is more specifically defined as the dividend discount model ("DDM"). I also applied the Capital Asset Pricing Model ("CAPM") to both Ameren Corp and the proxy groups. Finally, I performed simple and logical reasonableness checks to test the reasonableness of my COE estimates. These reasonableness checks recognize the basic characteristics of utility stocks, mainly being that they are perceived as yield/income investments by the investment community. One such reasonableness check is a straight-forward bond-yield-plus-risk-premium ("BYPRP") method included in the Chartered Financial Analyst ("CFA") Program curriculum.

Q. Ameren Missouri also filed a rate case for its electric utility system, Case No. ER-2021-0240. How do you plan to approach your recommended ROR for Ameren Missouri's natural gas distribution operations compared to the electric utility operations?

A. I will make a separate recommendation for Ameren Missouri's electric utility operations in that case. However, the testimony I file in both cases will compare and contrast the two subsectors of the utility industry because this provides the Commission with useful information that should allow it to determine if the authorized ROR should be different for the electric utility system and the natural gas distribution system.

Q. Are Ameren Missouri's electric and gas distribution utility operations owned and financed separately?

A. No. Ameren Missouri directly owns the gas and electric systems and either provides direct debt financing or receives financing from Ameren Corp to finance these systems. They are only segregated as divisions for regulatory and performance evaluation purposes.

Q. Which system dominates how Ameren chooses to capitalize Ameren Missouri?

A. It's electric utility system, which makes up approximately 97% of Ameren Missouri's total rate base.

Q. Can you describe current capital market conditions as it relates to the electric utility industry and the LDC industry in general and Ameren Corp specifically before you discuss the details of how you specifically estimated Ameren Missouri's COE?

A. Yes. This information should help provide some context as to the current state of utility capital markets and what this implies about the trend in capital markets over approximately the last decade when long-term interest rates entered into a prolonged period of lower levels with a declining trend.

Q. Did you sponsored ROR testimony in past Ameren Missouri rate cases?

A. Yes. Please see Schedule DM-D-1 attached for a complete list of Ameren Missouri rate cases in which I sponsored ROR testimony for either Staff of the Missouri Public Service Commission ("Staff") or OPC.

Q. What ROE have you recommended the Commission authorize Ameren Missouri's electric utility operations in the last several rate cases?

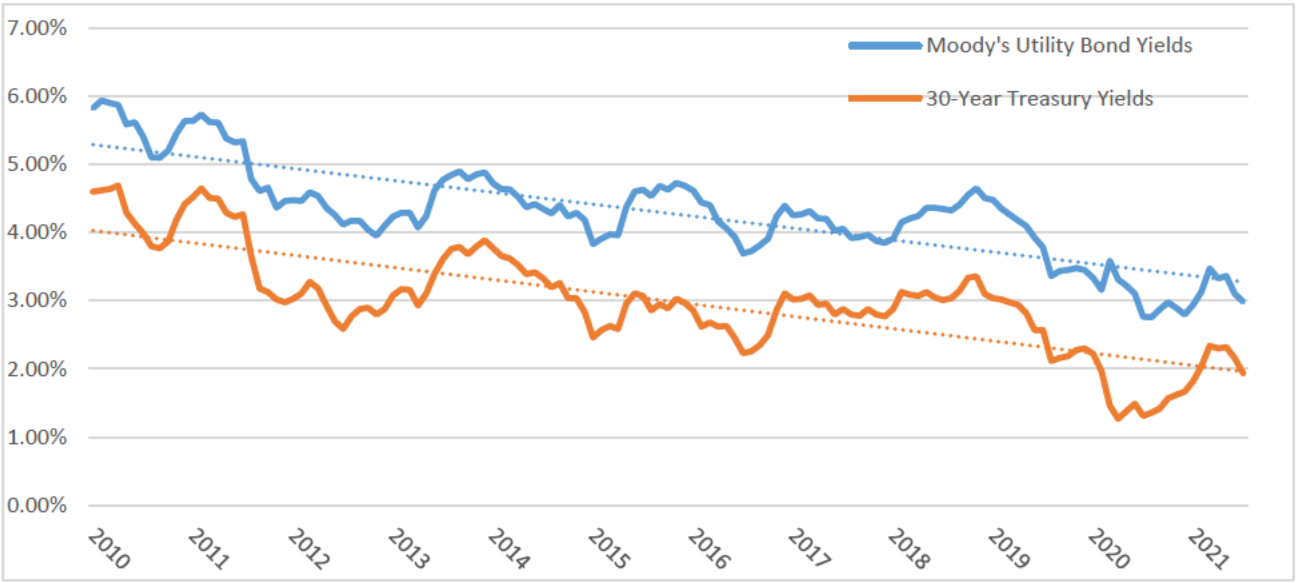
A. I have consistently recommended the Commission reduce Ameren Missouri's allowed ROE to 9.25% for its electric utility operations from its current authorized ROE of 9.53%. Although the COE has varied over much of Ameren Missouri's past rate cases, with it reaching its all-time low right before the onset of the COVID-19 pandemic, I have consistently urged the Commission to lower Ameren Missouri's allowed ROE (and Missouri's other major utilities) by at least 25 basis points to recognize the sustained and declining trend in the costs of capital.

Q. Have you typically recommended a different authorized ROE for natural gas distribution systems as compared to electric utility systems?

A. Yes. Until the most recent Spire Missouri rate case, Case No. GR-2021-0108, I had consistently estimated that natural gas distribution systems' should have an authorized ROE that is 25 basis points lower than those awarded electric utility operations. However, due to the fact that LDCs traded at a discount to electric utilities for much of 2020 and into early 2021, I recommended Spire Missouri's authorized ROE be set equal to Empire's authorized ROE. I also increased the upper end of my recommended ROE range to 9.5% as compared to an upper-end of 9.25% in the 2019 Empire and Ameren Missouri electric rate cases.

Q. How do current investment grade utility bond yields compare to investment grade utility bond yields over the past decade?

A. Current investment grade utility bond yields are lower.[5] The below graph shows long-term bond yields since January 1, 2010, which captures the prolonged period of lower long-term interest rates post the recession/financial crisis of 2008/2009. While the early stages of lower long-term interest rates in the first half of this decade were considered by some as potentially anomalous because of the Federal Reserve Bank's ("Fed") quantitative easing ("QE") programs[6] through the end of 2013, since that time, long-term interest rates have continued an overall declining trend.



Average utility long-term bond yields dropped to modern all-time lows in the latter half of 2020 - levels not experienced since the late 1940s and early 1950s (I am not aware of a publication at the time, such as Regulatory Research Associates, that would provide information on allowed returns to provide guidance for current decisions). However, they

[5] S&P rates Ameren and Ameren Missouri investment grade at BBB+; Moody's rates Ameren and Ameren Missouri investment grade at Baa1.
[6] QE involved three rounds of the Fed's direct intervention in bond markets beyond just lowering the Fed Funds rate. The Fed's QE programs had the express intent of reducing long-term interest rates.

have recently moderated to levels consistent with shortly before the onset of the COVID-19 pandemic, which until 2020, had been the lowest levels achieved since the 1960s.

Q. Why is it important to evaluate trends in long-term interest rates when evaluating the utility industry's COE?

A. Utility stocks are a close alternative to bond investments. In fact, the investment community estimates fair prices of utility stocks based on regressions to bond yields.[7] Utility stocks are often referred to as bond-substitutes or pseudo bonds. **

**[8] Therefore, changes in utility stock valuation levels typically have a strong inverse correlation to changes in bond yields, i.e. as bond yields decline, utility stock prices increase.

Q. Since April 2020, have utility stock valuations and bond yields provided traditional and consistent signals about utilities' cost of capital?

A. No. Utility and corporate bond yields have declined significantly since even before the pandemic, which were already trading at yields-to-maturity ("YTM") that were at 60-year lows. During most of the post-pandemic months in 2020, utility and corporate bonds were trading at YTM that were at 70-to-80 year lows. However, broader utility industry stocks (mainly LDC and electric utility stocks) actually declined on both an absolute and relative basis (as compared to the S&P 500). During recent months, utility valuation levels have rebounded, but not to the all-time highs they reached in February 2020.

Consequently, while the utility industry is undoubtedly able to issue bonds at even lower costs than shortly before the pandemic, the utility equity market data has not been as conclusive about the direction of utility equity costs. For example, as I will discuss later

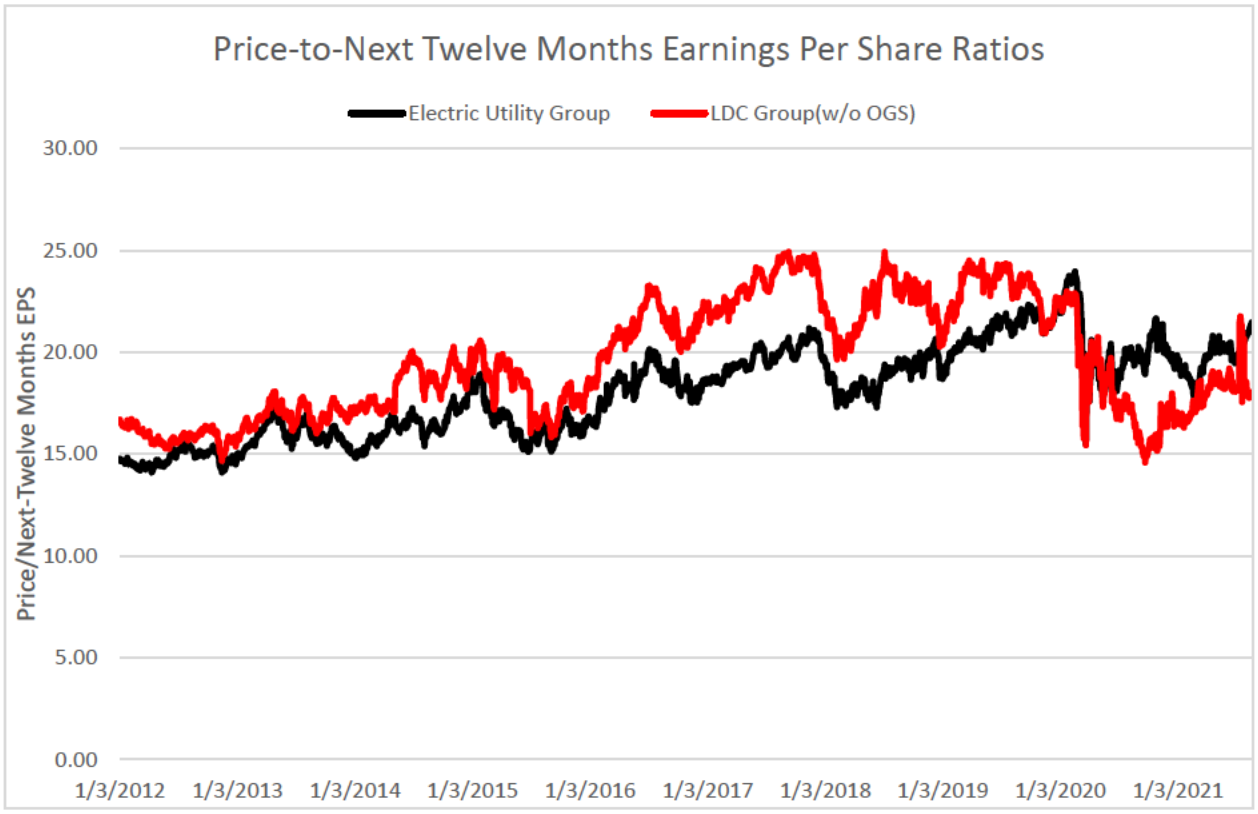
[7] Julien Dumoulin-Smith, et. al, "2Q 2020 Regulated Utilities Preview: The Covid Compendium Condensing What We Know," July 20, 2020, Bank of America Merrill Lynch. Jeremy Tonet, CFA, et. al., "Regulateds 1Q21 Preview: Peaceful Easy Feeling – Utes Enter Earnings with Improved Weather, Investment Tailwinds," April 19, 2021, JP Morgan. Sophie Karp, "Utilities 3Q20 Earnings Preview: Be Green and Be Regulated," October 18, 2020, KeyBank. Daniel Ford, CFA, et. al., "Mind the Gap(s): 2021 Utility Outlook," December 14, 2020, UBS Securities.

[8] Ameren Dividend Policy Considerations, Finance Committee, February 2021, p. 3-21.

in my analysis using the Capital Asset Pricing Model ("CAPM") analysis, utility stock betas have increased, implying a higher COE. However, the valuation ratios for the electric utility and LDC industry are only slightly lower than the all-time highs achieved just before the pandemic.

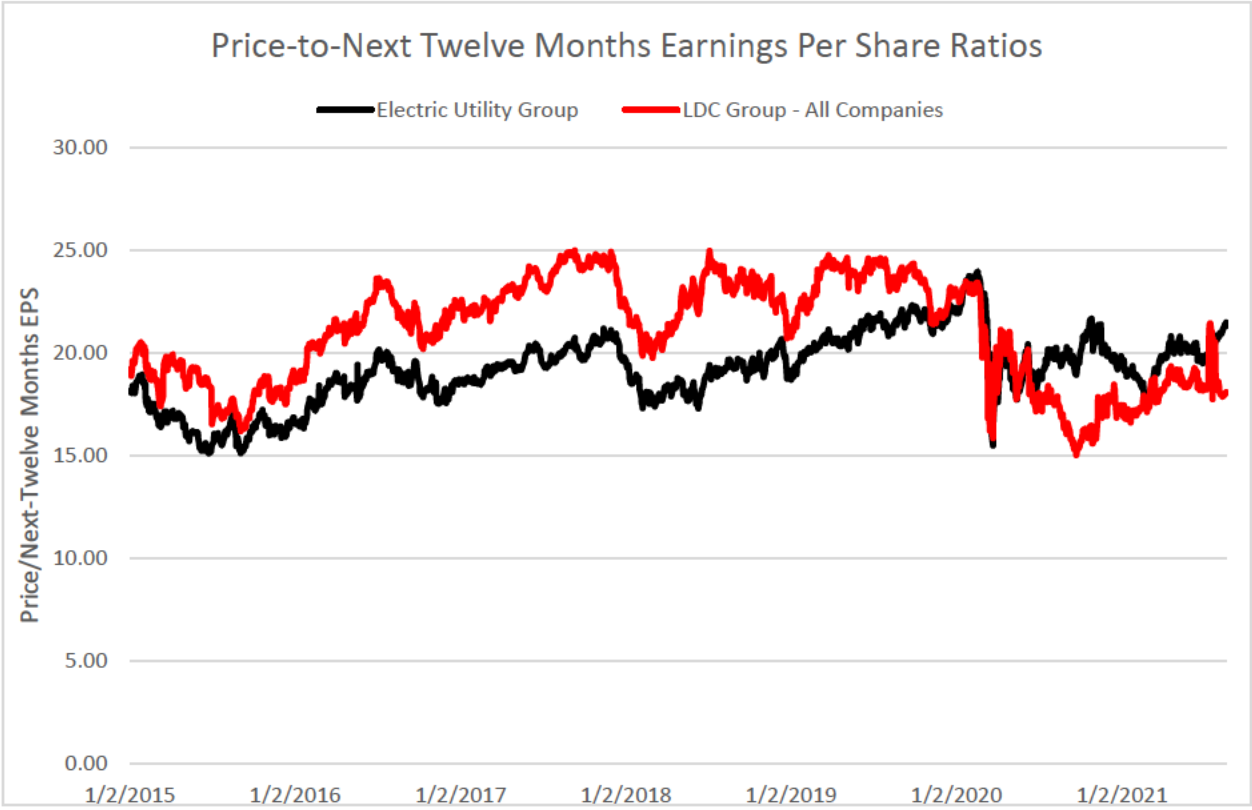
Q. Can you provide a graphic illustration that compares the LDC industry's price-to-next-twelve-months-earnings (P/E) ratios to the electric utility industry's P/E ratios since January 1, 2012?

A. Yes. First, I should note that P/E ratios are often used to evaluate the relative cost to the investor to buy a share of earnings and the potential growth of those earnings. Also, for context regarding the favorableness of utility P/E ratios over the past several years, utility P/E ratios averaged 14.4x since 1995.[9] A graph of the P/E ratios for the LDC and electric utility industry follows:



[9] Durgesh Chopra, et. al., "Utes Close To Fair Value In Our Bond Model," Evercore ISI, April 18, 2021, p. 8.

As can be seen in the above graph, the LDC industry traded at a premium to the electric utility industry until the end of 2019. The premium was especially pronounced during the latter half of the last decade. Because One Gas Company (the only 100% pure-play LDC company of all of the publicly-traded LDCs) did not become a publicly-traded company until 2014, it is not included in the above graph. In order to provide more robust data on the LDC industry for the last half of the decade and focus on the significant change in the relative trading values for the LDC industry compared to the electric utility industry, I also provide the following graph showing P/E data since January 1, 2015:



As is graphically illustrated, LDC's traded at a significant premium to electric utilities for the five-year period, January 1, 2015 through December 31, 2019. The average P/E multiple was approximately 3x higher over this period. However, beginning in early 2020 and until very recently, LDCs traded at a discount to electric utilities. LDCs traded at an average P/E that was 1.6x lower than electric utilities for all of 2020. Not until

recently, have LDC P/E ratios started to trade closer to par with electric utilities, but still at a slight discount.[10]

Q. Have Ameren's investment banks provided it expert insight as it relates to the current valuation differences between electric utilities and LDCs?

A. Yes. Goldman Sachs attributed LDC's discounted valuations to the following:

**_____
_____

_____
_____ **

Q. Can you provide some recent market commentary that supports your analysis and commentary about utility stock valuation levels?

A. Yes. On August 30, 2021, the Wall Street Journal ("WSJ") provided the following comments about recent trading patterns for utility stocks and other defensive industries, such as healthcare:

> Utilities and healthcare are among the best-performing groups in the S& P 500 so far this quarter, with gains of 7.8% and 6.6%, respectively, compared with a 4.9% rise in the broad stock index. Big winners include utility NextEra Energy Inc., which is up 14% this quarter, while shares of medical company Danaher Corp. are up 19%...
>
> …The S& P 500 has advanced 20% this year and set 52 record closes—its highest number of records in a calendar year through the end of August, according to Dow Jones Market Data. Valuations have edged lower this year as earnings soared but remain at historically high levels…
>
> …Healthcare stocks have relatively attractive valuations, some investors said. The sector traded late last week at about 18 times its projected earnings over the

[10] LDC P/E ratios increased for a short period of time around July 2021 due to some extraordinarily high P/E ratios for Northwest Natural Gas Company. This appears to have been an aberration and should not be considered reflective of investors' view of a fair P/E multiple for the LDC industry.
[11] Ameren Board of Directors Discussion Materials, Goldman Sachs & Co. LLC, December 11, 2020, p. 3.

> next 12 months, compared with about 21 times for the S& P 500, according to FactSet.
>
> The utilities group, meanwhile, traded at 20 times projected earnings, a more modest discount to the broad market, but boasts a dividend yield of 3%—more than double that of the S& P 500.[12]

Although utilities are currently trading at a discount relative to the S&P 500, as compared to the premium they traded to the S&P 500 through most of the past decade, this was due to the fact that the S&P 500 traded at a lower P/E ratio prior to aggressive actions taken by the United States' Federal Reserve Bank (i.e. monetary policy) and the United States government (i.e. fiscal policy) in response to the COVID-19 pandemic. The fact that the S&P 500 valuation ratios increased relative to utility industry's valuation ratios suggests the aggressive monetary and fiscal policy caused the markets' cost of capital to decline more relative to the utility industry. In order to correctly interpret these market signals, it is important to not only analyze valuation ratios across industries at points in time, but also for the same industry over periods.

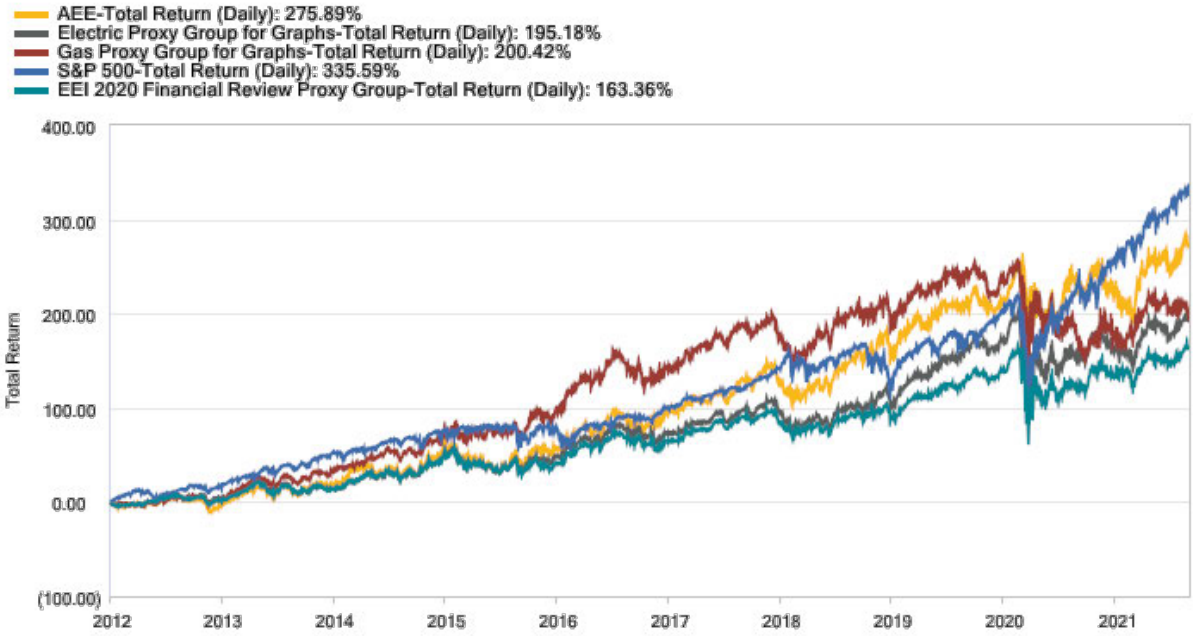
Q. Do investors expect allowed ROEs to be reduced because of the current and prolonged low cost of capital environment?

A. Yes. While investors are accustomed to the practice of commissions allowing ROEs higher than the COE, they price in the potential that commissions will reduce allowed ROEs due to very low long-term interest rates. This is especially true the longer the U.S. capital markets experience a "lower for longer" yield environment.[13]

Q. Can you provide information on how Ameren Corp's shareholder returns have compared to its peers and to the S&P 500?

A. Yes. See the below chart for a graphic illustration of Ameren Corp's total return as compared to an electric utility proxy group, EEI's Broad Electric Utility Proxy Group, an LDC proxy group, and the S&P 500.

[12] Karen Langley, "Investors Signal Cautious Outlook," Wall Street Journal, August 30, 2021, page A1 and A2.
[13] Durgesh Chopra, et. al, "Utilities vs Inflation," August 29, 2021, Evercore ISI. Neil Kalton, et.al., "DDM Analysis Supports Sector Valuation & Quality/Growth Trade," August 19, 2019, Wells Fargo.



Ameren Corp's (trading ticker is "AEE") total return has outperformed that of its electric utility peers, LDCs and has slightly underperformed the S&P 500. Until the onset of the COVID-19 pandemic, Ameren Corp had also outperformed the S&P 500. After the Federal Reserve and Congress instituted aggressive monetary and fiscal policies, respectively, in reaction to the COVID-19 pandemic, this caused a rapid increase in the S&P 500 index, especially among some of the largest technology companies in the S&P 500, which make up approximately 25% of the S&P 500's total market capitalization. Much of this increased value in these larger technology stocks has been attributed to the lower discount rates applied to anticipated profits/cash flows that are not likely to be realized until many years into the future (lower discount rate results in a higher estimate of the present value of these anticipated distant cash flows).

The total returns shown in the chart above convert into the following compound annual returns for Ameren Corp, Electric Proxy Group, EEI, the LDC proxy group and the S&P 500, respectively: 14.68%, 11.85%, 10.54%, 12.05% and 16.44%.

Q. Are you aware of any information specific to Ameren Missouri that supports the fact that Ameren Missouri's cost of capital is quite low?

A. Yes. In Ameren Missouri's 2019 rate case, I discussed the fact that Ameren Missouri issued a 30-year bond on October 1, 2019, with a coupon rate of 3.25%. At the time, this was the lowest coupon rate I had ever observed on a 30-year utility bond in the 20-year period in which I have been sponsoring ROR testimony. After searching the Commission's archives at the time, I determined the last time Ameren Missouri had been able to issue a 30-year bond at a cost consistent with its recent issuance was in 1952.

Since Ameren Missouri's 2019 rate case, it issued a 30-year bond at an even lower coupon rate. On October 9, 2020, Ameren Missouri issued a 30-year bond with a coupon rate of 2.625% (CUSIP: 906548CS9). Although the yield-to-maturity for over-the-counter trades increased to as high as 3.3% in the spring of 2021, these bonds have been trading close to their original coupon rate for most of July and August 2021 (see the below chart).

[14]

Q. How do the yields on Ameren Missouri's bonds compare to the period shortly before the onset of the COVID-19 pandemic, which is consistent with the period of Ameren Missouri's and Empire' rate cases in 2019?

A. Ameren Missouri's 3.25% coupon bond is trading slightly below the YTM at which it traded for most of the period up to the onset of the COVID-19 pandemic. Just a few days before the fear of the pandemic disrupted capital markets, Ameren Missouri's 3.25% bonds traded at a YTM consistent with those at which it is trading currently. See the below chart:

[14] http://finra-markets.morningstar.com/BondCenter/BondDetail.jsp?ticker=C938553&symbol=AEE5056585

[15]

COST OF EQUITY METHODS

Q. Now that you have provided some context on changes in utility capital market conditions generally and Ameren Corp and Ameren Missouri specifically, can you discuss how you decided to approach your COE estimate for Ameren Missouri in this case?

A. Yes. I performed a company-specific COE analysis on Ameren Corp. as well as a proxy group COE analysis. I used a multi-stage DCF approach and a CAPM. I then tested the reasonableness of my estimates by using simple, straightforward sanity checks, such as the straight-forward bond-yield-plus-risk-premium ("BYPRP") method discussed in the CFA curriculum.

[15] http://finra-markets.morningstar.com/BondCenter/BondDetail.jsp?ticker=C852425&symbol=AEE4888370

Q. How have you informed yourself as to reasonable and rational inputs for your COE approaches?

A. Being that the objective of a ROR witness is to emulate investors' approaches to analyzing and making investment recommendations as it relates to investing in utility stocks, I have made it a priority to review and analyze how equity research analysts determine a utility stock price estimate in practice. This has allowed me to test the theory of cost of capital estimation in utility ROR testimony as it compares to how utility stocks are actually valued. I have discovered investment analysts do use multi-stage DCF approaches to estimate fundamental values of utility stocks, and/or they use relative valuation techniques that compare a company's P/E ratios to averages for the industry and/or potentially a more tailored subset of peer companies. In my experience, professional equity ("Wall Street") analysts project long-term CAGR in EPS to determine whether a company's P/E ratio deserves a premium or a discount to its peers. Wall Street analysts do not use these estimated long-term CAGRs in EPS for purposes of projecting a perpetual dividend growth rate, as some ROR witnesses suggest. When performing an absolute valuation analysis, such as a DCF/DDM, Wall Street analysts assume rational perpetual growth rates in the 2.5% to 3.3% range for electric utility companies and LDCs. Finally, and most relevant to the task at hand, they estimate utilities' COE to be in the 6% range.[16]

Q. What equity research firms cover Ameren Corp's stock?

A. According to Ameren Corp's website, the following firms cover its stock: Argus Research Corporation, Bank of American Merrill Lynch ("BAML"), Barclays, BMO Capital Markets, Evercore ISI, Goldman Sachs, Guggenheim, JP Morgan, KeyBanc Capital Markets ("KeyBanc"), Mizuho, Morgan Stanley, Morningstar Equity Research, UBS, Value Line, Wells Fargo Securities, and Wolfe Research ("Wolfe").[17]

[16] Neil Kalton, Sarah Akers, and Jonathan Reeder, "DDM Analysis Supports Sector Valuation & Quality/Growth Trade," August 19, 2019, Wells Fargo.
[17] https://www.amereninvestors.com/company-info/analyst-coverage/default.aspx

Q. Why is it important to analyze this information to determine a fair and reasonable allowed ROE for Ameren Missouri?

A. Analyzing this information is important because these Wall Street analysts are the very individuals that underlie various consensus estimates widely considered by investors. ROR witnesses recognize the influence Wall Street analysts have on utility stock prices by the very fact that they use consensus EPS forecasts for purposes of estimating the COE.

Q. Did you review any of these firms' research for purposes of performing your cost of equity analysis and preparing your testimony?

A. Yes. I mainly relied on reports Ameren Missouri made available for review in response to Staff Data Request No. 0126. However, over my career I have established relationships with some firms/analysts who have distributed this material to me directly through their email distribution lists. These relationships were borne from my role as a regulator in which many of these analysts seek information related to Missouri's general and specific regulatory issues. I have also interacted with these analysts through my participation in organizations, such as the Society of Utility and Regulatory Analysts ("SURFA").

Q. How did you approach the multi-stage DCF/DDM analysis you performed on Ameren Corp?

A. Schedules DM-D-2-1 and DM-D-2-2 attached to my testimony illustrate the primary logic and assumptions I used in my multi-stage approach. For the first stage, I used consensus analysts' estimates for dividend per share ("DPS") through 2025. Ameren Corp's consensus dividend payout ratio is projected to be 56.55% in 2025. Ameren Corp's current guidance on its dividend payout ratio is in the range of 55% to 70%. Being that Ameren Corp plans to be in a high capital expenditure cycle through at least the next ten years, I assumed Ameren Corp would retain more capital and therefore target a dividend payout ratio of 56.55% for approximately the next ten years. Over this period I assumed Ameren's DPS would grow in line with Ameren's projected EPS, which I modeled to gradually decline from 2025 to 2035, when it would grow perpetually at a rate in the range of 2.5% to 3.5%, with 3% being the base case. This perpetual growth rate range is consistent with

the ** ** As Ameren Corp's EPS growth transitions to a sustainable growth rate by 2035, I appropriately increased Ameren Corp's dividend payout ratio to consider the fact that it would not need to retain as much earnings for reinvestment. For my base case scenario, this caused Ameren Corp's DPS to grow at a CAGR of 9.25% for the period 2032 through 2035, as compared to a 3.43% CAGR in EPS for the same period.

Q. Can you provide some additional explanation as to the rationale underlying your assumed growth rates for Ameren Corp?

A. Yes. Through recent investment communications and actions, Ameren Corp has signaled that it plans to increase its dividend in line with its long-term CAGR in EPS guidance of 6% to 8%.[19] Ameren Corp has also communicated to investors that it plans to increase rate base at a CAGR of approximately 8% through 2025 by investing $17.1 billion. Ameren Corp has also communicated that it anticipates an additional $23 billion of regulated investment opportunities through 2030 for a total of $40 billion.[20] But these ramped up investment programs are finite and will eventually return to a maintenance level of capital investment, similar to how it treated investment in Ameren Missouri before it was granted the legal authority to use PISA. Once the Company achieves this steady state, then it should gravitate toward a dividend payout ratio that ensures it will have sufficient internal equity capital to fund its investments. Using the maintenance level of capital expenditures Ameren Corp made in Ameren Missouri as a proxy, a targeted dividend payout ratio of approximately 66.67% is consistent with this level of investment.

[18] ** ** Staff Study on Long-Term Growth of Value Line Central Utilities. Moody's Public Utility Index.

[19] https://www.prnewswire.com/news-releases/ameren-corporation-increases-quarterly-cash-dividend-by-6-8-percent-marking-eighth-consecutive-year-of-growth-301227708.html

[20] Leading the Way to a Sustainable Energy Future, UBS Kohler Mid-West Utilities Conference, August 19, 2021.

Q. What does industry data suggest is a sustainable growth rate for a predominately regulated electric utility company, such as Ameren Missouri?

A. I reviewed past actual historical industry growth rate data from the Moody's electric utility index,[21] a sample group of electric utility companies in which data was available from Value Line,[22] and commentary/analysis available from institutional investors/analysts.[23] This information supports a perpetual growth rate in the range of 2.5% to 3.5%. A perpetual growth rate within this range is also consistent with the "sustainable growth model," which estimates EPS growth by multiplying an average long-term industry retention rate by an expected book ROE. Assuming the utility industry reverts to its long-term earnings retention rate of approximately 30% and allowed ROEs are eventually lowered to compress the spread between the COE and the allowed ROE, this would support a 2.7% perpetual growth rate if investment opportunities are available (9% allowed ROE multiplied by 30%). Both Wells Fargo and Evercore ISI, equity research firms that follow Ameren Corp, assume scenarios where allowed ROEs eventually decline to between 9% to 9.25% as we remain in a prolonged period of low cost of capital.[24]

Q. ** _____
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A. _____
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[21] Staff Cost of Service Report, Case No. ER-2011-0028, p. 18.
[22] *Id.*
[23] Discussed throughout this testimony.
[24] Durgesh Chopra, et. al, "Q2 2021 Earnings Recap," August 8, 2021, Evercore ISI. Neil Kalton, Sarah Akers, and Jonathan Reeder, "DDM Analysis Supports Sector Valuation & Quality/Growth Trade," August 19, 2019, Wells Fargo.
[25] Ameren Dividend Policy Considerations, Ameren Finance Committee, October 2017, p. 5-10.

Q. **

A. **[26]

Q. How does this compare to perpetual growth rates used by equity analysts to estimate fair prices for utility stocks?

A. This is fairly consistent with the perpetual growth rates used for purposes of estimating utility stock prices. For example, Evercore ISI uses a perpetual growth rate of 2.5% in its 3-stage DDM analyses of electric utility stocks.[27] Wells Fargo uses an average perpetual growth rate of around 3%.[28]

Q. How do these growth rates compare to how Ameren Missouri's earnings and rate base grew over the past ten years when Ameren Corp was limiting its investment in Ameren Missouri to maintain safe and reliable service?

A. Based on Ameren Missouri's rate base through the true-up period, December 31, 2019, in the 2019 rate case,[29] Ameren Missouri's CAGR in its rate base has been in the range of 2.2% to 3% since the 2010 to 2011 time period. This further supports a rational expected terminal growth rate when the utility industry is maintaining its system to ensure safe and reliable service.

[26] Ameren Board of Directors Discussion Materials, Goldman Sachs & Co. LLC, December 11, 2020, p. 3.
[27] *Id.*
[28] *Id.*
[29] Case No. ER-2019-0335, Laura Moore Direct Testimony, July 3, 2019, p. 18

Q. What cost of equity did you estimate for Ameren Corp using the multi-stage approach?

A. Using Ameren Corp's most recent 3-month average stock price of approximately $85 and discounting prospective dividends by reasonable growth rates in the intermediate future as well as perpetually, the implied COE for Ameren Corp is approximately 6.8% to 7.1% (see Schedule DM-D-2). Given that this COE estimate assumes Ameren Corp can achieve CAGR in EPS of over 6% for approximately the next 10 years, I consider this COE estimate to be higher than likely. Therefore, this COE estimate will be the basis for the upper end of my estimated COE range.

PROXY GROUP COST OF EQUITY

Q. Should you compare your estimate of Ameren Corp's company-specific COE to the COE of an LDC proxy group for Ameren Missouri's gas distribution utility operations?

A. Yes. Investors frequently evaluate the attractiveness of a utility company's share price by comparing it to the average of peer proxy group, whether it's based on a broader utility index or a custom proxy group. Additionally, because Ameren Corp's business-risk profile is dominated by its electric utility systems in Missouri and Illinois, it is important to analyze a proxy group of LDCs to determine how investors perceive the risk and growth profile of companies more confined to the local gas distribution industry.

Q. How did you approach selecting a custom proxy group for purposes of comparing Ameren Corp's COE to that of an LDC proxy group?

A. Because I just estimated the LDC industry's COE in the recent Spire Missouri gas utility rate case, Case No. GR-2021-0108, I already have a good grasp of the fairly limited number of publicly-traded LDC companies that can be chosen for a proxy group. Just as with Spire Missouri's ROR witness, I do not have any major disagreements with the proxy group selected by Ameren Missouri's ROR witness, Ann E. Bulkley. Therefore, I used the same seven companies used by Ms. Bulkley in her direct testimony, which are: Atmos Energy

Corporation ("Atmos"), NiSource Inc. ("NiSource), Northwest Natural Gas Company ("Northwest"), One Gas Company ("One Gas") South Jersey Industries ("South Jersey), (Southwest Gas Holdings Inc. ("Southwest") and Spire Inc. ("Spire"). Although I estimated the COE for all companies in the LDC group, I gave more weight to the results from companies that have operations that are almost entirely concentrated in the LDC industry or at least entirely concentrated in regulated utility operations (some electric and water). Only One Gas is a true pure-play LDC. While Atmos is a pure-play gas utility, it also has assets dedicated to FERC regulated pipeline transportation of gas. The other two companies that have a pure-play regulated utility profile are Northwest (minor concentration of water utility assets) and NiSource (a majority of its exposure is gas distribution, but it also has a moderate concentration in regulated electric utility assets).

Q. Did you perform a multi-stage DCF analyses on these companies?

A. Yes, but my analysis was more generic because of my lack of familiarity of intimate details of each of the companies. However, I applied the same principles as I did when applying the multi-stage DCF to Ameren Corp. For the first stage (August 31, 2021 through June 30, 2025) I used Wall Street analysts' consensus DPS estimates to the extent they were available. For the second stage (June 30, 2025 through June 30, 2035), I allowed for a gradual decline from Wall Street analysts' projected 5-year CAGR in EPS to a sustainable perpetual growth rate of 3% starting in June 30, 2035. In order to estimate investors' anticipated annual DPS over the second stage, I determined consensus analysts' estimated dividend payout ratios as of 2025. I then allowed the dividend payout ratios to gradually converge to a sustainable payout ratio of 66.67% starting in 2035. This payout ratio is consistent with the constant/sustainable-growth DCF theory that requires DPS, EPS and book value per share ("BVPS") to grow in perpetuity at the same rate. This payout ratio is consistent with the proportion of earnings utility companies should retain to sustain a 3% growth rate at a 9% book ROE.

My industry COE estimate based on application of the multi-stage DCF to the proxy group shows a COE of around 7.50% (see Schedule DM-D-3-1).

Q. If you had performed your multi-stage similar to how you did so when with Staff, what COE would you have estimated?

A. My estimate would have been approximately 7%. The higher COE estimate using my current approach is mainly due to the fact that adjusting the dividend payout ratio for a sustainable stage recognizes that dividends will increase faster than EPS during the transition period. However, in order to ensure that DPS, EPS and BVPS grow in equilibrium in the terminal stage, my current method is consistent with the assumptions of the constant-growth DCF and therefore should be used. Regardless, because it is clear that the COE is much lower than allowed ROEs, I don't consider it critical to narrow down the COE to a precise estimate. In my opinion, the fact that a reasonable and logical COE estimate for the LDC industry is much lower than average awarded ROEs illustrates the reasonableness of my recommended authorized ROE of 9.25%.

Q. Is it appropriate to assume LDCs will grow in perpetuity at the same rate as regulated electric utility companies considering various de-carbonization initiatives?

A. Probably not. As I discussed in the recent Spire Missouri rate case and as Goldman Sachs has advised Ameren, investors in LDC stocks have considered the possibility that the industry will have no terminal value, let alone a perpetually positive growth rate. Although investors have analyzed these potential scenarios when analyzing a fair price to pay for LDC stocks, I have also observed situations in which investors believe LDCs will adapt by pursuing technologies/innovations such as renewable natural gas and hydrogen. Investors have also assessed the practicality of whether elimination of LDCs will achieve the most efficient carbon reduction goals.

Q. Are there any other COE methods that can be used that don't depend on terminal value estimates, which can test whether terminal value assumptions cause an erroneous conclusion that LDCs and electric utility companies have significantly different costs of capital?

A. Yes. The CAPM does not rely on terminal value estimates. The beta estimate is the main variable that would cause different COE estimates across subsectors of the utility industry.

Assuming both industries use similar amounts of leverage, i.e. debt ratios, to capitalize their investments, any differences in beta could be attributed to differences in the business risk between the industries. It is also appropriate to use the simple BYPRP to determine if there are any significant differences in the industries' cost of capital.

Q. Do investors use the CAPM to estimate utilities' COE?

A. Yes. In my experience, many Wall Street analysts use the CAPM to determine a discount rate, i.e. the COE, to apply to expected cash flows to the equity investor. The CAPM shows the specific impact of lower interest rates on the cost of capital. Although COE estimates can be manipulated with the CAPM by using unreasonable risk premium estimates, fortunately there are a variety of authoritative sources that provide equity risk premium estimates that can form the basis for a consensus view on reasonable risk premium based on current capital market conditions. In fact, in the past Ameren Corp's own financial advisors provided equity risk premium estimates that can be used as a test of reasonableness because these equity risk premiums were used directly by Ameren Corp for purposes of making financial management decisions.

Q. What is the underlying theory that supports the use of the CAPM to estimate the cost of equity for utilities?

A. The CAPM is based on capital market theory in which it is recognized that although the total risk of a company and/or industry consists of market ("systematic") risk and asset/business-specific ("unsystematic") risk, investors are only compensated for systematic risk because holding a diversified portfolio allows the investor to avoid unsystematic risk. Systematic risks are unanticipated events in the economy, such as economic growth, changes in interest rates, demographic changes, etc., that affect almost all assets to some degree. The required risk premium for incurring the market risk as it relates to the investment/portfolio is determined by adjusting the market risk premium by the beta of the stock or portfolio. The adjusted risk premium is then added to a risk-free rate to determine the cost of equity. The CAPM is typically expressed in equation form as follows:

$$K_e = Rf + \beta\ (RPm)$$

Where: K_e = the cost of equity for a security;
Rf = the risk-free rate;
β = beta; and
RP_m = equity risk premium.

For purposes of my CAPM analysis, I relied on Duff & Phelps (D&P) recommended equity risk premium of 5.5% provided as of December 8, 2020[30] and a range of realized historical equity risk premiums of 4.62% (geometric historical mean for 1926 through 2020) to 6.07% (arithmetic historical annual mean for the period 1926 through 2020) derived from data provided by Ibbotson Associates' Stocks, Bonds, Bills and Inflation database. Although each of these equity risk premium estimates use various methods and risk-free rates to arrive at their final estimates, I do not consider any estimate outside these to be consistent with the investment community's "consensus." One of the primary drivers of using a higher equity risk premium versus a lower equity risk premium is due to whether this equity risk premium is applied to a normalized risk-free rate or a current risk-free rate (higher equity risk premiums applied to lower current low risk-free rates). Long-term expected nominal market returns for the S&P 500 are as low as 4% to 5%.[31] Therefore, equity risk premiums in the 5.5% to 6.0% range may actually be excessive for purposes of a CAPM analysis.

Q. What does the beta represent in a CAPM analysis?

A. Beta is statistically defined as the covariance of the returns on an asset (in this case an individual stock or group of stocks) with the return on the S&P 500 divided by the variance of the returns on the S&P 500. This statistical measure is intended to provide investors with insight regarding expected volatility of a security (or portfolio of securities) as it relates to market volatility. A beta of less than one implies less expected volatility than the

[30] https://www.duffandphelps.com/insights/publications/cost-of-capital/duff-and-phelps-recommended-us-equity-risk-premium-decreased-december-2020

[31] First Quarter 2021 Survey of Professional Forecasters, Philadelphia Federal Reserve Board (Feb. 12, 2021), https://www.philadelphiafed.org/-/media/frbp/assets/surveys-and-data/survey-of-professional-forecasters/2021/spfq121.pdf, and John Bilton et al., *Executive Summary: A new Portfolio for a New Decade*, J.P.Morgan (Nov. 9, 2020), https://am.jpmorgan.com/us/en/asset-management/institutional/insights/portfolio-insights/ltcma/executive-summary/.

market with the trade-off of a lower expected return than the market. The reverse is expected for a beta greater than one.

Q. Have utility stock betas increased recently?

A. Yes. At the time I drafted testimony for the Empire and Ameren Missouri 2019 rate cases, electric utility stock betas had declined to quite low levels of around 0.55. Gas utility betas at that time were also around 0.6. Both electric utility stock betas and gas utility stock betas had increased to around 0.80 as of April 2021. LDC betas have moderated over the last couple of months and are more consistent with their typical level of around 0.7. Perhaps more importantly to determining whether Ameren Missouri's gas ROE should be set different than its electric ROE, the betas for each subsector have recently been fairly similar.

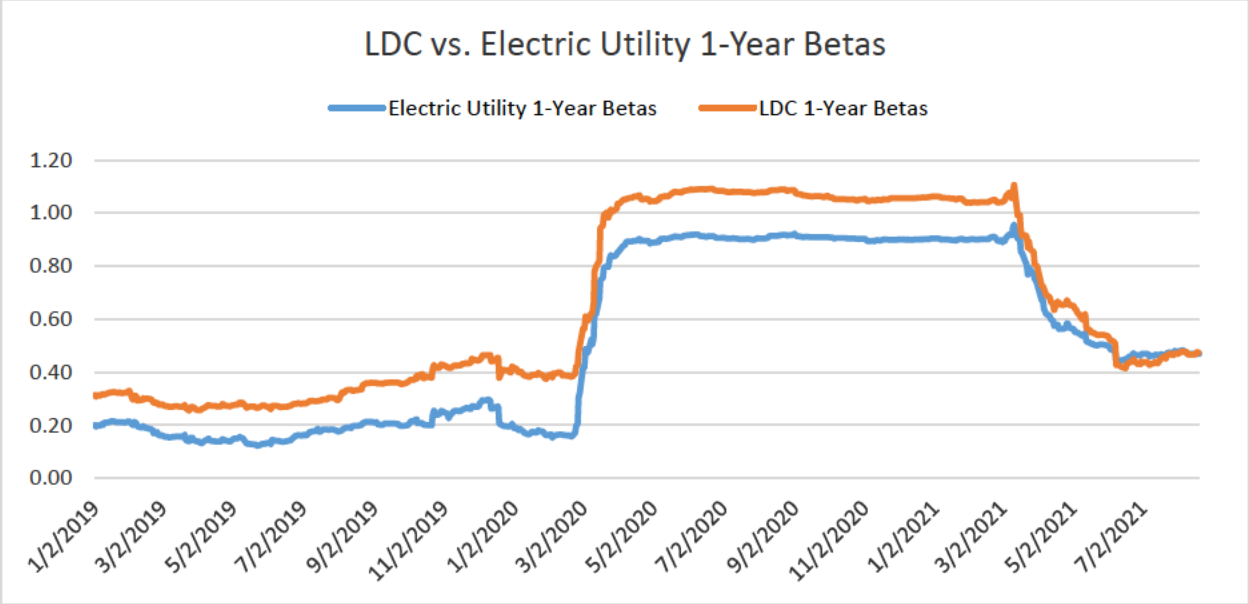
Q. What was the primary cause of the increase in utility stock betas?

A. The spike in utility stock betas occurred when the market plummeted at the onset of the pandemic in March 2020. It is quite common for all securities, both higher-risk and lower-risk securities, to move in tandem during significant market corrections. Because betas measure the relative volatility of a company or a portfolio as it relates to the market, if all securities rapidly decline at the same time, this causes all betas to converge toward one. For example, the semiconductor equipment industry typically have betas that significantly exceeds one. However, when all securities declined at the start of the pandemic, the semiconductor equipment industry's betas decreased towards one. After the stock market data associated with the synchronized decline of equity markets during March and April of 2020 began to drop off of 1-year beta calculations, the semiconductor equipment industry's betas started to increase back to their normal higher levels.

Q. How much have gas and electric utility one-year raw betas changed over the last couple of years due to the market contraction at the onset of the pandemic?

A. As can be seen in the following chart, LDC utility raw betas increased to over 1.0 from around 0.3 before the pandemic, and have now fallen back to approximately 0.45. Electric

utility raw betas were in the 0.2 to 0.25 range before they increased to approximately 0.9 and then declined to around 0.45 as well.



Q. Based on your CAPM analysis, what it the estimated COE for Ameren Corp and the proxy groups?

A. My CAPM COE is in the range of 6.5% to 6.8%. (see Schedules DM-D-5-1 through DM-D-5-3).

Q. Are there any other reasonableness tests to show your COE estimates are rational and logical?

A. Yes. First, as I indicated earlier in my testimony, a simple rule of thumb the Chartered Financial Analyst ("CFA") suggests in its curriculum to estimate the COE is to add 3% to 4% risk premium to a company's bond yield to provide a fairly simple, but objective cost of equity. Being that the investment community views utility stocks as bond surrogates/substitutes, it is logical and reasonable to not add a risk premium any higher than 3% to the bond. Simply adding a 3% risk premium to the recent 2.75% yields on Ameren Missouri's long-term bonds implies a COE of around 5.75%.

Second, one just needs to think about the basic characteristics of utility stocks, which is that investors view them as yield investments. ** _____ **

This analysis showed that between 1974 to 2010, approximately 68% of returns from utility stocks were from the income received through dividends, with the remaining from capital gains.[32] Even if we assumed that Ameren Corp had sustainable investment opportunities to allow it to generate 50% of returns from capital gains, this would translate into only a 5.2% required return based on Ameren Corp's current dividend yield of 2.6%. However, this would mean that there would be a fundamental shift in the composition of expected utility returns, which historically has been more heavily weighted to returns being achieved through income. ** _____ **

Q. Based on your analysis and understanding of Ameren Corp's COE, the LDC industry's COE, investor expectations on allowed ROEs, average LDC authorized ROEs and Ameren Missouri's affiliates' allowed ROR for its gas distribution operations, what would be a fair and reasonable allowed ROE range in this case?

A. 8.5% to 9.5% would be justified with 9.25% being adequate for Ameren Missouri to attract capital from Ameren Corp for investment in its gas distribution operations. However, my recommended authorized ROE is dependent on the authorized equity ratio to which it is applied.

[32] Hugh Wynne, Francois D. Broquin, and Saurabh Singh, "U.S. Utilities: Our Dividend Growth Model Identified Utilities Poised to Pay More," May 20, 2011, Bernstein Research.
[33] Ameren Corporation Finance Committee, 4-37, October 13, 2011.

CAPITAL STRUCTURE

Q. Will you briefly explain capital structure?

A. Capital structure represents how a company's assets are financed. The typical capital structure consist of common equity, long-term debt, and short-term debt. Some utilities' capital structures, including Ameren Corp and Ameren Missouri, also include a small portion of preferred stock. Although short-term debt is a typical component of a utility company's capital structure, if it is fully supporting construction work in progress ("CWIP"), then it typically is excluded from the rate making capital structure and reflected in the allowance for funds used during construction ("AFUDC") rate.

Q. What capital structure do you recommend for purposes of setting Ameren Missouri's rate of return (ROR)?

A. I recommend a capital structure that consists of approximately 45% common equity, 0.82% preferred stock and 54.18% long-term debt. While not exactly the same as Ameren Corp's consolidated capital structure as of December 31, 2020, this is in line with the capital structure ratios Ameren Corp is targeting for its consolidated operations over the long-term.[34]

Q. What is the basis for this capital structure recommendation?

A. My recommended capital structure is consistent with Ameren Corp's consolidated capital structure, net of short-term debt. This capital structure best represents the amount of debt capacity Ameren Corp considers reasonable and appropriate for its regulated utility assets, including Ameren Missouri. Use of this capital structure ensures that Ameren Missouri receives credit for the additional debt capacity it has provided to Ameren Corp for historical investments as well as under its current lower business risk profile with its assurance of full recovery of return on and of investments between rate cases through PISA. It is clear that Ameren Corp's strategy for managing its regulated utility subsidiary capital structures

[34] "Leading the Way to a Sustainable Energy Future," Rating Agency Update, March 2021.

is primarily for purposes of ratemaking. Ameren Corp has targeted a common equity ratio of around 52% for Ameren Missouri for at least the past ten years and plans to continue targeting this common equity ratio for ratemaking for the foreseeable future. This constant targeting of a 52% common equity ratio regardless of changes in business risk and/or economic conditions, contradicts one of the primary purposes of managing a company's capital structure; to achieve the lowest reasonable cost without jeopardizing financial stability. As I will discuss later in my testimony, Ameren Missouri's lower business risk has afforded Ameren Corp the ability to have a higher proportion of debt in its capital structure, but instead of sharing the lower cost of this additional debt capacity with Ameren Missouri and its customers, Ameren Corp is using this additional debt capacity through issuing an increasing amount and proportion of holding company debt.

Q. What is the basis for your conclusion that Ameren Corp targets common equity ratios for ratemaking purposes?

A. My conclusion is based on Ameren Corp's past financial management of its subsidiaries and Ameren Corp's projected equity ratios for the next few years. Ameren Corp has been authorized a 60.1% equity ratio at Ameren Transmission Company of Illinois ("ATXI"), a 50% equity ratio at Ameren Illinois' electric utility operations, a 52% equity ratio for Ameren Illinois' natural gas distribution operations and an approximate 52% equity ratio for Ameren Missouri's last litigated electric rate case in 2014, Case No. ER-2014-0258. ** _____ _____ _____ **[35] In other words, Ameren Missouri's equity balance does not represent the most efficient amount for Ameren Missouri. Its equity balance is based on Ameren Corp's desire for an equity ratio that allows it to attempt to charge higher rates to Ameren Missouri customers.

[35] "Leading the Way to a Sustainable Energy Future," Ameren Rating Agency Update, p. 46.

Q. What capital structure has Ameren Corp managed for purposes of taking advantage of debt capacity afforded by Ameren Corp's low-risk regulated utility subsidiaries?

A. They have managed Ameren Corp's consolidated capital structure for purposes of taking advantage of the regulated utilities' debt capacity. Ameren Corp has been steadily increasing the amount of holding company debt it uses to invest in its subsidiaries. As of the updated test year in Ameren Missouri's last rate case, Case No. ER-2019-0335, Ameren had $700 million of holding company debt outstanding (8.39% of total consolidated debt). As of the December 31, 2020 test year in this case, Ameren had $1.6 billion of holding company debt outstanding (14.63% of total consolidated debt). Ameren issued another $450 million of holding company debt on March 5, 2021, which raises the holding company debt to 16.59% of total consolidated debt. It is clear that Ameren has dynamically managed its consolidated capital structure to take advantage of the debt capacity provided by its regulated utility subsidiaries, but chooses to target a static 52% equity ratio at Ameren Missouri for ratemaking purposes. Ameren Missouri should not be allowed an equity ratio that its own parent company deems to be cost inefficient. This is especially egregious since Ameren Missouri's ratepayers are now incurring the risk associated with Ameren Missouri's ability to defer investment costs using PISA.

Q. Can you provide other evidence that supports your position that Ameren Missouri should have a lower common equity ratio than the 52% it has constantly targeted over the last ten years?

A. Yes, Ameren Missouri's business risk has declined due to the passage of SB 564, passed by the Missouri Legislature in 2018, and Ameren Missouri's decision to elect plant-in-service accounting (PISA). A fundamental consideration in determining how much financial risk, i.e. additional debt, an asset/business can support is how much business risk is inherent in that asset/business. Consequently, because Ameren Missouri's business risk declined, it could carry more leverage, i.e. debt, in its capital structure. Despite operating under less risk, Ameren Corp has not adjusted its targeted capital structure for Ameren Missouri to reflect the lower cost of capital that Ameren Missouri's customers support through the certainty of funding of investments subject to PISA. Based on Ameren Corp's

continued management of Ameren Missouri's capital structure to a 52% common equity ratio, it is evident that Ameren Corp is trying to retain the financial benefits enabled by SB 564, rather than passing this reduced cost through to ratepayers by adjusting its equity ratio. The Commission can ensure ratepayers realize the benefits of the lower risk they support by authorizing Ameren Missouri's ROR based on a lower common equity ratio. This can most objectively be accomplished by authorizing a common equity ratio consistent with Ameren Corp's on a consolidated basis. In addition, by using Ameren's common equity ratio for purposes of setting Ameren Missouri's revenue requirement, Ameren will be incentivized to manage its consolidated capital structure to a more conservative level, which will provide it financial flexibility during uncertain business and market conditions.

Q. What corroborating information supports your position that Ameren Missouri's business risk is lower due to its ability to recover a return on and of investments between rate cases through PISA?

A. First, the very fact that Ameren Corp has committed to investing significant amounts of capital in Ameren Missouri's system shows that Ameren Corp has confidence that it will receive timely recovery of and on its investments subject to PISA.

Second, on March 29, 2019, Moody's lowered Ameren Corp's Funds from Operations ("FFO")/debt[36] threshold to 17% from 19%, which means that Ameren Corp can incur more leverage as it compares to cash flow and still maintain its current credit rating of Baa1 (functional equivalent of S&P's BBB+). One of the primary reasons Moody's cited for allowing Ameren Corp to have a lower FFO/debt threshold (i.e. use of more leverage) was "improved regulatory construct in Missouri facilitating meaningful rate base growth and reducing regulatory lag [PISA]."[37] Ameren Corp's management indicated the following: **

[36] FFO/Debt (as generally referenced by most evaluating credit worthiness) is the credit metric that receives the most weight by both Standard & Poor's (S&P) and Moody's. This metric provides insight as to how much sustainable cash flow the operations generate as it relates to the amount of fixed obligations, which includes traditional debt, but also other obligations such as capital leases. The higher the ratio, the less financial risk implied by the ratio. Moody's more specifically defines FFO/debt as "Cash flow from Operations – Pre Working Capital to Debt". However, I will generally refer to each as FFO/debt.

[37] "Update to Credit Analysis," Moody's Investor Service, March 29, 2019, p. 2.

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_____ **This additional debt capacity should be reflected in Ameren Missouri's authorized capital structure because Ameren Missouri's customers are providing the cash flows that make this lower business risk possible. Considering the anticipated sizeable increase in Ameren Missouri's rate base over the next several years, it is just and reasonable to ensure ratepayers are charged a ROR based on the additional debt capacity they provide to Ameren Corp through lower-risk of rate recovery.

Third, as I discussed previously, Ameren Corp is now viewed as a premium utility by investors because of the anticipated growth in its investment and the investors' confidence in the probability of the recovery of a return of and on this investment. This is illustrated by the fact that Ameren Corp's price-to-earnings (P/E) ratios have been trading at a premium to its peers. These market signals are clear indications that Ameren Missouri has both a reduced business risk profile through legislative support for increased investment as well as higher expected growth in earnings and eventually dividends as a result of this growth in investment.

Q. What is the primary cause of Ameren Corp's current consolidated capital structure having a much lower equity ratio than Ameren Missouri's capital structure?

A. Ameren Corp's increased use of holding company debt to fund its investments. As of the updated test year, June 30, 2019, in Ameren Missouri's last rate case, Ameren had $700 million of holding company debt outstanding. Ameren Corp has approximately tripled the amount of holding company debt in less than two years. As of June 30, 2021, Ameren Corp had $2.05 billion of holding company debt outstanding.

[38] Ameren Corp's Finance Committee Meeting, February 7, 2019, p. 24

Q. Can you provide some examples of how Ameren Corp has managed its subsidiaries' capital structures to target ratemaking common equity ratios?

A. Yes. Although Ameren Corp's management of Ameren Missouri's capital structure is our primary focus, because Ameren Corp's management, through Ameren Services Company ("AMS"), is ultimately managing all of its subsidiaries for the benefit of Ameren Corp shareholders, it is important to evaluate and understand Ameren Corp's decisions as it relates to all of its subsidiaries.

Ameren Corp's management of Ameren Transmission Company of Illinois' ("ATXI") capital structure provides the most glaring example of how Ameren Corp manages its subsidiaries' capital structures to its benefit for ratemaking purposes. ATXI's rates are based on an authorized common equity ratio of 60.1%. Because ATXI was a new company with no financial experience and no significant assets until around 2014 to 2015, it completely relied on Ameren Corp for its capital needs until 2017.

Ameren Corp provided steady incremental financing to ATXI since 2010. Ameren Corp relies on its shared credit facilities with Ameren Missouri and Ameren Illinois in order to have access to commercial paper for financing needs at the holding company level. Ameren Corp has used this short-term debt capital to finance both its equity and debt investments in ATXI.[39] While it appears a majority of Ameren Corp's commercial paper financing was used for purposes of investing in ATXI's assets, which were classified as equity infusions into ATXI, it is also possible some of the commercial paper was issued to finance other Ameren Corp capital needs. For example, Ameren Corp used commercial paper to repay $425 million of long-term debt due in May 2014. In order to reduce the amount of short-term debt carried at the holding company due to the aforementioned financing needs, Ameren Corp issued $700 million of long-term debt. However, during much of this period in which Ameren Corp was funding these investments with external capital, it was also receiving a significant amount of dividends from Ameren Missouri. Being that there is no way to trace the capital once Ameren Corp receives it and redeploys

[39] Ameren Missouri response to OPC DR No. 3033 in Case No. ER-2019-0335.

it as it deems consistent with its organizational objectives, it becomes a futile effort to try and disaggregate the various forms of capital for each subsidiary. Fortunately, this is not necessary for purposes of determining how much debt the subsidiaries support because the consolidated capital structure provides this transparency.

After Ameren Corp financed ATXI's investments through short-term and long-term debt, ATXI issued $450 million of third-party debt on June 22, 2017. The proceeds from this debt were used to refund $425 million of the $500 million of debt financing Ameren Corp had provided to ATXI. None of the proceeds were used to return any portion of the equity financing Ameren Corp had infused into ATXI. It is important to emphasize that ATXI's equity and debt capital had been funded from the same source, Ameren Corp's commercial paper. After the aforementioned transactions were completed, ATXI still had a per books common equity ratio of around 55%, which is close to the 56% targeted at the time for FERC ratemaking purposes, despite being financed by debt.

Ameren Corp also manages Ameren Illinois' capital structure for ratemaking purposes. Ameren Illinois, Staff of the Illinois Commerce Commission ("ICC") and the industrial intervening party extensively litigated over several cases about whether Ameren Illinois's authorized ROR should be based on Ameren Illinois's per books capital structure, which showed a common equity ratios in the range of 52% to 54% in various dockets from 2011 to 2013[40], or if it should be adjusted to a lower level in order to recognize the reduced business risk afforded by the Illinois' Grid Modernization Act. The ICC Staff first determined Ameren Illinois's common equity ratio on a stand-alone basis after making adjustments to remove goodwill from Ameren Illinois's common equity balance. After going through this exercise, ICC Staff still determined that Ameren Illinois's common equity ratio was still unreasonable for the reduced business risk associated with the certainty of formula ratemaking allowed with the Grid Modernization Act.

The ICC Staff then recommended a common equity ratio for Ameren Illinois consistent with Ameren Corp on a consolidated basis. After many years of litigation on

[40] Docket Nos. D-11-0279, D-12-0293 and D-13-0301.

the issue, the parties eventually agreed to deem a common equity ratio of "up to and including 50% of the total capital" as reasonable for purposes of setting rates for Ameren Illinois without requiring further litigation. This agreement was codified into law by the 2016 Illinois Legislature's passage of the Future Energy Jobs Act ("FEJA") as an amendment to the 2011 Illinois Energy Infrastructure Modernization Act. Until recently, Ameren Corp has managed Ameren Illinois's actual adjusted year-end common equity ratio to within 25 basis points (0.25%) of the 50% determined reasonable for ratemaking in Illinois. The adjusted year-end common equity ratio has not varied by more than 15 basis points (0.15%) over this period. However, in Ameren Illinois' current docket, Docket No. D-21-0365, Ameren Illinois is requesting a 53.06% common equity ratio. Ameren Illinois claims that its reduced 7.36% authorized ROE and lower cash flows due to the reduction of the corporate income tax rate starting in 2018, required it to manage to a higher common equity ratio.

Q. How has Ameren Corp managed Ameren Missouri's capital structure for ratemaking?

A. Ameren Missouri manages to its 52% targeted common equity ratio by means of its equity infusions, its dividend payments and its debt financings. Ameren Missouri's common equity ratios for rate cases since 2010 have been in the range of 51.26% to 52.30%, with all cases but the 2010 rate case being within 51.75% and 52.30%.

Despite Ameren Missouri's FFO/debt ratios being consistent with 'A' ratings based on both Moody's and S&P's benchmark credit metrics, Ameren Corp has not allowed Ameren Missouri's capital structure to reflect its true debt capacity.[41] Allowing Ameren Missouri's capital structure to carry more debt would reduce the cost of capital Ameren Missouri ratepayers would be charged in the revenue requirement. Of course, being that Ameren Corp had historically needed to raise debt capital for investment in its other subsidiaries as well as support its dividend payments to its shareholders, Ameren Corp had a financial incentive to maintain a higher common equity ratio at Ameren Missouri because

[41] Union Electric Co. d/b/a Ameren Missouri, S&P Global RatingsDirect, April 30, 2021, p. 9. Union Electric Company, Moody's Investors Service, April 3, 2020, p. 2.

this generated more cash flow for the consolidated entity. It is not fair to Ameren Missouri's ratepayers for Ameren Corp to use Ameren Missouri's debt capacity for the benefit of Ameren Corp and its shareholders.

Q. What evidence can you provide that shows Ameren Missouri's capital flows are not managed as if it were a stand-alone entity?

A. If Ameren Missouri's capital structure were being managed for its own benefit, then one would expect that it would have a carefully managed dividend payment policy, similar to how Ameren Corp manages its dividend payments to a targeted payout ratio in the range of 55% to 70%. However, over the most recent five years, Ameren Missouri has had a dividend payout ratio that has ranged from a low of 15.03% in 2020 to a high of 111.04% in 2017. If Ameren Missouri were financially managed as a stand-alone entity, it would have its own formal dividend policy. Ameren Missouri shouldered the burden of dividends ultimately paid to Ameren Corp shareholders through 2018 because Ameren Corp had only been minimally reinvesting in Ameren Missouri until it elected PISA as of September 12, 2018, whereas it had been investing significant amounts of capital in ATXI and Ameren Illinois. Ameren Illinois distributed $110 million of dividends in 2016 and $9 million of dividends in 2020. ATXI has required much less investment since 2017, which is the last year in which ATXI did not distribute a dividend to Ameren Corp. ATXI had a dividend payout ratio of 97.22% in 2018, 18.03% in 2019 and 32.78% in 2020. If Ameren Corp's subsidiaries were stand-alone entities, then it would be impossible for their cash flows to be managed in this fashion because the shareholders of each entity would expect a consistent and steady dividend payout ratio.

Q. What other tools allow Ameren Corp to manage its subsidiaries' common equity ratios?

A. First, the subsidiaries do not have the capability to manage their own capital needs. AMS provides this function for all of Ameren Corp's subsidiaries that have total operational control of all entities, except for Ameren Missouri and Ameren Illinois.

AMS uses short-term debt, i.e. commercial paper, at Ameren Corp to make capital infusions in its subsidiaries. Being that Ameren Missouri has a finite amount of cash it can provide to Ameren Corp via dividends, at times Ameren Corp has not received enough dividends from its subsidiaries to fully fund the dividends it pays to its shareholders. Consequently, other capital has to be raised to fund this deficiency.

Ameren Corp freely admits that it issues short-term debt and long-term debt at the holding company level to invest in its Ameren Illinois and ATXI subsidiaries.[42] However, Ameren Corp indicates it's a matter of policy not to do the same for Ameren Missouri because it wants to ensure that Ameren Missouri's equity is supported by Ameren Corp's third-party equity issuances.[43] This has been Ameren Corp's basis for maintaining that Ameren Missouri's equity ratio is legitimate for ratemaking purposes. Although Ameren Corp made a strategic financing decision to issue third-party equity to partially finance its planned purchase of wind projects, Ameren Corp had just as significant of financing needs in years leading up to the purchase of the wind projects, in which it could have issued equity to third-party equity investors. There have been several periods in which Ameren Corp's short-term debt balances have been approximately $1 billion, which would have warranted issuing common equity to reduce the amount of leverage at Ameren Corp.

Q. Are there any other consequences of maintaining a high common equity ratio on Ameren Missouri's revenue requirement other than charging a higher return for a higher proportion of the capital structure?

A. Yes. Although the common equity ratio has been my primary point of contention as to how Ameren Corp inflates Ameren Missouri's cost of service, because debt yields have been very favorable, reaching all-time lows recently, Ameren Corp's strategy also prevents Ameren Missouri ratepayers from realizing lower cost of debt capital. Ameren Corp's decision to issue holding company debt also impacts Ameren Missouri's debt issuance strategies. **

[42] See Ameren Missouri's response to DR No. 3033 in Case No. ER-2019-0335.
[43] *Id.*

**[44]

Considering Ameren Corp has $425 million of debt that matures in 2024, $350 million that matures in 2026, $450 million in debt that matures in 2028 and $800 million of debt that matures in 2031, this precludes Ameren Missouri from issuing sizeable debt that matures in these years. However, because Ameren Corp typically refinances Ameren Missouri's long-term debt with debt that have tenors in excess of ten years, Ameren Missouri's financings do not cause problems for Ameren Corp. But considering the fact that this longer-tenor debt is more costly than shorter-tenor debt, this increases the cost of debt capital charged to Ameren Missouri ratepayers.

Q. How does the weighted-average maturity of Ameren Corp's holding company debt compare to Ameren Missouri's debt as of August 26, 2021?

A. Ameren Missouri's is almost 10 years longer at 16.22 years as compared to Ameren Corp's 6.54 years.

Q. If Ameren Missouri issued shorter-term tenor debt, how would this impact its cost of debt?

A. It would be lower in most situations.

Q. What have you done to ensure that Ameren Missouri receives the benefit of current low debt capital costs in its capital structure?

A. If Ameren Missouri had a common equity ratio similar to Ameren Corp's on a consolidated basis, it would substitute $626.715 million of common equity with debt. For purposes of the assumed cost of this debt, I used a weighted average cost of 2.88% based on Ameren Missouri's issuance of 30-year, 2.65% debt on October 9, 2020 and 10-year, 2.95% debt on March 20, 2020. Including the amount and the cost of this debt in Ameren Missouri's embedded cost of debt reduced Ameren Missouri's embedded debt cost by approximately 14 basis points.

[44] Ameren Corporation Finance Committee Materials, December 10, 2020, p. 16.

Q. Why do you consider Ameren Corp's long-term equity ratio to be the most appropriate for setting Ameren Missouri's allowed ROR?

A Ameren Corp allocates capital around its companies to target and achieve ratemaking common equity ratios. The most objective and practical measure of the capital structure that captures the debt capacity of Ameren Corp's regulated utility assets, is that of the Ameren Corp on a consolidated basis. Consequently, this is why I am recommending Ameren Missouri's common equity ratio be set no higher than Ameren Corp's, which is currently approximately 45%, net of short-term debt.

Q. Do Ameren Corp's financial projections anticipate a 45% common equity ratio?

A. No. Ameren Corp expects its consolidated common equity ratio to be around ** _____ _____ _____ **[45] Because short-term debt costs are used for purposes of capitalizing construction work in progress ("CWIP") through the AFUDC capitalization rate, it is appropriate to exclude short-term debt from the capital structure used for ratemaking as long as short-term debt balances do not exceed CWIP balances. If short-term debt were to exceed CWIP progress balances, then inclusion of short-term debt in the authorized capital structure should be considered.

Q. How much short-term debt has Ameren Corp been carrying on its balance sheet from December 31, 2019, through December 31, 2020?

A. Ameren Corp's average monthly balances of short-term debt has been approximately $317 million.

Q. What was Ameren Corp's cost of short-term debt at the end of December 31, 2020?

A. 0.20%.[46]

[45] "Leading the Way to a Sustainable Energy Future," Ameren Rating Agency Update, March 2021.
[46] Ameren Missouri Response to Staff Data Request No. 113.

Q. How much CWIP has Ameren Corp been carrying on its balance sheet for the same period?

A. Over $1 billion.

Q. How much CWIP and short-term debt has Ameren Missouri been carrying on its balance sheet for the same period?

A. Ameren Missouri has had CWIP of about $663 million, with short-term debt balances around $147 million.

Q. What was Ameren Missouri's cost of short-term debt at the end of December 31, 2020?

A. 0.20%.[47]

Q. Based on this information, do you think it is appropriate to exclude short-term debt from Ameren Missouri's ratemaking capital structure?

A. Yes.

Q. How can the Commission determine an equitable, market-tested and objective capital structure that more closely captures the amount of debt capacity that is consistent with Ameren Missouri's business risks?

A. The Commission can more closely capture debt capacity consistent with Ameren Missouri's business risks by using Ameren Corp's consolidated capital structure as a proxy. While this capital structure includes capital that is used for investment in all of Ameren Corp's assets, this should not be the focus for determining the proper balance of capital as it relates to each of Ameren Corp's subsidiaries. For example, while FERC has decided to allow ATXI a common equity ratio of 60.1% for purposes of setting its allowed ROR, Ameren Corp understands that these assets can support a much higher amount of leverage because of the low business risk associated with these assets. Consequently, Ameren Corp

[47] *Id.*

initially issued all holding company debt for purposes of funding its investment in ATXI. In 2017, ATXI issued $450 million of third-party debt, which was used to refund the affiliate loans Ameren made to ATXI. Ameren Corp's strategic financing decisions primarily concentrate on the amount of leverage Ameren Corp can carry on a consolidated basis. This capital structure most accurately reflects the debt capacity afforded by Ameren Missouri's assets.

OVERALL RATE OF RETURN

Q. Should the Commission take anything else into consideration when deciding a fair and reasonable rate of return, which includes the authorized capital structure and the authorized ROE, for Ameren Missouri?

A. Yes. I have provided my recommendations regarding a fair and reasonable allowed ROE considering the current low cost of capital environment for the utility industry. I have also recommended a capital structure that recognizes the debt capacity made possible by Ameren Missouri's lower business risk. However, as became apparent over the last few years, Ameren Corp diverted significant amounts of capital to its jurisdictions that provided more favorable ratemaking treatment. Apparently Ameren Corp decided it could create more value for its shareholders by investing in Ameren Illinois and ATXI. At least for Ameren Illinois's electric utility operations, this higher value would likely have been a function of lower business risk since Ameren Illinois has been able to earn its allowed ROR through formula rates. Ameren Missouri elected PISA in September 2018. This mechanism eliminates all but a minimal amount of regulatory lag as it relates to Ameren Missouri's capital investments. Under GAAP, Ameren Missouri will be able to flow through the debt portion (about 5%) of its deferred ROR directly to earnings as the plant goes into service. Although the equity portion will still accrue and eventually be charged to ratepayers through a higher rate base, Ameren Corp is not allowed to book it in current earnings.

Ideally, Ameren Corp would be indifferent between its investments in Ameren Illinois' gas distribution utility operations and Ameren Missouri's gas distribution utility

operations assuming regulatory ratemaking parity. Under such an ideal scenario, Ameren would invest in the most economically efficient projects. However, the last few years has proven this is not how Ameren Corp approaches its investment decisions, at least as it relates to its electric utility investments. Ameren Corp has allocated a majority of its electric utility investments to Ameren Illinois. As long as this doesn't cause overinvestment and a strategy of achieving shareholder returns by simply growing rate base without consideration of need for investments, then this policy may be palatable. However, there are means by which regulators can discourage such strategies when a company has assets in several jurisdictions, such as Ameren Corp. One of those means is to take into consideration the allowed ROR in the other jurisdiction. Ameren Illinois was recently allowed an ROE of 9.67% applied to a 52% equity ratio in its gas distribution rate case in 2020.

Q. Is there any evidence that shows that Ameren Illinois's and Ameren Missouri's cost of capital are fairly similar?

A. Yes. I reviewed current over-the-counter trades for both Ameren Illinois's and Ameren Missouri's longer maturity bonds. Ameren Illinois's bonds maturing in 2049 and 2050 have traded at a YTM in the range of 2.7% to 2.9% in August 2021. Ameren Missouri's bonds of similar maturities trade at YTM of 2.6% to 2.85%. These similar yields substantially support using the same cost of capital, i.e. discount rates, for purposes of determining the net present values ("NPV") of projects being considered for Ameren Illinois or Ameren Missouri. Therefore, if one jurisdiction sets its authorized ROR at a level higher than parity compared to the other jurisdiction, then given two comparable projects, Ameren Corp naturally will invest in the jurisdiction that authorizes a higher ROR because it would create more value for shareholders. It is this very conflict that underlies the principle of authorizing a ROR based on the market cost of capital because otherwise, jurisdictions will be bidding against each other. Awarding ROR's based on a desire to compete with other states will create a perverse incentive for utility projects to be pursued based on earnings alone, not economics and customer need. If the economics of potential

projects, not just the awarded ROR, support the possibility of achieving a ROR higher than the cost of capital, then the company will pursue such projects.

Q. Can you provide an example based on Ameren Missouri's current authorized ROR as compared to Ameren Illinois's current authorized ROR?

A. Not directly because the Commission has not authorized a ROR for Ameren Missouri's gas distribution operations within at least the last ten years. However, the parties to Ameren Missouri's last gas distribution rate case did agree to use an ROE of 9.725% applied to a 52.045% common equity ratio for purposes of charges related to the Infrastructure System Replacement Surcharge ("ISRS").[48] Ameren Illinois is currently authorized a 9.67% ROE applied to a 52% equity ratio. Both companies have a current market cost of 30-year debt of approximately 2.75%. Therefore, I will assume the same cost of debt for each company's revenue requirement. Through a simple example of investing $30 million in rate base, I will show the additional value Ameren Corp would generate for its shareholders for investing in Missouri if Ameren Missouri is allowed the same ROR assumed for ISRS in the 2019 rate case.

For simplicity, I assumed that the additional $30 million investment is made at one time rather than periodically. I also assumed the project would have a depreciation life of 30 years. Ameren Missouri's authorized ROR using a 52.045% equity ratio, a 9.725% allowed ROE and a 2.75% cost of debt is 6.04%. Ameren Illinois's authorized ROR using a 52% equity ratio, a 9.67% allowed ROE and a 2.75% cost of debt is 6.01%. Ameren Corp would create an additional $97.4 thousand of return/value for its shareholders if it invested the $30 million in Ameren Missouri projects as compared to Ameren Illinois projects.

[48] Case No. GR-2019-0077, First Amended Nonunanimous Stipulation and Agreement, July 18, 2019, p. 2 and Darryl T. Sagel's Surrebuttal Testimony, July 10, 2019, p 11

Q. What if the previous 9.725% ROE were applied to your current recommended 45% common equity ratio?

A. A $30 million investment in Ameren Missouri rather than Ameren Illinois would generate a $1.5 million lower value for shareholders. This incentivizes Ameren Corp to invest in Ameren Illinois' gas distribution operations rather than Ameren Missouri's gas distribution operations.

Q. How much more shareholder value would Ameren Corp create by investing in Ameren Illinois' gas distribution operations if the Commission adopts your recommended 9.25% ROE and the 45% common equity ratio?

A. A $30 million investment in Ameren Illinois' gas distribution operations would create $2.2 million more in shareholder value as compared to a $30 million investment in Ameren Missouri's gas distribution operations.

SUMMARY AND CONCLUSIONS

Q. Can you summarize your main conclusions and views as it relates to an authorized ROR in this case?

A. Yes. The cost of capital for utilities continues to be low with direct proof supported by extremely low long-term debt yields. Ameren Corp is taking advantage of the low-cost1debt by issuing increasing amounts and proportions of debt at the holding company level. However, it is not providing Ameren Missouri's ratepayers their fair share of the lower cost of capital. Although Ameren Missouri has gained favorable reductions in its business risk due to legislation passed in Missouri, Ameren Corp has not adjusted Ameren Missouri's targeted capital structure to recognize such. Not only has Ameren Missouri's business risk declined since it has been able to use PISA, but capital market conditions have loosened considerably since Ameren Missouri elected PISA. Ameren Missouri's allowed ROR should reflect the higher debt capacity associated with lower business risk through both a lower equity ratio and a lower ROE.

There are other simple and direct market indicators that indicate Ameren Missouri's cost of capital is quite low. For example, Ameren Missouri recently issued a 30-year bond at a coupon of 2.625%. I personally don't know the last time Ameren Missouri was able to issued 30-year bonds at this low of a cost, but if it has been able to do so, it would had to have been over 70 years ago. All simple and objective signs indicate Ameren Missouri's natural gas distribution operations should be authorized an ROE no higher than 9.5%.

It is also clear that Ameren Missouri's business risk is lower, which means it can take on more financial risk, i.e. debt, in its capital structure. Ameren Corp has not managed Ameren Missouri's capital structure to allow it to realize the lower cost of capital that accompanies its lower business risk. The Commission should lower Ameren Missouri's allowed equity ratio to ensure ratepayers receive the benefit of a lower capital cost during Ameren Missouri's period of rapidly increasing rate base prompted by SB 564.

Although my recommended ROR for Ameren Missouri's gas distribution operations will make Ameren Corp's investments in Ameren Missouri's gas distribution operations less attractive than investments in Ameren Illinois's gas distribution operations, the incentive to invest in Ameren Missouri's electric system, due to its scale, far outweighs the comparative disincentive to invest in its gas distribution system. Additionally, based on my estimate of Ameren Missouri's cost of capital, an investment in Ameren Missouri's gas distribution operations will still create shareholder value for Ameren Corp, just not as much as a similar investment in Ameren Illinois's gas distribution system.

Q. Does this conclude your testimony?

A. Yes.