

Exhibit No.:	
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Witness/Type of Exhibit:	Murray/Direct
Sponsoring Party:	Public Counsel
Case No.:	ER-2022-0337

DIRECT TESTIMONY

OF

DAVID MURRAY

Submitted on Behalf of the Office of the Public Counsel

**UNION ELECTRIC COMPANY
D/B/A AMEREN MISSOURI**

CASE NO. ER-2022-0337

** _____ **
Denotes Confidential Information that has been redacted

January 13, 2023

PUBLIC

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DIRECT TESTIMONY
OF
DAVID MURRAY
UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI
FILE NO. ER-2022-0337

1 **Q. Please state your name and business address.**

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

4 **Q. By whom are you employed and in what capacity?**

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

7 **Q. On whose behalf are you testifying?**

8 A. I am testifying on the behalf of the OPC.

9 **Q. What is the purpose of your testimony?**

10 A. To recommend a fair and reasonable rate of return (“ROR”) for purposes of setting Ameren
11 Missouri’s revenue requirement for its regulated electric utility operations.

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

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

16 **Q. What aspects of ROR will you address?**

17 A. I will address a fair and reasonable allowed return on common equity (“ROE”) and a fair
18 and reasonable capital structure.

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

3 A. Ameren Missouri’s allowed ROE should be set no higher than 9.25%, which is consistent
4 with the Commission’s authorized ROE of 9.25% for The Empire District Electric
5 Company (“Empire”) in Case No. ER-2019-0374. As I will explain later in my testimony,
6 despite debt costs reaching all-time lows during the latter part of 2020 and into 2021, and
7 then increasing rapidly and dramatically in 2022, the electric utility industry’s stock
8 valuation levels have remained fairly consistent since Empire’s rate case. Ameren
9 Missouri’s authorized common equity ratio should be more consistent with Ameren
10 Corp.’s actual consolidated common equity ratios, which have been approximately 42% to
11 43%, after excluding short-term debt.

12 **Q. Before you discuss the details supporting your analysis, would you summarize the**
13 **rationales for your conclusions?**

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

17 I recommend that the Commission set Ameren Missouri’s allowed ROE for its electric
18 utility operations at 9.25% based on my determination of a reasonable ROE range of 8.4%
19 to 9.25%. Although utility industry capital market conditions indicate an increase in the
20 cost of common equity (“COE”) since the Commission set Empire’s ROE at 9.25%, the
21 same does not hold true since the Commission set Ameren Missouri’s ROE at 9.53% in
22 2015 in Case No. ER-2014-0258. While Ameren Missouri’s authorized ROE has never
23 been reduced since 2015, its sister company, Ameren Illinois, has experienced regular
24 reductions to its annual authorized ROE from the low 9% range in 2015 to the 7% range in
25 recent years. These reductions were due to the fact that Ameren Illinois’ electric utility
26 authorized ROEs were set annually via a prescribed ROE formula (average monthly yields
27 on 30-year United States Treasury bonds for a calendar year plus a 580 basis point risk
28 premium). However, recent increases in interest rates will cause Ameren Illinois’ electric

1 utility authorized ROE to be closer to 9%. Considering Ameren Missouri’s business risk
2 profile has declined since 2015, macro conditions have become more supportive of higher
3 valuation levels for electric utility stocks since 2015, and Ameren Illinois has had a
4 consistently declining authorized ROE since 2015, a 9.25% authorized ROE for Ameren
5 Missouri’s electric utility operations is fair and reasonable.

6 I recommend that the Commission set Ameren Missouri’s authorized common equity ratio
7 at 43% rather than the 52% ratio Ameren Corporation (“Ameren Corp”) has been targeting
8 for Ameren Missouri over the last several rate cases. Ameren Missouri’s business risk
9 profile declined after Missouri passed Senate Bill (“SB”) 564, which allowed Ameren
10 Missouri to elect, in September 2018, an investor-friendly ratemaking mechanism referred
11 to as plant in service accounting (“PISA”) for its electric utility operations.¹ Ameren
12 Missouri’s reduced business risk profile allows for greater debt capacity, as Moody’s
13 directly acknowledged in response to the availability of the PISA mechanism when it
14 relaxed the benchmark credit metrics it requires for Ameren Corp to maintain its current
15 credit rating. This greater debt capacity allows for a lower cost of capital. However,
16 Ameren Corp is attempting to retain this lower cost of capital for its shareholders rather
17 than providing this savings to Ameren Missouri and its ratepayers. That is, Ameren Corp
18 is managing Ameren Missouri’s capital structure for purposes of maintaining a higher ROR
19 for ratemaking rather than achieving a lower cost of capital. Ameren Corp has been and
20 continues to misappropriate Ameren Missouri’s higher debt capacity to Ameren Corp. The
21 Commission can rectify this attempted unfair transfer of Ameren Missouri’s debt capacity
22 to Ameren Corp by authorizing Ameren Missouri a common equity ratio consistent with
23 Ameren Corp’s on a consolidated basis.

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

1 **FAIR RETURN ON COMMON EQUITY**

2 **Q. What is the most often cited basis for determining a fair and reasonable ROE for**
3 **purposes of setting utility rates?**

4 A. The following principles of the *Hope*² and *Bluefield*³ Supreme Court of the United States
5 cases are often cited as criteria in setting a fair and reasonable ROE for purposes of utility
6 ratemaking:

- 7 1. Comparable returns for similar risk;
- 8 2. Financial integrity/maintain credit; and
- 9 3. Capital attraction.

10 The *Hope* (1943) and *Bluefield* (1923) principles were established well before the advent
11 of modern cost-of-equity methods, such as the discounted cash flow (“DCF”) method and
12 the Capital Asset Pricing Model (“CAPM”). Therefore, while setting ROEs based on the
13 COE has generally been considered consistent with the *Hope* and *Bluefield* principles, other
14 factors, such as other jurisdictions’ authorized ROEs have been cited by this Commission
15 as a relevant factor it should consider. The authorized ROE is a regulatory ratemaking
16 concept that quantifies the amount of net income allowed in the revenue requirement. The
17 COE is a market-based concept that quantifies investors’ required return on their common
18 equity investment. Because ROEs have generally been set in the 9% range, while an
19 overwhelming amount of evidence demonstrates that investors’ required returns (*i.e.* COE)
20 on utility equity investments have typically been much lower, I correctly differentiate
21 between allowed ROEs and the COE in my analysis and recommendation.

² *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1943).

³ *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679 (1923).

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

3 A. I reconciled the principles established in *Hope* and *Bluefield* with the modern financial
4 models used to estimate the COE.

5 Considering these principles, I first estimated Ameren Missouri's current COE using
6 modern financial models/methods. Then I compared Ameren Missouri's current COE to
7 historical COE estimates as well as to my recent COE estimates for water, electric and
8 natural gas utility industries in Missouri American Water Company's ("MAWC") rate
9 case, Case No. WR-2022-0303, Evergy's rate cases for Evergy Metro and Evergy Missouri
10 West, Case Nos. ER-2022-0129 and ER-2022-0130, respectively, and Spire Missouri's rate
11 case, Case No. GR-2022-0179. Finally, I considered the Commission's "zone of
12 reasonableness standard"⁴ for purposes of setting an allowed ROE, with the starting point
13 for this zone of reasonableness being a recent industry average allowed ROE.

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

15 A. Ameren Missouri's COE is in the range of 7% to 7.5%.

16 **Q. How does your COE estimate for Ameren Missouri compare to your most recent COE**
17 **estimates for MAWC, Spire Missouri and Evergy's Missouri electric utilities?**

18 A. It is higher than my estimates for MAWC, but similar to my estimates for Evergy Metro,
19 Evergy Missouri West and Spire Missouri. I estimated a COE of 6.0% to 6.5% for MAWC
20 as of November 2022; a COE of 7.25% to 7.5% for Spire Missouri as of August 2022; and
21 a COE of 7% to 7.5% for Evergy Metro and Evergy Missouri West as of June 2022.

⁴ *State ex rel. Missouri Gas Energy v. Public Service Commission*, 186 S.W.3d 376, 383 (Mo App. W.D. 2005)

1 **Q. Based on your analysis and awareness of capital market conditions, investor**
2 **expectations and recent average allowed ROEs for electric utilities, what do you**
3 **consider to be a fair and reasonable allowed ROE for Ameren Missouri’s electric**
4 **utility operations?**

5 A. 8.40% to 9.25%. 8.4% is approximately the lowest ROE that the Commission would
6 consider under its “zone of reasonableness” standard (average authorized ROE of
7 approximately 9.4% less 100 basis points), while 9.25% would appropriately reduce
8 Ameren Missouri’s current authorized ROE of 9.53% for its electric utility operations,
9 which the Commission set approximately eight years ago in Case No. ER-2014-0258.⁵
10 After considering my COE estimates in this case compared to other recent Missouri utility
11 rate cases, the Commission’s authorized ROE for Empire, and the authorized ROEs for
12 Ameren Illinois’ electric utility operations, I consider a 9.25% authorized ROE to be fair
13 and reasonable if applied to my recommended common equity ratio of 43%.

14 **Q. How did you inform yourself for determining the best methods and approaches to use**
15 **to estimate Ameren Missouri’s COE for this case?**

16 A. For purposes of this case, I reviewed Ameren Corp’s Board of Directors (“BOD”) strategic
17 financing and investment considerations since June 2021. I also reviewed equity
18 investment research reports covering Ameren Corp and the utility industry since at least
19 January 1, 2022. Additionally, I generally considered the information I had reviewed for
20 purposes of Ameren Missouri’s 2019 and 2021 rate cases, Case Nos. ER-2019-0355 and
21 ER-2021-0320, respectively. This information provided me insight as to the types of
22 methods/models typically used by investors to determine fair prices to pay for utility
23 stocks. Consequently, I decided the best approach to estimate Ameren Missouri’s COE
24 was to perform a COE analysis on its parent company, Ameren Corp, in conjunction with
25 a COE analysis on a proxy group of electric utility companies.

⁵ The Commission approved a Non-Unanimous Stipulation and Agreement in Case No. ER-2019-0335 in which parties specified an ROE range of 9.4% to 9.8% without specifying the capital structure to which it would be applied. Rate of return parameters were not addressed in Ameren Missouri’s Case Nos. ER-2016-0179 and ER-2021-0240. Rate of return has not been litigated in an Ameren Missouri rate case as a separate issue since Case No. ER-2014-0258.

1 **Q. What equity research firms cover Ameren Corp’s stock?**

2 A. According to Ameren Corp’s website, the following firms cover its stock: Argus Research
3 Corporation, Bank of America (“BofA”), BMO Capital Markets, Evercore ISI, Goldman
4 Sachs, Guggenheim, JP Morgan, KeyBanc Capital Markets (“KeyBanc”), Mizuho, Morgan
5 Stanley, Morningstar Equity Research, UBS, Value Line, Wells Fargo Securities, and
6 Wolfe Research (“Wolfe”).⁶

7 **Q. What specific COE models did you use?**

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

19 **Q. Is it important to analyze capital market conditions over time as it relates to the**
20 **electric utility industry and Ameren Corp?**

21 A. Yes. This information should help provide context as to the current state of utility capital
22 markets as it relates to historical periods. At times, I focus on shorter periods, such as since
23 2015, because this is the last time in which the Commission decided a fair and reasonable
24 authorized ROE for Ameren Missouri.

⁶ <https://www.amereninvestors.com/company-info/analyst-coverage/default.aspx>.

1 **Q. What allowed ROE did you recommend in Ameren Missouri’s 2019 and 2021 rate**
2 **cases?**

3 A. I recommended an allowed ROE of 9.25% in its 2019 rate case, Case No. ER-2019-0335,
4 and a 9% allowed ROE in its 2021 rate case, Case No. ER-2021-0240.

5 **Q. Were your recommended allowed ROEs consistent with your COE estimates in those**
6 **cases?**

7 A. No. In Ameren Missouri’s 2019 rate case, I estimated Ameren Missouri’s COE to be in
8 the range of 5.5% to 6.5%. In Ameren Missouri’s 2021 rate case I estimated Ameren
9 Missouri’s COE to be in the range of 6.5% to 7.0%.

10 **Q. Why did you recommend authorized ROEs higher than your COE estimates?**

11 A. Because despite fairly straightforward evidence of significant declines in the utility
12 industry’s cost of capital, utility regulatory ratemaking bodies have been hesitant to reduce
13 authorized ROEs at the same pace. Therefore, my goal has been to provide evidence to
14 attempt to convince this Commission that utility stock valuation levels support at least
15 incremental reductions to prior authorized ROEs.

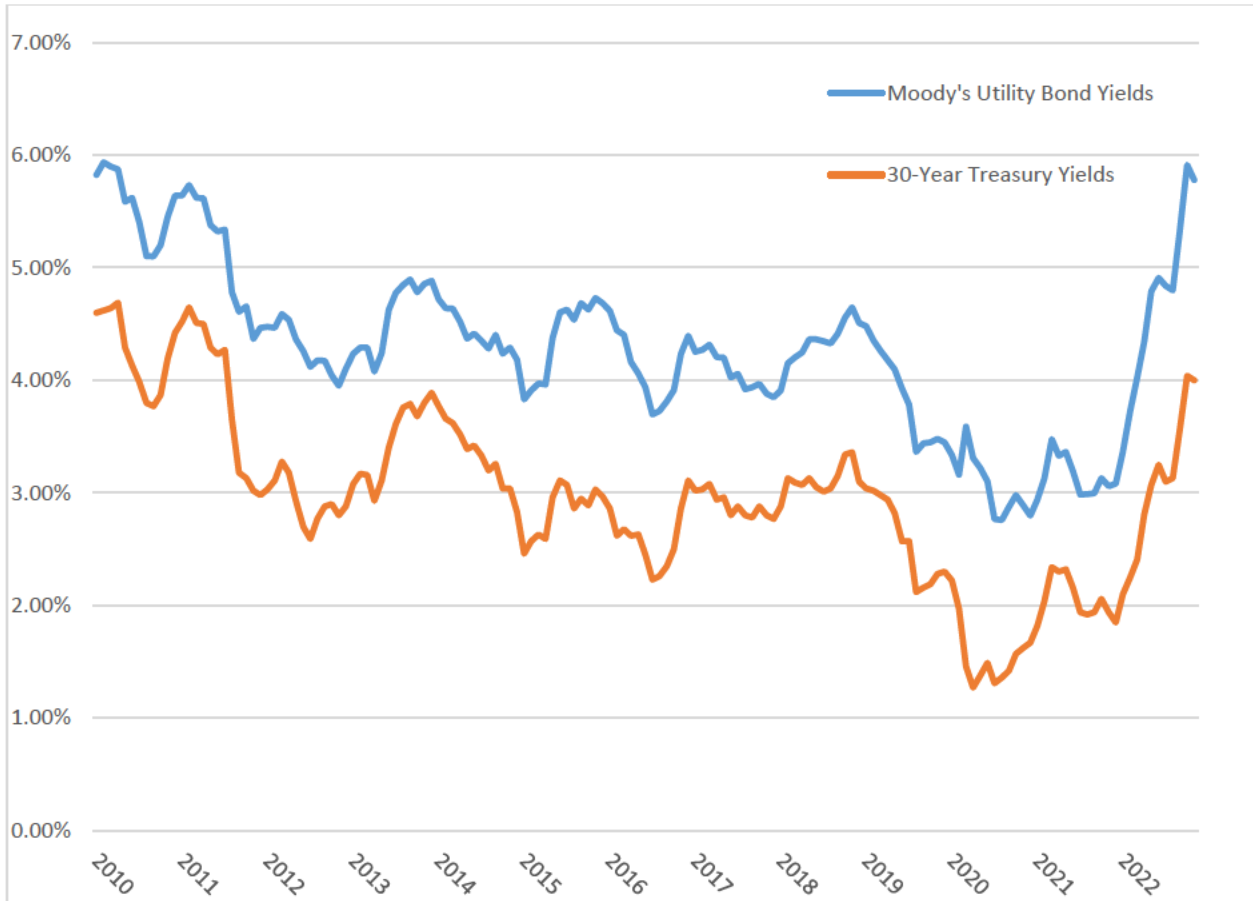
16 **Q. Have long-term bond yields increased recently?**

17 A. Yes, they increased dramatically in 2022. Both investment-grade utility bond yields and
18 long-term United States Treasury (“UST”) bonds have almost doubled since the end of
19 2021. This dramatic increase followed a period of historically low bond yields in 2020 and
20 2021.

21 The below graph shows long-term bond yields since January 1, 2010. While the early
22 stages of lower long-term interest rates in the first half of the past decade were considered
23 by some as potentially anomalous because of the Federal Reserve Bank’s (“Fed”)
24 quantitative easing (“QE”) programs⁷ through October 2014, for the last half of the past

⁷ 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.

1 decade, long-term interest rates continued an overall declining trend, until they reached all-
2 time lows in 2020 and 2021. However, as can be seen in the chart below, long-term rates
3 increased dramatically in 2022.



4
5 Average utility long-term bond yields dropped to modern all-time lows in the latter half of
6 2020—levels not experienced since the late 1940s and early 1950s. However, the average
7 yield on the Moody's Public Utility Bond index and 30-year UST bonds have
8 approximately doubled since the beginning of 2022. Analyzing bond yields over the last
9 few months might cause one to conclude that the utility industry's COE has increased
10 dramatically, just as analyzing bond yields during much of 2020 and 2021 might have
11 caused one to conclude that the utility industry's COE had decreased dramatically.
12 However, post onset of Covid-19, capital markets have not traded consistent with
13 underlying fundamentals. Much of this appears to be driven by the Fed's and UST's (as

1 authorized by the United States Congress) massive interventions through monetary and
2 fiscal policies, respectively.

3 **Q. Why is it typically important to evaluate trends in long-term interest rates when**
4 **evaluating the utility industry’s COE?**

5 A. The investment community typically regards utility stocks as bond proxies/pseudo bonds,
6 meaning that if long-term bond yields decline, then this typically causes regulated utility
7 stock prices to increase. ** _____
8 _____ **⁸ Therefore, changes in utility stock
9 valuation levels have historically had a strong inverse correlation to changes in bond yields,
10 *i.e.* as bond yields decline, utility stock prices increase.

11 **Q. Since April 2020, have utility stock valuations and bond yields traded consistent with**
12 **historical patterns?**

13 A. No. Following drastic and significant intervention by the Fed in monetary policy and the
14 UST in fiscal policy in reaction to Covid-19 and its associated mitigation measures, the
15 yield-to-maturity (“YTM”) on utility and corporate bonds traded at 70-to-80 year lows.
16 However, at the same time, electric utility stocks underperformed the S&P 500. The same
17 atypical trading pattern occurred as long-term bond yields began a dramatic increase in
18 2022. Electric utility stocks significantly outperformed the S&P 500 on a relative basis,
19 despite the fact that long-term yields increased through much of 2022. The increase in
20 yields caused the S&P 500 to contract significantly, while causing only a slight decline in
21 electric utility stock prices, allowing them to maintain similar P/E ratios as before the rapid
22 increase in long-term interest rates. However, as I will discuss later, electric utility stocks
23 finally resumed their more typical trading patterns with long-term yields starting in mid-
24 September 2022.

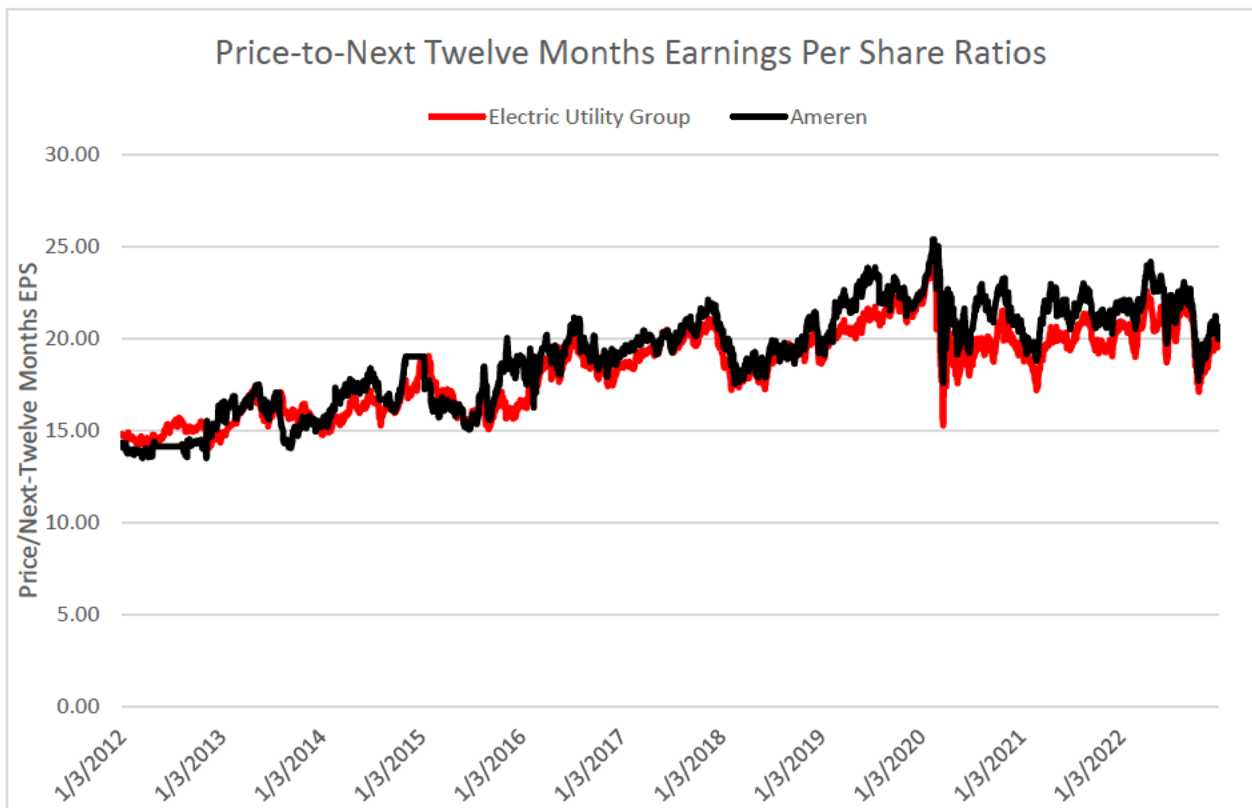
25 Consequently, while the utility industry’s debt costs have fluctuated along with the macro
26 changes in interest rates over the last few years, the same has not typically held true for the

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

1 electric utility industry's cost of equity. For example, as I will discuss later in my analysis
2 using the CAPM, the cost of equity indications using the CAPM imply that the utility
3 industry's COE has also fluctuated significantly since 2020, but such indications are not
4 consistent with current utility equity market valuations. Current utility equity market
5 conditions imply that investors currently require a lower equity risk premium to invest in
6 utility stocks as compared to bonds.

7 **Q. Would you illustrate graphically a comparison of Ameren Corp's P/E ratios to those**
8 **of an electric utility industry proxy group⁹ from 2012 to the present?**

9 A. Yes. See the below graph:



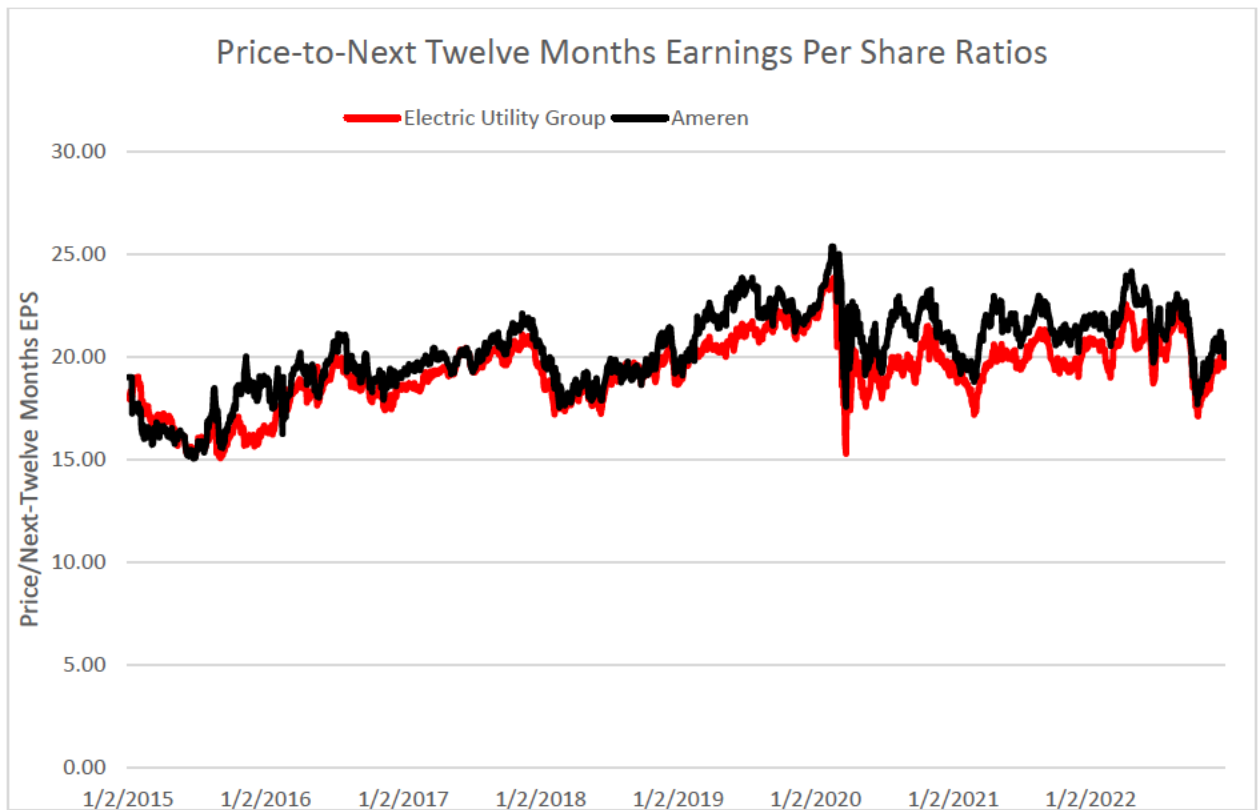
10

⁹ Unless otherwise specified, the proxy group I use to represent the electric utility industry are the following companies: Alliant Energy Corporation, American Electric Power Company, CMS Energy Corporation, DTE Energy Company, IDACORP, OGE Energy Corp, Pinnacle West Capital Corporation, Portland General Electric Company, The Southern Company, WEC Energy Group, and Xcel Energy Inc. These companies met screening criteria I used in Ameren Missouri's 2012 or 2014 rate cases, Case Nos. ER-2012-0166 and ER-2014-0258, respectively.

1 As can be seen in the above graph, for the most part, Ameren Corp's P/E ratio has typically
2 traded in line with or at times a premium to those of other electric utility companies.

3 **Q. Would you similarly illustrate a comparison of the electric utility industry's P/E ratios**
4 **to those of Ameren Corp since 2015, when the Commission first deemed a 9.5% ROE**
5 **fair and reasonable for Missouri's electric utility companies?**

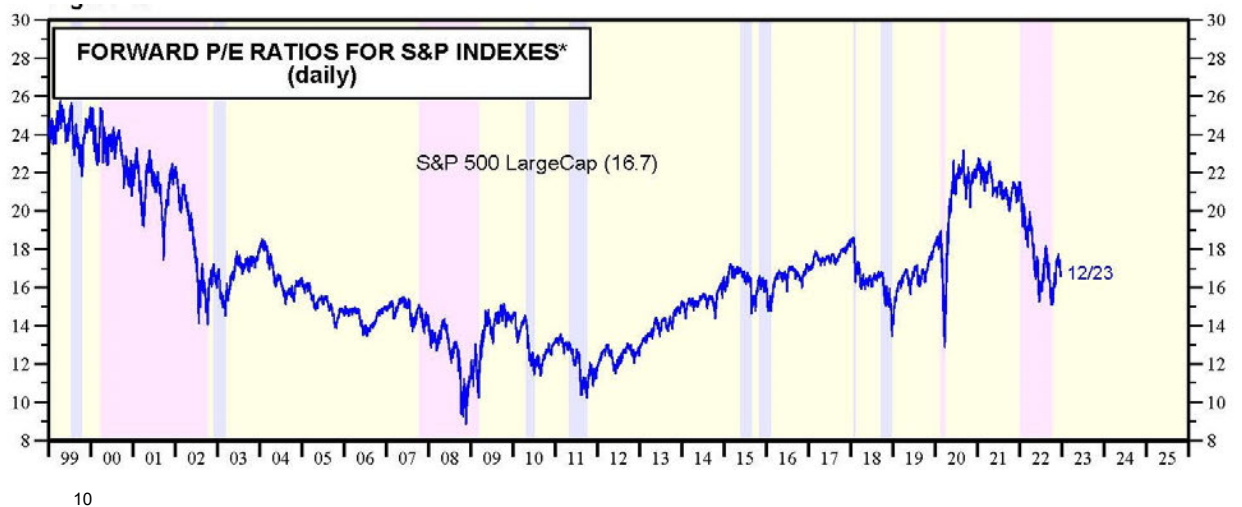
6 **A.** Yes. The chart follows:



7
8 As is evident from the above chart, during 2015, the electric utility industry generally
9 traded at a P/E ratio in the 15x to 17x range with a brief period at the beginning of 2015 at
10 close to 19x. Ameren's P/E ratio traded in-line with the electric utility industry except for
11 at the end of 2015, when it traded at 19x. Prior to the market disruptions coinciding with
12 the onset of the Covid-19 pandemic, both Ameren Corp's and the electric utility industry's
13 P/E ratios hit all-time highs of ~25x and ~24x, respectively. At this time, which was
14 consistent with the period of Ameren Missouri's 2019 rate case, Case No. ER-2019-0355,

1 I estimated Ameren Missouri's COE to be as low as in the 5.5% to 6.5% range, which is
2 logically consistent with the extremely high valuation ratios of that time.

3 Subsequent to the acute capital market instability at the onset of Covid-19, which was
4 quickly addressed by the Federal Reserve ("Fed") and the UST, the electric utility
5 industry's and Ameren Corp's P/E ratios both stabilized during the remainder of 2020.
6 Although long-term interest rates (as measured by long-term corporate bond yields and
7 UST bonds) plummeted from the spring of 2020 through the end of 2021, Ameren Corp's
8 and the electric utility industry's P/E ratios did not expand as is typical when long-term
9 bond yields decline. However, the same was not true for the broader markets. The actions
10 taken by the Fed and the UST caused the S&P 500 to trade at levels much higher than
11 before the pandemic. This is illustrated in the following chart:



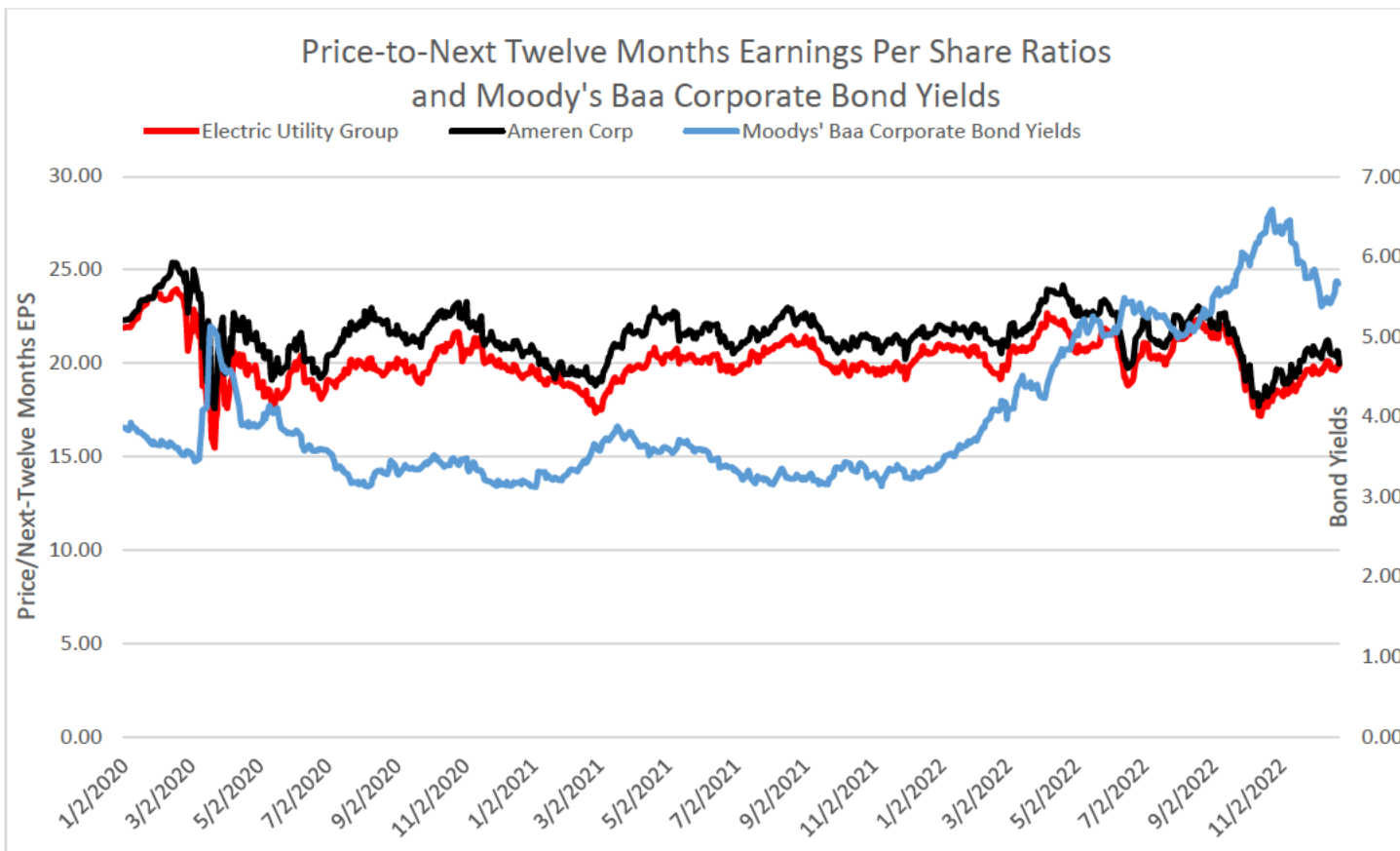
12
13
14 Market conditions have been atypical over the period since the disruptions associated with
15 the onset of Covid-19. The fact that the S&P 500 P/E ratios soared after long-term bond
16 yields declined to historical lows, but the electric utility industry's P/E ratios did not, is at
17 odds with past historical relationships. This certainly seems to support the market
18 commentary at that time which suggested that industries, such as the technology industry,
19 with expected profitability/cash returns well into the future, were achieving higher

¹⁰ Dr. Edward Yardeni, "Stock Market Briefing: Selected P/E Ratios," Yardeni Research Inc., December 27, 2022, p. 3.

1 valuation levels because lower discount rates (*i.e.* COE) caused expected distant cash flows
2 to investors to be valued higher in present value terms.

3 **Q. Have Ameren Corp's and the electric utility industry's P/E ratios been inversely**
4 **correlated with long-term interest rates since April 1, 2020?**

5 A. No. The following chart plots Ameren Corp's and the electric utility industry's P/E ratios
6 relative to Moody's Baa corporate bond yields since January 1, 2020 (I provided data
7 starting in January 1, 2020 to show inverse correlation prior to Covid-19 disruptions in
8 capital markets and subsequent Fed and UST interventions):



9
10 Immediately prior to the capital market disruptions caused by fears related to Covid-19,
11 and potential Covid-19 mitigation measures, long-term 'Baa' corporate bond yields had
12 achieved modern all-time lows of around 3.5%. Consistent with the electric utility
13 industry's P/E ratio's strong inverse correlation to long-term bond yields, P/E ratios

1 reached modern all-time highs. However, after several aggressive interventions taken by
2 the Fed and the UST, long-term bond yields dropped to even lower levels than in the period
3 prior to Covid-19. Under typical capital market conditions, this would justify electric
4 utility's P/E ratios trading even higher than prior to Covid-19, but because of the Fed and
5 US Congress' extraordinary support for debt capital markets, these historical relationships
6 did not hold true. In fact, as shown in the previous chart related to S&P 500 P/E ratios, the
7 broader market's stock valuations benefited more from the monetary and fiscal policies
8 that allowed for extremely cheap corporate debt. Investors considered the Fed and UST's
9 intervention in capital markets to be more beneficial to growth companies, especially for
10 those growth companies not expected to realize the potential profits from high growth until
11 the distant future, because the Fed's and UST's policies were extremely accommodative
12 for economic growth—higher growth with lower discount rates (*i.e.* cost of equity) has a
13 much more dramatic effect on the perceived value of these stocks.

14 For the period April 1, 2020, through September 15, 2022, P/E ratios for the electric utility
15 industry and Ameren Corp exhibited positive correlations with long-term bond yields of
16 ~40% and ~28%, respectively. As can be seen in the above graph, during the dramatic and
17 rapid increase in long-term corporate bond yields for the first 9 months of 2022, the electric
18 utility industry's and Ameren Corp's P/E ratios remained above 20x, with Ameren Corp's
19 P/E ratio reaching almost 24x and the electric utility industry's P/E ratio reaching almost
20 23x in the spring of 2022, which was the start of the Fed's aggressive and rapid tightening
21 of monetary policy. Consequently, electric utility stocks performed the opposite of typical
22 historical long-term patterns.

23 **Q. What caused these atypical trading patterns?**

24 A. Most likely the opportunity cost of not investing in growth stocks caused less demand for
25 utility stocks in light of expectations that the Fed's and UST's extremely accommodative
26 policies would benefit growth companies. Therefore, lower interest rates created higher
27 valuation levels for cyclical-growth stocks as compared to defensive yield investments,
28 such as electric utility companies. However, after inflation became investor's predominant
29 concern, this caused bond yields to increase dramatically, but because utility companies

1 are typically allowed to pass through higher costs to ratepayers, protecting their margins,
2 this supported utility stock prices. However, fixed-income bonds' coupons are typically
3 not protected from inflation erosion, which subjects these securities to much more risk in
4 a volatile and uncertain inflationary environment. In fact, the last time utility stocks
5 outperformed broader markets during a rising interest rate environment was 1981, which
6 coincided with the last period of significant inflationary pressures.¹¹

7 **Q. Has the strong negative correlation of electric utility P/E ratios to long-term yields**
8 **returned since September 15, 2022?**

9 A. Yes. Over this period, both the electric utility industry's and Ameren Corp's P/E ratios
10 have had a negative correlation of approximately 80% with changes in 'Baa' corporate
11 bond yields.

12 **Q. Do you have market commentary support for your analysis and testimony related to**
13 **relatively high utility stock valuation levels, despite increasing long-term interest**
14 **rates?**

15 A. Yes. On May 5, 2022, the Wall Street Journal ("WSJ") provided the following comments
16 about recent trading patterns in dividend paying stocks, which includes utilities:

17 Investors seeking shelter from volatility are turning to a part of the markets that
18 had largely been overlooked last year: dividend-paying stocks.

19
20 Shares of companies paying big dividends to investors have trounced practically
21 everything else this year...

22
23 What's unusual about this year's rally in dividend-paying stocks is that it is the
24 opposite of what market convention says happens when interest rates rise.
25 Usually, investors say, dividend-paying stocks do poorly in a rising-rate
26 environment because rates typically go up when the economy is growing. In
27 boom times, investors tend to forgo the steady cash payments of bondlike stocks
28 in favor of companies that have the potential to deliver bigger profits later.

29
30 This time, a different dynamic is at play. Interest rates have risen swiftly, not
31 because investors are betting on an economic surge but because accelerating

¹¹ Steve Fleishman, et. al., "Utilities defy rates w/best year this century; DUTY 2023 intro," Wolfe Research, January 3, 2023, p. 1.

1 inflation is forcing the Federal Reserve to act quickly to rein in price pressures.
2 Some investors worry the Fed's increases could cause a recession.

3
4 That has drawn investors into shares of big dividend payers, which promise to
5 deliver a steady stream of cash in the near term.

6
7 A bonus? Many dividend payers are in industries like utilities,
8 telecommunications and consumer staples, which consumers tend to rely on year
9 round, regardless of the economic environment.

10
11 That has made them especially attractive to investors who are worried the Fed
12 won't be able to combat inflation without significantly raising unemployment.¹²

13 Between the spring of 2020 (the onset of the Covid-19 pandemic) until the end of 2021 and
14 early 2022, utilities had been trading at a discount relative to the S&P 500, as compared to
15 the premium they traded to the S&P 500 for most of the past decade prior to the Covid-19
16 pandemic. In response to the Covid-19 pandemic, the Fed (*i.e.* monetary policy) and the
17 UST (*i.e.* fiscal policy, as authorized by US Congress) initiated aggressive policies to
18 counteract economic and market concerns that may be caused by Covid-19 and the
19 measures instituted to mitigate its spread. The rapid increase in S&P 500 valuation ratios
20 relative to the utility industry's valuation ratios suggested that the aggressive monetary and
21 fiscal policy increased investors' optimism and risk appetite. However, this quickly
22 changed as a result of inflationary concerns, which caused the Fed to communicate its
23 intent to transition to tighter monetary policy, and even potentially restrictive conditions,
24 in order to gain control of inflationary pressures caused by an imbalance in consumer
25 demand and the supply of goods and services.

26 **Q. Can you provide market commentary specific to the utility industry?**

27 A. Yes. A WSJ article published on May 16, 2022, provides further insight into the state of
28 utility capital markets as they related to past absolute performance and relative
29 performance to the S&P 500:

30 Rising interest rates and inflation are typically a circuit breaker for richly valued
31 utility stocks, but these are unusual times.

¹² Akane Otani, "Investors Find Safety in Overlooked Stocks That Pay Dividends," Wall Street Journal, May 6, 2022, pages B1 and B11.

1
2 The sector is the second-best performing one in the U.S. behind energy year to
3 date, trouncing the S& P 500 by 15 percentage points through Friday. That leaves
4 utility stocks trading at almost 20 times forward 12-month earnings on average—
5 close to a high and nearly a fifth richer than the S& P 500. The last time utilities
6 fetched such a premium was during the market panic in March 2020. The staid
7 sector typically traded at a slight discount to the broader index over the past
8 decade...

9
10 ...Still, the sector's rally is something of an anomaly given the macroeconomic
11 environment. Utility stocks tend not to take well to rising interest rates for two
12 reasons: First, utilities have large debt burdens, with those in the S& P 500 on
13 average carrying net debt that is more than five times earnings before interest,
14 taxes, depreciation and amortization, according to S& P Global Market
15 Intelligence. Second, they are a bond substitute. When interest rates rise, utilities'
16 dividend yields start looking less attractive compared with Treasuries. At one
17 point during the early-2020 recession, the dividend yield on utility stocks was
18 nearly 4 percentage points higher than the yield on 10-year Treasury notes. That
19 edge is now 0.17 percentage point.

20
21 In addition, high inflation tends to be bad news for utilities. When inflation starts
22 pushing up overall costs for households, it becomes harder to persuade utility
23 regulators to grant higher rates. Regulators are typically either appointed by
24 governors or elected, so they aren't immune to the sentiments now prompting
25 politicians to blame companies—ranging from oil producers to supermarket
26 chains— for causing consumer pain...

27
28 ...With investors seemingly finding new worries around every corner lately, the
29 forces holding the rest of the market back can make utilities look like a hidden
30 jewel one moment and a lump of expensive coal in the next. In a softening stock
31 market, these power lines are starting to look stretched.¹³

32 Although the COE has increased for the broader markets, because electric utility stocks
33 P/E ratios continue to trade at around 20x, this information supports my position that the
34 absolute level of the utility industry's COE has not changed much relative to bond yields,
35 meaning utility equity risk premiums over current higher bond yields are lower than they
36 were when bond yields were lower. My multi-stage DCF analysis corroborates this
37 view. Because a DCF analysis directly incorporates utility stock prices, it is generally

¹³ Jinjoo Lee, "Utility Stocks Keep Their Spark – Sector isn't cheapest place to park money, but there are few alternatives," Wall Street Journal, May 16, 2022, p. B11.

1 the most reliable method to determine company-specific or industry-specific risk
2 premiums (assuming reasonable growth rate assumptions).

3 **Q. How did utility stocks perform relative to the S&P 500 for the entire 2022 calendar**
4 **year?**

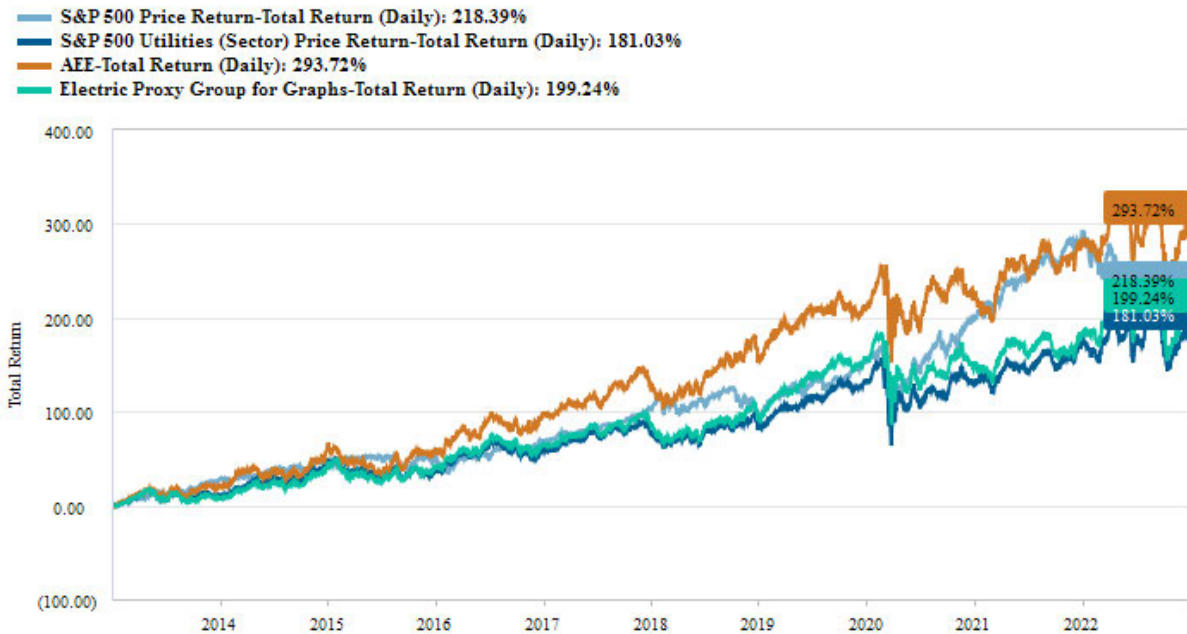
5 A. Utilities outperformed the S&P 500 by approximately 1,800 basis points (18%) in 2022.
6 Wolfe Research indicated the following about utilities outperformance in 2022 despite
7 rising long-term rates:

8 **Utilities outperform as defensive trade trumps rising rates** – After 3
9 straight years of underperformance, utilities re-awakened in 2022 beating
10 the market by 1800bps. This was their best relative year since the tech
11 bubble burst in 2000 (see here [link in original]). The sector shook off the
12 237bps spike in LT interest rates and only fell 1.4% on the year. This is very
13 rare – utilities average over 1600bps underperformance in years when rates
14 rise over 100bps (see here [link in original]); the only other year out of 11
15 that they outperformed was 1981. That year also saw high inflation and Fed
16 tightening that preceded a severe recession in 1982. Utilities ended 2022 at
17 a modest premium valuation vs the market. We plan to host our Year Ahead
18 outlook call on 1/11. (Emphasis in original).¹⁴

19
20 **Q. Would you show how Ameren Corp’s shareholder returns have compared to the S&P**
21 **500, the utilities in the S&P 500, and the electric utility proxy group for the last ten**
22 **years?**

23 A. Yes. See the below chart:

¹⁴ Steve Fleishman, et. al., “Utilities defy rates w/best year this century; DUTY 2023 intro,” Wolfe Research, January 3, 2023, p. 1.

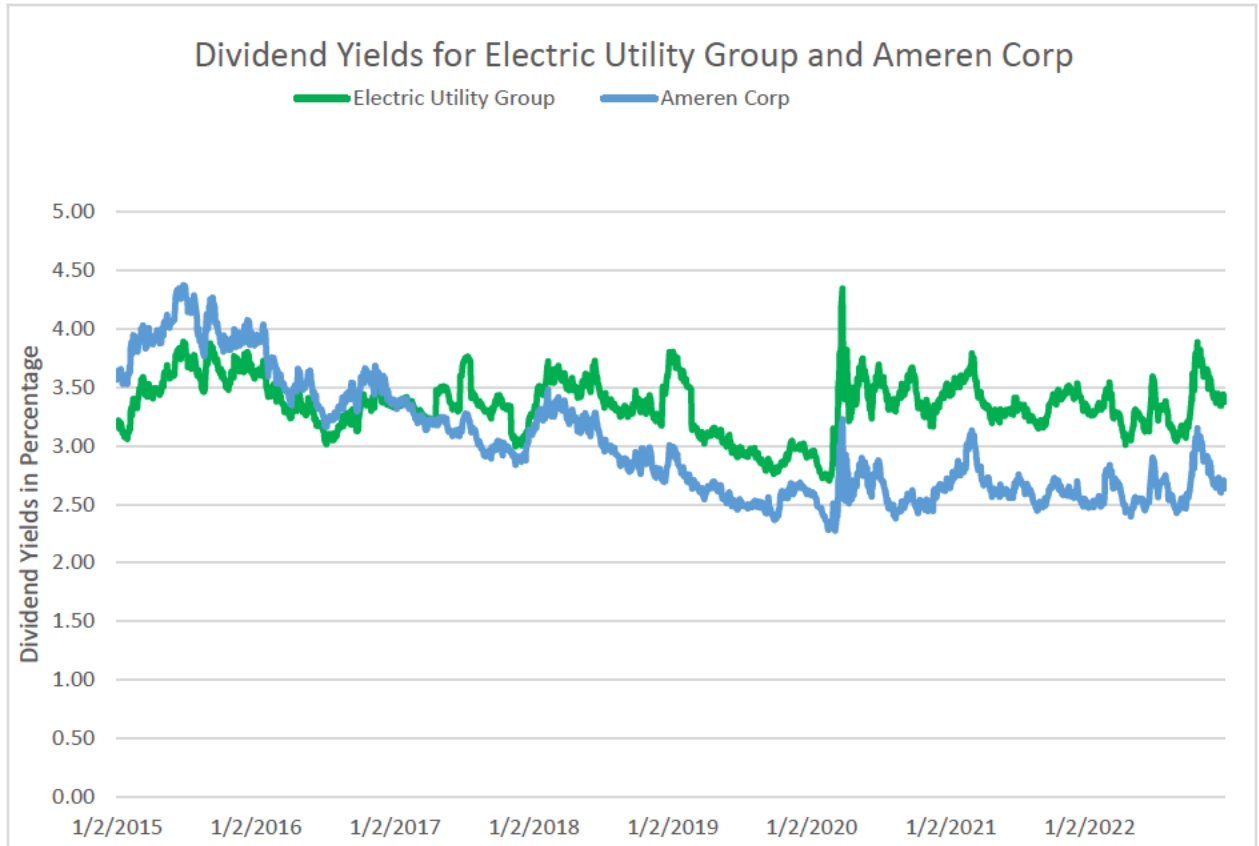


1

2 Ameren Corp’s (trading ticker is “AEE”) total return has outperformed that of its utility
3 peers and the S&P 500. The total returns shown in the chart above convert into the
4 following compound annual returns for Ameren Corp, Electric Proxy Group, S&P 500 and
5 the S&P 500 Utilities, respectively: 14.69%, 11.58%, 12.28% and 10.89%.

6 **Q. Would you show the changes to the electric utility industry’s and Ameren Corp’s**
7 **dividend yields since the Commission authorized Ameren Missouri a 9.53% ROE in**
8 **2015?**

9 **A.** Yes. This chart shows the continuous changes since January 2, 2015.



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As illustrated, Ameren Corp's dividend yield was approximately 3.5% to slightly over 4% during 2015. Since the onset of Covid-19, Ameren's dividend yield has traded in the range of 2.5% to 3%. If Ameren's proven growth profile and dividend payout ratio had remained fairly constant over this period, it would imply that Ameren's COE has declined by approximately 100 basis points since 2015. However, Ameren Corp had a higher dividend payout ratio in 2015 of around 63% and a less proven growth track record because it had just divested its non-regulated operations in 2013. Therefore, it is also important to observe the changes over time of a broader group of regulated electric utility companies.

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A comparison of average electric utility dividend yields since 2015 is less conclusive about potential changes in the electric utility industry's COE since 2015. Consistent with all-time high P/E ratios immediately before capital market disruptions at the beginning of the Covid-19 pandemic, electric utility dividend yields were at all-time lows. This data implies that the electric utility industry's COE was likely around 100 basis points lower in early 2020, then in 2015. However, subsequent to the early stages of the Covid-19 pandemic,

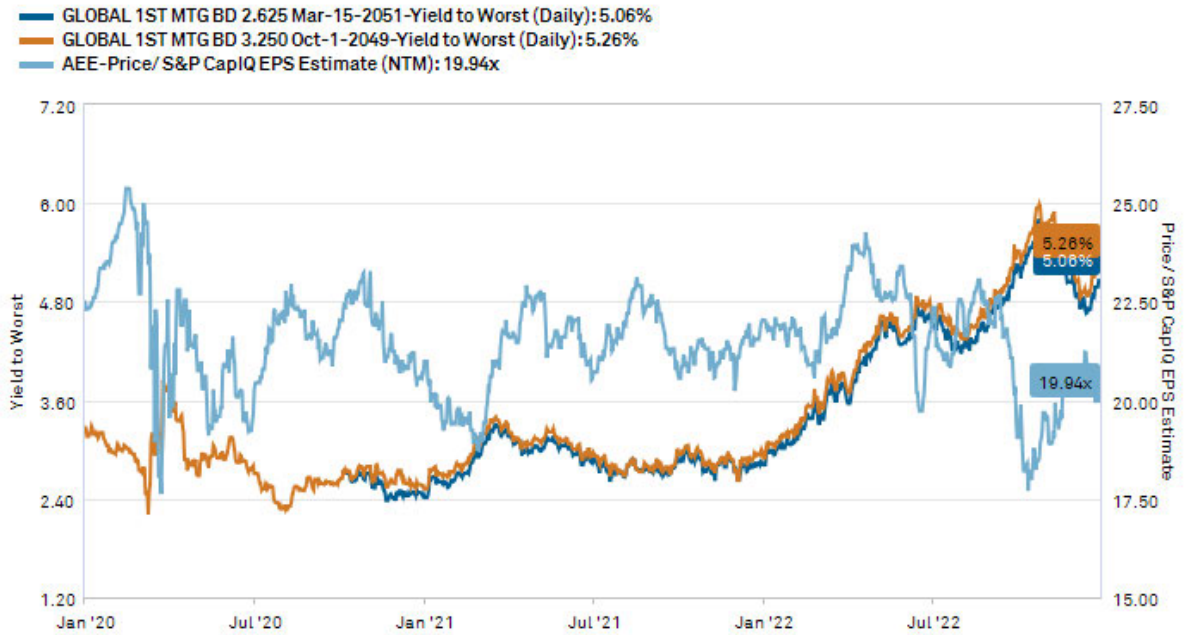
1 the decline in the electric utility industry's COE has not been as pronounced. From the
2 spring of 2021 through the fall of 2022, electric utility dividend yields were bound in the
3 range of 3% to 3.5%, as compared to consistently higher than 3.5% for much of 2015. This
4 information on its own still supports lowering Ameren Missouri's previously authorized
5 ROE of 9.53% by 25 basis points.

6 Understanding that Ameren Corp's dividend yield has declined not only due to higher
7 growth expectations, but also less business risk due to favorable legislative developments
8 in Missouri, it supports an even more aggressive reduction to Ameren Missouri's
9 authorized ROE to 9%.

10 **Q. In Ameren Missouri's 2021 rate case, you showed the low yields on American**
11 **Missouri's long-term bonds. How have the yields on Ameren Missouri's bonds**
12 **changed since then?**

13 A. They have increased significantly. In August of 2021, Ameren Missouri's 30-year bonds
14 were trading at a yield-to-maturity ("YTM") of approximately 2.7%. These same bonds
15 have recently been trading at a YTM in the range of approximately 5% to 5.25%, after
16 peaking at approximately 5.75% to 6% in October 2022. As I will discuss later in my
17 testimony, applying the simple rule of thumb of adding a 3% equity risk premium to a
18 company's own bond yields implies that Ameren Missouri has a COE of around 8% to
19 8.25%. However, Ameren Corp's P/E ratio is much higher than a decade ago when bond
20 yields last traded this high, implying that investors in Ameren Corp's stock are not
21 requiring much of an equity risk premium. This may be due to investors' perceptions that,
22 while bond yields have become more attractive, Ameren Missouri's stock's defensive
23 characteristics and ability to pass inflationary costs on to ratepayers through rate cases,
24 currently outweighs the attractiveness of higher bond yields.

1 The below graph shows changes to Ameren Missouri's bond yields and Ameren Corp's
2 P/E ratios since January 1, 2020:



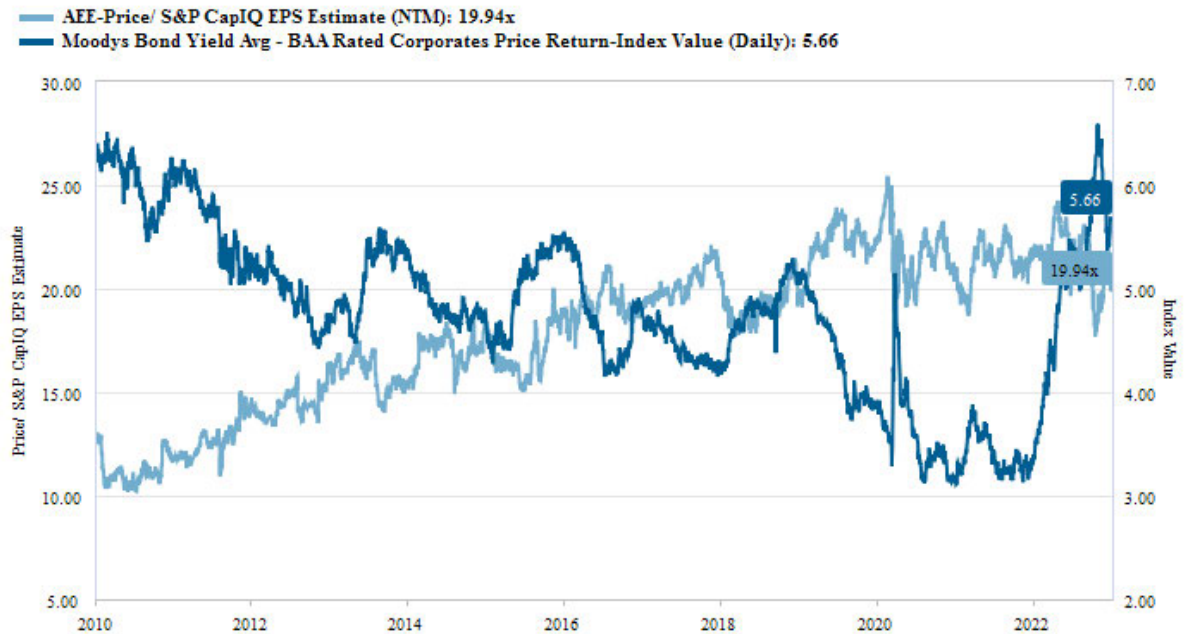
3
4 Ameren Corp's P/E ratios did not decline as long-term yields started to rise in early 2022.
5 In fact, Ameren Corp's P/E ratios initially increased to around 24x in early 2022 before
6 they settled at around 22x for the next few months until mid-September 2022 when Ameren
7 Corp's P/E ratios declined rapidly from around 22x to around 18x in less than 30 days, as
8 long-term rates continued to increase. Not until long-term yields declined from their peak
9 in October 2022, did Ameren Corp's P/E ratios increase again to approximately 20x.

10 **Q. When is the last time corporate bonds traded at YTM's of around 6%?**

11 **A.** In 2010.

12 **Q. What was Ameren Corp's P/E ratio then?**

13 **A.** Around 10.5x to 11.5x, which is about half of its current level. See the below chart:



1

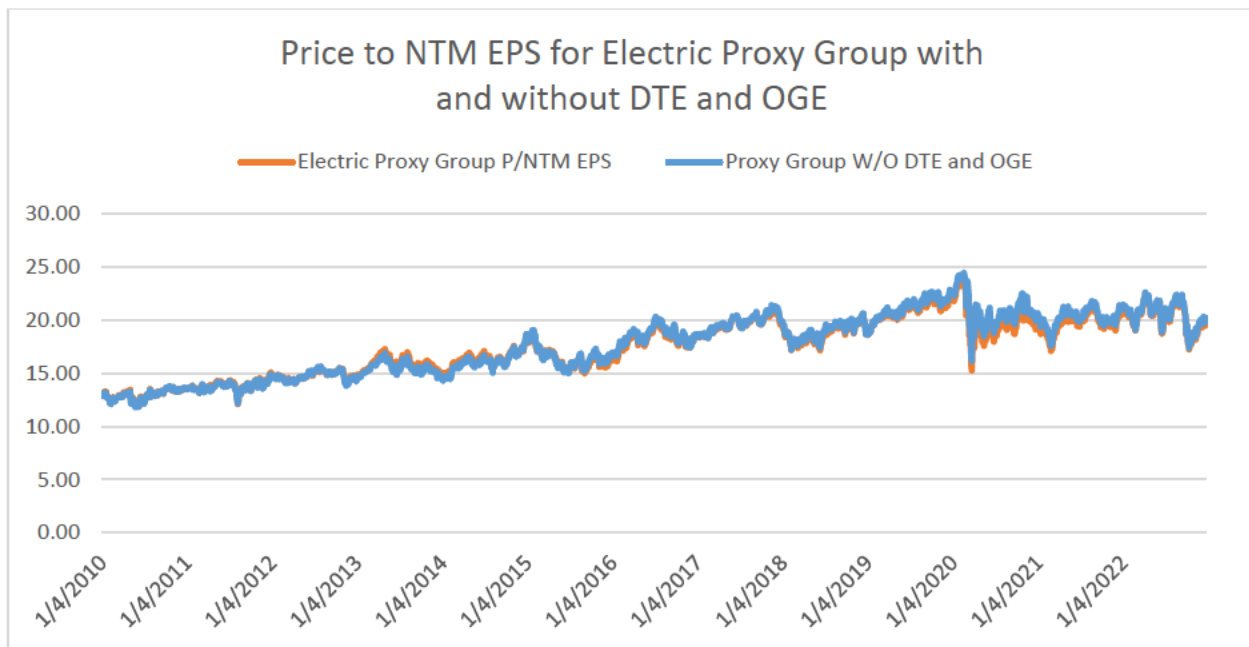
2 **Q. Were there factors other than interest rates impacting Ameren Corp's P/E ratio in**
3 **2010?**

4 A. Yes. Ameren Corp's business risk was higher at the time due to its significant exposure to
5 non-regulated operations. Ameren Corp owned non-regulated generation assets, which it
6 eventually sold to Dynegy on December 2, 2013, with consideration being Dynegy's
7 assumption of Ameren Energy Generating Company's \$825 million of outstanding debt
8 (*i.e.* no equity value). Additionally, Ameren Corp had a lower growth profile at the time
9 due to much lower projected rate base growth at Ameren Missouri because Ameren Corp
10 was only minimally investing in its Missouri electric utility assets.

11 **Q. What were the electric utility industry's P/E ratios in 2010?**

12 A. Around 12x to 13x. These P/E ratios are based on a proxy group of companies I have
13 consistently used and analyzed in electric utility rate cases for the last ten years. Therefore,
14 they have consistently met screens that ensure their business risks are fairly consistent over
15 time with that of rate-regulated electric utility operations. However, there are a few, such
16 as DTE Energy and OGE, which despite passing my past screening *criteria*, have
17 experienced more stock price volatility during some periods due to their exposure to non-

1 regulated operations such as gas midstream and energy market trading operations.
2 Therefore, I show the P/E ratios with and without these companies to ensure comparability
3 over time.



4
5 As shown in the above chart, electric utility P/E ratios are currently around 20x, a much
6 higher level than the last time bonds traded at YTM's of around 6%. This demonstrates
7 that recent increases in long-term bond yields have not resulted in similar increases to the
8 electric utility industry's COE. This fact, at the very least, supports not increasing
9 authorized ROEs above recent decisions, which have generally averaged around 9.4%.
10 However, because of Ameren Missouri's reduced business-risk profile due to its ability to
11 elect PISA ratemaking treatment, which it did in September 2018, Ameren Missouri's
12 authorized ROE should be set at no higher than 9.25%, especially if the Commission does
13 not reduce Ameren Missouri's allowed ratemaking common equity ratio to recognize the
14 additional debt capacity created by Ameren Missouri's lower business risk. As I will
15 explain in the capital structure section of my testimony, Ameren Corp continues to
16 misappropriate this debt capacity to the holding company for the benefit of shareholders,
17 but at the expense of ratepayers.

1 **Q. Would you summarize your interpretation of the signals capital market conditions**
2 **are providing as it relates to the cost of capital to the electric utilities as an industry**
3 **and specifically to Ameren Missouri?**

4 A. Yes. It is simple to observe the increase in the cost of debt capital for Ameren Missouri
5 and the electric utility industry. The cost of debt has been directly influenced by the Fed's
6 tightening of monetary policy. The Fed is tightening monetary policy in an attempt to
7 dampen inflationary pressures. Long-term fixed-rate bond valuations are directly impacted
8 by inflationary pressures because inflation erodes the value of the historical coupons set
9 during a lower interest-rate environment. To the extent investors fear further increases in
10 inflation, this causes more concern about the potential future erosion of value of fixed-rate
11 coupon bonds. While utility stocks have bond-like characteristics, at least investors are
12 compensated by the ability of utility companies to pass higher costs (due to inflation)
13 through to ratepayers through cost-of-service ratemaking. This characteristic has caused
14 investors to value utility stocks at a higher relative premium to fixed-rate bonds than usual.
15 Consequently, the equity risk premium required to invest in utility stocks is currently less
16 than under typical capital market conditions.

17 **COST OF EQUITY METHODS**

18 **Q. Having provided context on recent changes in the utility capital market generally and**
19 **with regard to Ameren Corp and Ameren Missouri specifically, would you explain**
20 **how you approached estimating Ameren Missouri's COE in this case?**

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

1 INVESTOR INSIGHT

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

4 A. Being that the objective of a ROR witness is to emulate investors' approaches to analyzing
5 and making investments in utility stocks, I have prioritized reviewing and analyzing how
6 equity research analysts determine a utility stock price estimate in practice. This has
7 allowed me to test the theory of cost-of-capital estimation found in utility ROR testimony
8 as it compares to how utility stocks are actually valued. I have discovered professional
9 equity analysts typically use a combination of valuation approaches. Investment firms may
10 use absolute/intrinsic valuation techniques, such as a multi-stage DCF approach to estimate
11 fundamental values of utility stocks and/or they use relative valuation techniques that
12 compare a company's P/E ratios to an average for the industry. In my experience,
13 professional equity analysts project long-term compound-annual-growth-rate ("CAGR")
14 in EPS to determine whether a company's P/E ratio deserves a premium or a discount to
15 its peers. Professional equity analysts *do not* use their estimates of long-term CAGRs in
16 EPS as a proxy for a perpetual dividend growth rate, as some ROR witnesses suggest.
17 Investment analysts use perpetual growth rates for the electric utility industry in the range
18 of 2.5% to 3.3% range for electric utility companies. Finally, and most relevant to the task
19 at hand, they estimate utilities' COE to be in the 5-6% range.¹⁵

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

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

¹⁵ Durgesh Chopra, et. al, "Q3 Earnings Scorecard," November 13, 2022, Evercore ISI. Sarah Akers, and Jonathan Reeder, "DDM Analysis Supports Sector Valuation & Quality/Growth Trade," August 19, 2019, Wells Fargo.

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

3 A. Yes. I mainly relied on reports Ameren Missouri made available for review in response to
4 Staff Data Request No. 0189. However, over my career I have established relationships
5 with some firms/analysts who have distributed this material to me directly through their
6 email distribution lists. These relationships were borne from my role as a regulator in
7 which many of these analysts seek information related to Missouri's general and specific
8 regulatory issues. I have also interacted with these analysts through my participation in
9 organizations, such as the Society of Utility and Regulatory Analysts ("SURFA").

10 MULTI-STAGE DCF/DDM

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

13 A. Schedule DM-D-2 attached to my testimony illustrates the primary logic and assumptions
14 I used in my multi-stage approach. For the first stage, I used consensus analysts' estimates
15 for dividend per share ("DPS") through 2026. Ameren Corp's consensus dividend payout
16 ratio is projected to be 57.12% in 2026. Ameren Corp's current guidance on its dividend
17 payout ratio is in the range of 55% to 70%. Being that Ameren Corp plans to be in a high
18 capital expenditure cycle through at least the next ten years, I assumed Ameren Corp would
19 retain more capital and therefore target a dividend payout ratio of 57.12% until 2034. Over
20 this period I assumed Ameren Corp's DPS would grow in line with Ameren Corp's
21 projected EPS, which I modeled to gradually decline from 2027 to 2037, when I modeled
22 it to grow perpetually at a rate in the range of 2.5% to 3.5%, with 3% being the base case.
23 This perpetual growth rate range is consistent with the ** _____

24 _____ ** As
25 Ameren Corp's EPS growth transitions to a sustainable growth rate by 2037, I
26 appropriately increased Ameren Corp's dividend payout ratio to consider the fact that it

16 **

**

1 would not need to retain as much earnings for reinvestment. For my base case scenario,
2 this caused Ameren Corp's DPS to grow at a CAGR of 9.35% for the period 2034 through
3 2037, as compared to a 3.40% CAGR in EPS for the same period.

4 **Q. Do you have additional support for your assumed growth rates?**

5 A. Yes. Through recent investment communications and actions, Ameren Corp has signaled
6 that it plans to increase its dividend in line with its long-term CAGR in EPS guidance of
7 6% to 8% for the period 2022 through 2026.¹⁷ Ameren Corp has also communicated to
8 investors that it plans to increase rate base at a CAGR of approximately 7% through 2026
9 by investing \$17.3 billion.¹⁸ For the longer period 2022 through 2031, Ameren Corp
10 anticipates a potential investment pipeline of \$48+ billion.¹⁹ But these ramped up
11 investment programs are finite and will eventually return to a maintenance level of capital
12 investment, similar to how Ameren Corp treated its investment in Ameren Missouri before
13 it was granted statutory authority to use PISA. Once the Company achieves this steady
14 state, then it should gravitate toward a dividend payout ratio that ensures it will have
15 sufficient internal equity capital to fund its investments. Using the maintenance level of
16 capital expenditures Ameren Corp made in Ameren Missouri as a proxy, a targeted
17 dividend payout ratio of approximately 67.57% is consistent with this level of investment.

18 **Q. What does industry data suggest is a sustainable growth rate for a predominately**
19 **regulated electric utility company like Ameren Missouri?**

20 A. I reviewed past actual historical industry growth rate data from the Moody's electric utility
21 index,²⁰ a sample group of electric utility companies in which data was available from
22 Value Line,²¹ and commentary/analysis available from institutional investors/analysts.²²
23 This information supports a perpetual growth rate in the range of 2.5% to 3.5%. A

¹⁷ Ameren Investor Presentation, "Transforming for Our Future," EEI Financial Conference, November 14-15, 2022, p. 5.

¹⁸ *Id.*, p. 11.

¹⁹ *Id.*, p. 5.

²⁰ Staff Cost of Service Report, Case No. ER-2011-0028, p. 18.

²¹ *Id.*

²² Discussed throughout this testimony.

1 perpetual growth rate within this range is also consistent with the “sustainable growth
2 model,” which estimates EPS growth by multiplying an average long-term industry
3 retention rate by an expected book ROE. Assuming the utility industry reverts to its long-
4 term earnings retention rate of approximately 30% and allowed ROEs are eventually
5 lowered to compress the spread between the COE and the allowed ROE, this would support
6 a 2.78% perpetual growth rate if investment opportunities are available (9.25% allowed
7 ROE multiplied by 30%).

8 **Q. Is this industry data consistent with **** _____
9 _____ **

10 A. Yes. In fact, one of the sources I relied on for purposes of estimating the perpetual growth
11 rate is from ** _____
12 _____
13 _____ **

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

16 A. This is consistent with the perpetual growth rates used for purposes of estimating utility
17 stock prices. For example, Evercore ISI uses a perpetual growth rate of 2.5% in its 3-stage
18 DDM analyses of electric utility stocks.²⁴ Wells Fargo uses an average perpetual growth
19 rate of around 3%.²⁵

20 **Q. How do these growth rates compare to Ameren Missouri’s earnings and rate base
21 growth over the period in which Ameren Corp was limiting its investment in Ameren
22 Missouri to a level intended only to ensure it maintained safe and reliable service?**

23 A. Based on Ameren Missouri’s rate base through the true-up period, December 31, 2019, in
24 its 2019 general rate case,²⁶ Ameren Missouri’s CAGR in its rate base was in the range of

²³ Ameren Dividend Policy Considerations, Ameren Finance Committee, October 2017, p. 5-10.

²⁴ *Id.*

²⁵ *Id.*

²⁶ Case No. ER-2019-0335, Laura Moore Direct Testimony, July 3, 2019, p. 18.

1 2.2% to 3% since the 2010 to 2011 time period. This further supports a rational expected
2 terminal growth rate when the utility industry is maintaining its system to ensure safe and
3 reliable service.

4 **Q. What cost of equity did you estimate for Ameren Corp using the multi-stage**
5 **discounted cash flow approach?**

6 A. Using Ameren Corp's most recent 3-month average stock price of approximately \$84 and
7 discounting prospective dividends by reasonable growth rates in the intermediate future as
8 well as perpetually, the implied COE for Ameren Corp is approximately 7.3% to 7.6% (see
9 Schedule DM-D-2). Given that this COE estimate assumes Ameren Corp can achieve
10 CAGR in DPS of over 6.0% to 7.25% for approximately the next 14 years, I consider this
11 COE estimate to be higher than likely. Additionally, the average stock price of \$84
12 captures Ameren Corp's recent 52-week low stock price of around \$75, despite the fact
13 that it has recently been trading around \$90. Use of this stock price implies Ameren Corp's
14 COE is approximately 25 to 30 basis points lower than the 7.3% to 7.6% I estimated using
15 the \$84 stock price.

16 **PROXY GROUP COST OF EQUITY**

17 **Q. Should you compare your estimate of Ameren Corp's company-specific COE to an**
18 **estimate of the COE of a group of other regulated electric utility peers with**
19 **characteristics similar to those of Ameren Corp?**

20 A. Yes.

21 **Q. Why?**

22 A. Investors frequently evaluate the attractiveness of a utility company's share price by
23 comparing it to the average of a peer proxy group, whether it's based on a broader utility
24 index or on a custom proxy group.

1 **Q. How did you approach selecting the custom proxy group that you used for purposes**
2 **of comparing Ameren Corp’s COE to that of its peers?**

3 A. I decided to analyze a broad proxy group of utilities classified as “regulated” and “mostly
4 regulated” utilities by the Edison Electric Institute (“EEI”).²⁷ Although I estimated a COE
5 based on this broad electric proxy group, I also reviewed the companies EEI classifies as
6 “regulated,” but even these companies typically have non-regulated operations that
7 contribute to volatility in earnings and/or cash flows. Therefore, I reviewed the various
8 business segments of each of these companies to determine which generally have less than
9 10% of their operations exposed to competitive and international markets, which was 19
10 companies. I also separately analyzed the group of companies I used in my charts
11 throughout my testimony.

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

13 A. Yes. I applied the same principles as I did when applying the multi-stage DCF to Ameren
14 Corp. For the first stage (January 1, 2023 through December 31, 2026) I used Wall Street
15 analysts’ consensus DPS estimates to the extent they were available. For the second stage
16 (December 31, 2026 through December 31, 2037), I allowed for a gradual decline from
17 Wall Street analysts’ projected 5-year CAGR in EPS to a sustainable perpetual growth rate
18 of 3% starting in 2037. In order to estimate investors’ anticipated annual DPS over the
19 second stage, I determined consensus analysts’ estimated dividend payout ratios as of 2026.
20 I then allowed the dividend payout ratios to gradually converge to a sustainable payout
21 ratio of 67.57% starting in 2037. This payout ratio is consistent with the
22 constant/sustainable-growth DCF theory that requires DPS, EPS and book value per share
23 (“BVPS”) to grow in perpetuity at the same rate. This payout ratio is consistent with the
24 proportion of earnings utility companies should retain to sustain a 3% growth rate at a
25 9.25% book ROE.

26 As it relates to my assumed timing of investors’ receipt of dividends, I assumed investors
27 receive the entire annual DPS estimate at the middle of the year. This discounting

²⁷ EEI classifies companies as “Regulated” if at least 80% of their assets are dedicated to regulated utility operations.

1 convention mitigates the potential under or over-estimating of the COE based on either
2 end-of-year or beginning-of-year discounting conventions.

3 My industry COE estimate based on application of the multi-stage DCF to the proxy group
4 indicates a COE in the range of around 7.65% to 7.9%, with the more narrowly refined
5 proxies being in the range of 7.65% to 7.75% (see Schedule DM-D-3, p. 1).

6 **Q. How does this COE estimate compare to your electric utility industry COE estimate**
7 **in Ameren Missouri's 2021 rate case?**

8 A. It is approximately 50 basis points higher. The main driver of the increased COE estimates
9 in this case is due to the electric utility industry's significant decline in stock prices through
10 mid-October 2022, which partially recovered by early December 2022. Using stock prices
11 just for December, which reflects the period in which electric utility P/E ratios returned to
12 the 20x level they had been typically trading at, implies a COE similar to the range I
13 estimated for the electric utility industry in Ameren Missouri's 2021 rate case.

14 CAPM

15 **Q. Did you use any other models to estimate Ameren Corp's and the electric utility**
16 **proxies' cost of equity?**

17 A. Yes, I used the Capital Asset Pricing Model ("CAPM"). The CAPM shows the specific
18 impact of interest rates on the cost of capital. Although CAPM COE estimates can be
19 manipulated by using unreasonable market risk premium estimates, there are a variety of
20 authoritative sources that provide market risk premium estimates that can form the basis
21 for a consensus view on a reasonable market risk premium based on current capital market
22 conditions.

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

25 A. The CAPM is based on capital market theory in which it is recognized that although the
26 total risk of a company and/or industry consists of market ("systematic") risk and

1 asset/business-specific (“unsystematic”) risk, investors are only compensated for
2 systematic risk because holding a diversified portfolio allows the investor to avoid
3 unsystematic risk. Systematic risks are unanticipated events in the economy, such as
4 economic growth, changes in interest rates, demographic changes, etc., that affect almost
5 all assets to some degree. The required risk premium for incurring the market risk as it
6 relates to the investment/portfolio is determined by adjusting the market risk premium by
7 the beta of the stock or portfolio. The adjusted risk premium is then added to a risk-free
8 rate to determine the cost of equity. The CAPM is typically expressed in equation form as
9 follows:

$$K_e = R_f + \beta (RP_m)$$

10
11
12 Where: K_e = the cost of equity for a security;
13 R_f = the risk-free rate;
14 β = beta; and
15 RP_m = market risk premium.
16

17 For purposes of my CAPM analysis, I relied on Kroll’s, previously Duff & Phelps,
18 recommended market risk premium of 6% provided as of October 18, 2022,²⁸ and a range
19 of realized historical market risk premiums of 4.92% (geometric historical mean for 1926
20 through 2021) to 6.37% (arithmetic historical annual mean for the period 1926 through
21 2021) derived from data provided by Ibbotson Associates’ Stocks, Bonds, Bills and
22 Inflation database. These estimates are generally consistent with market risk premium
23 estimates I have typically observed in practical investment analysis, which includes Wall
24 Street analysts’ estimates of utility companies’ COE and various financial
25 advisor/investment bank presentations made to utilities for purposes of valuing utility
26 assets. Therefore, I consider these estimates to be consistent with the investment
27 community’s “consensus.”

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

29 A. Beta is statistically defined as the covariance of the returns on an asset (in this case an
30 individual stock or group of stocks) with the return on the S&P 500 divided by the variance

²⁸<https://www.kroll.com/-/media/cost-of-capital/kroll-us-erp-rf-table-2022.pdf>

1 of the returns on the S&P 500. This statistical measure is intended to provide investors
2 with insight regarding expected volatility of a security (or portfolio of securities) as it
3 relates to market volatility. A beta of less than one implies less expected volatility than the
4 market with the trade-off of a lower expected return than the market. The reverse is
5 expected for a beta greater than one.

6 **Q. Did utility stock betas increase subsequent to the market disruptions at the onset of**
7 **the Covid-19 pandemic?**

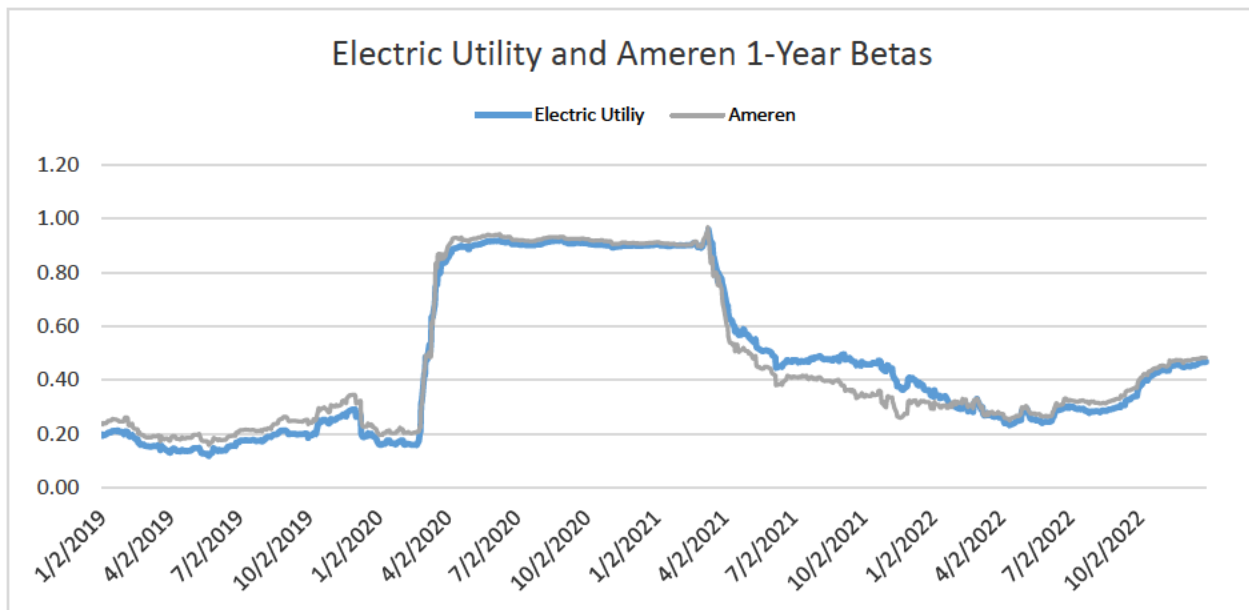
8 A. Yes. At the time I drafted testimony for the Empire and Ameren Missouri 2019 rate cases,
9 electric utility 5-year stock betas had declined to quite low levels of around 0.55. At the
10 time I sponsored testimony in Ameren Missouri's 2021 rate case, electric utility 5-year
11 stock betas had increased to around 0.80. Electric utility 5-year stock betas are currently
12 approximately 0.81 for the broad EEI proxy group, 0.76 for Ameren Corp and within the
13 range of 0.76 to 0.81 for regulated proxy subsets within the broader EEI proxy group.

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

15 A. The spike in utility stock betas occurred when the market plummeted at the onset of the
16 pandemic in March 2020. It is quite common for all securities, both higher-risk and lower-
17 risk securities, to move in tandem during significant market corrections. Because betas
18 measure the relative volatility of a company or a portfolio relative to the market, if all
19 securities rapidly decline at the same time, this causes all betas to converge toward one.

20 **Q. How much have electric utility one-year raw betas changed over the last couple of**
21 **years, since the market contraction at the onset of the pandemic?**

22 A. As can be seen in the following chart, electric utility raw betas were in the 0.2 to 0.25 range
23 before they increased to approximately 0.9 when all stocks moved together at the onset of
24 the pandemic. Electric utility raw betas had begun to return to levels prior to the pandemic
25 until mid-September, when electric utility stocks contracted more than the S&P 500. This
26 caused the raw 1-year betas to increase to approximately 0.5.



1

2 **Q. What beta do you consider appropriate for estimating a baseline COE for the electric**
3 **utility industry during current market conditions?**

4 A. In the range of 0.75 to 0.80 based on the data I provide in Schedule DM-D-4.

5 **Q. Based on your CAPM analysis, what do you estimate COE to be for Ameren Corp**
6 **and the proxy groups?**

7 A. My CAPM COE is in the range of 8.5% and 8.8% as shown on Schedule DM-D-4.

8 **Q. How do your current CAPM COE estimates compare to your CAPM COE estimates**
9 **in Ameren Missouri's 2021 rate case?**

10 A. My current CAPM COE estimates of 8.5% to 8.8% are over 200 basis points higher than
11 my CAPM COE estimates of approximately 6.5% to 6.9% in Ameren Missouri's 2021 rate
12 case, Case Number ER-2021-0240.

13 **Q. Why is there an over 200 basis points increase in CAPM COE since 2021?**

14 A. Because the CAPM uses interest rates as a direct input in estimating the COE. Because
15 the average betas for the electric utility industry are currently fairly similar to those in the

1 2021 rate case, the higher implied COE estimates are almost entirely attributed to higher
2 long-term risk-free rates.

3 SIMPLE TESTS OF REASONABLENESS

4 **Q. Are there any simple reasonableness tests for your COE estimates?**

5 A. Yes. A simple rule of thumb contained in the Chartered Financial Analyst (“CFA”)
6 Program curriculum is to estimate the COE by adding 3% to 4% as a risk premium to a
7 company’s own bond yield. This provides a fairly simple, but objective cost of equity.
8 Being that the investment community views utility stocks as bond surrogates/substitutes, it
9 is logical and reasonable to not add a risk premium any higher than 3% to the bond.

10 Simply adding a 3% risk premium to the YTM on Ameren Missouri’s publicly-traded
11 bonds provides a reasonableness check on more detailed COE estimates. As shown in the
12 chart on page 24 of this testimony, American Missouri’s long-term bonds have recently
13 been trading at a YTM of approximately 5% to 5.25%. Using 3% as the risk premium
14 suggests that Ameren Missouri’s COE is roughly 8% to 8.25%, which is even higher than
15 my CAPM results. The “rule of thumb” results imply that Ameren Missouri’s COE has
16 increased by 225 to 250 basis points since the 2021 rate case.

17 **Q. Is there a simple way to test whether investors in utility stocks are requiring a typical**
18 **equity risk premium given the rapid and dramatic increase in bond yields due to**
19 **inflationary concerns?**

20 A. Yes. The basic characteristics of electric utility stocks have not changed much over time.
21 Investors still view electric utility stocks as predominately yield investments. ** _____

22 _____
23 _____ ** This analysis shows that between 1974 to 2010, approximately 68%
24 of returns from utility stocks were from the income received through dividends, with the
25 remaining income from capital gains.²⁹ Even assuming that Ameren Corp had sustainable

²⁹ 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.

1 investment opportunities to allow it to generate 50% of returns from capital gains, this
2 would translate into a 6.0% required return based on Ameren Corp's current dividend yield
3 of approximately 3%. ** _____
4 _____
5 _____
6 _____
7 _____

8 _____ **

9 RECOMMENDED AUTHORIZED ROE

10 **Q. Based on your analysis and understanding of Ameren Corp's COE, the electric utility**
11 **industry's COE, investor expectations on allowed ROEs, average electric utility**
12 **authorized ROEs and Ameren Missouri's affiliate's allowed ROR for its electric**
13 **utility operations, what would be a fair and reasonable allowed ROE range in this**
14 **case?**

15 **A.** 8.4% to 9.25%. I recommend a 9.25% authorized ROE in this case compared to the 9% I
16 recommended in Ameren Missouri's 2021 rate case due to contractions in electric utility
17 stock prices from mid-September through October of 2022. While electric utility stock
18 prices had largely recovered by the end of 2022 to again reach the 20x P/E ratios they had
19 been typically trading at for the last two years, it is too early to conclude that they will
20 maintain this level. If over the course of this rate case, electric utility stock valuation levels
21 seem to be maintaining the recent 20x P/E level, then I will likely revise my recommended
22 authorized ROE to 9%, consistent with my recommendation in Ameren Missouri's 2021
23 rate case.

³⁰ Ameren Corporation Finance Committee, 4-37, October 13, 2011.

1 **CAPITAL STRUCTURE**

2 **Q. What is capital structure?**

3 A. Capital structure represents how a company finances its assets. The typical capital
4 structure consists of common equity, long-term debt, and short-term debt. Some utilities'
5 capital structures may also include a small portion of preferred stock, but this has become
6 rare in recent years. Although short-term debt is a consistent component of a utility
7 company's capital structure, if the balances of short-term debt are fairly consistent or below
8 its construction work-in-progress ("CWIP") balances, then it is fair to exclude short-term
9 debt from the ratemaking capital structure. This is due to the expectation that the short-
10 term debt and its corresponding rates are used to calculate the allowance for funds used
11 during construction ("AFUDC") capitalization rate.

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

14 A. I recommend a capital structure that consists of approximately 43% common equity, 0.69%
15 preferred stock and 56.31% long-term debt. While not exactly the same as Ameren Corp's
16 consolidated capital structure as of June 30, 2022, this is in line with Ameren Corp's recent
17 targeted consolidated capital structure.

18 **Q. Why do you recommend this capital structure?**

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

1 of around 52% for Ameren Missouri for the past twelve years, and plans to continue
2 targeting this common equity ratio for ratemaking for the foreseeable future. This static
3 52% common equity ratio regardless of changes in business risk and/or economic
4 conditions, contradicts one of the primary purposes of managing a company's capital
5 structure; to achieve the lowest reasonable cost without jeopardizing financial stability. As
6 I discuss later, Ameren Missouri's lower business risk has afforded Ameren Corp the
7 ability to carry a higher proportion of debt in its capital structure, but instead of sharing the
8 lower cost of this additional debt capacity with Ameren Missouri and its customers,
9 Ameren Corp is misappropriating this debt capacity by leveraging shareholder returns at
10 the holding company level.

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

13 A. My conclusion is based on Ameren Corp's past financial management of its subsidiaries
14 and Ameren Corp's projected equity ratios for the next few years. Ameren Corp has been
15 authorized a 60.1% equity ratio at Ameren Transmission Company of Illinois ("ATXI"), a
16 50% equity ratio for Ameren Illinois' electric utility operations, a 52% equity ratio for
17 Ameren Illinois' natural gas distribution operations and an approximate 52% equity ratio
18 for Ameren Missouri's last litigated electric rate case in 2014, Case No. ER-2014-0258.

19 ** _____
20 _____

21 _____ **³¹ In
22 other words, Ameren Missouri's equity balance does not represent the most efficient
23 amount of equity for Ameren Missouri. Its equity balance is based on Ameren Corp's
24 desire for an equity ratio that allows it to attempt to charge higher rates to Ameren Missouri
25 customers.

³¹ "Transforming For Our Future," Ameren Rating Agency Update, April 2022, p. 48.

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

3 A. Ameren Corp has managed its consolidated capital structure for purposes of taking
4 advantage of its regulated utilities’ debt capacity. Ameren Corp has been steadily
5 increasing the amount of holding company debt it uses to invest in its subsidiaries. As of
6 the updated test year in Ameren Missouri’s 2019 rate case, Case No. ER-2019-0335,
7 Ameren Corp had \$700 million of holding company debt outstanding (8.39% of total
8 consolidated debt). As of the December 31, 2020, test year in its 2021 rate case, Case No.
9 ER-2021-0240, Ameren Corp had \$1.6 billion of holding company debt outstanding
10 (14.63% of total consolidated debt). As of June 30, 2022, Ameren Corp had \$2.55 billion
11 of outstanding holding company debt, which represents 18.95% of total consolidated debt.
12 It is clear that Ameren Corp has dynamically managed its consolidated capital structure to
13 take advantage of the debt capacity provided by its regulated utility subsidiaries, but targets
14 a static 52% equity ratio at Ameren Missouri for ratemaking purposes. Ameren Missouri
15 should not be allowed an equity ratio that its own parent company deems to be cost
16 inefficient. This is especially egregious since Ameren Missouri’s ratepayers are now
17 incurring the risk associated with Ameren Missouri’s ability to defer investment costs using
18 PISA.

19 **Q. Do you have other evidence that Ameren Missouri should have a lower common**
20 **equity ratio than the 52% it has constantly targeted over the last twelve years?**

21 A. Yes, Ameren Missouri’s business risk declined due to the Missouri Legislature passage of
22 SB 564, which became law in 2018, and Ameren Missouri’s decision to elect plant-in-
23 service accounting (PISA) in September 2018. A fundamental consideration in
24 determining how much financial risk, *i.e.* additional debt, an asset/business can support is
25 the level of business risk inherent in that asset/business. Consequently, because Ameren
26 Missouri’s business risk declined, it can carry more leverage, *i.e.* debt, in its capital
27 structure. Despite operating with less risk, Ameren Corp has not adjusted its targeted
28 capital structure for Ameren Missouri to reflect the lower cost of capital that Ameren
29 Missouri’s customers support through the certainty of funding of investments subject to

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

13 **Q. Do you have other information which supports your position that Ameren Missouri’s**
14 **business risk is lower due to its ability to recover a return on and of investments**
15 **between rate cases through PISA?**

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

19 Second, on March 29, 2019, Moody’s lowered Ameren Corp’s Funds from Operations
20 (“FFO”)/debt³² threshold to 17% from 19%, which means that Ameren Corp can incur
21 more leverage as it compares to cash flow and still maintain its current credit rating of Baa1
22 (functional equivalent of S&P’s BBB+). One of the primary reasons Moody’s cited for
23 allowing Ameren Corp a lower FFO/debt threshold (*i.e.* use of more leverage) was
24 “improved regulatory construct in Missouri facilitating meaningful rate base growth and

³² 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.

1 reducing regulatory lag [PISA].”³³ Ameren Corp’s management said,** _____

2 _____
3 _____
4 _____ **This
5 additional debt capacity should be reflected in Ameren Missouri’s authorized capital
6 structure because Ameren Missouri’s customers are providing the cash flows that make
7 this lower business risk possible. Considering the anticipated sizeable increase in Ameren
8 Missouri’s rate base over the next several years, it is just and reasonable to ensure
9 ratepayers are charged a ROR based on the additional debt capacity they afford to Ameren
10 Corp. Recognizing the reduced cost of capital through Ameren Corp’s ability to utilize
11 more debt in its capital structure allows Ameren Missouri’s ratepayers to receive credit for
12 Ameren Corp’s reduced risk profile afforded by the legislative opportunity to receive a
13 return on and of plant placed in service between rate cases.

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

22 **Q. Why does Ameren Corp’s current consolidated capital structure have a much lower**
23 **equity ratio than Ameren Missouri’s capital structure?**

24 A. Primarily because of Ameren Corp’s increased use of holding company debt to fund its
25 investments. As I have already explained, Ameren Corp continues to issue more holding
26 company debt on an absolute and relative basis. As of the updated test year, June 30, 2019,
27 in Ameren Missouri’s last rate case, Ameren had \$700 million of holding company debt

³³ “Update to Credit Analysis,” Moody’s Investor Service, March 29, 2019, p. 2 (Schedule DM-D-18).

³⁴ Ameren Corp’s Finance Committee Meeting, February 7, 2019, p. 24.

1 outstanding. As of June 30, 2022, Ameren Corp had \$2.55 billion of holding company
2 debt outstanding. As a proportion of consolidated debt, Ameren Corp has more than
3 doubled its percentage of holding company debt.

4 **Q. Do you have any examples of how Ameren Corp has managed its subsidiaries' capital**
5 **structures to target common equity ratios for ratemaking?**

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

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

17 Ameren Corp has provided steady incremental financing to ATXI since 2010. Ameren
18 Corp relies on its shared credit facilities with Ameren Missouri and Ameren Illinois in
19 order to access commercial paper for financing needs at the holding company level.
20 Ameren Corp used this short-term debt capital to finance both its equity and debt
21 investments in ATXI.³⁵ While it appears a majority of Ameren Corp's commercial paper
22 financing was used for purposes of investing in ATXI's assets, which were classified as
23 equity infusions into ATXI, it is also possible some of the commercial paper was issued to
24 finance other Ameren Corp capital needs. For example, Ameren Corp used commercial
25 paper to repay \$425 million of long-term debt due in May 2014. In order to reduce the
26 amount of short-term debt carried at the holding company due to the aforementioned
27 financing needs, Ameren Corp issued \$700 million of long-term debt. However, during

³⁵ Ameren Missouri response to OPC DR No. 3033 in Case No. ER-2019-0335.

1 much of this period in which Ameren Corp was funding these investments with external
2 capital, it was also receiving a significant amount of dividends from Ameren Missouri.
3 Being that there is no way to trace the capital once Ameren Corp receives it and redeploys
4 it as it deems consistent with its organizational objectives, it becomes a futile effort to try
5 and disaggregate the various forms of capital for each subsidiary. Fortunately, this is not
6 necessary for purposes of determining how much debt the subsidiaries support because the
7 consolidated capital structure provides this transparency.

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

17 Ameren Corp also manages Ameren Illinois' capital structure for ratemaking purposes.
18 Ameren Illinois, Staff of the Illinois Commerce Commission ("ICC") and an intervening
19 industrial party extensively litigated over several cases from 2011 to 2013 over whether
20 Ameren Illinois's authorized ROR should be based on Ameren Illinois's per books capital
21 structure, which showed a common equity ratios in the range of 52% to 54%³⁶, or if it
22 should be adjusted to a lower level in order to recognize the reduced business risk afforded
23 by the Illinois' Grid Modernization Act. The ICC Staff first determined Ameren Illinois's
24 common equity ratio on a stand-alone basis after making adjustments to remove goodwill
25 from Ameren Illinois's common equity balance. After going through this exercise, ICC
26 Staff still determined that Ameren Illinois' common equity ratio was still unreasonable for

³⁶ Docket Nos. D-11-0279, D-12-0293 and D-13-0301.

1 the reduced business risk associated with the certainty of formula ratemaking the Grid
2 Modernization Act allows.

3 The ICC Staff then recommended a common equity ratio for Ameren Illinois consistent
4 with Ameren Corp on a consolidated basis. After many years of litigation, the parties
5 eventually agreed to deem a common equity ratio of “up to and including 50% of the total
6 capital” as reasonable for purposes of setting rates for Ameren Illinois. This agreement
7 was codified into law by the 2016 Illinois Legislature’s passage of the Future Energy Jobs
8 Act (“FEJA”) as an amendment to the 2011 Illinois Energy Infrastructure Modernization
9 Act. Until recently, Ameren Corp has managed Ameren Illinois’ actual adjusted year-end
10 common equity ratio to within 25 basis points (0.25%) of the 50% determined reasonable
11 for ratemaking in Illinois. The adjusted year-end common equity ratio has not varied by
12 more than 15 basis points (0.15%) over this period. However, in Ameren Illinois’ last two
13 annual rate dockets, Docket Nos. D-21-0365 and D-22-0297, Ameren Illinois requested
14 higher common equity ratios, claiming that its reduced formula ROEs and lower cash
15 flows due to the reduction of the corporate income tax rate starting in 2018, required it to
16 manage to a higher common equity ratio. In Case No. D-21-0365, the ICC applied a 7.36%
17 ROE to a 51% common equity ratio for purposes of setting 2022 rates. In Case No. D-22-
18 0297, the ICC applied a 7.85% ROE to a 50% common equity ratio for purposes of setting
19 2023 rates.

20 **Q. How has Ameren Corp managed Ameren Missouri’s capital structure for**
21 **ratemaking?**

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

26 Despite Ameren Missouri’s reduced business risk profile due to favorable legislative
27 initiatives such as the legislation allowing PISA in 2018 and securitization in 2021, Ameren
28 Missouri’s common equity ratio has not changed. Allowing Ameren Missouri’s capital

1 structure to be more leveraged would reduce Ameren Missouri's cost of capital and,
2 therefore, the ROR ratepayers are charged in its revenue requirement. Of course, being
3 that Ameren Corp historically had needed to raise debt capital for investment in its other
4 subsidiaries, as well as support its dividend payments to its shareholders, Ameren Corp has
5 a financial incentive to maintain a higher common equity ratio at Ameren Missouri because
6 this generates more cash flow to service Ameren Corp's holding company debt. It is not
7 fair to Ameren Missouri's ratepayers for Ameren Corp to use Ameren Missouri's debt
8 capacity for the benefit of Ameren Corp's shareholders.

9 **Q. What shows that Ameren Missouri's capital flows are not managed as if it were a**
10 **stand-alone entity?**

11 A. If Ameren Missouri's capital structure were being managed for its own benefit, then one
12 would expect that it would have a carefully managed dividend payment policy, similar to
13 how Ameren Corp manages its dividend payments to a targeted payout ratio in the range
14 of 55% to 70%. However, over the most recent five years, Ameren Missouri has had a
15 dividend payout ratio that has ranged from a low of 4.61% in 2021 to a high of 111.04%
16 in 2017. If Ameren Missouri were financially managed as a stand-alone entity, it would
17 have its own formal dividend policy. Ameren Missouri shouldered the burden of dividends
18 ultimately paid to Ameren Corp shareholders through 2018 because Ameren Corp had only
19 been minimally reinvesting in Ameren Missouri until it elected PISA in September 2018,³⁷
20 whereas, at the same time, it had been investing significant amounts of capital in ATXI and
21 Ameren Illinois. Ameren Illinois distributed \$110 million of dividends in 2016 and
22 \$9 million of dividends in 2020. ATXI has required much less investment since 2017,
23 which is the last year in which ATXI did not distribute a dividend to Ameren Corp. ATXI
24 had a dividend payout ratio of 97.22% in 2018, 18.03% in 2019, 32.78% in 2020, and
25 109.31% in 2021. If Ameren Corp's subsidiaries were stand-alone entities, then it would
26 be impossible for their cash flows to be managed in this fashion because the shareholders
27 of each entity would expect a consistent and steady dividend payout ratio.

³⁷ Case No. EO-2019-0044.

1 **Q. Are there other ways Ameren Corp manages its subsidiaries' common equity ratios?**

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

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

10 Ameren Corp freely admits that it issues short-term debt and long-term debt at the holding
11 company level to invest in its Ameren Illinois and ATXI subsidiaries.³⁸ However, Ameren
12 Corp indicates it is a matter of policy not to do the same for Ameren Missouri because it
13 wants to ensure that Ameren Missouri's equity is supported by Ameren Corp's third-party
14 equity issuances.³⁹ This has been Ameren Corp's basis for maintaining that Ameren
15 Missouri's equity ratio is legitimate for ratemaking purposes. Although Ameren Corp
16 made a strategic financing decision to issue third-party equity to partially finance its
17 purchase of the High Prairie and Atchison wind projects ("the wind projects"), Ameren
18 Corp financing needs were just as significant in the years leading up to the purchase of the
19 wind projects, and it could have issued equity to third-party equity investors then, but did
20 not. There have been several periods in which Ameren Corp's short-term debt balances
21 have been approximately \$1 billion, which would have warranted issuing common equity
22 to reduce the amount of leverage at Ameren Corp.

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

25 A Ameren Corp allocates capital to its rated regulated affiliates to target and achieve
26 ratemaking common equity ratios. The most objective and practical measure of the capital

³⁸ See Ameren Missouri's response to DR No. 3033 in Case No. ER-2019-0335.

³⁹ *Id.*

1 structure that captures the debt capacity of Ameren Corp’s regulated utility assets, is that
2 of the Ameren Corp on a consolidated basis. Consequently, this is why I am recommending
3 Ameren Missouri’s common equity ratio be set no higher than Ameren Corp’s, which is
4 currently approximately 43%, net of short-term debt.

5 **Q. Do Ameren Corp’s financial projections anticipate a similar common equity ratio**
6 **over the next several years?**

7 A. Yes. Ameren Corp expects its consolidated common equity ratio to be around ** _____
8 _____ **⁴⁰ Because short-term debt
9 costs are used for purposes of capitalizing construction work in progress (“CWIP”) through
10 the AFUDC capitalization rate, it is appropriate to exclude short-term debt from the capital
11 structure used for ratemaking as long as short-term debt balances do not exceed CWIP
12 balances. If short-term debt were to exceed CWIP balances, then inclusion of short-term
13 debt in the authorized capital structure should be considered because this implies short-
14 term debt supports rate base.

15 **Q. How much short-term debt has Ameren Corp been carrying on its balance sheet in**
16 **recent quarters?**

17 A. Ameren Corp’s short-term debt balances for quarterly-ended periods March 31, 2022, June
18 30, 2022 and September 30, 2022 was \$1.101 billion, \$1.021 billion and \$1.221 billion,
19 respectively.

20 **Q. How much CWIP did Ameren Corp have outstanding over this period?**

21 A. I don’t know. This detail is not provided in Ameren’s quarterly balance sheets. The last
22 balance Ameren Corp provided in its balance sheet was for the year-end, December 31,
23 2021, which was \$1.269 billion.

⁴⁰“Transforming For Our Future,” Ameren Rating Agency Update, April 2022, p. 48.

1 **Q. What does the comparison of Ameren Corp’s short-term debt balances to Ameren**
2 **Corp’s CWIP balances imply about appropriate AFUDC rates charged for CWIP?**

3 A. That the AFUDC rate for Ameren Corp’s regulated utility subsidiaries, at least for 2022,
4 should be based primarily on short-term debt costs.

5 **Q. What does your comparison of Ameren Missouri’s balances of short-term debt and**
6 **CWIP indicate about the potential AFUDC rates for CWIP?**

7 A. That the AFUDC rate may be weighted more heavily (~72%) to long-term capital costs.⁴¹

8 **Q. Have you verified that Ameren Missouri is in fact applying an AFUDC rate to CWIP**
9 **that is based primarily on Ameren Missouri’s long-term capital costs?**

10 A. No. At the time I prepared this testimony, I had not verified such. I will do so before I file
11 rebuttal testimony in this case.

12 **Q. How do you recommend Ameren Missouri’s AFUDC rate be determined?**

13 A. I recommend the Commission order Ameren Missouri to apply a short-term debt rate to all
14 CWIP. Most of Ameren Missouri’s projects are relatively short-term so the capitalization
15 rate should be based on a short-term cost of capital. The rationale for including long-term
16 capital costs in the AFUDC is due to potential multi-year projects in which companies may
17 be required to refinance short-term debt with long-term capital before the project is
18 complete.

19 **Q. How can the Commission determine an equitable, market-tested and objective capital**
20 **structure that more closely captures the amount of debt capacity consistent with**
21 **Ameren Missouri’s low business risk?**

22 A. The Commission can more closely capture debt capacity consistent with Ameren
23 Missouri’s low business risk by using Ameren Corp’s consolidated capital structure as a
24 proxy. While this capital structure includes capital that is used for investment in all of

⁴¹ Darryl T. Sagel Direct, Schedule DTS-D3.

1 Ameren Corp's assets, this should not be the focus for determining the proper balance of
2 capital as it relates to each of Ameren Corp's subsidiaries. For example, while FERC has
3 decided to allow ATXI a common equity ratio of 60.1% for purposes of setting its allowed
4 ROR, Ameren Corp understands that these assets can support a much higher amount of
5 leverage because of the low business risk associated with these assets. Consequently,
6 Ameren Corp initially issued all holding company debt for purposes of funding its
7 investment in ATXI. In 2017, ATXI issued \$450 million of third-party debt, which was
8 used to refund the affiliate loans Ameren Corp made to ATXI. Ameren Corp's strategic
9 financing decisions primarily concentrate on the amount of leverage Ameren Corp can
10 carry on a consolidated basis. This capital structure most accurately reflects the debt
11 capacity afforded by Ameren Missouri's assets.

12 OVERALL RATE OF RETURN

13 **Q. Should the Commission take anything else into consideration when deciding a fair
14 and reasonable rate of return for Ameren Missouri?**

15 A. Yes. Ameren Corp's past capital allocation strategies demonstrate that it diverts significant
16 amounts of capital to its jurisdictions providing more favorable ratemaking treatment.
17 Before Missouri passed SB 564, Ameren Corp believed it could create more value for its
18 shareholders by allocating most of its capital to Ameren Illinois and ATXI. At least for
19 Ameren Illinois's electric utility operations, this higher value would likely have been a
20 function of lower business risk since Ameren Illinois has been able to earn its allowed ROR
21 through formula rates. SB 564 allowed electric utilities to either elect PISA or request
22 revenue decoupling. As previously discussed, Ameren Missouri elected PISA. This
23 mechanism eliminates all but a minimal amount of regulatory lag as it relates to Ameren
24 Missouri's capital investments. Under GAAP, Ameren Missouri will be able to flow
25 through the debt portion (about 5%) of its deferred ROR directly to earnings as the plant
26 goes into service. Although the equity portion will still accrue and eventually be charged
27 to ratepayers through a higher rate base, Ameren Corp is not allowed to book it in current
28 earnings.

1 Ideally, Ameren Corp would be indifferent between its investments in Ameren Illinois'
2 electric utility operations and Ameren Missouri's electric utility operations assuming
3 regulatory ratemaking parity. Under such an ideal scenario, Ameren would invest in the
4 most economically efficient projects. However, as it relates to the period before Ameren
5 Missouri was able to elect PISA, Ameren Corp demonstrated that this was not how it
6 approached its investment decisions, at least as it relates to its electric utility investments.
7 As long as this doesn't cause overinvestment and a strategy of achieving shareholder
8 returns by simply growing rate base without consideration of need for investments, then
9 this policy may be palatable. However, there are means by which regulators can discourage
10 such strategies when a company has assets in several jurisdictions, such as Ameren Corp.
11 One of those means is to take into consideration the allowed ROR in the other jurisdiction.
12 It is noteworthy that Ameren Corp has made significant amounts of capital investment in
13 Illinois even though its allowed ROE for its electric utility operations in Illinois have
14 ranged from 7.36% to 9.25% since 2014 with a 50% allowed common equity ratio, with
15 its most recent authorized ROE being 7.85%.

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

18 A. Yes. I reviewed current over-the-counter trades for both Ameren Illinois's and Ameren
19 Missouri's longer maturity bonds. Ameren Illinois' and Ameren Missouri's bonds
20 maturing in 2049 and 2052 have traded at a recent YTM range of 5.0% to 5.2% with no
21 systematic difference between the two. These similar yields substantially support using
22 the same cost of capital, *i.e.* discount rates, for purposes of determining the net present
23 values ("NPV") of projects being considered for Ameren Illinois or Ameren Missouri.
24 Therefore, if one jurisdiction sets its authorized ROR at a level higher than parity compared
25 to the other jurisdiction, then given two comparable projects, Ameren Corp naturally will
26 invest in the jurisdiction that authorizes a higher ROR because it will create more value for
27 Ameren Corp shareholders. It is this very conflict that underlies the principle of
28 authorizing a ROR based on the market cost of capital because, otherwise, jurisdictions
29 will be bidding against each other. Awarding RORs based on a desire to compete with

1 other states will create a perverse incentive for utility projects to be pursued based on
2 earnings alone, not economics, system need and/or customer need. If the economics of
3 potential projects, not just the awarded ROR, support the possibility of achieving a ROR
4 higher than the cost of capital, then the company will pursue such projects.

5 **Q. Can you illustrate what you mean with an example?**

6 A. Yes. Ameren Missouri currently has an authorized ROE of 9.53% with an approximate
7 52% equity ratio. Ameren Illinois currently has an authorized ROE of 7.85% with a 50%
8 equity ratio. Both companies have a current market cost of 30-year debt of approximately
9 5.1%. Therefore, I will assume the same cost of debt for each company's revenue
10 requirement. Through a simple example of investing \$1 billion in rate base, I will show
11 how much additional value Ameren Corp will earn for its shareholders by investing in an
12 Ameren Missouri project as compared to an Ameren Illinois project.

13 For simplicity, I assumed that the additional \$1 billion investment is made at one time
14 rather than periodically. I also assumed the project would have a depreciation life of 30
15 years. Ameren Missouri's authorized ROR using a 52% equity ratio, a 9.53% allowed
16 ROE and a 5.1% cost of debt is 6.78%. Ameren Illinois's authorized ROR using a 50%
17 equity ratio, a 7.85% allowed ROE and a 5.1% cost of debt is 5.83%. Ameren Corp would
18 create approximately \$86 million of additional shareholder wealth if it invested the
19 \$1 billion in Ameren Missouri projects as compared to Ameren Illinois projects.

20 **Q. What if you change your example so that Ameren Missouri's allowed ROE is applied**
21 **to your recommended capital structure consisting of 43% common equity?**

22 A. A \$1 billion investment in Ameren Missouri rather Ameren Illinois would still generate an
23 additional approximate \$39.5 million of additional shareholder wealth.

24 **Q. What if you change your example so that your recommended ROE of 9.25% applied**
25 **to a 43% common equity ratio?**

26 A. This would create \$28.7 million of additional shareholder value compared to an investment
27 in Ameren Illinois.

1 **Q. Does the Ameren Illinois formula ratemaking plan allow for the ROE to be adjusted**
2 **if actual interest rates are higher than those used to set the formula rates?**

3 A. Yes. Because of recent increases in interest rates, Ameren Corp has increased its 2022
4 earning guidance related to its Ameren Illinois electric utility operations. Based on average
5 monthly 30-year UST bond yields in 2022, Ameren Illinois would be allowed to adjust the
6 allowed ROE level to approximately 8.9%.

7 **Q. What impact would an 8.9% ROE for Ameren Illinois have on the two scenarios you**
8 **reviewed—a 9.53% ROE and 9.25% ROE applied to a 43% common equity ratio?**

9 A. A 9.53% ROE applied to a 43% equity ratio would create approximately \$8.2 million less
10 shareholder wealth and a 9.25% ROE applied to a 43% equity ratio would create
11 approximately \$19 million less shareholder wealth.

12 **Q. Why do you think your recommended 9.25% ROE strikes a fair balance?**

13 A. First, it appropriately reduces Ameren Missouri's 9.53% ROE which was awarded when
14 the electric utility industry's COE was higher. Second, it recognizes that Ameren
15 Missouri's business risk has declined since 2015. Third, it puts Ameren Missouri at closer
16 parity to Ameren Illinois's electric utility current ROR authorizations. Finally, the increase
17 to 9.25% from my 9% recommendation in the 2021 rate case recognizes an implied
18 increase to the electric utility industry's COE during early Fall of 2022.

19 **SUMMARY AND CONCLUSIONS**

20 **Q. Would you summarize your main conclusions and views as it relates to a Commission-**
21 **authorized Ameren Missouri ROR in this case?**

22 A. Yes. Ameren Missouri's allowed ROE of 9.53% was set during tighter macroeconomic
23 conditions for Ameren Missouri, as well as at a time when Ameren Missouri could not
24 avail itself of the investor-friendly PISA ratemaking mechanism. It is fair and reasonable
25 to lower Ameren Missouri's authorized ROE to reflect these changes.

1 Despite Ameren Missouri’s lower business risk, its common equity ratio has remained
2 static at 52%. Ameren Corp has not managed Ameren Missouri’s capital structure to allow
3 ratepayers to benefit from the lower cost of capital made possible by being charged for
4 plant placed in service between rate cases through the PISA mechanism. The Commission
5 should lower Ameren Missouri’s allowed equity ratio to ensure ratepayers receive the
6 benefit of a lower capital cost during Ameren Missouri’s period of rapidly increasing rate
7 base prompted by SB 564.

8 **Q. Does this conclude your testimony?**

9 **A. Yes.**

